IV. SVĚTOVÝ KONGRES ISSP

PRAHA 3. - 9. ŘÍJNA 1977



SBORNÍK

СБОРНИК ТРУДОВ

COLLECTION OF PAPERS

LE RECUEIL DES TRAVAUX

LA RECOPILACIÓN DE LOS TRABAJOS

DAS SAMMELBUCH DER ARBEITEN

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Poznámka vydavatelů sborníku

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Poslední poznámka se týká vydání sborníku; dali jsme přednost formě, která je spíše užitná než reprezentativní, protože je to cesta k nejrychlejšímu vydání sborníku pro potřeby široké odborné veřejnosti.

Vzhledem ke všem komplikacím, o nichž zde píšeme, omlouváme se za určité nedostatky, které ve sborníku - zvláště v některých příspěvcích - jsou, ale věříme, že i v těchto případech budou práce posuzovány s porozuměním, neboť jinak by nemohly být zařazeny do sborníku vůbec - ke škodě věci i psychologů majících o danou tématiku zájem.

Doufáme, že ve svém celku přinese sborník cenné podněty pro práci psychologů sportu v celém světě.

Úvod

Mezinárodní kongres představuje v životě vědeckých společností významnou událost. Pojem událost není možná nejvhodnějším označením, nicméně zobecňuje do značné míry řadu pre-peri i postkongresových aktivit, jež mají dynamický charakter dění i strukturální charakter časově i prostorově ohraničeného jevu. Tedy to co se dělo i to co se událo. Dynamické i strukturální činitelé dílčích kongresových aktivit se vzájemně ovlivňují a vytvářejí jednotlivé stránky kongresu i celou jeho atmosféru jako specifického a neopakovatelného mikroklimatu. Na základě oficiální komunikativní sítě i jejího neoficiálního složitého větvení.

Na závěr se kongres zhodnotí účastníky i pořadateli. Při hodnocení se uplatňuje obvykle efekt mírnosti a shovívavosti na straně účastníků a zvýšená kritičnost na straně pořadatelů. Výsledkem obou částí hodnocení jsou jednak určité normy závazné pro kongres příští, jednak i prožitky, sentimenty, postoje a vzpomínky účastníků včetně iluze času. Těsně před kongresem je kongres největší, avšak s uplynutím času je kongres stále menší. A ještě ke kongresové terminologii. Kongres se otevírá jak slavnostně vyzdobený dům pro pozvanou společnost a kongres se uzavírá jako dům, v němž je třeba hodně uklízet.

Podstatnou část úklidu a skutečného uzávěru představuje kongresový sborník. Sebraný kongresový materiál má především význam informační a presentační. Informace obsahuje ve větší či menší míře každý kongresový příspěvek. Prezentaci (reprezentaci) obsahuje sborník vcelku jako určitý relevantní průřez poznání, v daném seskupení zkoumané tématiky i v úrovni jejich praktických aplikací.

Celkový analyticko-syntetický přístup ke IV. kongresu ISSP v Praze v říjnu 1977 naznačuje následující trendy:

1. Počet 342 účastníků z 28 zemí je zhruba stejný jako při kongresech předcházejících. Psychologie sportu se však rozšiřuje postupně i do dalších zemí mimo Evropu a Severní Ameriku. Stejně tak vzrůstá počet sportovně psychologických společností v jednotlivých zemích i počet jejich členů. Stoupající úroveň má institucionalizace psychologie sportu v rámci sportovních věd i v rámci aplikovaných psychologických odvětví.

2. Kvalita prací i jejich kvantita z hlediska psychologických věd vzrůstá. To je možno doložit sportovně psychologickou produkcí bibliograficky zachycenou v období mezi kongresem ISSP v Madridu a v Praze a rovněž tak i příspěvky přednesenými v Praze.

3. Vyrovnává se poměr mezi pracemi experimentálními a teoreticko syntetickými. Z celkového počtu 229 přednesených příspěvků má 117 povahu experimentálně výzkumnou, 113 teoretickou a spekulativní.

4. Zvyšuje se počet prací zaměřených k praktickým otázkám sportovní činnosti a prohlubuje se jejich psychologická erudice.

5. Koncentrace na tématiku vrcholového a výkonostního sportu mládeže i dospělých stoupá (více než polovina prací). Psychologickému zkoumání předškolní i školní tělesné výchovy, pohybové rekreace, pohybové terapie, gerontologie se nevěnuje přílišná pozornost.

6. Z praktických otázek se nejvíce pozornosti věnuje psychologickým aspektům výkonnostní stability, odolnosti, predikce výkonu, i heteroregulativním přístupům a výběru talentované mládeže.

7. Z psychologické tématiky je stále nejvíce sledovanou oblastí osobnost sportovce a dynamogenní faktory motivace, emoce, aktuální psychické stavy výkonnosti.

8. Chybí práce vymykající se z rámce obecně chápané psychologie sportu a zaměřené na psychologii jednotlivých sportů i sportovních disciplin. Diferenciálně psychologické přístupy jsou vyjímkou a chybí výzkumy vícerozměrných modelů a dimensí. V této souvislosti jsou interpretace výsledků vedených sice ve smyslu intra- i interindividuálních rozdílů, avšak s menším zřetelem k rozdílům chování v různých sociálních situacích.

Prosíme čtenáře, aby laskavě chápal výše uvedené názory jako výsledek pokusu o určitý názor, který byť i podložený neúplnou kvantifikovanou klasifikací zůstává stále názorem subjektivním. Je to však názor vedený snahou o určitý nadhled, který může být pro další rozvoj psychologie sportu svým způsobem užitečný. Každý psycholog sportu, každá společnost psychologie sportu i členové předsednictva ISSP mohou totiž tento názor konfrontovat svými vlastními názory a mohou jej přijmout či zamítnout nebo doplnit. Každá konfrontace (a tou v podstatě i každý kongresový sborník) je však vždy účelným stimulem pro další vývoj psychologie sportu, jejích teoretických východisek a uplatnění u nás v Československé socialistické republice i všude u vás doma.

Vydáním sborníku prohlašuji IV.kongres ISSP v Praze 1977 nejen za uzavřený, nýbrž i za ukončený. Upřímně, přátelsky a srdečně váš a ve vašich službách president ISSP

Miroslav Vaněk

ПРИМЕЧАНИЕ ИЗДАТЕЛЕЙ СБОРНИКА

Сборник трудов участников 4-ого всемирного конгресса Международной психологии спорта (ИССП) включает кроме докладов представленных на конгрессе и другие работы, так как все участники конгресса имели право представить в общем три доклада, и выступать не можно было только с одним из них из-за большого количества докладчиков. Кроме этого в сборник были включены сообщения тех авторов, которые заявили свое участие на конгрессе, но по важным причинам не могли наконец в Прагу приехать. Сообщения в сборнике не представлены по тематике работы конгресса, а в алфавитном порядке по фамилиям авторов; выступления в дискуссии "за круглым столом" включены в качестве самостоятельной части в конце сборника.

В сборнике также содержатся общий список сообщений и алфавитный список авторов с их адресами для возможной взаимной переписки.

Несмотря на то, что целый ряд авторов не соблюдал регламент, все-таки мы приводим полные тексты всех сообщений.

Представленные к печати рукописи авторских текстов (четкость и т.п.) в некоторых случаях даже не отвечали обычным требованиям (например,были представлены работы, написанные и рукой), но нам удалось и подобные рукописи подготовить к изданию в сборнике.

С большими затруднениями мы столкнулись и при переводах на некоторый из языков конгресса. Те сообщения, у которых переводчики столкнулись с трудностями, мы смогли исправить только частично (в отношении точного смысла выражений и очевидных ошибок); у нас, к сожалению, не было возможности исправить сообщения грамматически, стилистически и в правильном подборе выражений и терминов, так как мы не располагали первоначальным текстом трудов, а кроме этого это вне возможностей и силы группы издателей.

Ввиду того, что во многих сообщениях авторы не привели список литературы, мы решили, наконец, у нескольких работ оставить более длинные списки литературы, чем первоначально было установлено. Некоторые приводимые литературные источники неточные и неполные; нам удалось дополнить лишь самое главное, а, вообще, недостатки этого вида надо приписывать самим авторам; у нас не было возможности разыскать осутствующие данные и дополнять списки литературы соответственно международным правилам.

У нас возникли проблемы и с документацией. В некоторых текстах отсутствуют рисунки и таблицы, хотя авторы их там упоминают; некоторые рисунки и таблицы насколько это было возможно пришлось переделывать и исправлять. Некоторые авторы слишком мало внимания уделили формальной стороне издания своей работы и забыли о том, что диапозитивы, показанные на конгрессе необходимо заменить рисунками и таблицами для сборника (они их увезли с собой домой). Таким образом,мы не виноваты в том, что некоторые тексты лишены документации. У нас не было возможности вести переписку с авторами и требовать отсутствующий материал. Дело в том, что из-за этого бы значительно продлились сроки издания сборника и задержалось издание работ тех авторов, которые отдали свои материалы во время и соответственно правилам конгресса.

Последнее примечание относится к изданию сборника. Мы дали предпочтение такой форме издания, которая менее представительна, но более полезна. Она позволяет ускорить выпуск сборника для удовлетворения нужд широкой профессиональной общественности. Несмотря на все те проблемы, о которых мы в настоящем примечании пишем, мы все таки просим авторов и читателей простить нас за некоторые недостатки, имеющиеся в сборнике, особенно в некоторых сообщениях. Мы уверены, что и в таком случае работы будут

рассматриваться с пониманием ситуации, иначе не было бы возможности вообще включить их в сборник, что повредило бы как самому делу, так и психологам, заинтересованным в данной тематике.
Мы надеемся, что данный сборник послужит ценным начинанием в работе психологов спорта во всем мире.

ВСТУПИТЕЛЬНОЕ СЛОВО

Международный конгресс представляет из себя в жизни научных обществ важное событие. Слово событие не является, может быть, самым подходящим обозначением, но оно все-таки в большой степени обобщает целый ряд моментов, проходивших до, во время, и после конгресса. Эти виды деятельности носят характер действия и структурный характер явления, ограниченного временем и пространством. То есть то, что осуществлялось и то, что осуществилось. Динамичные и структурные элементы частных видов деятельности конгресса оказывают влияние друг на друга и создают отдельные аспекты и всю его атмосферу, а также специфический и неповторимый микроклимат. Это проходит на основе официальной сети взаимных контактов и на основе их неофициального сложного разветвления.
В заключение конгресса его оценку проводят как участники, так и его организаторы. Оценивая конгресс, участники обычно применяют эффект умеренности и снисходительности в то время, как организаторы используют повышенный критичный подход. Результатом обеих оценок, с одной стороны, являются определенные обязывающие нормы для следующего конгресса а, с другой стороны, впечатления, ощущения, отношения и воспоминания всех участников, включая и иллюзию времени. Перед самым началом конгресса он является крупнейшим, а после его окончания после определенного времени он становится все меньше и меньше. И еще о терминологии конгресса. Конгресс открывают в торжественно украшенном доме для приглашенных гостей, а закрывают его в доме, который надо тщательно убрать.
Существенную часть уборки и действительного окончания работы конгресса представляет его сборник. Накопленный материал конгресса имеет прежде всего информационное и предоставительное значение. Любое сообщение конгресса в большей или меньшей степени содержит информацию. Представление о его значении дает сборник, который приносит важное обобщение знаний в данном упорядочении исследуемой тематики и в уровне их практических применений.
Общий аналитическо-синтетический подход к 4-ому конгрессу ИССП, проходившему в Праге в октябре 1977 года, выявляет следующие моменты:
1. 342 участника из 28 стран представляют то общее количество, которое можно было видеть и на предшествующих конгрессах. Однако, психология спорта постепенно распространяется и в другие страны вне Европы и Северной Америки. Повышается также число обществ психологии спорта в отдельных странах и количество их членов. Растет уровень официального признания психологии спорта в рамках спортивных наук и в рамках прикладных психологических дисциплин.
2. С точки зрения психологических наук повышаются качество и количество трудов. В этом можно убедиться ознакомясь с работами по психологии спорта, библиографически обработанными в период между конгрессами ИССП в Мадриде и в Праге, а также ознакомясь с сообщениями, сделанными в Праге.

3. Имеет место уравновешивание соотношения между работами экспериментальными и теоретическо-синтетическими. Из общего числа 229 представленных сообщений 117 носит экспериментально-исследовательский характер, 112 характер теоретический и спекулятивний.

4. Возрастает количество работ, занимающихся решением практических вопросов спортивной деятельности и углубляется их психологическая эрудиция.

5. Все больше работ сосредотачивается (свыше половины) на тематику большого спорта молодежи и взрослых. Однако, мало внимания уделяется психологическому исследованию дошкольной и школьной физкультуры, активному двигательному отдыху, двигательнойтерапии и геронтологии.

6. По отношению к практическим вопросам самое большое внимание уделяется психологическим аспектам устойчивости достигаемых результатов, выносливости, прогнозированию результатов, гетерорегуляционным подходам и выбору талантливой молодежи.

7. Что касается психологической тематики, то больше всего авторы занимаются такими вопросами, как личность спортсмена и динамогенные факторы мотивации, вопросами эмоции и актуальными психологическими состояниями работоспособности.

8. Следует отметить, что отсутствуют работы, выходящие за рамки общей психологии спорта и занимающиеся психологией отдельных видов спорта и спортивных дисциплин. Исключением являются дифференциально психологические подходы; отсутствуют исследования больше размерных моделей и дименсий. В связи с этим положения результатов проводятся в смысле интра- интериндивидуальных различий с малым учетом разницы в поведении в различных социальных ситуациях.

Мы обращаемся к читателю с просьбой рассматривать выше приведенные взгляды как попытку представить определенное обобщение, опирающееся на не вполне количественно выраженную классификацию, и не забывать, что оно все-таки остается субъективным взглядом. Однако, этот взгляд представляет из себя стремление посмотреть сверху, т.е. обобщить сегодняшнее состояние, что может послужить дальнейшему развитию психологии спорта. Любой психолог спорта, любое общество психологии спорта, а также члены президиума ИССП могут сопоставить этот взгляд со своими собственными взглядами. Они могут его принять, отвергнуть, или дополнить своими соображениями. Однако, любое сопоставление (чем, по сути дела, является любой сборник конгресса), является целенаправленным стимулом для дальнейшего развития психологии спорта, ее теоретических начал и применения как у нас в Чехословацкой социалистической республике, так и везде у вас дома.

Изданием сборника я объявляю 4-ый конгресс ИССП в Праге 1977 г. не только закрытым, но и законченным. Искренне, дружески и сердечно Ваш и всегда к Вашим услугам президент ИССП

Мирослав Ванек

Editors´Note

The collection of papers by participants in the 4th World Congress of the International Society of Sport Psychology (ISSP) includes, apart from those which were actually presented, also other contributions since each participant had the right to submit three papers but was allowed to deliver only one, because of the large attendance. In addition to these it contains contributions by authors who had promised to attend but were unable to come to Prague for serious reasons.

The papers are arranged not according to the thematic fields that were dealt with at the Congress but in the alphabetical order of the authors´names; contributions to the "round table discussion" are appended.

The collection is complemented by a list of the papers and an alphabetical list of the authors with their addresses for possible exchange of letters.

All papers are printed in full even though a number of authors exceeded the set limit of length.

The formal aspect of the submitted texts (legibility etc.) sometimes failed to meet even routine requirements (there were even papers written by hand), but we managed to prepare even such papers for publication in the present collection.

Greater difficulties arose in connection with translations to one of the congress languages. We were able to cope to a certain extent only with cases involving difficulties on the part of the translators (certain expressions and obvious errors); unfortunately it was not possible to adapt the papers as concerns grammar, style and suitability of expressions since the original texts were not available and such a task was beyond the possibilities and powers of the editing group anyway.

Since many authors failed to include references we decided in the end to leave several other papers complete with lists of references longer than had been originally allowed. Quotations are inaccurate and incomplete in some cases; we could only complement them in the main aspects but otherwise, deficiences of this kind, too, are the responsibility of the authors: it was impossible to look up the missing information or to complete lists of references according to international practice.

We also encountered problems concerning the documentary material. Figures and tables are missing in some papers although they are mentioned in the text, some had to be re-drawn and adapted as far as possible. Some authors devoted so little attention to the formal aspect of the publication of their papers that they failed to see the necessity of replacing slides which they had shown at the congress (and took back home with them) by figures and tables which could be printed in the collection. It is not our fault that in some texts the documentary material is missing; we could not start extensive correspondence with the authors in an attempt to obtain the missing material because that would have considerably delayed the publication of the collection and return of papers to those authors who had submitted them in time and as required.

The last note concerns the publication of the collection; we preferred a form which is useful rather than representative since this will secure the speediest possible publication of the collection to serve the needs of the large body of specialists.

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In view of all the above mentioned complications we wish to apologize for certain shortcomings of the collection, and some contributions in particular; however, we believe that even in these cases the papers will be judged with understanding because otherwise they could not have been included in the collection at all, to the detriment of our purpose and of psychologists who are interested in this particular range of topics.

We believe that, as a whole, the collection will contribute valuable stimuli for the work of sport psychologists all over the world.

I n t r o d u c t i o n

An international congress is an important event in the life of scientific societies. The word "event" may not be the best suitable expression - nevertheless, it does generalize, to a considerable extent, many pre- and post-congress activities which have a dynamic character of action as well as structural character of a phenomenon limited by time and space, i.e. that which was going on and that which has actually happened. The dynamic and structural factors of parts of congress activities are interdependent, constituting particular aspects of the congress as well as its overall atmosphere as a specific and unrepeatable microclimate, based on the official communication system as well as on its unofficial complex ramifications.

A congress is in conclusion assessed by both its participants and its organizers. Such assessment is usually marked by moderation and tolerance on the part of the participants and by increased criticism on the part of the organizers. The combination of these two approaches results, on the one hand, in certain standards which are binding for the next congress and, on the order hand, in experiences, sentiments, attitudes and memories of all participants which include time-bound illusion. A congress is "the greatest" before it meets but appears ever less important with the passage of time. A congress opens like a house festively decorated to welcome invited guests and closes like a house where there is much tidying to be done.

A substantial part of the "tidying" and the actual conclusion drawing is represented by a collection of congress papers. The compiled congress material has above all an informative and a presentation functions. Information is contained, to a greater or lesser degree, in every congress paper. The presentation (representative) function is fulfilled by the collection as a sort of relevant review of knowledge, in a given grouping of the themes under investigation as well as on the level of its practical application.

The overall analytico-synthetic approach to the 3rd Congress of the ISSP in Prague in October 1977 reflects the following trends:

1. The attendance of 343 delegates from 28 countries was about the same as at previous congresses. However, sports psychology has been gradually making its way to other countries outside Europe and North America. In the same way, the number of societies of sports psychology has been increasing in individual countries, and so has their membership. The standard of the institutionalization of sports psychology within the framework of sciences concerned with sports and of disciplines of applied psychology has been rising, too.

2. The quality and quantity of studies produced in the psychological sciences have been rising. This is evidenced by the production of sports psychology, bibliographically recorded in the period spanning the ISSP congress in Madrid and in Prague, and also by the papers presented in Prague.

3. The proportion of experimental and theoretical synthetic works is becoming balanced. Out of a total number of 229 papers delivered, 117 had the making of experiment and research and 112 were of a theoretical and speculative nature.

4. The number of studies concentrating on practical aspects of sports activities has been growing, and their psychological erudition deepening.

5. Concentration on problems of elite and performance-oriented sports of youth and adults has been increasing (over half of the works). Psychological investigation of pre-school and school physical training, recreation physical activity, therapy by physical exercise and gerontology does not receive adequate attention.

6. Of practical problems, most attention is devoted to the psychological aspects of performance stability, resistance, performance prediction as well as heteroregulative approaches and selection of talented youth.

7. Of the psychological themes, the most closely observed field still is the personality of the sportsmen and dynamogenic factors of motivation, emotion and actual psychical states of performance.

8. There are practically no studies which would go beyond the framework of generally conceived psychology of sports or be aimed at psychology of particular sports and sports disciplines. Differential psychological approaches are an exception, and there is a lack of research done in multidimensional models and dimensions. In this context the results are, admittedly, interpreted in terms of intra- as well as interindividual difference but with less regard to differences in behaviour in various social situations.

We would like to ask the reader kindly to regard the above statements as the result of an attempt to form a certain view which, even though based on incomplete quantified classification, still remains a subjective one. However, it is guided by efforts to see the problems from a kind of higher perspective which might, in its own way, be useful for the further development of the psychology of sports. Every sports psychologist, each society of sports psychology and also members of the Presidium of the ISSP can confront this view with their own attitudes and can accept, reject or complement it. But every confrontation (and thus also every congress collection), is always a useful stimulus for further advancement of the psychology of sports, its theoretical starting points and application in Czechoslovakia just as in your own countries.

With the publication of the collection I declare the 4th Congress of the ISSP in Prague 1977 not only closed but also completed. I am sincerely, friendly and cordially yours, and in your services, President of the ISSP

Miroslav Vaněk

NOTE DES ÉDITEURS DU RECUEIL

Le recueil des travaux des participants au IV^{e} congrès mondial de la Psychologie internationale du sport /ISSP/ comprend outre les exposés présentés encore d'autres textes, car chaque participant au congrès avait le droit de présenter au total trois interventions, dont il ne pouvait cependant exposer qu'une seule - à cause du nombre très élevé des orateurs. En plus nous y avons inséré également des interventions des auteurs qui avaient été inscrits au congrès, mais ne pouvaient pas se rendre à Prague pour des raisons sérieuses.

Les exposés ne sont pas classés dans l'ordre thématique selon les domaines du congrès, mais dans l'ordre alphabétique selon les noms des auteurs; les interventions à la discussion "autour de la table ronde" se trouvent en annexe à la fin du recueil.

Le recueil est complété par une liste des interventions et par une liste alphabétique des auteurs avec leurs adresses pour un éventuel échange de courrier.

Tous les exposés sont présentés dans leur intégralité, même si plusieurs auteurs ont dépassé les limites fixées.

Parfois, le côté formel des textes présentés /lisibilité, etc./ ne correspondait même pas aux exigences courantes /il y avait même des travaux écrits à la main/, mais nous avons réussi à intégrer dans le recueil même des textes pareils.

C'était pour les traductions dans une des langues du congrès que nous avons rencontré des difficultés plus graves. Là où les traducteurs avaient certains problèmes, nous avons pu intervenir seulement partiellement /quant aux expressions et fautes évidentes/; il n'était malheureusement pas possible de corriger les textes sur le plan de la grammaire, de la stylistique et des expressions adéquates, car on n'avait pas à la disposition les versions originales des travaux; de toutes façons, cela aurait dépassé les possibilités et les forces du groupe des éditeurs.

Etant donné que dans de nombreux cas il n'y avait pas de bibliographie, nous avons accepté pour quelques travaux les bibliographies plus larges qu'il n'était fixé à l'origine. Dans certains cas, les citations ne sont ni exactes ni complètes; nous avons réussi à compléter les données principales, mais par ailleurs les insuffisances dans ce domaine vont au compte des auteurs; il n'était pas possible de chercher les données qui manquaient et de compléter la bibliographie selon l'usage international.

Il y avait des problèmes aussi avec la documentation. Les images et les tables manquent quelque fois, même si le texte les indique; dans d'autres cas, il fallait les corriger et redessiner, dans la mesure du possible. Certains auteurs ont consacré si peu d'attention au côté formel de la publication de leur travail, qu'il leur est échappé la nécessité de remplacer les diapositives projetées au congrès /qu'ils ont emportées/ par les images et les tables pour le recueil. Il n'est pas de notre faute, si certains textes manquent de documentation, mais nous ne pouvions pas mener une ample correspondance avec les auteurs et leur demander de compléter leurs textes, car nous aurions de cette façon considérablement retardé la date de l'édition du recueil.

La dernière remarque concerne la forme du recueil; nous avons préféré une forme qui serait plutôt utile que représentative puisque c'était un moyen pour atteindre le délai le plus court de l'édition du recueil destiné au large public professionnel.

Vu toutes les complications que nous venons de mentionner, nous prions de bien vouloir excuser certaines insuffisances relatives au recueil - surtout dans certains textes. Nous sommes persuadés que même ces travaux seront appréciés à leur juste valeur, car leur élimination du recueil serait au détriment des psychologues qui s'intéressent au sujet.
Nous espérons que le recueil dans son ensemble apportera des stimulants précieux pour le travail des psychologues du sport dans le monde entier.

Introduction

Un congrès international représente dans la vie des sociétés scientifiques toujours un événement important. La notion de l'événement n'est peut-être pas la meilleure expression, cependant elle généralise dans une large mesure de nombreuses activités précédant le congrès, pendant son déroulement et le suivant, d'un caractère dynamique. Il s'agit donc de ce qui se passait et ce qui s'était passé. Les phénomènes dynamiques et structuraux des activités partielles du congrès s'influencent mutuellement et créent les aspects différents du congrès, son atmosphère générale, en tant qu'un microclimat spécifique et unique, ceci sur la base du réseau communicatif officiel et de sa ramification compliquée non-officielle.
En touchant sa fin, le congrès est évalué par les participants et les organisateurs. Lors de l'évaluation se manifestent souvent l'attitude modérée de la part des participants et l'appréciation critique de la part des organisateurs. Le résultat de ces deux parties de l'évaluation est constitué d'une part par un certain nombre de normes obligatoires pour le congrès prochain, d'autre part par des expériences vécues, des sentiments, attitudes et souvenirs de tous les participants qui y jouent un rôle. A la veille du congrès, celui-ci semble bien grand, mais il s'amenuise avec le temps. Et encore quant à la terminologie du congrès. On ouvre le congrès comme une maison solenellement décorée pour les invités et on le clôt comme une maison où il faut nettoyer beaucoup.
Le recueil du congrès représente une partie importante du nettoyage et de la clôture réelle. Les documents de congrès recueillis ont surtout une valeur informative. Toute intervention au congrès comprend une information plus ou moins large. Le recueil entier est représentatif en tant qu'une projection importante de la connaissance dans le domaine étudié et au niveau de ses applications pratiques.
L'abord analytique et synthétique du III^{e} congrès ISSP à Prague, en octobre 1977, indique les tendances suivantes:
1. Le nombre des participants, à savoir 342 venant de 28 pays, correspond en gros aux congrès précédents. Cependant la psychologie du sport trouve progressivement son application dans d'autres pays hors de l'Europe et de l'Amérique du Nord. Le nombre des sociétés de psychologie du sport ainsi que celui de leurs membres s'élévent, d'autre part, dans les différents pays. On note une institualisation croissante de la psychologie du sport dans le cadre des sciences du sport et dans le cadre des branches psychologiques appliquées.
2. La qualité des travaux et leur quantité sur le plan des sciences psychologiques augmentent.On peut justifier cette constatation par le nombre de mémoires et d'autres travaux en psychologie du sport, enregistrés par la bibliographie, dans la période allant du congrès de l'ISSP à Madrid à celui de Prague ainsi que par les interventions présentées à Prague.

3. Le rapport entre les travaux expérimentaux et les travaux théoriques synthétiques trouve un équilibre. Sur le nombre total de 229 exposés, 117 ont un caractère de recherches expérimentales, 112 un caractère théorique et spéculatif.
4. Le nombre des travaux axés sur les problèmes pratiques de l'activité sportive augmente et leur érudition psychologique devient plus profonde.
5. On constate une concentration sur le sujet du sport de la haute performance des jeunes et des adultes /plus d'une moitié des travaux/. On ne prête pas beaucoup d'attention à l'étude psychologique de l'éducation physique préscolaire et scolaire, des loisirs, de la kinésithérapie, de la gérontologie.
6. Parmi les questions pratiques, on s'occupe surtout des aspects psychologiques de la stabilité des performances, de la résistence, de la prédiction du résultat et de l'abord hétérorégulatif et du choix des jeunes doués.
7. Parmi les sujets psychologiques, on s'intéresse le plus à la personnalité du sportif et aux facteurs dynamogènes de la motivation et de l'émotion, à l'état psychique actuel en tant que base des performances.
8. Des travaux qui échapperaient au cadre de la psychologie du sport au sens général et qui seraient orientés à la psychologies des sports et des disciplines particulières font défaut. Les études psychologiques différenciées font exception. Des recherches des modèles en plusieurs dimensions sont rares. Dans ce contexte, il existe les interprétations des résultats dans le sens des différences intra- et interindividuelles qui cependant ne prennent pas suffisamment en considération les différences de comportement dans diverses situations sociales.

Nous prions le lecteur de bien vouloir comprendre les idées mentionnées plus haut en tant qu'une tentative de formulation d'une certaine conception qui tout en reposant sur une classification quantifiée /d'ailleurs incomplète/ ne reste qu'une vue subjective. Il s'agit toutefois d'une conception qui cherche d'atteindre une certaine vue d'ensemble pouvant être utile d'une certaine manière au développement de la psychologie du sport. Chaque psychologue du sport, chaque société de psychologie du sport et les membres du présidium de l'ISSP peuvent confronter cette conception avec leurs propres idées; ils peuvent l'adopter, la refuser ou bien la compléter. Chaque confrontation /et tout recueil de congrès en est une/ représente toujours un stimulant utile pour le développement futur de la psychologie du sport, de ses résultats théoriques, et pour son application chez nous, en République socialiste tchécoslovaque, ainsi que dans chacun de vos pays.

Avec l'édition du recueil je déclare le IV^{e} congrès ISSP à Prague 1977 non seulement pour clos, mais aussi achevé.

Miroslav Vaněk,
Président de l'ISSP

NOTA DE EDITORES

La recopilación de los trabajos de los participantes en el IV Congreso de la Sociedad Internacional de la Psicología del Deporte incluye, además de las exposiciones presentadas también otros trabajos, puesto que todos los que asistieron al mismo tuvieron el derecho a enviar tres contribuciones, pero presentarse personalmente con un solo informe. La decisión se debió a la numeorsa y activa participación. Hemos incluído en nuestro compendio, asimismo, informaciones de aquellos quienes aunque habían mandado su solicitud de participar en el Congreso, no podían estar presentes por razones serias.

Los informes no han sido ordenados conforme a los respectivos temas del Congreso, sino que aparecen en orden alfabético según el nombre del autor; las intervenciones en la discusión de la "mesa redonda" han sido adjuntadas como parte independiente del compendio.

Todo está completado por una lista de informes e índice de autores con sus direcciones para permitir un intercambio eventual de la correspondencia.

Los trabajos han sido publicados enteros, pese a que muchos autores no respetaron la extensión que había sido determinada de antemano.

Los aspectos formales de los textos (su legibilidad, etc) no han satisfecho muchas veces hasta las mínimas exigencias al respecto (muchas informaciones las recibimos escritas a mano), pero con satisfacción hacemos constar que hasta ellas las hemos preparado para la publicación.

Mayores dificultades surgieron en relación con las traducciones a uno de los idiomas del Congreso. Tan sólo parcialmente pudimos corregir los errores de los traductores (nos limitamos al vocabulario y los errores más llamativos); desgraciadamente nos fue imposible corregir la gramática, estilística y sustituir algunas palabras por otras más convenientes, ya que carecemos de las versiones originales y, además, el trabajo superó las posibilidades y las fuerzas del grupo de editores.

Debido a que en muchos casos faltó la nómina de la literatura utilizada, decidimos publicar algunas listas de la literatura más extensas de lo estipulado previamente. Varias citaciones resultaron incompletas y poco precisas por culpa de los autores- y por más que nos esforzamos, logramos completar solamente lo fundamental; era prácticamente imposible buscar todos los datos que faltaban y completar la lista de la literatura utilizada de acuerdo a las costumbres internacionales.

Tuvimos problemas hasta con la documentación. Faltaron ilustraciones y tablas pese a ser mencionadas en el texto, otras veces tuvimos que rehacerlas - siempre que era posible. Muchos autores no prestaron la debida atención a la forma de su trabajo pasando por alto la necesidad de sustituir los diapositivos proyectados durante el Congreso (habiéndoselos llevado consigo a los respectivos países) por las ilustraciones y las tablas destinadas al compendio. Por ello no es culpa nuestra el hecho de que varios textos hayan aparecido incompletos por falta de la documentación; no pudimos mantener correspondencia con los autores pidiendo el envío de su material, ya que así nos veríamos obligados a postergar la publicación y aquellos quienes entregaron sus informes a tiempo respetando las disposiciones del Congreso, tendrían que esperar la devolución de sus materiales durante un largo tiempo.

La última observación está relacionada con la publicación del compendio; optamos por una forma más simple y no tan representativa en aras de acelerar su salida a la luz a fin de satisfacer, lo más rápido posible, las exigencias de un amplio círculo de especialistas e interesados.

En vista de todas las complicaciones os pedimos que nos disculpáis por las deficien-

cias del compendio - especialmente en caso de algunos trabajos - pero creemos poder contar con vuestra comprensión; de otra manera tendríamos que haber eliminado algunos informes de interés para numerosos psicólogos.
Esperamos que el compendio en su todo estimulará la labor de los psicólogos especializados en problemas del deporte, en el mundo entero.

INTRODUCCION

El congreso internacional representa siempre un acontecimiento de suma importancia en la vida de los científicos. Puede ser que la palabra "acontecimiento" no sea la más adecuada, sin embargo recurrimos a ella puesto que generaliza, en gran medida, las actividades desarrolladas antes, después y en torno al congreso revistiendo un carácter estructural de un fenómeno delimitado en espacio y tiempo. Entonces, lo que ocurría y lo que aconteció. Los fenómenos dinámicos y estructurales se influencian mutuamente configurando los respectivos aspectos del congreso y su atmósfera como un microclima específico y único a base de la red oficial de comunicación y también su ramificación compleja extraoficial.
El congreso, una vez terminado, es evaluado por los participantes y los organizadores. En ello, por lo general, se aplica el enfoque moderado y tolerante por parte de los participantes y un fuerte sentido crítico por parte de los organizadores. Como resultado de la evaluación de ambas partes nacen tanto las normas obligatorias para el futuro congreso, como también las vivencias, los sentimientos, las posturas y los recuerdos de todos los participantes incluyendo la ilusión del tiempo. Esto hace que consideramos el congreso como el más grandioso de los acontecimientos brevemente antes de su inauguración, mas a medida del correr del tiempo, esta sensación va extinguiéndose. Y no olvidemos la terminología del congreso. El congreso se abre como una casa solemnemente decorada para una sociedad selecta de invitados y se cierra como una casa que necesita una limpieza urgente.
El compendio del congreso representa la parte sustancial de los trabajos de aseo y su punto final. La recopilación de los materiales del congreso sirve, en primer lugar, a la presentación e información. Todo trabajo incluído en nuestra publicación contiene informaciones necesarias, en mayor o menor medida. El aspecto de la presentación está asegurado por el compendio en su todo representado éste una simbiosis relevante de conocimientos, a nivel de temas estudiados y sus aplicaciones prácticas.
Tanto el análisis como el síntesis del III Congreso de la ISSP celebrado en Praga en octubre de 1977, muestran las siguientes tendencias:

1) El número de 342 participantes de 28 países ha sido aproximadamente igual al registrado en los congresos anteriores. Mas, la sicología del deporte va propagándose a otros países fuera de Europa y América del Norte. Va creciendo también el número de sociedades sicológicas en el campo del deporte en los respectivos países y el número de sus miembros. Va elevándose el nivel de la institucionalización de la sicología del deporte en el marco de las ciencias deportivas y de las disciplinas aplicadas del deporte.

2) La calidad de los trabajos y su cantidad son cada vez superiores desde el punto de vista de las ciencias sicológicas, hecho que puede ser comprobado por las publicaciones dedicadas a la sicología del deporte y registradas bibliográficamente entre el congreso de la ISSP en Madrid y él de Praga, y también por los informes presentados en Praga.

3) La relación entre los trabajos experimentales y los teórico-sintéticos va siendo más proporcional. Del número total de 229 informes presentados, 117 fueron de carácter experimental y de investigación, 112 teóricos y especulativos.

4) Ha incrementado el número de publicaciones orientadas a problemas prácticos de las actividades deportivas y va profundizando su erudición sicológica.

5) Más marcada ha sido la concentración en los temas del deporte competitivo y él orientado a la máxima eficiencia (más de la mitad de los trabajos). Por otro lado, no se ha dedicado suficiente atención al estudio sicológico de la educación deportiva preescolar y escolar, el recreo a través del movimiento, la terapéutica por medio del movimiento y la gerontología.

6) Entre los problemas prácticos, la mayor atención ha sido prestada a aspectos sicológicos de la estabilidad de la capacidad para el deporte, la resistencia, la predicción de la capacidad, el enfoque heterroregulativo y la selección de los jóvenes talentos.

7) La esfera más estudiada de los temas sicológicos continúa siendo la personalidad del deportista y los factores dinamogéneos de la motivación, la emoción y los estados síquicos actuales de la capacidad deportiva.

8) Faltan trabajos que rebasen el marco de la sicología del deporte - en su concepción general - y que se orienten a la sicología de los respectivos deportes y disciplinas deportivas. La actitud sicológica diferenciada constituye una excepción y hacen falta los estudios de modelos de más dimensiones. En este respecto, no obstante que los resultados son interpretados en el sentido de las diferencias intra y interindividuales, no toman en la debida consideración las diferencias del comportamiento en diversas situaciones sociales.

Rogamos a los lectores que consideren las opiniones arriba citadas como resultados de los esfuerzos por formular una idea que, aunque basada en una clasificación incompleta cuantitativamente, no deja de ser subjetiva. Mas, en todo caso nos empeñamos en adoptar una actitud objetiva que pueda ser útil de alguna manera para el desarrollo de la sicología del deporte. Cada sicólogo trabajando en el ámbito del deporte, cada sociedad y los miembros de la Presidencia de la ISSP, pueden confrontar la idea con sus propias opiniones a fin de aceptar, rechazar o completarla. Toda confrontación (y por lo tanto también el compendio del Congreso) estimula el desarrollo de la sicología del deporte, sus aspectos teóricos y su aplicación en la República Socialista de Checoslovaquia y en vuestros países. Una vez editado el compendio me permito declarar el IX Congreso de la ISSP en Praga 1977 como clausurado y finalizado. De Ustedes, su servidor y amigo

el Presidente de la ISSP

Miroslav Vaněk

Bemerkung der Sammelbuchverleger

Das Sammelbuch der Arbeiten der Teilnehmer an dem IV. Weltkongresses der Internationalen Sportpsychologie (ISSP) umfasst ausser vorgetragenen Referaten noch andere Beiträge, da jeder Kongressteilnehmer das Recht hatte, insgesamt drei Beiträge vorzulegen, jedoch - wegen der grossen aktiven Teilnahme - nur einen vortragen könnte. Ausserdem wurden auch Beiträge von den Autoren eingefügt, die zwar zum Kongress angemeldet waren, aber aus ernsten gründen nach Prag nicht kommen könnten.

Die Referate sind nicht thematisch laut der Kongressbereiche, sondern in alphabetischer Ordnung laut der Autoren gereiht; die Diskussionsbeiträge "für den runden Tisch" wurden als ein selbstständiger Teil am Ende des Sammelbuchs eingereiht.

Das ganze Sammelbuch ist mit einer Beiträgenliste und einer alphabetischen Autorenliste mit ihren Adressen für den eventuellen Briefwechsel ergänzt.

Alle Beiträge stehen im vollen Wortlaut, obwohl viele Autoren den festgelegten Umfang überschritten haben.

Die formelle Seite der vorgelegten Texte (lesbarkeit usw.) entsprach manchmal nicht einmal den üblichen Erfordernissen (es gab sogar handgeschriebene Arbeiten), aber es ist uns gelungen, auch solche Beiträge für die Veröffentlichung in dem Sammelbuch vorzubereiten.

Grössere Schwierigkeiten hatten wir mit der Übersetzung in irgendeine der Kongresssprachen. Dort, wo die Übersetzer gewisse Schwierigkeiten hatten, konnten wir nur teilweise eingreifen (was die Fachausdrücke und offenbare Fehler betrifft); es war leider nicht möglich, die Gramatik, Stylistik und Auswahl der Ausdrücke in den Beiträgen zu korrigieren, da wir die ursprüngliche Version der Arbeiten nicht zur Verfügung hatten und auf jeden Fall würde es die Möglichkeiten und Kräfte der Verlegergruppe überschreiten.

Mit Rücksicht darauf, dass in vielen Fällen keine Bibliographie angeführt wurde, beliessen wir schliesslich bei einigen Arbeiten die umfangreichere Bibliographie, als ursprünglich festgelegt wurde. Die Zitationen sind in manchen Fällen ungenau und unvollständig, wir konnten nur eine grundsätzliche Ergänzung durchführen, sonst die Mängel dieser Art gehen zu Lasten der Autoren; es war nicht möglich, die fehlenden Angaben auszusuchen und die Bibliographie laut internationaler Gewohnheiten zu ergänzen.

Probleme hatten wir auch mit der Dokumentation. Manchmal fehlen Bilder und Tabellen, auch wenn man sie im Text erwähnt, andere mussten wir widerum - wo es möglich war - korrigieren und umzeichnen. Einige Autoren haben der formellen Seite ihrer Arbeit so wenig Aufmerksamkeit gewidmet, dass sie übersehen haben, dass die Diapositive, die sie während des Kongresses projiziert haben (und dann nach Hause mitgenommen haben) für das Sammelbuch mit Abbildungen und Tabellen ersetzt werden müssen. Es ist nicht unsere Schuld, wenn also bei einigen Texten die Dokumentation fehlt, aber wir konnten nicht eine umfangreiche Korrespondenz mit den Autoren führen und das fehlende Material verlangen, da wir dadurch die Herausgabe des Sammelbuchs viel verschieben würden und damit auch die Herausgabe der Arbeiten von den Autoren, die rechtzeitig und laut der Kongressdispositionen ihre Beiträge übergeben haben.

Die letzte Bemerkung betrifft die Form des Sammelsbuchs; wir haben eine Form bevorzugt, die mehr dienstlich als representativ ist, denn das ist nämlich ein Weg zu rascher Herausgabe des Sammelbuchs für die Bedürfnisse der breiten Öffentlichkeit.

Mit Rücksicht auf alle Komplikationen, über die wir geschrieben haben, bitten wir um Entschuldigung wegen der gewissen Mängel, die sich in Sammelbuch - hauptsächlich in einigen Beiträgen - befinden, und wir glauben, dass auch in diesen Fällen die Arbeiten mit Verständnis beurteilt werden, denn sonst könnten sie in dem Sammelbuch überhaupt keinen Platz finden - zum Schaden der Sache und der Psychologen, die sich für diese Thematik interessieren.

Wir hoffen, dass Sammelbuch wertvolle Anregungen für die Arbeit der Sportpsychologen in der ganzen Welt bringt.

E i n l e i t u n g

Der internationale Kongress stellt im Leben der wissenschaftlichen Gesellschaften ein bedeutsames Ereignis dar. Der Begriff Ereignis ist vielleicht nicht ein passender Ausdruck, er verallgemeinert jedoch gewissermassen eine ganze Reihe von den Pre-, Peri- und Post- Kongressaktivitäten, die einen dynamischen Charakter des Vorgehens haben, sowie einen strukturellen Charakter einer zeitlich und räumlich begrenzten Erscheinung. Das heisst also das, was passierte und was passiert ist. Die dynamischen und strukturellen Faktoren der einzelnen Kongressaktivitäten üben einen Einfluss aufeinander aus und bilden die einzelnen Seiten des Kongresses sowie die ganze Atmosphere als ein spezifisches und einmaliges Mikroklima. Auf Grund des offiziellen Kommunikationsnetzes und der inoffiziellen komplizierten Verzweigung.

Zum Schluss bewerten die Teilnehmer und die Organisatoren den Kongress.Bei der Bewertung sind am meisten die Teilnehmer mild und nachsichtig und die Organisatoren mehr kritisch. Das Ergebnis von beiden Einschätzungsteilen sind an einer Seite gewisse Normen, die für den nächsten Kongress verbindlich sind, und an anderer Seite Erlebnisse, Sentimente, Stellungsnahmen und Erinnerungen aller Teilnehmern einschliesslich die Zeitillusion. Knapp vor dem Kongress ist er der grösste, aber mit der Zeit wird er immer kleiner. Und noch zu der Kongressterminologie. Der Kongress wird als ein festlich ausgeschmücktes Haus eröffnet und erschlossen als ein Haus, wo man viel sauber machen muss.

Einen wesentlichen Teil des Aufräumes und des wirklichen Abschlusses bildet das Kongressammelbuch. Das gesammelte Kongressmaterial hat hauptsächlich eine Informations- und Presentationsbedeutung. Die Information beinhaltet in einem grösseren oder kleineren Ausmass jeder Kongressbeitrag. Die Presentation (Representation) beinhaltet das Sammelbuch im ganzen als ein relevanter Durchschnitt der Erkenntnis, in der gegebenen Gruppierung der erforschten Thematik und auf der Ebene der praktischen Anwendung.

Der gesamte analytisch-synthetische Blick auf den IV. Kongress ISSP in Prag im Oktober 1977 zeigt folgende Tendenzen an :

1. Die Zahl von 342 Teilnehmern aus 28 Ländern ist ungefähr die selbe wie bei den vorgehenden Kongressen. Die Sportpsychologie findet schrittweise ihre

Anwendung auch in anderen Ländern ausserhalb Europa und Nordamerika. Ebenso steigt die Anzahl der sportpsychologischen Gesellschaften in einzelnen Ländern, sowie die Zahl ihrer Mitglieder. Ein steigendes Niveau hat die Institutionalisierung der Sportpsychologie im Rahmen der Sportwissenschaften und im Rahmen der angewandten Psychologiezweigen.

2. Die Kvalität der Arbeiten und ihre Kvantität aus dem Gesichtspunkt der Psychologiewissenschaften wächst. Das kann man mit der sportpsychologischen bibliographisch erfassten Produktion aus der Zeit zwischen dem Kongress in Madrid und in Prag beweisen, sowie mit den in Prag vorgetragenen Beiträgen.

3. Das Verhältnis zwischen den experimentalen und theoretisch-synthetischen Arbeiten gleicht sich aus. Von der gesamten Zahl der 229 vorgetragenen Beiträge haben 117 einen experimentalen Forschungscharakter, 112 einen theoretischen und spekulativen Charakter.

4. Es steigt die Zahl der auf die praktische Fragen der Sporttätigkeit orientierten Arbeiten und ihre psychologische Erudition wird tiefer.

5. Es wächst die Konzentration auf die Thematik des Spitzen- und Leistungssports der Jugend und der Erwachsenen (mehr als eine Hälfte der Arbeiten). Der psychologischen Forschung der Vorschul- und Schulkörperkultur, der Bewegungserholung, der Bewegungstherapie, der Gerontologie wird keine grosse Aufmerksamkeit gewidmet.

6. Aus den praktischen Fragen wird die grösste Aufmerksamkeit den psychologischen Aspekten der Leistungstabilität, der Widerstandsfähigkeit, der Leistungsprediktion und den heteroregulativen Zutritten und der Auswahl der begabten Jugend gewidmet.

7. Aus der psychologischen Thematik orientiert man sich immer mehr auf das Gebiet der Persönlichkeit des Sportlers und auf die dynamogenen Faktoren der Motivierung, der Emotion, auf den aktuellen psychischen Leistungszustand.

8. Es fehlen die Arbeiten, die sich dem Rahmen der allgemein erfassten Sportpsychologie entziehen und die auf die Psychologie der einzelnen Sportarten und Sportdisziplinen orientiert sind. Die diferenzial psychologische Zutritte bilden eine Ausnahme und es fehlt an Forschungen mit dem Charakter mehrdimensionaler Modelle und Dimensionen. In diesem Zusammenhang gibt es zwar Interpretationen der Ergebnisse im Sinne der intra- und interindividuellen Unterschiede, aber mit einer kleinen Rücksicht auf die Verhaltenunterschiede in verschiedenen Sozialsituationen.

Wir bitten herzlich den Leser, die oben erwänten Ansichten als Ergebnis eines Auffassungsversuches zu verstehen, der zwar auf einer unvollständigen kvantifizierten Klassifikation beruhend, jedoch subjektiv bleibt. Diese Auffassung bemüht sich um eine gewisse Obenansicht, die für die weitere Entwicklung der Sportpsychologie gewissermassen vom Nutzen sein kann. Jeder Sportpsychologe, jede sportpsychologische Gesellschaft sowie die Mitglieder des Presidiums ISSP können nämlich diese Auffassung mit ihren eigenen Ansichten konfrontieren und sie können sie annehmen, oder ablehnen oder ergänzen. Jede Konfrontation (und jedes Kongressammelbuch stellt so eine Konfrontation dar) ist nämlich immer eine zweckmässige Anregung für die weitere Entwicklung der Sportpsychologie, ihrer theoretischen Ergebnisse und ihrer Anwendung bei uns, in der Tschechoslowakischen sozialistischen Republik, sowie überall bei Ihnen in Ihren Ländern.

Mit der Herausgabe des Sammelbuchs erkläre ich den IV. Kongress ISSP in Prag 1977 nicht nur für geschlossen, sondern auch für beendet. Offenherzig, freundlich und herzlich Ihr und in Ihren Diensten der ISSP Präsident

Miroslav Vaněk

ABECEDNÍ SEZNAM PŘÍSPĚVKŮ

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PORTRAIT PSYCHO-MOTEUR DE QUATRE SPORTS DE RAQUETTE

ALAIN,C. - PROTEAU,L. - SALMELA,J., Montréal, Canada

Dans les sports de raquette, l'excellence de la performance dépend de la justesse de l'exécution, bien sûr, mais aussi, et dans une mesure importante, de la rapidité et de l'à-propos de la ou des décisions qui la précèdent. Au cours d'un échange, le jouer passe tout à tour d'un état d'attente face au coup que va lui servir son adversaire à une phase de riposte constituée par la sélection et l'exécution de son propre coup.

Le but de la présente recherche était de brosser un tableau comparatif de certaines des exigences décisionnelles et d'exécution pour les sports de raquette suivants: badminton, racquetball, squash et tennis. Pour ce faire, quatre items ont été identifiés et étudiés. Les deux premiers avaient trait à l'état d'attente du joueur face au coup de son adversaire; ils étaient la quantité d'Incertitude objective et subjective véhiculée par le coup exécuté et la fréquence des déplacements guidés par l'anticipation. Le troisième item correspondait au début de la phase de riposte: il concernait la sélection du coup à exécuter; c'était la fréquence des coups frappés en fonction de la position de l'adversaire. Le dernier item avait rapport à l'exécution technique des coups. C'était la fréquence des coups exécutés tel que prévu.

Méthode

La méthode utilisée permettait d'observer directement les activités sportives étudiées sans les extraire de leur contexte naturel. Certains échanges d'une joute normale étaient filmés sans que les joueurs en soient avertis. Après chacun des échanges filmés, l'expérimentateur intervenait et questionnait les joueurs au sujet de chacun des coups exécutés lors de l'échange.

Il y avait cinq questions, toujours les mêmes, auxquelles le sujet devait répondre pour chacun des coups qu'il avait exécutés. Les deux premières questions portaient sur son état d'attente face au coup que l'adversaire lui avait servi et les autres avaient trait a la phase de riposte qui succédait à la phase d'attente. Chaque question était formulée de façon à présenter au sujet plusieurs catégories de comportement. Celui-ci devait identifier la catégorie qui correspondait le mieux au comportement qu'il avait eu en jeu. Les renseignements obtenus étaient consignés dans une fiche d'observation élaborée à cette fin.

Afin de s'assurer le plus possible de l'exactitude des réponses données par les sujets, ceux-ci pouvaient revoir le film de l'échange, ou une de ses parties, aussi souvent qu'ils le désiraient. Cinq cents coups ont été retenus et analysés pour chacun des quatre sports étudiés. Les sujets, au nombre de sept par activité sportive, étaient tous d'un calibre supérieur à la moyenne. Les observations étaient recueillies par huit expérimentateurs, deux pour chacun des sports auquel on les avait assignés. Les expérimentateurs avaient tous reçu les mêmes instructions.

Résultats et discussion

Quantité d'Information objective et subjective. La première question avait trait au coup que venait d'exécuter l'adversaire. Elle faisait référence à la probabilité subjective que le joueur en défense accordait à ce coup de se produire. Le sujet devait classifier sa perception selon une des cinq catégories suivantes: 10%, 30%, 50%, 70% ou 90%. Cette information allait servir à calculer la quantité moyenne d'Information subjective. Avant que ne débute l'observation, les sept coups les

plus fréquemment utilisés avaient été identifiés pour chacun des sports. De cette façon, il était possible de consigner tous les renseignements sur la fiche d'observation en tenant compte de la nature du coup exécuté. Cela permettait d'obtenir une fréquence relative pour chacun des coups utilisés et d'en déduire la quantité moyenne d'Information objective. Les quantités d'Information objective et subjective ont été relevées parce qu'elles représentent deux des variables les plus susceptibles d'affecter le temps que prend le joueur pour décider vers quel endroit se déplacer suite au coup de son adversaire.

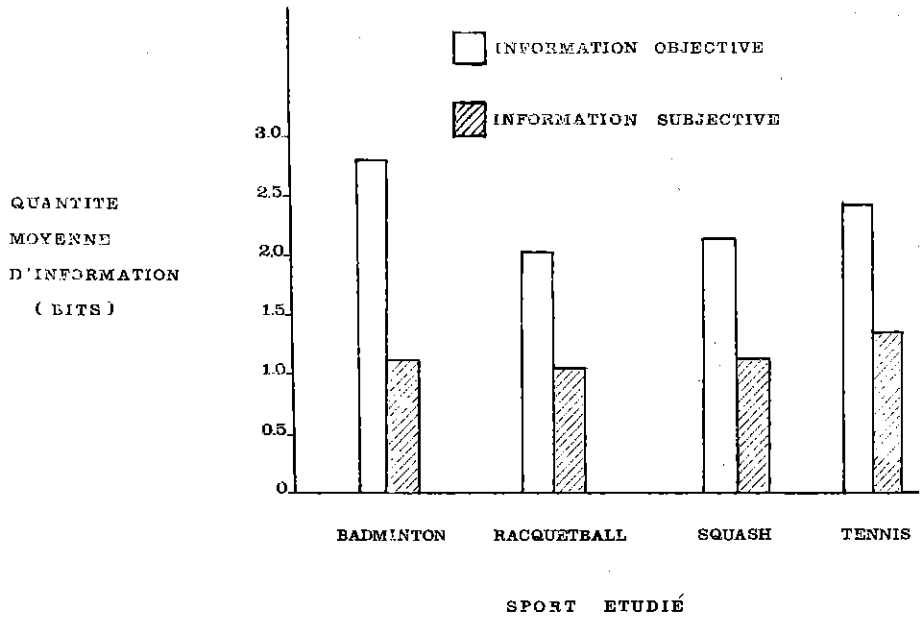


Fig. 1

La Figure 1 est une représentation graphique de la quantité moyenne d'Information objective et subjective pour les quatre sports étudiés. On peut y observer que, pour tous les sports étudiés, la quantité moyenne d'Information subjective est de beaucoup inférieure à la quantité moyenne d'Information objective. Pour chacun des sports étudiés, elle est environ deux fois moindre que l'autre mesure. Cela signifie que, dans la situation de jeu, les participants ont jugé les coups auxquels ils avaient à réagir comme étant plus probables qu'ils ne l'étaient vraiment. C'est donc dire que, dans le déroulement du jeu, il se dégage des indices, tels que la position, sur le terrain, du joueur en défense, qui font que l'Incertitude véhiculée par le coup à survenir est moindre qu'elle ne le serait en l'absence de ces indices. A cet effet, soulignons qu'un changement dans la quantité d'Information objective ne peut avoir une incidence directe sur la performance qu'à la condition d'entraîner avec elle une augmentation correspondante du montant d'Information subjective. En situation de jeu, le participant tient compte seulement de l'Incertitude que lui-même peut percevoir. Cet effet d'entraînement ne peut se faire que si la fréquence de chacun des coups utilisés est déterminée en fonction de situations spécifiques qui se produisent souvent et dans lesquelles les facteurs tels que la position des adversaires sur le terrain est la même d'une fois à l'autre. Ce n'est qu'à partir de situations typiques comme celle-là qu'une

manipulation objective de la fréquence des coups utilisés peut infléchir la probabilité subjective que le sujet accorde à tel ou tel coup de se produire et, partant, d'affecter la performance en jeu.

Déplacements guidés par l'anticipation. La deuxième question s'adressait toujours au joueur qui allait recevoir le coup frappé par son adversaire. Elle visait à déterminer si les déplacements, produits pendant la période précédant le coup de l'opposant, étaient guidés par l'anticipation ou non. Tout déplacement fait dans la direction de l'endroit où le sujet prévoyait que le coup de l'adversaire allait se faire, était classifié comme un déplacement guidé par l'anticipation. Tous les autres déplacements ne découlant pas d'une prédiction quant à l'endroit où l'engin allait être dirigé étaient classifiés déplacement en réaction. Cet item a été retenu à cause de l'effet qu'il peut avoir sur la vitesse avec laquelle le joueur réagit au coup de son adversaire.

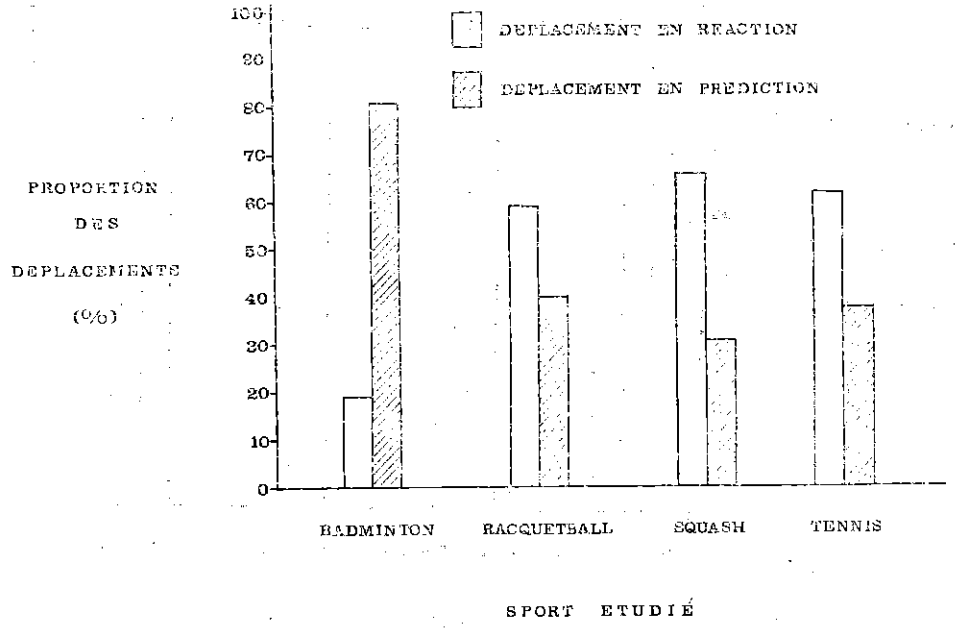


Fig. 2

La Figure 2 est la représentation graphique du pourcentage de déplacements en prédiction et en réaction pour chacun des sports étudiés. On y constate que pour les sports de racquetball, squash et tennis, la fréquence des déplacements en réaction est de beaucoup supérieure à celle des déplacements en prédiction. De plus, les proportions obtenues pour ces deux types de déplacement, lorsque soumises au test du Chi carré, ont été trouvées statistiquement égales pour les trois sports en question. Le badminton fait toutefois exception à cette règle. On y retrouve la relation inverse caractérisée par le fait que 80,6% des déplacements ont été faits en prédiction. Le fait qui ressort de cette analyse est que les contraintes du jeu de badminton semblent permettre un comportement audacieux tandis que celles inhérentes aux jeux de racquetball, squash et tennis semblent restreindre le compétiteur à un type de comportement plus conservateur.

Cette différence entre le badminton et les autres sports ne peut s'expliquer à partir des observations recueillies ici. Elle est peut-être attribuable au fait que le

déplacement de l'engin est beaucoup moins rapide au badminton. A ce sujet, on peut constater que, dans le cadre de la présente étude, les coups frappés haut et à la ligne de fond, comme le dégagé et le service long, représentaient plus de 46% de tous les coups utilisés. Pour cette raison, une mauvaise décision, c'est-à-dire un déplacement initié dans la mauvaise direction peut souvent être corrigé à temps ce qui n'est pas le cas pour les autres sports étudiés.

Coups exécutés en fonction de la position de l'adversaire. La troisième question avait pour but de départager si le coup du joueur a été exécuté en fonction ou sans égard à la position de l'adversaire. Pour chacun des coups exécutés, le joueur devait donc indiquer si oui ou non il l'avait été en tenant compte de la position de son opposant sur le terrain.

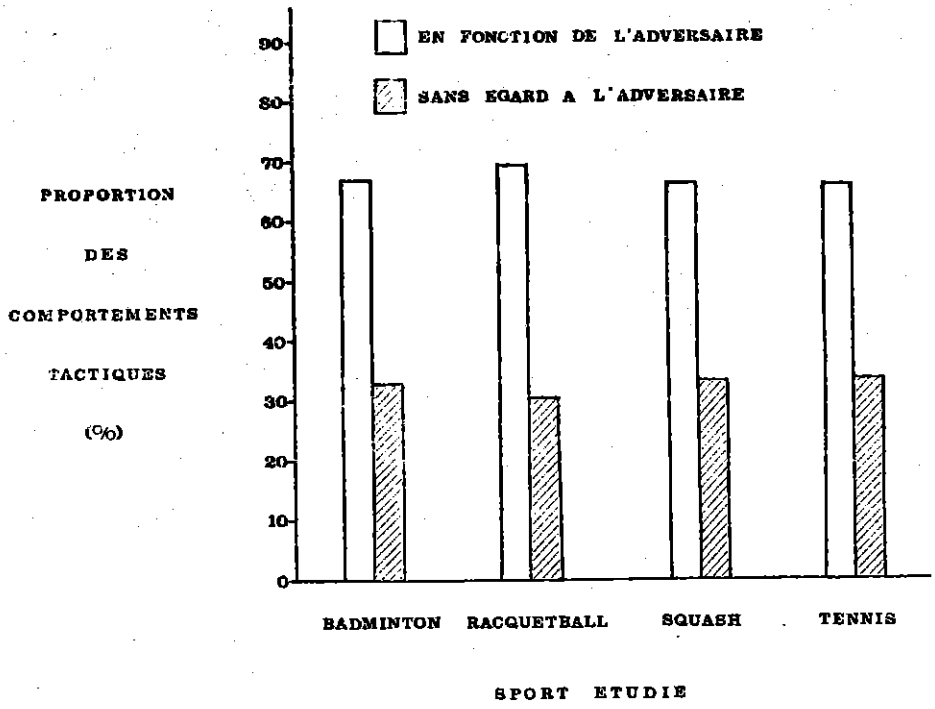


Fig. 3

A partir de la Figure 3 on peut remarquer la similitude presque parfaite qui existe entre tous les sports étudiés en ce qui a trait à la fréquence relative des coups exécutés en fonction de la position de l'adversaire. Ces fréquences ont été soumises au test du Chi carré et elles ont été trouvées statistiquement égales pour les quatre sports étudiés.

On peut remarquer, en outre, que 67% des coups sont exécutés en fonction de la position de l'opposant. C'est donc dire que l'exécution du coup est, le plus souvent, précédée par une analyse de la situation, laquelle serait déterminante pour le choix de la réponse appropriée.

Coups frappés comme prévu. La quatrième question visait à déterminer si le coup avait été exécuté tel que prévu ou non. Un coup était classifié comme ayant été frappé comme prévu quand, selon le participant, la nature du coup pouvait être identifiée comme appartenant au type de coup planifié. Les sujets étaient avertis de porter une attention particulière pour ne pas confondre cette caractéristique

avec la qualité du coup comme telle. Au badminton, des amortis excellents, moyens et médiocres seraient tous catégorisés comme ayant été frappés comme prévu si l'intention de l'auteur du coup était bel et bien de frapper un amorti. Cet item avait été retenu afin de comparer la difficulté de réalisation technique pour les quatre sports étudiés.

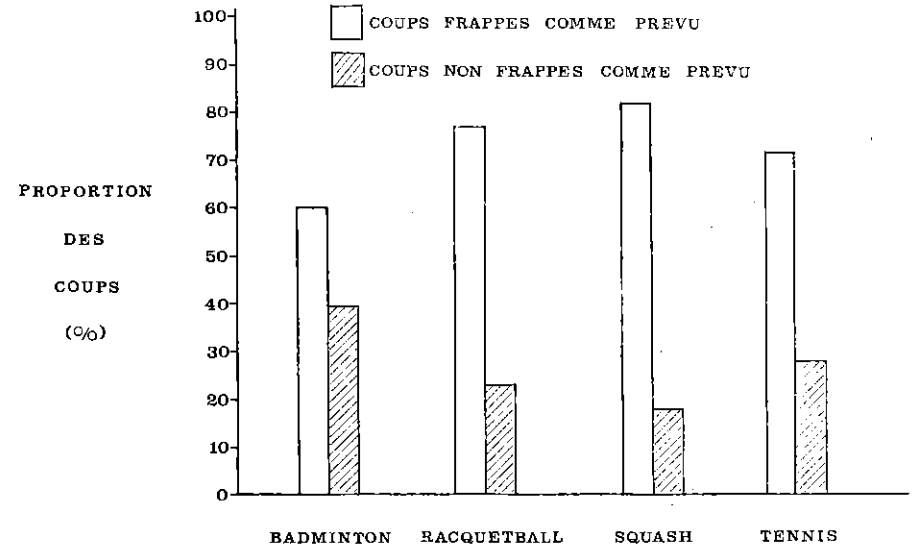


Fig. 4

Deux observations peuvent être faites à partir de la Figure 4. D'abord, pour tous les sports, la fréquence des coups frappés comme prévu a été supérieure à celle des coups qui ne correspondaient pas à l'intention de l'auteur. Deuxièmement, la proportion des deux genres de coups a été trouvée statistiquement égale pour les sports de racquetball, de squash et de tennis. Le badminton, qui se dégage des trois autres sports est caractérisé par une plus grande proportion de coups qui n'ont pas été frappés comme prévu /40%/.
Bien qu'il soit difficile d'expliquer cet écart à partir des données recueillies, l'examen des résultats met en évidence le fait qu'au badminton, la difficulté de réaliser techniquement le genre de coup choisi est plus grande que pour les autres sport étudiés.

Conclusion

A la lumière des informations recueillies sur chacun des sports étudiés, trois constatations peuvent être faites en tenant compte des frontières de l'étude et des limites d'ordre méthodologique qui lui sont inhérentes.

Premièrement, les quantités d'Incertitude ou d'Information objective et subjective se répartissent sensiblement de la même façon pour les quatre sports étudiés. Deuxièmement, l'aspect tactique du jeu tel que représenté par la proportion des coups exécutés en fonction de la position de l'adversaire, apparaît identique d'un sport à l'autre. Troisièmement, le badminton se dégage des autres sports par le plus grand nombre de déplacements guidés par l'anticipation ainsi que la beaucoup plus grande proportion de coups qui n'ont pas été exécutés tel que prévu.

FACTORS INFLUENCING THE DECISION TO TAKE OR NOT TO TAKE PHYSICAL EDUCATION AS A HIGH SCHOOL SUBJECT

ALBINSON, J.G., Canada

Introduction

In Canada over the past decade there has been a continual increase in the concern that individuals ought to include physical activity in their life-styles. This general concern has, in turn, heightened the interest of those in the education system in the reasons why some students take physical education as a subject in high school and why others do not.

To answer such a concern will involve considerable research. One of the starting points in such an effort will be to identify the criteria that students use in their decision making process. This study was a preliminary investigation to identify these criteria by assessing what elements are perceived by students to influence their decision to take or not to take physical education. A factor analysis was utilized to identify any clustering among the items.

Sample

The sample for this study was all females and males in Grade II (15-16 years old) at three urban high schools. Useable data were obtained from 225 females and 199 males. This represents approximately 68% of the students to whom the questionnaire was distributed (Table 1).

Methodology

Forced choise questions were designed using data collected from a pilot survey of 50 females and 50 males in which open ended questions were used. The questionnaire was distributed to the students by their home room teachers and the students returned the completed questionnaire to a container provided for that purpose.

Thirty-five items from the questionnaire were factor analysed using the Statistical Package for the Social Sciences (1) computer program (Table 2). Items which were factor analysed included: occupation of father (coded blue collar, white collar, professional); average for previous term; program enrolled in (coded five year, four year, two year); perceived physical fitness level (coded on a five point scale - not adequate - excellent); twenty-five items asking the degree to which each influenced their decision (coded on a five point scale); and six items asking the degree of agreement with statements about themselves (coded on a five point scale). These variables were factor analysed using the orthogonal rotation: varimax option (1:p.485).

Results

For the female sample five factors were identified (Table 3). The first factor to load was labelled the "Program Factor" as it included items dealing with the instructor, the content and the conduct of the physical education program. The second factor included all the items which related to the feelings of other individuals and groups toward physical education. This was labelled the

"Social Support Factor". The next factor labelled the "Physical Activity Self Concept Factor", included primarily those items which related to ones performance in physical activity. The fourth factor was labelled the "Discomfort Factor" as it identified items relating to physical and psychological discomfort encountered in the physical education classes. The fifth factor for the females was labelled the "Physical Fitness Factor" as it included items about ones fitness, weight and coordination. Together the five factors accounted for 45.2% of the variance.

The factor analysis of the data for the male sample identified basically the same five factors (Table 4). For the male gender group the first factor to load was the "Social Support Factor". The "Physical Activity Self Concept Factor" was the second factor to be identified. Four of the items loading on this factor are the same as those, loading on the factor for the female sample. "Performing in Front of Others" and "Evaluation/Grade of Physical Education" loaded on this factor for males where as for females these two items loaded on the "Discomfort Factor". The third factor, the"Program Factor" again included four items which loaded on this factor for females. Added for the males were the items "Class size", "Co-educational classes" and "Strong recommendation by the school". Not loading on this factor for males was the item "Inclusion of Health Education". The fourth factor for males was the "Physical Fitness Factor". The item "Physical fitness is important to me" loaded for the males but not the item "I am happy with my current weight" which loaded for females. The other three items were the same for both gender groups. The fifth factor, the "Discomfort Factor" loaded only two items "Getting sweaty" and "Getting changed". Together the five factors accounted for 45.6% of the variance.

Discussion

For the female sample the first factor identified was the "Program Factor", which for the male sample was the third factor to be identified preceded by the "Social Support" and the "Physical Activity Self Concept" factors. The difference in the ordering of the factors for the two gender groups may reflect the difference in social expectation placed on the two groups. Males are expected to take part in and to be good at physical activities and therefore the criteria of support/expectations and self concept in that form of social behaviour may have more relevance for males than the actual content or, conduct of the program.

With less social pressure on females, they may be able to place more weight on the content, instruction, and conduct of the program in their decision process.

Two items, "Performing in Front of Others"and "Evaluation/Grade of Physical Education" loaded on different factors for the two gender groups. The social importance of physical activity may account for these items loading on the "Physical Activity Self Concept Factor" for males. While the males appear to perceive these items as a reflection of their "Self"s" the females appear to perceive them as irritations as indicated by their loading on the "Discomfort Factor".

For the female sample the "Evaluation/Grade of Physical Education" did not appear on the Self Concept factor but their school average the previous

team did load which may reflect a difference between the genders in the type performance for which social pressure are felt.

In conclusion the analysis identified five factors which were relevant to students decision to elect or not elect physical education as a subject in high school. The factors were basically the same for both males and females. The differences in the items loading on factors between the gender groups and the differences in the importance of factors in terms of the amount of variance accounted for, appear to reflect differences in the social expectations placed on the gender groups.

TABLE 1

DISTRIBUTION OF THE SAMPLE OF GRADE II STUDENTS

	Female	Male
Taking Physical Education	125	124
Not Taking Physical Education	100	75
	225	199

TABLE 2

VARIABLE INCLUDED IN FACTOR ANALYSIS

Occupation of Father
Average Last Term
Program enrolled in
Perceived Fitness Level

Parents feelings towards physical education (P.E.)
Friends feelings toward P.E.
Brothers and/or sisters feelings toward P.E.
Principal and Vice-Principals feelings toward P.E.
Teachers feelings toward P.E.
Timetable conflicts
The physical education teacher
Class size
Coeducational classes
Choice of activity available
Competitiveness of the class
Inclusion of activity in the program, which I like
A strong recommendation by the school
Cliquish or snobbish students in P.E.classes

TABLE 2 (continued)

Inclusion of health programs
Medical reasons
Previous experience with P.E.
Personal fitness level
Personal skill level
Performing in front of others
Getting changed
Getting sweaty
Activity level out of school
P.E. grade or evaluation
Enjoyment of physical activity

I consider myself to be physically fit
I am happy with my present weight
I feel coordinated
Physical fitness is important to me
I like to play but not compete in games
It is important to me at this stage of my life to learn activities for use twenty years from now.

TABLE 3

FACTORS INFLUENCING FEMALE DECISION TO TAKE OR NOT TO TAKE PHYSICAL EDUCATION

PROGRAM FACTOR	
Physical Education Teacher	(.658)*
Choise of Activities Available	(.709)
Competitiveness in Class	(.669)
Inclusion of Activities I Like	(.632)
Inclusion of Health	(.683)
(18.0%)**	
SOCIAL SUPPORT FACTOR	
Feelings toward Physical Education of: Parents	(.750)
Friends	(.770)
Brothers and/or Sisters	(.793)
Principal and Vice-Principal	(.789)
Teachers	(.817)
(8.7%)	
PHYSICAL ACTIVITY SELF CONCEPT FACTOR	
Average Last Term	(.517)
Previous Experience with Physical Education	(.547)
Personal Fitness Level	(.602)
Personal Skill Level	(.586)
Enjoyment of Physical Activity	(.525)
(7.4%)	

TABLE 3 (continued)

DISCOMFORT FACTOR	
Performing in front of others	(.571)
Getting Changed	(.725)
Getting Sweaty	(.744)
Evaluation/Grade of Physical Education	(.573)
(5.8%)	
PHYSICAL FITNESS COMPONENT	
Perceived Fitness Level	(.647)
Consider Self Fit	(.789)
Happy with Current Weight	(.560)
Feel Coordinated	(.621)
(5.3%)	

* Factor Loadings

** Percent of Variance accounted for.

TABLE 4

FACTORS INFLUENCING MALE DECISION TO TAKE OR NOT TO TAKE PHYSICAL EDUCATION

SOCIAL SUPPORT FACTOR	
Feelings toward Physical Education of: Parents	(.760)
Friends	(.743)
Brothers and/or Sisters	(.740)
Principal and Vice Principal	(.789)
Teachers	(.782)
(18.2%)**	
PHYSICAL ACTIVITY SELF CONCEPT FACTOR	
Previous Experience with Physical Education	(.634)
Personal Fitness Level	(.829)
Personal Skill Level	(.822)
Performing in front of others	(.523)
Evaluation/Grade of Physical Education	(.586)
Enjoyment of Physical Activity	(.623)
(8.3%)	
PROGRAM FACTOR	
Physical Education Teacher	(.573)
Class Size	(.572)
Coeducational Classes	(.623)
Choice of Activities Available	(.709)
Competitiveness of Class	(.728)

TABLE 4 (continued)

Inclusion of Activities I Like		(.639)
Strong Recommendation by School		(.589)
	(7.8%)	
PHYSICAL FITNESS FACTOR		
Perceived Fitness Level		(.686)
Consider Self Fit		(.770)
Feel Coordinated		(.575)
Physical Fitness Important to Me		(.690)
	(6.7%)	
DISCOMFORT FACTOR		
Getting Changed		(.775)
Getting Sweaty		(.781)
	(4.6%)	

*Factor Loadings

**Percent of Variance accounted for.

References:

1. Nil, N., et al, Statistical Package for the Social Sciences (2nd Edition). Toronto, McGraw-Hill Book Company, 1975.

THE FACTORIAL STRUCTURE OF LEISURE AMONG YOUNG TOP ATHLETES

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1. Preface

In the modern industrial society the individual has more and more spare time at his disposal, time that is not filled up with work or the satisfaction of primary biological and social needs.

Many investigations point to the position of sport as one of the most important leisure factors but do not differentiate between leisure sport, latitude sport, and output sport (GRÖSSING 1970; ARTUS 1974; etc.).

Undoubtedly the practice of output and contest sport cannot be counted amongst primary leisure activities, as they are without some of the essential elements that characterize "spare time" activities (OPASCHOWSKI 1976). In this it is evident that besides the proper contest all preparing and afterpreparing

activities to the contest - that means all specific types of sports activities - are not countable in the range of the postulated leisure activities (SCHMITZ-SCHERZER) among top athletes. This equalization of work and output sport, in the sense of HABERMAS (1958), does not encompass the whole spectrum of conceivable sportic fields of activities in which output sport is carried out, so it is still possible to interpret the practice of other types of sport as leisure activity.

It is not yet clarified which influence; in the sense of reciprocal action output sport shows on the quality of leisure among top athletes.

2. Theory of method

The aim of the discussed investigation was to show the hypothetical influences of output sport on the leisure behaviour of young top athletes. The first five of the best lists 1975/76 of a Westgerman regional athletics association, altogether 450 top athletes, were investigated by a questionnaire which contained socialbiographic, sportsbiographic, sportsmedical, leisurespecific and social psychological items. Table 1 describes the structure of the investigated random sample as to the indication of sex and age.

Table 1: Structure of random sample as to the indication of sex and age

Count Row pct Col pct. Tot pct	AGE IN YEARS 14.	15.	16.	17.	18.	19.	Row total
SEX 1. ♂	18 6.4 51.4 4.0	60 21.3 57.7 13.3	41 14.5 51.3 9.1	66 23.4 70.2 14.7	63 22,3 70.8 14.0	34 12.1 70.8 7.6	282 62.7
2. ♀	17 10.1 48.6 3.8	44 26.2 42.3 9.8	39 23.2 48.8 8.7	28 16.7 29.8 6.2	26 15.5 29.2 5.8	14 8.3 29.2 3.1	168 37.3
Column total	35 7.8	104 23.1	80 17.8	94 20.9	89 19.8	48 10.7	450 100.0

The assumption of an equal distribution of probands on the different columns must be rejected (chi-Square-Test; $p \leq .01$). In the range of athletic disciplines more young male athletes (62,7 %) than young female athletes (37,3 %) follow up output sport. The different age ranges are equally engaged. Several investigations determine a similar relationship with reference to the general sportific engagement of young people in favour of the young male persons (ARTUS 1974; EMNID 1975). 235 young people (76 %) of the 311 young people of 16 years or more, still visit a school. An interpretation as to the type of school (without differentiation according to sex) shows a clear overweight of the column frequency in favour of the high school (N = 267, 59,3 %; Chi-Square-Test, $p \leq .01$); more than half of all young athletes visit a high school. Three quarters of the athletes come from a home which is counted in the so-called middle-class (72,4 %). This result confirms the results of several other investigations which also interpret the discipline of athletics as a middle-class orientated type of sport. To analyse the quality of leisure with young top athletes, the members of the investigated random sample described the importance of a total of 23 leisure activities, quantitatively.

The statements became variables in a factor analysis and were intercorrelated by means of a product-moment-correlation. Afterwards the matrix was calculated in a factor analysis on the basis of the model of several common factors (THURSTONE 1931).

3. Results

The factor analysis of the 23 leisure activities produced six interpretable factors, which together clarified 95,0 % of the total variance. The association of one leisure activity to one of the factors postulated a substantial loading with the value of $\geq .40$. Table 2 contains the medians, distributions and factor loadings ($\geq .40$) in the six factors and the communalities of the leisure activities, graded by frequency.

Table 2: Mean value, distribution, factor loadings ($\geq .40$) in six factors and the communalities of the leisure activities, graded by frequency

Leisure activities	x	s	communality	loading in the factor	F A C T O R	variance clearing contribution in %	c u m %
repair	3.3	1.0	.447	.64	FACTOR 1: hobby component	39.5	39.5
gardening	3.7	1.1	.240	.40			
constructive hobbies	3.8	1.2	.351	.57			
theatre	4.1	1.0	.588	.73	FACTOR 2: cultural component	19.6	59.1
concerts	4.2	1.0	.449	.52			
to be together with friends	1.8	0.9	.208	.41	FACTOR 3: social - integrative component	14.2	73.2
excursions into countryside	3.0	1.0	.532	.65			
walking	2.8	1.1	.432	.56			
recover from work	2.7	1.0	.343	.54	FACTOR 4: physiological relaxing component	8.6	81.9
doing nothing	3.3	1.1	.466	.66			
further education	2.6	1.0	.470	.52	FACTOR 5: education informative component	7.8	89.7
reading of good books	3.2	1.2	.713	.69			
informing about culture and politics	3.0	1.0	.449	.56			
neighbour contacts	3.6	1.2	.332	.44	FACTOR 6: communicative interactive component	5.3	95.0
family contacts	2.2	1.0	.374	.55			
reading of sports reports	1.5	0.7	.268	.47			
contacts in the association	2.0	1.0	.318	.49			

The six extracted factors together clarify 95.0 % of the total variance. Their designation in virtue of the loadings ($\geq .40$) of the different leisure activities on the different factors is plainly legitimated form the view of contests. The leisure behaviour of young top athletes shows the following six components (the variance clearing contribution is always shown as a percentage in brackets).

Factor 1:	hobby component	(39,5 %)
Factor 2:	cultural component	(19,6 %)
Factor 3:	social integrative component	(14,2 %)
Factor 4:	physiological relaxing component	(8,6 %)
Factor 5:	education informative component	(7,8 %)
Factor 6:	communicative-interactive component	(5,3 %)

Similar factor structures are also determined by other investigations which, partly because of diverging techniques of analysis are little compatible, however (HASELOFF 1960; BISHOP 1970; WIPPLER 1968; EMNID 1975; SCHMITZ-SCHERZER/RUDINGER/ANGLEITNER 1974).

The results of this factor analysis for the range of young top athletes reinforces the established assumption in general leisure literature that in leisure behaviour there are dominant activities especially for getting information, physical activities and social contacts, as well as for the pursuit of individual hobbies.

Selected Literature:

ARTUS, H.G.: Jugend- und Freizeitsport, Giessen 1974

BISHOP, D.W.: Stability of factor structure of leisure behaviour in four communities. J. Leis. Res., 1970, 2, 160 - 260

EMNID : Spiegel-Umfrage "Freizeitverhalten" (Berichtband). Bielefeld/Hamburg 1975

GRÖSSING, S.: Sport der Jugend, Wien 1970

HABERMAS, J.: Soziologische Notizen von Arbeit und Freizeit. In : Funke, G. (Ersg.): Konkrete Vernunft. Bonn 1958, 219 - 231

HASELOFF, O.W.: Das Buch im Erleben unserer Jugendlichen. Bertelsmannbriefe, Gütersloh 1960

OPASCHOWSKI, H.W.: Pädagogik der Freizeit. Heilbrunn 1976

PAWLIK, K.: Dimensionen des Verhaltens. Bern 1971

SCHMITZ-SCHERZER, R/ G.RUDINGER/A.ANGLEITNER: Zur Struktur von Freizeitaktivitäten. In:Schmitz-Scherzer, R. (Hrsg.); Freizeit. Frankfurt/M. 1974

WIPPLER, R.: Soziale Determinanten von her vrije dijds gedreg: Assen 1968

PERSÖNLICHKEITSSTRUKTUR UND STUDIENERFOLG VON SPORTSTUDENTEN

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1. Vorbemerkung

In hochschulpolitischen Diskussionen in der BRD um die Zulassung von Studienbewerbern präzisiert sich immer mehr eine Kritik an dem praktizierten Verfahren der Auswahl nach Abiturdurchschnittsnoten. Einem derartigen Auslesever-fahren zum Hochschulstudium wird im allgemeinen kein spezifischer prognostischer Aussagewert für den Studienerfolg (WEINGARDT 1967), bzw. den Berufserfolg (SOMMER 1973) zugesprochen.

Empirische Untersuchungen zum Zusammenhang von Reifeprüfungsnoten und Studienerfolg in verschiedenen Studienfächern (WEINGARDT 1964) konnten zwar korrelative Beziehungen aufzeigen; derartige Ergebnisse wurden jedoch im Sinne einer Strukturähnlichkeit von Prüfungsverfahren im Abitur und Hochschulexamen interpretiert. Auch die Validität von Lehrerurteilen als Kriterien im Sinne prognostischer Leistungsdiagnosen werden in zunehmendem Maße bezweifelt (z.B. ORLIK 1967; INGENKAMP 1972). Neben den Schulnoten und dem Lehrerurteil scheinen jedoch auch andere Indikatoren als Prognosekriterien für den Studienerfolg denkbar. So determinieren möglicherweise die Ausprägungen spezifischer Persönlichkeitsmerkmale und intellektueller Leistungsdispositionen nicht unerheblich den individuellen Studienerfolg.

In vielen Studiengängen kann ein solcher Zusammenhang bisher nur vermutet werden (z.B. AMELANG/SOMMER/BARTUSSEK 1971). Für den Bereich des Sportstudiums wird die Relevanz derartiger Hypothesenbildung durch eine Reihe von Untersuchungen zum Zusammenhang sportlicher Aktivitäten und Persönlichkeitsstruktur nahegelegt (vgl. SACK 1976; HAASE/SINGER 1975).

In den meisten wissenschaftlichen Studienfächern bildet die Examensgesamtnote eine relativ homogene Kriteriumsvariable für den Studienerfolg, da sie sich aus den Ergebnissen mehrerer formal und strukturell ähnlicher Teilprüfungen zusammensetzt. Der Studienerfolg im Sportstudium wird dagegen von sehr heterogenen Teilexamen repräsentiert. Neben den Prüfungen in theoretischen Fächern muß der Sportstudent eine Vielzahl praktischer Prüfungen ablegen, in denen er seine sportmotorische Handlungskompetenz nachzuweisen hat.

Es wird daher notwendig, neben der Examensgesamtnote auch die Noten der theoretischen und praktischen Teilprüfungen als Kriterien des Studienerfolges in eine Analyse einzubeziehen. So wird verhindert, daß bedingt durch kompensatorische Varianz hypothetische Einflüsse der Persönlichkeitsstruktur auf den Studienerfolg negiert werden müßten, obwohl sie möglicherweise für Teilexamen durchaus prognostische Kompetenz aufzuweisen vermögen.

Zur Prüfung der prognostischen Qualität von Ausprägungen ausgewählter Persönlichkeitsmerkmale und intellektuellen Leistungen im Hinblick auf den Studienerfolg bietet sich die multiple Regressionsanalyse an. Sie ermöglicht eine Aussage über die Prädiktoreneigenschaften der ausgewählten unabhängigen Variablen und vermag durch die Aufdeckung von Suppressoren und deren mögliche Elimination die Vorhersagegenauigkeit von Prüfverfahren zu erhöhen.

2. Methodik

Ziel der vorgelegten Untersuchung war es, die prognostische Qualität einiger ausgewählter Persönlichkeitsmerkmale und intellektuellen Leistungsmaße in Bezug auf den Studienerfolg im Sportstudium zu prüfen.

Als Versuchspersonenstichprobe wurde aus den insgesamt 781 Sportstudenten, die von 1970 - 1975 an der Deutschen Sporthochschule Köln das Examen zum Erwerb des Sportlehrerdiploms erfolgreich abschließen konnten, eine Zufallsstichprobe von 56 Probanden ausgewählt. Tabelle 1 beschreibt die Stichprobe hinsichtlich der Gruppenmerkmale Geschlecht und Alter.

Tab. 1: Zusammensetzung der Stichprobe hinsichtlich der Gruppenmerkmale Geschlecht und Alter

	ALTER IN JAHREN			Σ
	20 - 25	26 - 30	31 - 35	
männl.	10	12	8	30
weibl.	13	8	5	26
Σ	23	20	13	56

Neben einer Anamnese zur individuellen Sportbiographie wurden als Prädiktoren die Ergebnisse schriftlicher Testverfahren zur Diagnose von Persönlichkeitsmerkmalen (ENRL ; JANKE 1966) und intellektuellen Leistungsmaßen (LPS ; HORN 1962) definiert. Aus dem ENRL - Fragebogen wurden die Subskalen Extraversion (A), Neurotizismus (B) und Rigidität (C) ausgewählt. Aus dem LPS-Test fanden die Untertests Allgemeinbildung (1), Denkfähigkeit (2), Worteinfall (3), technische Begabung (4), Ratefähigkeit (5), Wahrnehmungstempo (6) und Rechenfähigkeit (7) Anwendung.

Zur Bestimmung der Prädiktorenqualität der ausgewählten Kenngrößen wurden die Variablen in schrittweisen multiplen Regressionsanalysen verrechnet. Neben den einzelnen Partial- Regressionskoeffizienten und den Beta - Gewichten für jede Variable wurde unter schrittweisem Einschluß aller Variablen der jeweilige multiple Regressionskoeffizient ermittelt und auf Signifikanz geprüft.
Kriteriumsvariablen für den Studienerfolg bildeten die Teilnote in den praktischen Fächern (I), die Teilnote in den theoretischen Fächern (II) und die Examensgesamtnote (III).

3. Ergebnisse

Die Ergebnisse der drei schrittweisen multiplen Regressionsanalysen weisen übereinstimmend den ausgewählten Prädiktoren keinen signifikanten prognostischen Wert für den Studienerfolg von Sportstudenten zu.

In der Tabelle 2 sind für die drei Kriteriumsvariablen die Partial - Regressionskoeffizienten, die Beta - Gewichte und die jeweiligen multiplen Regressionskoeffizienten sowie die F - Werte zur Beurteilung der Regression dargestellt.

Tab. 2: Darstellung der Partial - Regressionskoeffizienten B, des Standard-Fehlers von B, der Beta - Gewichte und des jeweiligen multiplen Regressionskoeffizienten mit F - Wert für die drei Kriteriumsvariablen

Variable	Partial - Regr.-Koeff. B			Standard - Fehler von B			Beta - Gewicht			multiple Regression			F+		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
A	-.11	.13	.20	.18	.13	.13	-.108	.162	.025	.067	.103	.617	.420	.988	.023
B	-.52	.41	-.77	.15	.11	.11	-.057	.059	-.001	.142	.120	.113	.126	.145	.000
2	.32	-.52	.12	.22	.17	.17	.235	-.049	.115	.237	.183	.119	2.10	.097	.501
1	.16	-.75	.20	.17	.13	.13	.143	-.092	.035	.262	.189	.127	.803	.345	.049
C	.18	.87	.13	.20	.15	.15	.014	.009	.013	.275	.203	.156	.008	.003	.008
7	-.83	-.63	-.41	.14	.10	.10	-.096	-.010	-.064	.326	.236	.234	.346	.004	.151
5	.22	.30	.26	.20	.15	.15	.174	.322	.286	.338	.318	.291	1.11	3.98	2.99
4	.50	-.18	-.96	.19	.14	.14	.004	-.200	-.109	.338	.368	.309	.001	1.71	.487
6	-.12	-.65	-.92	.16	.12	.12	-.129	-.089	-.128	.360	.376	.330	.605	.299	.592
3	-.12	-.72	-.92	.93	.68	.67	-.220	-.183	-.236	.398	.416	.389	1.54	1.11	1.77

+ alle F - Werte sind nicht signifikant

Für die vorliegende Untersuchung vermögen die Analyseergebnisse nicht die Annahme zu stützen, der Studienerfolg von Sportstudenten lasse sich aus der individuellen Persönlichkeitsstruktur vorhersagen.

In allen drei Analysen finden sich jedoch bedeutende Suppressor - Effekte. Es wird daher in einem weiteren Schritt notwendig werden, neben einer Auswahl der varianzstärksten Variablen unter Berücksichtigung der bisher offensichtlich konvergenten Prädiktorenselektion andere Kenngrößen, die ebenfalls zur Beschreibung der Persönlichkeits-struktur herangezogen werden können, in die multiple Regressionsanalyse aufzunehmen.

L I T E R A T U R :

AMELANG,M./SOMMER,E./BARTUSSEK,D.: Persönlichkeitsstruktur und Studienrichtung. Psychol. Beitr.,13,1,1971,7 - 25

HAASE,H./SINGER,R.: Sport und Persönlichkeit. Sportwissenschaft,5,1975, 25 - 38

INGENKAMP,K. : Die Fragwürdigkeit der Zensurengebung. Weinheim 1971

ORLIK,P. : Kritische Untersuchungen zur Begabtenförderung. Meisenheim/Glan 1967

SACK,H.-G. : Sportliche Betätigung und Persönlichkeit. Ahrensburg 1975

SOMMER,W. : Schulleistungen und Berufserfolg. Stuttgart 1973

WEINGARDT,E. : Korrelation und Voraussagewert von Zeugnisnoten bei Gymnasiasten. München 1964

WEINGARDT,E. : Der Voraussagewert des Reifezeugnisses für wissenschaftliche Prüfungen. Ber.25.Kongr.Dtsch.Gesellsch.Psychol. in Münster 1966, Göttingen 1967, 679 - 684

SCHÜLERERWARTUNG, URSACHENERKLÄRUNG UND NOTENZUFRIEDENHEIT

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1. Fragestellung

Die Benotung der Schülerleistung ist in den letzten Jahren immer häufiger zum Gegenstand kritischer Diskussionen bei Lehrern und Schülern sowie in der Öffentlichkeit geworden. In zahlreichen Untersuchungen wird auf die Fragwürdigkeit der Notengebung nachdrücklich hingewiesen und die Leistungsbeurteilung anhand objektiver Testverfahren diskutiert (vgl. INGENKAMP, 1971). Untersuchungen zur Benotung sportlicher Leistungen machen ebenfalls deutlich, daß die Notengebung im Sportunterricht bei Lehrern und Schülern umstritten ist.
Während sich die bisher vorliegenden Schülerbefragungen auf den Zusammenhang zwischen Notenzufriedenheit und Beibehaltung bzw. Abschaffung der Sportnote beziehen (CONRADI & PAIN, 1967; BLOSS, 1971; WIEGAND, 1973; LANGEN, 1974), fehlen Untersuchungen, die jene Einflußgrößen analysieren, die die Notenzufriedenheit bestimmen. In der vorliegenden Untersuchung wird davon ausgegangen, daß die Notenerwartung und Ursachenerklärung für die Sportnote wesentliche Bestimmungsgrößen der Notenzufriedenheit darstellen. Für die Notenzufriedenheit ergeben sich damit folgende Teilprozesse (NITSCH & ALLMER; ALLMER, i.D.):

1. Vergleich der erwarteten Note (Schülernote) mit der tatsächlich erhaltenen Sportnote (Lehrernote). Dieser Vergleich kann dazu führen, daß die Lehrernote besser als erwartet (positive Erwartungsdiskrepanz), wie erwartet (Nulldiskrepanz) oder schlechter als erwartet (negative Erwartungsdiskrepanz) ist.
2. Subjektive Ursachenerklärung der festgestellten Erwartungsdiskrepanz. Es lassen sich zwei Grundformen der Ursachenerklärung (Kausalattribuierung) unterscheiden: die internale und externale Kausalattribuierung. Internale Kausalattribuierung liegt vor, wenn der Schüler für das Zustandekommen der Erwartungsdiskrepanz interne und externe Ursachen nennt, für die sich der Schüler selbst verantwortlich macht (Selbstverantwortlichkeit). Externale Ursachenerklärung ist gegeben, wenn der Schüler interne und externe Faktoren nennt, für die er nicht verantwortlich zu machen ist (Fremdverantwortlichkeit).

   Ausgehend von diesem Grundkonzept wird in der vorliegenden Untersuchung die Abhängigkeit der Notenzufriedenheit von der Feststellung der Erwartungsdiskrepanz aus der Sicht der Schüler untersucht.

2. Untersuchungsdurchführung

Zur Beantwortung der Untersuchungsfragestellung wurde 146 Schülern der Sekundarstufe I und II ein umfangreicher Fragebogen zur Ursachenerklärung und Notenzufriedenheit sowie zur Funktion und Notwendigkeit der Sportnote vorgelegt (vgl. HOFMANN, 1976). Für die vorliegende Untersuchung wurden Fragen zur Selbstverantwortlichkeit, Notenzufriedenheit und Notengerechtigkeit ausgewählt (vgl. Anhang I).

3. Untersuchungsergebnisse

Der Zusammenhang zwischen Ursachenerklärung und Notenzufriedenheit läßt sich in folgender Weise beschreiben (vgl. Abb. 1):

1. Für die Sportnote 3 ergibt sich ein signifikanter Unterschied in der Notenzufriedenheit zwischen Schülern, die sich selbstverantwortlich und Schülern,

die sich nicht selbstverantwortlich fühlen für die Lehrernote. Es gilt, daß Schüler mit Fremdverantwortlichkeit unzufriedener sind als Schüler mit Selbstverantwortlichkeit.

2. Für die Sportnoten 1, 2 und 4 ergeben sich keine bedeutsamen Unterschiede in Abhängigkeit von der Ursachenerklärung. Unabhängig vom Grad der Selbstverantwortlichkeit sind Schüler mit den Noten 1 und 2 zufriedener als mit der Note 4.

Zur Differenzierung dieser Aussagen beschränkt sich die weitere Auswertung auf die Lehrernote 3. Unter Berücksichtigung der Schülererwartung ließen sich zwei Gruppen bilden:

a) Gute Schüler mit Erwartungsdiskrepanz (N=22): Schüler, die sich selbst mit der Sportnote 2 einschätzen, vom Lehrer dagegen mit der Note 3 beurteilt werden.

b) Weniger gute Schüler ohne Erwartungsdiskrepanz (N=16): Schüler, die sich selbst mit der Sportnote 3 einschätzen, vom Lehrer die Note 3 erhalten.

Für diese beiden Untersuchungsgruppen ergibt sich folgendes Bild (vgl.Abb. 2):

1. Gute Schüler mit Erwartungsdiskrepanz machen sich tendenziell weniger verantwortlich für die Lehrernote 3 als weniger gute Schüler ohne Erwartungsdiskrepanz. Die Fremdverantwortlichkeit der guten Schüler wird in einer (signifikant) geringeren Notengerechtigkeit deutlich, die darin zum Ausdruck kommt, daß sich diese Schüler im Vergleich zu den Mitschülern ungerechter beurteilt fühlen und im Vergleich zur erbrachten Leistung eine bessere Note verdient hätten.

2. Die Aussage, daß Schüler mit Fremdverantwortlichkeit höhere Notenunzufriedenheit im Vergleich zu Schülern mit Selbstverantwortlichkeit äußern, gilt offensichtlich für jene Schüler, die vom Lehrer eine schlechtere Note erhalten als sie sie selbst geben würden. D.h., Schüler ohne Erwartungsdiskrepanzen weisen höhere Notenzufriedenheit auf als Schüler mit Erwartungsdiskrepanzen.

4. Ergebnisdiskussion

Die Untersuchungsbefunde machen zumindest für die Sportnote 3 deutlich, daß die Notenzufriedenheit in Abhängigkeit von der Erwartungsdiskrepanz und Ursachenerklärung zu sehen ist. Nicht die Feststellung, daß sich bestimmte Erwartungen bestätigt haben, scheint bedeutsam zu sein, sondern der damit verbundene Grad der Selbstverantwortlichkeit. Schüler mit Fremdverantwortlichkeit, d.h. Schüler, die die Notenungerechtigkeit durch den Lehrer hervorheben, sind unzufriedener mit der erhaltenen Lehrernote als Schüler, die sich für die Note selbstverantwortlich machen und sich vom Lehrer gerecht beurteilt fühlen.

Offensichtlich ist die höhere Unzufriedenheit bei Fremdverantwortlichkeit darauf zurückzuführen, daß äußere Bedingungen eine Behinderung der tatsächlichen Möglichkeiten darstellen und im Falle der ungerechten Lehrerbeurteilung zukünftige eigene Anstrengungen dem Schüler als weniger erfolgreich erscheinen, um die erwartete Note zu erreichen. Demgegenüber sind die Schüler mit Selbstverantwortlichkeit möglicherweise deswegen weniger unzufrieden, weil sie einerseits eher Möglichkeiten sehen, aus eigener Kraft die erwartete Note zu erhalten und andererseits vom Lehrer auch in Zukunft eine gerechte Notengebung erwarten.

Dieser Sachverhalt weist auf die besondere Bedeutung der Notenbeurteilung des Lehrers für die weitere Lernmotivierung des Schülers hin, die insbesondere im Falle ungerechter Notengebung zu einem verhängnisvollen Teufelskreis führen kann. Ein Schüler, der sich ungerecht beurteilt fühlt und ungerechte Notengebung weiterhin erwartet, wird sich wahrscheinlich weniger anstrengen und in seinen Leistungen nachlassen. Der Leistungsschwund wird den Lehrer in seiner ursprüngli-

chen Notengebung bestätigen und dazu führen, daß sich der Lehrer weniger für die Unzufriedenheit des Schülers verantwortlich fühlt.

5. Zusammenfassung

In der vorliegenden Untersuchung werden am Beispiel der Notenzufriedenheit Determinanten der Unterrichtszufriedenheit analysiert.

Die Unterrichtsbefunde, die auf Aussagen von 146 Schülern der Sekundarstufe I und II basieren, sind insbesondere für die Sportnote 3:

(a) Schüler mit Selbstverantwortlichkeit sind mit der Sportnote 3 zufriedener als Schüler mit Fremdverantwortlichkeit.

(b) Schüler mit Erwartungsdiskrepanzen machen sich für die Note (tendenziell) weniger verantwortlich als Schüler ohne Erwartungsdiskrepanzen.

(c) Schüler ohne Erwartungsdiskrepanzen weisen (signifikant) höhere Notenzufriedenheit auf als Schüler mit Erwartungsdiskrepanzen.

ANHANG I

- Ich bin mit meiner letzten Sportnote	sehr zufrieden ziemlich zufrieden etwas zufrieden unzufrieden
- Meine letzte Sportnote war meiner Meinung nach	ungerecht etwas gerecht gerecht völlig gerecht
- Im Vergleich zu meinen Mitschülern war meine letzte Sportnote ungerecht	völlig zutreffend ziemlich zutreffend etwas zutreffend unzutreffend
- Aufgrund meiner Leistungen hätte ich eine bessere Note verdient	völlig zutreffend ziemlich zutreffend etwas zutreffend unzutreffend
- Für die Sportnote, die ich im letzten Zeugnis bekommen habe, mache ich mich selbst	voll verantwortlich verantwortlich etwas verantwortlich nicht verantwortlich
- Welche Note hattest Du zuletzt im Sport?	

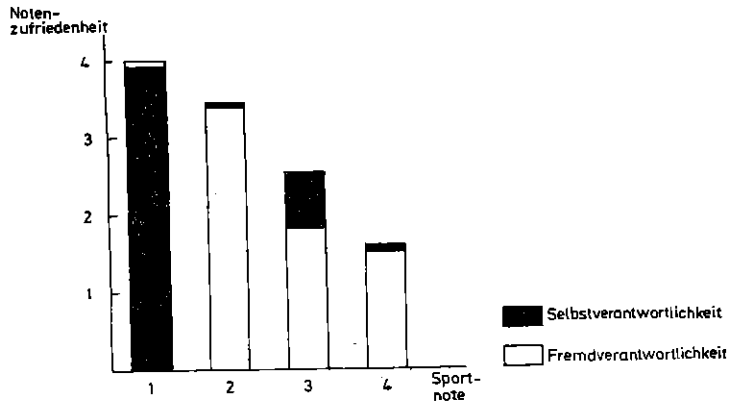


Abb. 1: Notenzufriedenheit und Grad der Selbst-/Fremdverantwortlichkeit für die Sportnote

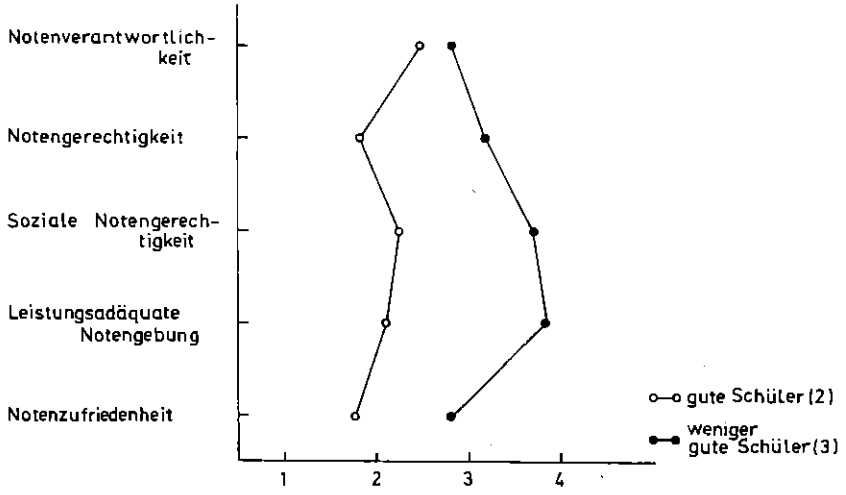


Abb. 2: Einschätzung der Lehrernote (3) aus der Sicht von guten (2) und weniger guten (3) Schülern

LITERATURVERZEICHNIS

ALLMER, H.: Kausalattribuierung und Handlungszufriedenheit. Theoretische und empirische Aspekte sportbezogener Leistungsmotivation. Schorndorf: Hofmann i.D.

BLOSS, H.: Schüler-Vorstellungen zu einer künftigen schulischen Leibeserziehung in der Oberstufe des Gymnasiums. Leibeserziehung, 1971, 20, 189-193.

CONRADI, H. & PEIN, W.: Der Abiturient und die Leibesübungen. Leibeserziehung, 1967, 16, 34-40.

INGENKAMP, K. (Hrsg.): Die Fragwürdigkeit der Zensurengebung. Weinheim: Beltz, 1971.

HOFMANN, W.: Eine empirische Untersuchung zur Ursachenerklärung der Sportnote aus der Sicht von guten und schlechten Schülern. Unveröff. Diplomarbeit, DSHS Köln, 1976.

LANGEN, A.J.: Positive und negative Seiten des Sports und des Schulsports aus der Sicht von Schülern. Sportunterricht, 1974, 23, 36-45.

NITSCH, J. & ALLMER, H.: Entwurf eines Prozeßmodells der Leistungsmotivierung. In: NITSCH, J. & UDRIS, I. (Hrsg.), Beanspruchung im Sport. Bad Homburg: Limpert, 1976, 42-59.

WIEGAND, M.: Die Zensur im Schulfach Sport: Ergebnisse und Analyse einer empirischen Untersuchung in Hauptschulabschlußklassen im Lande Bremen. Sportunterricht, 1973, 22, 161-163.

PSYCHOLOGICAL ASPECTS OF THE SELECTION OF YOUTH TALENTED FOR SPORTS

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Introduction

Athletic performance is not simply a combination of physiological qualities, it is the end result of a process of interaction. These qualities have their importance in this process and they are activated concurrently by numerous other psycho-social factors. When considered separately, the athlete's attributes and abilities together with the other concurrent factors, are mere abstractions. Consequently, every attempt to construct the physiological and psychological profile of the top-athlete, by compiling the empirical data, has failed. In fact, it is the quality and the type of interaction, the subjective ability and the various other psychological variables which give rise to a performance that can be programmed and foreseen only in a probabilistic way. All the variables which influence performance are not known and many of these variables cannot be manipulated.

We will consider two groups of variables (or factors) which we consider concurrent to success in sports, in as much as they are prerequisites which condition the possibility of performance without determining it. These factors can be either social or psychological (we have divided them for the technical analysis, however, they are deeply amalgamated and integrated in the background of each athlete).

1. Social Factors

Concepts as "talent for sports", "champion", "top-athlete" are closely related to a social evaluation. In fact, talent for sports can be defined in terms of convention and comparison: it is the individual's capacity to perform, at a given moment, psycho-motor skills which are accepted as a statistical rarity. Before a certain physical performance can be considered exceptional it is necessary that its recognition be socially accepted. Consequently, "talent for sports" is more an evaluation of values than a combination of specialized psycho-physiological attributes. This evaluation or judgment is made in relation to a given motor-competitive activity following the principles of performance, competition and comparison which are part of a precise social and cultural context.

An athlete's "talent for sports" can exist only in relation to a certain setting (stadiums, fans, training, financing, competition etc.) which allows, fosters and praises a certain type of performance. A potential swimming champion, with all the necessary anatomo-physiological attributes, could not exist and would never be recognized as such, if it were not for a certain socio-organizational structure which can provide the proper setting where some characteristics and their subjective motivation are appreciated more so than others.

a) Sport Ideology. With this term we want to underline the importance of a factor - a basic prerequisite - which is capable of activating cultural, political, economic and institutional processes. These processes make it possible for the youth of a given population to open themselves to sports and the concomitant formation of a sport oriented culture whose values are ethical, aesthetical, competitive, educational, hygienic and self-realization. The formation of an

"ideology of sport" is directly related to the anthropological and sociocultural characteristics of a given society. Without this ideology there would be no sports, nor exceptional performance, nor talent for sports and much less sport psychology which investigates these phenomena.

On the basic of these observations, we can say that sports, compared to any other aspect of social life, is always connected to the needs and values of a certain social structure. The individual is unaware of the ideological dynamics which does not appear in the sport reviews, nor is it part of the organization and promotion of sports, nor is it an object of research. The ideological dynamics is part of a process which is over and above the individual, it is unknown to the experience (individual or collective) of competition.

The practise of sports and all this implies, in the industrial framework of a socio-economic asset, is a prerequisite if the individuals are to cultivate the necessary physiological attributes and be properly motivated. It is ridiculous to think that "talent for sports" can be programmed, discovered or cultivated by beginning with a "depistage" of the masses using spirometric variables, oxygen consumption or other measuring methodologies.

Granted that there is a direct proportion between the amount of sport talent and the number of participants in a particular sport, it is also true that this statistical law presuppose a sport ideology which recognizes in the values of sports, values that are also present in the more general culture of the society.

b) Socialization of sports. This is a fundamental prerequisite in as much as it tends to educate youth and adults to share the enjoyment of activities which are ludicrously and competitively organized. This condition is an essential component for the diffusion of sports, it is also a significant variable which conditions the appearance or lack of "talent for sports". This can occur only when it is opportunely possible to : 1) socialize young athletes within a tradition which appreciates and esteems ludico-motor skills; 2) offer sports as an area of collective emotional intergration and participation; 3) invest a certain surplus in ludicus and competitive "consumer items"; 4) have a politic-administrative structure which is sensitive to the problems of sports.

A child's environment, for the most part, determines which characteristics, possibilities and tendencies should be encouraged or discouraged. Consequently, it is easy to see the importance of the family unit and its extensions, namely, the team and the club, in the athlete's choice-of and dedication to a particular sport. In fact, the psycho-physiological potential can be evaluated or disregarded depending on whether or not the choice is fostered and encouraged by the family and social setting.

The family-club variable has a certain importance as a success conditioning factor in sports. The request and encouragement of the family and the club are paradigms of success or failure as they motivate or block the individual athlete's dedication. Achievement, which is a motivating factor towards success, is internalized in the family. This self-determining value does not stem from the abstract, it is closely related to value of performance, efficency and productivity which are typical of an industrial culture.

On the basis of what has been said and by way of synthesis, we can say that the events which are involved in an athlete's career are all part of an

overall system of interdependent subsystems. Each subsystem, as the ideology, the socialization, the family, the team, the organization, etc., can be the object of observation and the source of explanations which can clarify the conditions as to why a given performance was possible. How it was possible, that is, the technical and psychological explanations, is of secondary importance. These factors are determining, this is true, but only within the framework of favourable social and psychological situation.

2. Psychological Factors

Other variables, which are within the individual and condition his success in sports, are the motivations. Without motivation the best corporal machine could never be driven to the limits of its abilities, in fact, without motivation the individual will not even appear on the track. Motivations are the causes which set off the ludic competitive activity, they are stimuli coming from both the subjective needs and from outside encouragement which is internalized and overlaps the subjective primary needs.

It is our opinion that in sports the primary motivations are play and competition, man cannot give up these two needs at any age. Play allows man to re-live the happy moments of his infancy, characterized by imagination, creativity, freedom and emotional drama.

Sports offer this occasion in a standard and institutionalized context which makes it possible for the individual to have a few moments of illusion, aesthetic joy, calculated and shared risk, and identification. During these moments of illusion the body becomes the vehicle of the libidinal needs which find their deep gratification in muscular discharge.

Sport which is play cannot be separated from the other motivation which is competition. Competition involves various needs as self-realization, comparison, self-evaluation, achievement, etc. The "energetic" element of competition is aggressiveness, this unspecified drive in man acquires direction, intention and intensity as an acquired discharge in the socialized relationship.

Competition is the socialized aspect of aggressiveness, it is a cultural model offered by sports for man's need to be aggressive in view of his individual psychological goals (self-realization, control of reality and environment, etc.) and of his more interpersonal goals (social identity, a concept of self, security etc.).

It is the desire for security which urges the child to measure himself with, to compete and assert himself among those of his age group and later on with adults, in order to acquire an identity, a role and social approval-acceptance. The athlete's competition-aggressiveness is against nature, against himself and against the adversary, however, in order that the aggressiveness be a productive motivation it must be seated in an integrated personality, in one who is not disturbed by the anxiety and unrest that accompany every manifestation of aggressiveness.

Consequently, competition is the variable which gives the corporeal machine the possibility to excell in conflict, in the desire to improve and in the techniques of preparation. Without this prerequisite, sports would be unattractive and unjustifiable.

Besides play and competition as the motivating vectors (they are real driving forces) of sports, there are several other motivations which are integrated in the two principal ones but have their own function and significance.

For example, there are the autoplastic needs, those requirements connected with body growth and nervous efficiency which are particularly active in youth. These needs have an important psycho-biological role in as much as they remain as motor skills in the adult athlete.

Factors as affiliation, social mobility and economic gratification also have their significance at certain moments in the development of an athlete, as they are integrated with or compensate other motivating factors which are in the process of being saturated (sports as play).

The need to compensate certain psychopathological conditions, as an inferiority complex, through acceptance of one's narcissism, the desire for power and the values of identity, is an important component of certain sport careers with an exaggerated committment which is not normal to the "passion for sports".

These motivations have a particular value in some circles as they are the only way to understand and justify the athlete's ability to tolerate frustration, anxiety, and fatigue, which in another context would be refused.

In conclusion: high level performance depends on the psychophysical attributes of the athlete, but it also depends on a favourable interaction of different social situations.

The concept of talent, that is, a reasonable forecast of a brilliant sport future, is valid, however, it must include a study of the athlete's personal characteristics and his socio-cultural environment.

We are of the opinion that talent for sports cannot be related to the mere presence or absence of certain determined personality profiles, in order that this talent emerge, certain prerequisites - some social and others motivational - are necessary.

ОРГАНИЗАЦИОННО-ПСИХОЛОГИЧЕСКАЯ ФУНКЦИЯ ПОНЯТИЯ СПЕЦИАЛИЗАЦИИ

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Состояние психологии спорта за последнее время определялось не столько спортивной спецификой, сколько общими для всей психологии особенностями, которые по существу (независимо от причин) сводятся к неоднородности, многопредметности. Множественность психологических знаний порождается развитием не только самой психологии, но и других сфер деятельности, где трудности роста связывались с так называемым "человеческим фактором", который давал себя знать в таких отношениях, как "человек-машина", "человек-коллектив", "человек-организация" и т.п. Таким образом были вызваны к жизни инженерная психология, психология труда, психология обучения, психотерапия, психогигиена и многие другие направления, которые оформлялись как вполне самостоятельные предметы психологии.
Можно утверждать, что есть такие сферы деятельности и, в первую очередь, спорт, которые стремятся и могут "потреблять" знания из многих психологических предметов. Вместе с тем, задача психолога, включенного в такую область человеческой деятельности, как спортивная подготовка, по-видимому, не может быть сведена толь-

ко к заимствованию из общей психологии проблем и методов диагностики, регулирования, самооценки, активного формирования действий и др.

Известные нам попытки преодолеть множественность психологических знаний обычно тяготеют к идеям системного подхода, что, как правило, отражается в применяемых категориях: система деятельности, структура ориентировочной деятельности и т.п. Однако существующие в психологии категориальные характеристики деятельности (образец, операциональный состав, продукт и др.) недостаточны для действительности спортивного совершенствования, где образец вообще игнорируется, операциональный состав остается проблемой, а форма продукта еще до конца не выявлена и не имеет адекватной фиксации.

Наша психологическая работа идет в русле конструктивного комплексного подхода к активному формированию деятельности спортивного совершенствования. Стратегия, которую мы реализуем в рамках этого подхода, может быть названа, в отличие от формирования непосредственных психологических воздействий, - конструированием организационно-психологических программ спортивной подготовки.

При такой стратегии результаты исследований психолога не просто "добавляются" к слабым звеньям подготовки, но оказываются как бы "ассимилированными" самой оргструктурой подготовки.

Тогда выбор тренировочных заданий или рекреационных процедур и их распределение во времени становятся психологически осмысленными, или психологически корректными. Другими словами, программа спортивной подготовки делается психоморфной с самого начала. При этом, безусловно, минимизируются оперативные задачи психолога, которые мы относим к стратегии непосредственных воздействий.

Наш вариант программирующей стратегии основан на целостном представлении подготовки как деятельности особого рода. Подготовку в спорте высших достижений мы квалифицируем как действие специализации. Специализация понимается не как выбор того или иного вида спорта, а как максимальная актуализация всех индивидуальных ресурсов к жестко зафиксированному сроку в условиях конкурентной соревновательной программы. Сами требования максимизации и своевременности заставляют изображать специализацию как изменяющуюся во времени, а, следовательно, говорить о степени ее выраженности, или о степени специализированности, которая операционально задается как сравнение действий подготовки с действиями соревновательными по любому выделенному набору характеристик.

Это позволяет, с одной стороны, сопряженно задавать все группы характеристик, в соответствии с традиционно сложившимися сторонами подготовки (физической, технико-тактической, волевой и др.), а, с другой стороны, - схематизировать целостную и сложную действительность подготовки для построения ориентировочной основы действий, которая выступает в виде образа будущей деятельности.

В результате наших с соавторами многолетних исследований с опорой на понятия, специфичные для действий специализации, такие, как монотония, интерференция, ритм, доминирование и др., установлено, что наиболее эффективное изменение специализированности тренировочных циклов разного порядка должно иметь вид синусоиды с нарастающей амплитудой с тем, чтобы обеспечить максимальную специализацию к строго намеченному сроку.

В работах на эту тему сформулирован и обоснован иерархированный вид этого сложного процесса специализации, который выступает как организационно-психологический принцип для разработки целостных программ спортивного совершенствования и координации процедур и результатов всех частных психологических исследований и разработок.

Такая организация ориентировки, с использованием специально разработанных графических форм, закрепленная в общении тренера и спортсмена, психологически обеспечивает надежность результатов спортивной подготовки.

ENQUÊTE SUR UN ÉCHANTILLON D'ATHLÈTES DE L'ÉQUIPE NATIONALE ITALIENNE "A" DE SKI ALPIN CONDUITE AVEC L'APPLICATION DU TEST DE RORSCHACH ET AVEC DES ENTREVUES

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On a conduit une enquête avec l'application du test de Rorschach et avec des entrevues pour essayer de mettre en évidence les problématiques et les dynamiques de la personnalité des athlètes qui aient atteint à des considérables résultats de niveau international et pour voir jusqu'à quel but l'activité qu'ils font soit modélante de la personnalité ou en tout cas conforme à un caractère pré-existant bien défini.

L'hypothèse est qu'au fond de la poussée à rejoindre des remarquables niveaux de résultats, dans un sport comme le ski où l'exacerbation de la compétitivité et l'activité fortement stressant exigent un effort et un engagement psychophysique considérable, il y eût une particulière structure du caractère et - ou un noyau névrosé qui retrouve son équilibre et adaptation dans l'activité sportive.

Notre échantillon se compose de 17 garçons /13 slalomeurs et 4 descendeurs/ et 4 filles faisants partie de l'équipe nationale "A" de ski alpin, tous déjà vainqueurs de compétitions internationales. L'étage social et culturel est très assorti: en effet il y a des athlètes qui ont terminé seulement leurs études primaires et d'autres qui fréquentent l'université, fils d'ouvriers et d'industriels, de souche italienne et allemande/alto-atesini/.

Donnons un bref résumé des indices significatifs des signatures du test de Rorschach tels qu'ils résultent dans le tableau récapitulatif allié: nombre de réponses moyen-bas /14,6/, bien qu'il y ait une générale motivation positive envers le test, pourcentage élevé de réponses G. qui, dans la plupart des cas, sont plus nombreuses de celles D., présence d'une réponse Dd. seulement en sept athlètes sur vingt et un, F. % élevé /75,8/, F + % /79,9/ bas en tenant compte de la présence de quelques valeurs de 100. Insuffisant même le nombre de K. /8 athlètes ne voient pas le K. vulgaire du 3° tableau/, de réponses H. /4 athlètes n'en donnent pas une/ avec un prédominance de /H./, H d., H. dévitalisée et déteriorée sur les normales réponses H. ; rares même les réponses FM. et m. /seulement sept athlètes en donnent une/. Elevé le nombre de refus /huit athlètes refusent au moins un tableau/ et de chocs /49/.

Insuffisantes les réponses couleur, mais avec une prédominance de réponses CF.+C. sur les FC. il y a en outre des réponses clair-obscur surtout chez les descendeurs. Fréquentes encore les réponses des détails blancs, à contenu déterioré, feu et sang.

Elevé enfin le nombre des réponses d'anatomie, vulgaires, et le nombre des signes d'insûreté.

Malgré les différences d'étage **socioculturel**, l'échantillon paraît assez homogène comme résultats et certaines caractéristiques semblent significatives et propres de ces athlètes. Le G. % élevé en presque tous les cas nous démontre la remarquable ambition qui a soutenue ces athlètes à rejoindre les plus hautes niveaux.

Les indices de l'intelligence sont assez contrastants: cela est probablement du à une action inhibitoire sur elle qui apparait clairement dès plusieurs indices: en effet à côté de nombreux chocs il y a même plusieurs refus, un type de résonance intime coarté et une prédominance de l'aspect explosive et non bien contrôlé de l'affectivité.

Particulier intérêt revête la décroissance du nombre des K. qui, comme déjà a été trouvé en différents recherches, souligne surtout le refus et l'inhibition de l'introvertion dans les athlètes supérieurs.
La contemporaine décroissance des réponses H., la plus part des quelles sont /H./, Hd. ou H. déteriorés et dévitalisés, démontre bien les difficultés dans les rapports personnels intimes de ces athlètes.
En plus, se rappelant que l'inhibition se manifeste même dans le décroissement du nombre des réponses et, au contraire dans l'élevé nombre de réponses vulgaires, de choc couleur, réponses clair-obscur , et la propension à la coartation, on peut affirmer que les difficultés dans les rapports de ces athlètes sont, peut-être, une qualité nécessaire pour devenir quelqu'un dans le sport, une espèce d'énergie pultionelle inhibiée dans son chemin naturel envers le prochain humain amassée comme réserve pour réjoindre des grands résultats dans l'agonisme.
Si on regarde à la présence d'une certaine rigidité /F.%/, A.%, certains G.+ % et F. + %/, de l'interprétation de figures renversées ou vues aux épaules, en plus des signes jugés caractéristiques par Bohm /type de résonance intime ambiéqual qui s'approche à la coartation, choc couleur même différé, modération générale dans les types ambitieux prédominance des réponses G. et en particulier G.$\pm$, présence de clob.F. et de Do., décroissement du F. + %, mauvaise interprétation d'anatomie, besoin de symétrie, donnés tous présentes chez nos protocoles/ on peut affirmer que la situation est dominée par les signes caractéristiques du caractère ossessif ou de la névrose ossessive et en particulier du caractère ritentif-anal.
A côté de ces donnés il y a aussi des liens avec l'oralité et en particulier la présence de nombreuses GCF, qui, selon Zulliger, se rapportent à un fort lien oral maternel. Une autre donnée intéressante est celle de l'élevé nombre de réponses vulgaires qui indiquent non seulement la banalité de la pensée, mais,comme a souligné Bohm même pour les syndicalistes, les hommes politiques, les fonctionnaires de haut degré, les journalistes, aussi l'aptitude à comprendre les intérêts et la façon de penser des gens et à s'en y identifier.
De cette façon l'athlète de haut niveau semble s'adapter à l'imagine du dive, de l'idole sportive, aux models culturals sportifs proposés par la société.
On doit faire attention encore au fait que la présence de nombreuses réponses qui interprètent le blanche intermaculaire, à côté de celles à caractère agressif telles que "sang" , "eclats", "feu", compléte les donnés de la personnalité de l'athlète de haut niveau, décernant, avec sa signification adversative-agressive, aux réponses couleur faibles dans la forme, et aux autres formes d'instabilité, soit de l'affectivité que du caractère en général, la stabilité négative de la nature combattive.
Il paraît donc que la présence des Dbl. soit nécessaire à canaliser les forces, qui peuvent désagréger la personnalité, en modalités socialement acceptées d'agressivité dont les compétitions de ski sont une expression.

CHAMPIONS DI ATLETI DELLE SQUADRE NAZIONALE DI SCI ALPINO

	Slalomeurs															Descendeurs					Fillen					Général	
	1	2	3	4	5	6	7	8	9	10	11	12	13	TOT	MOY	1	2	3	4	TOT	MOY	1	2	3	4	TOT	MOY	Total	Moyenne
S	44	12	22	9	9	16	16	13	11	20	19	12	16	189	14,5	11	11	20	13	72	18	6	14	13	13	46	11,5	307	14,6
G%	57	58	18	78	66	62	56	69	54	60	47	75	68	768	59	45	73	65	33	216	54	50	78	69	38	235	59	1219	58
G+%	63	71	75	71	83	70	100	55	100	83	55	25	90	941	72,5	80	37	54	100	271	68	100	73	55	60	288	72	1500	71,4
D%	43	42	68	22	34	38	44	23	46	45	53	25	25	506	39	55	27	30	63	175	44	50	22	31	54	157	39	838	39,8
D+%	-	-	14	-	-	-	-	8	-	5	-	-	7	34	2,6	-	-	5	3	8	2	-	-	-	8	8	2	50	2,4
F%	71	75	68	77	89	87	62	84	90	80	68	85	75	1011	77,7	75	64	70	76	285	71	83	61	61	92	297	74	1591	75,8
F+%	70	77	53	71	87	85	100	73	100	87	69	40	100	1012	77,7	100	71	78	91	340	85	100	75	75	75	325	81	1677	79,9
H%	21	-	14	-	22	-	25	7	31	25	-	8	19	172	13,2	27	9	25	16	77	19,2	17	7	7	23	54	13,5	307	14,8
Ho K	3	-	1	-	1	-	4	-	1	2	-	2	1	15	1,15	2	1	1	3	7	1,75	1	3	-	1	5	1,25	27	1,3
K III Tab.	x	-	x	-	x	-	x	-	x	x	-	x	x	8	0,7	x	-	x	x	3	0,75	x	x	-	-	2	0,5	13	0,6
FK m	1	-	3	1	-	-	-	-	-	-	1	-	-	6	0,46	-	-	-	1	1	0,25	-	-	2	-	2	0,5	9	0,48
Ho GROC	1	3	1	3	2	4	1	1	2	-	2	4	1	25	1,9	4	3	3	1	11	2,75	4	3	5	1	13	3,25	49	2,3
Refus	1	-	-	1	2	-	-	-	-	-	-	1	-	5	0,38	1	-	-	-	1	0,25	4	-	-	1	5	1,25	11	0,54
F/C/, FCLOB	-	1	1	-	-	-	1	-	-	1	-	-	1	5	0,38	1	-	-	2	3	0,75	-	1	1	-	2	0,50	10	0,48
/C/F, CLOB F	-	-	-	-	-	1	-	-	-	-	1	-	1	3	0,23	-	1	-	-	1	0,25	-	-	-	-	-	-	4	0,20
/C/, CLOB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0,25	-	-	-	-	-	-	1	0,05
FC	-	1	1	-	-	1	1	-	-	-	-	-	-	4	0,31	-	-	1	-	1	0,25	-	1	-	-	1	0,25	6	0,30
CF	-	-	1	-	-	-	-	2	-	1	2	-	1	7	0,54	1	1	4	1	7	1,75	-	-	2	-	2	0,50	16	0,80
C	-	1	-	1	-	-	-	-	1	-	2	-	-	5	0,38	-	-	-	-	0	-	-	1	-	-	1	0,25	6	0,30
Few, Sang	-	1	2	-	-	-	-	-	1	1	3	-	-	8	0,61	-	-	2	-	2	0,50	-	1	1	-	2	0,50	12	0,60
Cbl,Dbl, DDbl, DdDbl	-	1	-	1	-	-	-	3	-	2	1	-	2	10	0,75	-	-	1	3	4	1	1	-	1	-	2	0,50	16	0,80
Détérioration	-	-	2	-	-	-	1	-	2	1	1	-	-	7	0,54	-	-	-	1	1	0,50	-	1	-	1	2	0,50	10	0,50
Pt	36	33	32	33	55	44	44	25	54	30	21	25	44	474	36,5	73	36	25	33	167	42	50	28	23	38	139	35	780	37,1
Signes Insuretá Critique, Autocritique, R.Alternatif, Relief Sima., Relief Axe Central	2	1	1	1	-	-	2	2	-	1	1	5	2	18	1,4	5	6	4	7	22	5,5	4	2	4	3	13	3,25	53	2,5 17

КОНТРАСТНЫЙ МЕТОД СИЛОВОЙ ПОДГОТОВКИ

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Основная слабость теперешних методов, а отсюда и программ для силовой подготовки спортсменов, заключается в их построении на принципе, согласно которому определенному по силе раздражителю организм отвечает адекватной по силе реакцией. При работе с большими тяжестями скорость выполнения невелика. Созданная сила в своей скоростно-силовой характеристике не отвечает требованиям современного спорта, в котором ведуща высокая динамика, а не медленная, статическая сила, которая развивается применяемыми теперь методами.

В поисках выхода мы направили наши усилия к контрастным явлениям, которые оказались очень полезными для спортивной тренировки. Большие возможности контраста содержатся в резкой смене дразнителя психологического и физиологического, в смене сильных и слабых раздражителей, какими являются большие и маленькие тяжести. Вот как выглядит созданный нами контрастный метод силовой подготовки. Основной тренировочный фон взят из повторно-динамического метода. Этот фон создается путем 5 х 6 штангой весом в 60 - 80 % максимального. Эти тяжести приводят организм в готовность, готовят его к работе высокой мощности; создается установка, соответствующая действующему раздражителю. В этот момент действуем контрастным раздражителем. Он представляет собой тяжесть, равную 30 - 40 % максимального, т.е. половине основного установочного раздражителя. Таким образом сознательно нарушается общепринятый принцип равновесия и адекватности в силе, частоте и координации афферентных и эфферентных сигналов. Слабый внешний раздражитель вызывает положительную индукцию и сильную ответную реакцию.

Этот метод показал более высокую эффективность чем известные и широко применяемые максимальный и повторно-динамический. Согласно экспериментальной проверке с участием 147 юношей, работавшие контрастным методом показывают большее увеличивание

абсолютной силы (движения классического многоборья с штангой) и взрывной силы (ядро вперед и назад и пятикратный прыжок с места), по сравнению с работавшими другими методами. Разницы велики и статистически значимы.
Но для нас, в случае, более важное другое. Применение контрастного метода силовой подготовки приводит к ярко выраженному мобилизационному состоянию. Оно напоминает описанную В.Кеннон реакцию "тревоги","бегства" и общий адаптационный синдром (по Г.Селье). Вегетативные показатели (например частота пульса) свидетельствуют о выраженном симпатиковом тонусе - после контрастного раздражителя наблюдается резкое повышение частоты пульса. Ответим, что повышение более чувствительно у спортсменов подвижного типа нервной системы, чем, между прочим, делает контрастный метод интересным способом диагностицирования типологических особенностей спортсменов.
Несмотря на то, что нет биохимических исследований катехоламинной и кортикостероидной экскреций, физическая эффективность и поведенческие реакции подсказывают и о наличии присущей стрессу эндокринологической картины. Налицо признаки стрессового синдрома с очень сильным положительным тренировочным эффектом.
При вхождении спортсменов в спортивную форму амплитуда вегетативных изменений нарастает. По нашим наблюдениям в этот период разница в частотах пульса, вызванная последовательным действием установочного и контрастного раздражителей, самая высокая (контрастный раздражитель вызывает повышения пульса на 40 - 60 уд./мин. по сравнению с установочным)- Подобные данные приводит и проф.Е.М.Лутковский - во время соревновательного броска пульс метателей, находящихся в спортивной форме, достигает 180 уд./мин. Это подтверждает вывод, что одна из обязательных характеристик высокой спортивной формы и даже ее элемент - это умение вызывать (сознательно или несознательно) стресс, мобилизирующий собственные силы и возможности спортсмена.
Психофизиологические реакции, вызванные контрастными раздражителями, дают нам основание сделать вывод, что принцип адекватности между раздражителем и реакцией не является абсолютно общевалидным. При определенной организации тренировочных раздражителей (при использовании феномена контраст) можно достигнуть психофизиологическую реакцию, которая значительно сильнее раздражителя.
Взаимодействие между организмом и средой (внешними раздражителями) в тренировочном процессе протекает не просто на физиологическом, а на психофизиологическом уровне. Именно этот психологический компонент (установка --- контраст) позволяет чтобы реакция организма была бы сильней внешнего стимула.

УСТАНОВКА, КОНТРАСТ, СТРЕСС

БАХЧЕВАНОВ, Д.С., ВАСИЛЕВ, В.К., Пловдив, Болгария

За последние несколько лет проблема о стрессе в спорте все больше привлекает интерес спортивных ученых и становится модерной темой в спортивной науке. Множество публикаций, однако, имеет реферативно-популярный характер - в них пересказывается теория Г.Селье, а оценки роли стресса в спорте уклончивы (указывается, что стресс обладает не только полезными, но и вредными последствиями). Нам кажется, что, как часто бывает, тренера опять перегнали ученых в оценке и практическом применении стресса в спортивной тренировке. Поскольку нам известно, впервые в болгарском спорте тренер по художественной гимнастике Жулиетта Шишманова применила подход и методы, создающие эмоциогенно-стрессовые ситуации в тренировочном процессе. Одним из основных принципов в тренировочной системе Ивана Абаджиева (тренер болгарских штангистов) является периодическое и регулярное применение нагрузки, превышающей

адаптационные возможности организма и таким образом спровоцируется стрессовая реакция.

В данном случае мы употребляем понятие стресс в самом ортодоксальном его значении - общий адаптационный синдром (ОАС). Когда нагрузка не может быть отражена (усвоена) специализированными адаптационными реакциями, организм реагирует общим синдромом, в который включается ряд вегетативных и эндокринных изменений (характерная стрессовая вегетологичная картина и усиленная катехоламинная и кортикостероидная экскреция). Регулярное, целенаправленное и хорошо обдуманное применение тренировочных воздействий - стрессоров, регулярно вызывая мобилизационной ситуации, очевидно, приводит к значительному повышению функциональных возможностей спортсмена. А это является огромным резервом для современной тренировки.

По имеющимся данным американские тренера по плаванию строят свою тренировочную деятельность именно на этом принципе (Дж.Каунсилмэн, Скот Мартин, Питэр Дэлан, Дон Гейбл, Д.Йохумс). Мы имеем в виду, конечно, не факт, что в американской литературе тренировочные нагрузки обозначаются как "стресс", а имеем ввиду именно организацию их тренировочных программ.

На этот способ применения стресса в спорте - путем исключительно тяжелых по своему объему и интенсивности нагрузок, которые выводят организм спосртсмена из равновесия - кроме достойствами обладает и рядом недостатков. Прежде всего таким недостатком является "сверхстресс" и связанные с ним острые проблемы восстановления. Очевидно, необходимо искать и другие способы мобилизирования резервов организма стрессовым механизмом. Такая перспективная возможность содержится в созданной одним из авторов настоящего доклада (Д.Вахчеванов) контрастной методике силовой подготовки. При применении этой методики в работе с атлетами-метателями мы заметили очень интересную динамику частоты пульса после контрастного раздражения, которую невозможно объяснить с позиций традиционной физиологии.

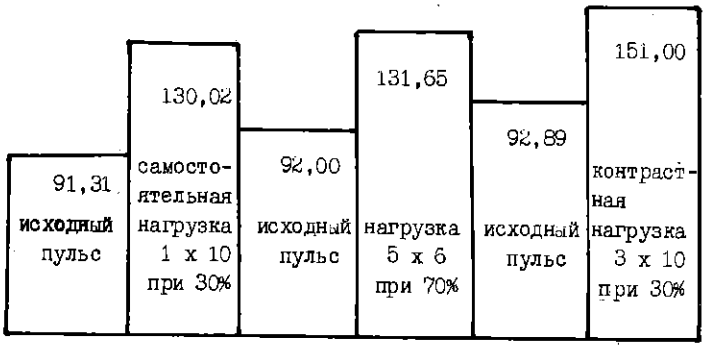


Рис.1. Диаграмма динамики пульса после применения контрастного раздражителя.

На диаграмме, которую прилагаем, замечается резкое повышение пульса после контрастного раздражителя. Отметим, что повышение более чувствительно у спортсменов подвижного типа нервной системы чем у более флегматичных, что,между прочим, делает контрастную методику интересным способом диагностицирования типологических особенностей спортсмена. Однако, для нас более важно, что это повышение не адекватно приложенной тренировочной нагрузке. В случае частота пульса как индикатор вегетологической картины свидетельствует о сильно выраженном симпатиковом тонусе (вывод по аналогии с ортостатической и клиностатической пробами).

Несмотря на то, что нет биохимических исследований катехоламинной и кортикостерои-

дной экскреций, физическая эффективность и поведенческие реакции подсказывают и о наличии присущей стрессу эндокринологической картины. Налицо признаки стрессового синдрома с очень сильным положительным тренировочным эффектом.

Каков механизм возникновения стресса в этом случае?

Применение основного раздражителя (штанга весом в 60% максимального) "приводит нейроны в готовность" к совершению работы определенной мощности, т.е. создается определенная установка (по Ежалава И.Т., 1971)- Эта установка атакуется контрастным раздражителем, равным 50% основного, установочного. В результате организм выводится из равновесия (как при нарушении гомеостазиса), возникает описанная В.Кенноном реакция "тревоги", "бегства", с характерным для нее выбросом адреналина. Т.е. организм отвечает контрастному раздражителю стрессовой реакцией, общим адаптационным синдромом. Мобилизируются все приспособительные ресурсы, а это приводит к огромному эффекту тренировочной деятельности, что и является нашей целью. Большое достоинство контрастного метода в этом отношении состоит в том, что вызванный стресс характеризуется небольшой "амплитудой" (не выходит за стадию резистентности по терминологии Селье) и экзальтационные фазы (по Др.Матееву) следуют с большой фреквентностью. Создается оптимальный тренировочный режим, позволяющий ассимиляцию больших объемов и поддерживание высокой, "стрессовой" интенсивности без нежелательных последствий "сверхстресса".

При вхождении спортсменов в спортивную форму амплитуда вегетативных изменений нарастает. По нашим наблюдениям в этот период разница в частотах пульса, вызванная последовательным действием установочного и контрастного раздражителей, самая высокая (контрастный раздражитель вызывает повышения пульса на 40-50 уд./мин. по сравнению с установочным). Подобные данные приводит и проф.Е.М.Лутковский - во время состязательного броска пульс метателей, находящихся в спортивной форме, достигает 180 уд./мин. У нас есть и другие основания заключить, что одна из обязательных характеристик высокой спортивной формы и даже ее элемент - это умение вызывать (сознательно или несознательно) стресс, мобилизирующий собственные силы и возможности спортсмена.

Указанный нами механизм вызывания стресса - установка → контраст → стресс может найти и находит специфическое применение и в остальных видах спорта. Описывая свою тренировочную программу известный американский тренер по плаванию Ск.Мартин указывает на типичную стрессовую тренировку. В этой тренировке самая важная часть - это три отрезка в 1000 ярдах на время, за каждым из которых следует серия из 100 ярдовых отрезков в режиме 1 : 30 мин. "Когда во время напряженного плавания в 1000 ярдах ум и мышцы настроились, последние серии из 10х100 ярдов создают стрессовую ситуацию. Это должно привести пловца в последнюю, по Каунсилмэновой терминологии, стадию - "агонию""- пишет Ск.Мартин.

В атлетике этот механизм напоминают рекомендации известного тренера на средних и длинных дистанциях, д-ра Ван Аакен - после оптимального длинного отрезка (4 + 8000 м темпового бега) бегуна "атакуют" серией коротких (6-8 х 200 м примерно) отрезков. Очевидно, что такое построение тренировки приведет к достижению более высокого "стрессового" эффекта, чем традиционная интервальная тренировка, сущность которой как раз "антистрессовая" специализированная адаптация к стереотипному режиму работы.

Конечно, возможны многочисленные варианты, специфичные для разных видов спорта, которые описывающиеся на исследования ученых тренерская изобретательность может создать. Мы попытаемся сформулировать (в порядке гипотезы) более общий принцип спровоцирования стресса, построенный на механизме "установка → контраст → стресс". Сущность этого принципа - резкая смена тренировочных средств, каждое из которых связано со специфическим способом (механизмом) адаптации. Такая резкая смена засте-

вляет организм отвечать общим адаптационным синдромом на воздействия, для отражения которых специализированные адаптационные механизмы недостаточны.
Нашу гипотезу подтверждают данные, приводимые известным советским спортсменом и тренером по метанию молота А.П.Бондарчуком (1977). Он экспериментальным путем установил, что только смена применяемых средств и методов тренировки обеспечивает сохранение имеющегося уровня спортивной формы (после ее вхождения в состояние пика).
Все остальные варианты тренировочных воздействий (с варированием объема и интенсивности) приводят к снижению спортивных результатов. Кроме того Бондарчук отмечает, что применение новых средств и методов тренировки в дальнейшем снова ведет к снижению спортивных результатов, и, чтобы избежать этого, необходимо снова менять их. По нашему, это указывает на то, что каждое новое и достаточно сильное внешнее (в случае тренировочное) воздействие, которое первоначально вызывает стрессовый синдром в последствии начинает отражаться организмом специализированными адаптационными механизмами, т.е. оно уже не действует как стрессор. Это приводит к необходимости, чтобы создать мобилизационную стрессовую ситуацию, снова применить новый и непривычный раздражитель-стрессор.
Огромные возможности стресса в спорте очевидны. Некоторые тренера ими уже пользуются - пока только стихийно. Пора ученым, и в частности, психологам включиться активнее в изучение и разрабатывание путей использования этих возможностей.

BRACED-V: A PHILOSOPHY OF TRAINING AND PERFORMANCE

BARTHOL P.R., Los Angeles, USA

In recent years, the Oriental martial arts have become very popular in the United States. For many, the imagination has been captured by the skill, quickness, grace, discipline and effectiveness of the various forms of these arts - which seem quite different and yet also seem to have much in common with each other. Karate looks like boxing and jujitsu like wrestling, but clearly karate and jujitsu have much more in common with each other than they do with their look-alike sports. The values, mores, languages, and philosophies of the Orient shaped the martial arts, while those of the West shaped its sports and games, and the results are quite different.

Today I will describe a way of applying the wisdom of the East to the athletics of the West.

American football, unlike soccer, which is a fluid game of constant motion, is a recurring series of plays, each play always starting with the teams lined up about half a meter apart, with the offensive team controlling the ball, the movement of which is the signal that play has begun. Usually one player, the quarterback, calls a set of code words to define the tactics to his team, followed immediately by a varying series of numbers, grunts or shouts and, at the prearranged signal, the offensive team starts into action.

One would assume that the team which knows the signal to start would have an advantage, would move sooner. One day I was watching a football game on television and was struck by the impression that the two opposing lines moved at the same moment. The play occurred midway between the two lines, not closer to the defensive line, which one would expect if the offensive line moved earlier. Careful study of films, frame by frame, showed that the ball moved, then the players on

both teams started moving anywhere from one to five tenths of a second afterward. Five tenths of a second is a long time.

After much study, many viewings of film, and endless conversations with coaches, players and kinesiologists, I decided that the offensive players heard the starting signal not as "Move!", but rather "The prohibition of movement is ended. Now move." In the meantime, the opposing team could see the ball moving, so they, too, could move. The penalty for premature movement can be severe, so American football players really learn "Don't move" first, so some time elapses between the instant of the signal and movement, occupied by the recognition that movement is now authorized.

I compared these observations with what I had seen in Karate demonstrations. It appears that when one person starts an offensive movement, his opponent simultaneously starts the block. It is not really simultaneous, but the difference is in milliseconds, not tenths of a second. I wanted to find out why Karate practitioners moved immediately while our football players did not. So I talked with a former student of mine, Dr. Bernd Weiss, a Black Belt, and his teacher, Dr.George Takahashi, an internationally known scholar and 4th level Black Belt. They explained to me how important it was that the practitioner be at peace with himself, with the mind, body and spirit open to what was happening. Then, when the opponent moved, the body knew what to do, and then did it. Any attempt at conscious control would be fatal.

This led to a year and a half long seminar with a group of interested students, some of whom would be considered superior athletes. We were not studying the material arts: we were studying how to train effectively to learn a physical skill, and how to achieve superior performance in athletics. We made many discoveries, including inventing the wheel three times, and learned that each thing we worked out was already explicit or implicit in the martial arts. We developed an acronym, BRACED-V, which codifies the philosophy. It stands for Breathing, Relaxation, Awareness, Centeredness, Existentiality, Defocussing - Visualization.

Some of you might be saying, "Of course. What else is there?" Others might be muttering, "What is that crazy man talking about?" The words carry these meanings. Breathing has long been recognized as important in some sports such as swimming and weight-lifting, but otherwise it has been ignored in the West, as contrasted with the Orient where it is central to the philosophies and to the martial arts. The athlete must not only learn to breathe properly, he must learn to use the breath to obtain a state of relaxation, and to assist in his performance. A simple example is the explosive breath used by shot-putters and in the Karate punch.

Relaxation is a process that must be learned by most of us. The athlete must learn how to relax those parts of his body that are not required to be in action. The appearance of grace in an athlete or a dancer arises because only those muscles that are required by the movement are under tension. The conscious process of relaxation is probably the best way of overcoming too much tension or anxiety. The conserving of energy through relaxation may be critical in events that require the expenditure of energy over long periods of time.

Awareness also has multiple meanings. On learning a skill it refers to the ability to be aware of what the body is doing. In performing it also refers

to being aware of the significant events in the environment and of the gestalt. It also implies the ability to be aware of the smallest relevant cues about what is happening. Note that this is not thinking about what is happening, only that one has observed what is happening and that the observation has entered the nervous system: that you are aware.

Centeredness has at least three meanings. It refers to balence, to the integrity of the body, to the readiness to be able to move. It also means that the energy is centered. I have come to accept the Oriental belief that our energy should be centered at a point slightly below the navel. Mike Tulley, who just won the World Games pole vault at 18'4½", believes that this centering is an important part of his continuing improvement. The third meaning may be even more difficult to grasp or accept. I do it on faith. It is the recognition that you are at the center of the universe. This may sound a little mystical, but it helps. At a minimum it places the responsibility for whatever happens on you.

Existentiality is the simplest concept - and the most difficult for most of us to follow. It says that what is happening here and now is all there is. It says that what happened ten minutes or ten years ago is gone - and what will happen in the future is in the future. This is particularly helpful to those athletes who choke at match point or who miss the ball because they are already thinking about what they will do with it.

Defocussing is the only really original concept, although it is implicit in the martial arts. The easiest way to know what defocussing is, is to look straight ahead, put your hands just within your peripheral vision, about 20 cm. from the sides of your head, and wiggle your fingers. When you are aware of all three things, what is ahead and your two sets of wiggling fingers, you are defocussed. This is the state to be in if you must be prepared to respond instantly to an event whose time or direction is unknown. The athlete does not remain in this state the entire time. In soccer, for example if you are about to "head" the fall, you should be defocussed and aware of the ball, the goal, the goalie, and the other players. As the ball is arriving, the focus should shift so there is only you and the ball. You must trust your body to remember where all those other variables are.

The last concept, Visualization, is western. One of the best researched areas in Sport Psychology is that of mental imagery. Many experimenters have demonstrated that visualizing the skilled performance of an act will improve the actual performance. A theory that I subscribe to says that visualizing causes the subliminal firing of neurons that lay down a trace to be followed when the act is performed. Some acts are so complex or so swift that only by visualizing can you rehearse the details of what you are doing. In some sports, like American football, the action is so violent that some acts cannot be rehearsed very often in actuality because of the danger or pain. Visualizing is pain-free and safe.

The students who helped develop BRACED-V also report that it is useful in areas of life other than athletics. One giant of a football player discovered that final examinations lost their, to him, terrifying features when he practiced BRACED-V.

I remind you that this does not replace training, exercise, practice, and hard work. If you work hard, BRACED-V may mean that you achieve more. And at less personal cost.

SOZIALSTRUKTURELLE BEDINGUNGEN DER WAHRNEHMUNG SOZIALER MOBILITÄT IM BEREICH DES LEISTUNGSSPORTS

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In entwickelten Industriegesellschaften ist das Berufssystem ein wesentlicher Faktor, der die Verteilung sozialer Ressourcen, wie z.B. Macht, Ansehen oder Besitz materieller Gegenstände bestimmt. Die einzelnen Berufspositionen in dem hierarchisch angeordneten System sind durch unterschiedlich hohe Mittelausstattung voneinander abgegrenzt. Dadurch erhalten die jeweiligen Positionsinhaber auch unterschiedlichen Zugang zu den begehrten Gütern. Da statusrelevante Kriterien, wie Macht, Anweisungsbefugnis, Autonomie und Einkommen in erheblichem Maße das soziale Ansehen einer Person im öffentlichen Bewußtsein konstituieren, erfahren Individuen gleichsam über ihre soziale Lage bzw. ihren Beruf eine soziale Verortung (MÜLLER 1975,18).

Konsequenterweise wird damit die Erlangung statuserhöhender Positionen und der Wechsel zu höher bewerteten Berufsstellungen zu erstrebenswerten gesellschaftlichen Zielen.

Um eine sozialgerechte Regelung des Zugangs zu den ungleich ausgestatteten Positionen des Berufssystems zu gewährleisten, sollen die schulischen Ausbildungssysteme dabei wesentliche Verteilungs- und Zuweisungsfunktionen übernehmen. Die Ergebnisse einer Reihe empirischer Analysen sprechen jedoch dafür, daß die mobilitätsfördernden Effekte, die man sich von ihnen erhofft, nicht allzu hoch anzusetzen sind (u.a.MÜLLER 1972; 1975). Mobilitätsrelevante Ausbildungsgänge werden nämlich in überwiegendem Maße von Angehörigen höherer Schichten genutzt, so daß ein Teil der bereits bestehenden Chancenungleichheit durch die Schulsysteme perpetuiert wird. Personen der unteren Soziallagen werden mit der Erfahrung konfrontiert, daß ein wesentlicher Aufstiegskanal aufgrund ihrer Schichtzugehörigkeit nicht von ihnen genutzt werden kann.

Die strukturellen Bedingungen der eigenen Lage sowie die durch sie vermittelten Alltagserfahrungen bestimmen sowohl die Daseinsperspektiven von Statusgruppen, als auch deren Interpretationen der sie umgebenden sozialen Verhältnisse. Das schichtspezifische Auseinanderklaffen von Mobilitätszielen und den geringen Mitteln ihrer Realisierung führt bei Mitgliedern der Unterschicht zur frühzeitigen Erfahrung begrenzter Mobilitätschancen und zu relativ pessimistischen Haltungen gegenüber dem Wert formaler Bildung (HYMAN 1966). Gestützt werden diese theoretischen Erörterungen durch die Analyse von Gesellschaftsbildern (MAYER 1975; SANDBERGER 1977). Ebenso läßt sich in diesen Kontext die HYMANsche Untersuchung von Wertsystemen unterschiedlicher Schichten einordnen. Als ein Fazit dieser Arbeit äußert HYMAN die Vermutung, daß Personen, die durch ihre soziale Herkunft in den übrigen Berufsbereichen benachteiligt sind, sich Ersatzkanäle für den sozialen Aufstieg suchen, deren Durchlässigkeit nicht weitgehend durch die soziale Lage der Akteure bestimmt wird. Solche Aufstiegswege bestehen seiner Meinung nach in Teilbereichen der populären Kultur, wie z.B. im Showgeschäft oder im Leistungssport (HYMAN 1966, 497).

Für unsere weiteren Betrachtungen ist es jedoch uninteressant, ob der Leistungssport von Angehörigen unterer Schichten tatsächlich in vollem Maße als Mobilitätskanal genutzt wird. Vielmehr soll hier untersucht werden, ob und in welchem Umfang der Sport überhaupt als eine Perspektive für sozialen Aufstieg wahrgenommen wird. Denn ehe sportliche Ergebnisse in soziale Mobilität transformiert werden können, ist es notwendig, daß sportliche Erfolgssituationen als

ein möglicher Ausgangspunkt für sozialen Aufstieg perzipiert und entsprechend interpretiert werden. Da diese Wahrnehmungen im Sinne von Gesellschaftsbildern aufgefaßt werden können, erwarten wir, daß auch die Interpretation des Leistungssportes von der jeweils gegebenen sozialen Lage, in der sich der Akteur befindet, abhängt. Sportler höherer Herkunftslage nehmen Aspekte, über den Leistungssport mobil zu werden, weniger wahr, da sie aufgrund ihrer sozialen Chancen eher in der Lage sind, den üblichen Aufstiegskanal Schule bzw. Universität zu nutzen. Für Sportler unterer Herkunftslage, die die Grenzen ihrer Möglichkeiten, über die Ausbildungswege eine relativ günstige Plazierung im Sozialgefüge zu erlangen, relativ früh erfahren, rückt der Leistungssport als Ersatzkanal in den Bereich ihrer sozialen Wahrnehmung. Sie interpretieren ihn als Vehikel, entgangene Aufstiegchancen zu korrigieren.[1)]

Im gleichen Zusammenhang stellt sich die Frage, ob die soziale Lage Deutungsmuster unmittelbar beeinflußt oder ob ihre Wirkung nicht erst auf dem Umweg über die Entwicklung einer allgemeinen Mobilitätsorientierung zum Tragen kommt. Wäre dies der Fall, so würden Akteure unterschiedlicher Schichten zunächst ein gewisses Aufstiegspotential entwickeln, das anschließend in spezifischen Bereichen, wie dem des Sports, realisiert wird.

Zum Ablauf der Untersuchung

Datenerhebung

1. Die Variable 'Interpretation des Leistungssports' ist Teil eines Faktorengefüges von 6 Faktoren, das auf der Basis eines semantischen Differentials ermittelt wurde. Die uns interessierende Dimension wird durch die Items 'sozialen Aufstieg ermöglichend' (.88), 'sozialen Status anhebend' (.87) und 'öffentliche Anerkennung ermöglichend'(.74) inhaltlich bestimmt. Ihre Reliabilität - errechnet über CRONBACH - beträgt .90. Innerhalb der vorliegenden Untersuchung wurden die Ausprägungen der 3 Items zu einem Wert zusammengefaßt.
2. Als Indikatoren für den Sozialstatus der Probanden fungieren Schulbildung und Beruf des Vaters.
3. Die Frage: 'Streben Sie eine bessere soziale Stellung als die Ihrer Eltern an?', dient als Operationalisierung der Mobilitätserwartung.

Stichprobe

Die Personenstichprobe bestand aus 183 Leistungssportlern, die dem erweiterten Olympiakader von 1972 angehörten.

Datenverarbeitung

1. Da die Erhebungssituation keine experimentelle Manipulation der unabhängigen Variablen erlaubte, wird als quasi-experimentelles Ersatzverfahren eine rekursive Pfadanalyse angewendet.
2. Hinsichtlich des Meßniveaus gelten die Anforderungen der linearen Regressionsanalyse. Für die vorliegenden Daten bedeutet dies:
   2.1. Die Höhe der hier ermittelten Koeffizienten basiert ausschließlich auf dem linearen Informationsgehalt der Daten. Nicht-lineare Zusammenhänge bleiben unberücksichtigt.
   2.2. Die Operationsanalysierung der theoretischen Begriffe erfüllt mit Sicherheit nicht voll die Postulate einer Intervallskala. Eine Verletzung dieser Voraus-

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1) Diese Interpretation ist nicht identisch mit den Kompensationstheorien von PLESSNER. Während es sich hier ausschließlich um kognitiv/affektive Variablen handelt, bezieht sich das Theorem von PLESSNER auf manifestes Verhalten.

setzungen wird jedoch von Theoretikern der Pfadanalyse nicht als besonders gravierend angesehen, sofern die Daten zumindest ordinales Niveau aufweisen (u.a. BOYLE 1970; WEEDE 1972, 109). Diese Voraussetzung wird von unseren Daten erfüllt.

Zu den Ergebnissen und deren Diskussion

Wenn bei der folgenden Interpretation der empirisch ermittelten Koeffizienten der Datentrend etwas strapaziert wird, so läßt sich dieses Vorgehen zweifach rechtfertigen. Da das von uns verwendete statistische Programm ausschließlich lineare Information verarbeitet, ist mit einiger Sicherheit anzunehmen, daß die im Diagramm dargestellten Koeffizienten lediglich eine untere Schätzung der wirklichen Beziehungen sind, die bei Verarbeitung nicht-linearer Zusammenhänge durch höhere Koeffizienten repräsentiert würden.

Der zweite Grund ist der Zustand der Forschungssituation. Bedingt durch das geringe Informationsangebot sportwissenschaftlicher Literatur und die fehlende empirische Forschung zu dem diskutierten Problemgegenstand kennzeichnen eine explorative Phase, in der etwas weniger strenge Interpretationsmaßstäbe anzulegen sind, als in einer späteren Forschungssituation.

Abb.1 zeigt zum einen das Pfaddiagramm, das auf den oben ausgeführten Überlegungen basiert, zum anderen die ermittelten standardisierten partiellen Regressionskoeffizienten.

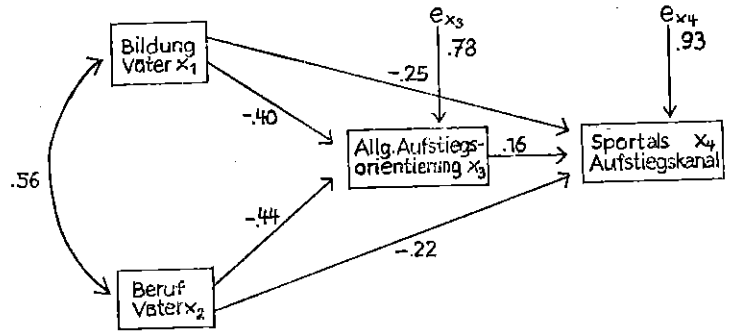


Abb. 1

Die der Pfadanalyse zugrundeliegenden Korrelationen lassen sich der Tab.1 entnehmen.

Tab.1: Matrix der Korrelationen zwischen den im Modell verwendeten Variablen

	1	2	3	4
Schulabschluß Vater	x			
Beruf/Vater	.56	x		
Allg. Aufstiegs-orientierung	-.40	-.43	x	
Leistungssport als Mobilitäts-kanal	-.24	-.21	.17	x

Betrachten wir zunächst die beiden Pfade, die durch die relativ hohen Koeffizienten von -.44 und -.40 ausgewiesen sind. Sie bedeuten, daß mit steigender Statusgruppe die Mobilitätserwartungen von Leistungssportlern sinken und mit sinkender Statusgruppe steigen. Diese negative Beziehung dürfte durch einen natürlichen 'ceiling bzw. floor-Effekt' zustande kommen, der sich in der Einschätzung der eigenen Mobilitätserwartung niederschlägt. Probanden, deren soziale Herkunft relativ hoch anzusetzen ist, können bei der Frage, ob sie eine bessere soziale Stellung als ihre Eltern anstreben, kaum ihre Orientierung noch weiter nach oben schieben. Sie haben gewissermaßen die Decke des Mobilitätsraumes erreicht.

Der direkte Pfad, der von der Mobilitätsorientierung zur Sportinterpretation führt, wird nur durch einen sehr geringen Koeffizienten beschrieben. Dies ist bereits eine partielle Widerlegung unserer zweiten Erwartung, wonach der Grad der Interpretation des Leistungssports durch die eigene Aufstiegsorientierung bestimmt wird. Es ist möglich, daß Personen mit hoher Mobilitätserwartung ihren Einsatz in andere Kanäle investieren und den Sport eher als einen Bereich der Erholung, Entspannung oder der Geselligkeit interpretieren.[2] Da auch ein indirekter Effekt der Soziallage über die Mobilitätsorientierung auf die Sportinterpretation - wie Tab.2 ausweist - praktisch nicht wirksam wird, bestehen in dem Modell ausschließlich direkte Einflüsse. Damit kann die beschriebene Erwartung eines indirekten Pfades nicht erfüllt werden.

Tab.2: Direkte und indirekte Effekte der beiden exogenen Variablen auf die Wahrnehmung

	direkt	indirekt	total
Schulbildung Vater	-.25	-.06	-.31
Beruf Vater	-.22	-.07	-.29

Die Koeffizienten der beiden direkten Pfade zwischen Soziallage und Sportinterpretation entsprechen in ihrer Richtung den geäußerten Erwartungen. Ein Interpretationsansatz für diesen Einfluß ist bereits bei der Formulierung der ersten Hypothese gegeben worden. Offensichtlich führen unterschiedliche Bedingungen der Sozialstruktur dazu, daß sich unterschiedliche Deutungsmuster der sozialen Umwelt entwickeln können.

Unserer Meinung nach gibt es zwei weitere eng verbundene Gründe, die die Wahrnehmung jener sozialen Statusgruppe, die den Leistungssport als Aufstiegskanal deuten, begünstigen. Gleichzeitig führen beide Gründe zu einer Wahrnehmungsverstärkung und damit zu einer Aufrechterhaltung der Interpretation.

Durch die relativ regelmäßige Verbreitung von Aufstiegsbiographien bekannter Sportstars durch die Massenmedien wird die Interpretation verstärkt, der Leistungssport sei eine Straße für aufwärts mobile Sportler. Wenn man allerdings die Anzahl dieser Karrieren auf den Umfang der Herkunftspopulation der Leistungssportler relativiert, so sind die Müllers, Schmelings und Beckenbauers eher geeig-

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2) Eine Überprüfung dieser Vermutung anhand des Modelles wird zur Zeit vorbereitet.

net, dem Bereich der sozialen Mythen zugerechnet zu werden, als daß sie sportspezifische Regelmäßigkeiten im Durchbrechen sozialer Barrieren indizieren.
Daß es zu dieser Überbewertung kommt, liegt zum Teil an dem typischen Charakter der Wahrnehmung von Mobilitätsprozessen (vgl. auch zum folgenden MÜLLER 1975, 60 ff.). Bei der Interpretation sozialen Aufstiegs wie er hier diskutiert wurde, wird meistens gefragt 'Aus welcher Schicht kommen jene Leistungssportler, die ihre soziale Lage verbessert haben?' nicht aber 'Was wird aus den Sportlern, die in den Leistungssport eintreten?' Wenn man sich - aufgefordert durch die erste Frage - umsieht, dann stellt man fest, daß Aufsteiger über den Sport häufig aus der unteren Schicht stammen. Dies hinterläßt den Eindruck, der Leistungssport sei ein relativ offener Kanal für sozialen Aufstieg. Würde man indessen im Sinne der zweiten Frage jene Sportlerquoten analysieren, die über den Leistungssport in höhere Soziallagen abströmen, so fiele der durch die naive Zustromanalyse hervorgerufene Eindruck wesentlich ungünstiger aus.

Zum Abschluß soll eine allgemeine Abschätzung des Modells vorgenommen werden. Die Höhe der unaufgeklärten Varianz von 78% und 93% wirft die Frage auf, ob wichtige, für die Erklärung sozialer Deutungsmuster notwendige Variablen in dem Modell noch nicht repräsentiert sind, oder ob die geringe Varianzaufklärung ein Indikator für die Überschätzung des Einflusses von sozialstrukturellen Bedingungen auf Interpretationen des sozialen Umfeldes ist. Die Bejahung der zweiten Frage käme der Preisgabe des Erklärungsansatzes gleich, was uns beim gegenwärtig wenig differenzierten Entwicklungsstand der Methoden etwas verfrüht erscheint. Die relativ geringen Koeffizientenhöhen verweisen eher darauf, daß mit der Variablen 'Schicht' eine Ebene gemessen wurde, die nur 'grobein sehr komplexes Bedingungsgefüge erfaßt, das den objektiven Strukturkontext für mikro-soziale Prozesse bildet' (OEVERMANN et al. 1976, 169).

Bejaht man die erste Frage, so folgt, daß auf theoretischer Ebene weitere solcher Variablen in das Modell integriert werden müssen, die geeignet sind, die Höhe der ungeklärten Varianz zu reduzieren.

L I T E R A T U R :

BENDIX,R.; LIPSET,S.M.(Eds.): Class, status and power, New York 1966

BOYLE,R.P.: Path analysis and ordinal data, in: American Journal of Sociology (1970)

HYMAN,H.H.: The value systems of different classes, in: Bendix,R.; Lipset, S.M. (Eds.) Class . . . S.488-499

HOFFMANN-NOWOTNY,H.J.(Hrsg): Politisches Klima und Planung, Frankfurt/M 1977

LUCKMANN,T.; BERGER,P.; Social mobility and personal identity, in: Europäisches Archiv für Soziologie 5-2 (1964) 331-344

MAYER,K.U.: Ungleichheit und Mobilität im sozialen Bewußtsein. Untersuchungen zur Definition der Mobilitätssituation

MÜLLER,W.: Bildung und Mobilitätsprozeß - Eine Anwendung der Pfadanalyse, in: Zeitschrift für Soziologie 1 (1972) 65-84

MÜLLER,W.: Familie, Schule, Beruf. Analysen zur sozialen Mobilität und Statuszuweisung in der BRD, Opladen 1975

OEVERMANN,U. et al.: Zeitschrift für Soziologie 5 (1976) 167-199

OPP,K.-D.; SCHMIDT,P.: Einführung in die Mehrvariablenanalyse, Reinbek 1976

SANDBERGER,J.-U.: 'Gesellschaftsbilder' als subjektive Indikatoren im sozio-politischen Bereich, in: HOFFMANN-NOWOTNY,H.J.(Hrsg) Politisches . . . S.11-41

WEEDE,E.: Zur Pfadanalyse. Neuere Entwicklung. Verbesserungen, Ergänzungen, in: Kölner Zeitschrift für Soziologie und Sozialpsychologie 24 (1972) 101-118

ЭФФЕКТ ИДЕОМОТОРНОЙ НАСТРОЙКИ УКРЕПЛЕНИЯ ПСИХИЧЕСКОЙ УСТОЙЧИВОСТИ СПОРТСМЕНА

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Острота соревновательной борьбы в современном спорте требует не только высокого уровня физической, технической, тактической, но и психологической подготовки спортсмена. Практика показывает, что как бы не был спортсмен хорошо готов по первым трем каналам подготовки, ему, как правило, не удается показать высокого результата, если его психическое состояние не соответствует требованиям предстоящего соревнования. Многие спортсмены, готовые к борьбе, часто проигрывают потому, что их психическая сфера не была организована должным образом, не была создана оптимальная психическая готовность к соревнованию.

Экспериментальные условия соревнования нередко вызывают у спортсменов состояние напряженности и тревожности, которое оказывает негативное воздействие на процессы, памяти, внимания, понижает остроту тактического мышления, быстроту получения и переработки информации, уверенность в своих силах, уровень притязаний личности, затрудняет появление волевых усилий. Эмоциональный процесс влияет на поведение спортсмена, на целесообразность его действий, снижает работоспособность и спортивно-технический результат, ухудшает скорость и точность движений, нарушает чувство ритма и равновесия, изменяет границы длительности сосредоточения перед стартом, снижает активность.

Оптимизации состояния спортсменов перед соревнованиями (снятие чрезмерного волнения и организации оптимальной волевой настройки) посвящен ряд рекомендаций, основанных на приемах психотонической тренировки (З.Винтер), активизирующей терапии (К.Келлер и Р.Фростер), активной саморегуляции (А.Ромен), второй части психорегулирующей тренировки (Л.Гиссен, А.Алексеев), идеомогорной настройки (А.Белкин) и комплексах физических и дыхательных упражнений (В.Марищук, В.Горбец, Г.Беляев).

Главной задачей данного исследования явилось выявление эффективности разных программ идеомоторной настройки при контроле и коррекции высококвалифицированными спортсменами своего поведения в период непосредственной подготовки к соревновательной попытке. При этом изучалось влияние неудачно проведенной специальной разминки на результат выступления, находились наиболее эффективные программы идеомоторного произведения движений и лучшее их сочетание с разным количеством пробных попыток, а также исследовалась возможность подготовки спортсменов к выступлению в первые попытки после только идеомоторной настройки.

Для решения поставленных задач были использованы наблюдения, педагогический эксперимент, серия контрольных испытаний, внушение наяву, самовнушение, статистические методы.

Контрольными двигательными действиями были сложные гимнастические и легкоатлетические упражнения. В исследования приняло участие 235 спортсменов.

Анализ результатов первой серии педагогического эксперимента показал, что после неудачного исполнения испытуемыми упражнений в пробных попытках в период разминки ими были допущены грубые ошибки при выступлении в 20 % случаев, тогда как после удачно проведенной - только в 6 %. Так средний результат в баллах составил соответственно - 7,87 - 9,25.

Результаты второй серии эксперимента и данные кинотогорегистрации позволили составить алгоритмические предписания контрольных упражнений и выявить лучшие программы идеомоторного воспроизведения основных действий. Содержанием программ явился ряд основных двигательных моментов, составляющих результативную суть каждого движения.

Введение в план эксперимента приемов идеомоторной настройки с установкой на постоянное идеомоторное воспроизведение этих программ значительно улучшило результаты

спортсменов. Так, если в начале исследования количество неудачных попыток составило 25 %, то в конце - 10 %. На последнем этапе эксперимента все испытуемые одинаково успешно выполняли контрольные упражнения после использования ими равных вариантов сочетания идеомоторной настройки с пробными попытками перед выступлением. Сравнительный биомеханический анализ 100 кинограмм и контурограмм техники показал, что в 75 % случаев она изменилась незначительно, и в 11 % - даже улучшилась.

Результаты 63-х выступлений после одной только идеомоторной настройки в ряде крупных соревнований показали, что испытуемые спортсмены в большинстве случаев провели соревнования успешно. Различия между средними результатами выступлений после равных форм подготовки были несущественными ($P < 5\%$).

Таким образом, в период непосредственной подготовки к исполнению сложных упражнений неудачное их исполнение в разминке вызывает у спортсменов чувство чрезмерного волнения, повышенную тревожность и отрицательно влияет на продуктивность их деятельности - значительно улучшает результат выступления. В то же время систематическое использование в течение 10-18 занятий приемов идеомоторной настройки с установкой на воспроизведение экспериментально-обоснованных и опробированных программ способствует воспитанию у спертсменов умения владеть своими психическими состоянием, укреплять чувство уверенности в своих возможностях, готовить себя к выступлению с предельной эффективностью в любых экстремальных стрессовых ситуациях.

ALGUNAS CARACTERISTICAS DE LA CONCENTRACION DE LA ATENCION EN ATLETAS ESCOLARES DE LEVANTAMIENTO DE PESAS Y CLAVADOS

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1/ Introducción

La Atención es un fenómeno psicológico que se define como la dirección y concentración de la conciencia sobre un determinado objeto o acción.

Uno de los aspectos a través del cual se ha estudiado la concentración de la atención está referido al tiempo que la misma exige y que se ha denominado "tiempo de concentración de la atencion."

El establecimiento de las diferencias por sexo y por edad en el TCA y su relacion con las particularidades del Sistema Nervioso y con el lugar ocupado en las competencias fue objeto del estudio en clavadistas por investigadores como A.P.Kashin, L.N.Tichina y otros. A través de esas investigaciones concluyeron que el TCA en los clavadistas depende, aunque sea individualmente, del equilibrio del Sistema Nervioso y que al mismo tiempo está relacionado con las diferencias del sexo y edad, y con la complejidad de los saltos. Igualmente reportan que en los hombres el TCA aminoró a medida que se alejaron del primer lugar y en las mujeres, por el contrario, el TCA más corto fue característico para las tres premiadas. El más breve tiempo se observó en los infantiles en general y también en los varones juveniles con relacion a las hombras. Además encontraron que se produce un aumento del TCA en los saltos desde la plataforma en comparación con los saltos desde el trampolín.

El profesor Fillip Guenov, a partir de los resultados obtenidos en sus investigaciones con pesistas de alta calificación deportiva planteó que: "La duración de la concentración de la atención depende de la intensidad de la actividad motóra, o sea, se debe elevar con el aumento de la dificultad a vencer para lograr el éxito en la ejecución".

2/Todos los que se han dedicado a la investigación de las características de la concentración de la atención subrayan, que para cada deporte es indispensable un tiempo óptimo de concentración, que éste depende de características estrictamente individuales, así como cada atleta de alta calificación tiene determinada estabilidad en la duración de la concentración de la atención de un intento al otro. Por otro lado proponen el establecimiento de los límites óptimos de crecimiento del TCA individual como criterio objetivo en la valoración de la preparación y movilización del atleta.

II/ Objetivos

A partir de lo antes señalado nos interesó conocer algunas características del TCA en atletas escolares y juveniles de Lev. de Pesas y Clavados, con vistas a la evaluación de este parámetro para su desarrollo durante el trabajo de preparación psicológica con dichos atletas.
Nuestros objetivos fueron los siguientes:
1) Conocer la relación existente entre el TCA y el lugar ocupado en la competencia para ambos deportes por separado.
2) Establecer un análisis comparativo para conocer la incidencia de diferentes variables independientes en el TCA:
En Clavados:
a) Modalidad deportiva (trampolín y plataforma)
b) Calidad deportiva (premiados y no premiados)
c) Sexo
En Levantamiento de Pesas:
a) Modalidad deportiva (arranque y envión)
b) Categoría (escolares y juveniles)
c) Validez del levantamiento

III/ Metodología

La recogida de información fue efectuada durante la celebración de los Juegos Escolares de 1976, para el total de participantes (134 en cada deporte).
Fue confeccionada una planilla donde se recogieron los siguientes datos: Nombre, edad, sexo, categoría, modalidad, lugar ocupado en la competencia, cronometraje del tiempo dedicado a la concentración de la atención y otros datos específicos para cada deporte.
El TCA en los clavadistas fue cronometrado desde el momento en que el atleta adopta la posición individual hasta el comienzo del primer movimiento. Para los pesistas se tomó desde que se colocan delante de la palanqueta hasta el despeque de la misma.
Para satisfacer el objetivo de encontrar la relación existente entre el TCA y el lugar ocupado, se utilizó la Correlación por rangos de Spearman (r_s) controlando las variables: categoría, modalidad y sexo. Para conocer la incidencia de diferentes variables independientes en el TCA se utilizó la Prueba de diferencia entre medias comparando los tiempos y controlando las variables específicas a estudiar.

IV/ Resultados

En lo referente a la relación existente entre el TCA y el lugar ocupado en la competencia se obtuvieron los coeficientes de correlación (r_s) que aparecen a continuación:

TABLA 1

Coeficientes de correlación entre el TCA y el lugar ocupado en la competencia por los atletas de Clavados.

Categoría (en años)	MODALIDAD					
	Trampolín 1 m		Trampolín 3 m		Plataforma	
	r_s		r_s		r_s	
	Fem.	Masc.	Fem.	Masc.	Fem.	Masc.
9 - 10 años	-0,08	+0,14	-	-	-	-
11- 12 años	+0,56	+0,68	+0,26	-0,03	+0,77	+0,78
13- 14 años	+0,06	-0,45	+0,26	-0,17	+0,00	+0,30

n= 134 atletas

Nota:La categoría 9-10 años en trampolín de 1 metro solamente

No se incluyó la categoría 15-17 por haber pocos participantes.

4) Como se puede observar, para la categoría 11-12 años existe una tendencia a ocupar un mejor lugar cuando emplean mayor TCA para el trampolín de 1 m y la plataforma; siendo en ésta última mayor el TCA empleado.

TABLA 2

Coeficientes de correlación entre el TCA y el lugar ocupado en la competencia por los atletas de Levantamiento de Pesas.

División	CATEGORIA	
	r_s Escolar	Juvenil r_s
52 Kgs	+0,00	+0,40
56 Kgs	+0,53	+0,68
60 Kgs	-0,33	-0,50
67,5Kgs	+0,13	+0,40
75 Kgs	-0,15	-
82,5Kgs	-0,20	-
90 Kgs	+1,00	-0,31
+ 90 Kgs	+0,23	-
110 Kgs	-	-0,40
+ 110 Kgs	-	+0,30

n=134 atletas

Nota:Los datos correspondientes a las divisiones de 75 y 82,5 Kgs. no fueron tomados para la categoría juvenil.

Los atletas escolares no compiten en 110 y más de 110 Kgs.

En esta oportunidad las únicas correlaciones altas y positivas encontradas fueron para la división de los 56 Kgs, tanto en los Escolares como en los Juveniles y para la división de los 90 Kgs en los Escolares, en donde se obtuvo una correlación perfecta. La única alta y negativa se obtuvo para los 60 kgs en los Juv. Para cumplimentar el análisis comparativo que satisfacía el segundo objetivo de nuestra investigación, nos planteamos para cada caso, en ambos deportes, la siguiente hipótesis:

Hipótesis alterna (H_1): existen diferencias entre las medias del TCA con relación a la variable independiente estudiada.

5) Hipótesis de nulidad (H_o): no existen diferencias. (1).
De acuerdo con ésto obtuvimos los resultados siguientes:
En Clavados:
Para el caso de la incidencia de la modalidad se encontró una media general para el trampolín de 6.08 segundos, y para la plataforma de 8,19 segundos. Se obtuvo una $\underline{t}$ = 0,37 que no alcanza el nivel de significación establecido. No se encontraron valores de $\underline{t}$ significativos cuando comparamos la media del TCA en las hembras para ambas modalidades. Tampoco se encontraron diferencias significativas por categorías y dentro de éstas por sexo.
Con respecto a la incidencia de la calidad deportiva se obtuvo para los premiados una media general de 7,68 seg y para los restantes una media de 7,02 seg para un valor de t=0,97 que no alcanza el nivel de significación establecido. En relación con el sexo encontramos una media general para las hembras de 8,61 seg. y para los varones de 6,01 segundos, lo cual arrojó una t=3,77 significativa al 0,01%.
En Lev. de Pesas :
Ninguna de las pruebas de diferencia entre medias alcanzó el nivel de significación establecido, por lo tanto, las variables estudiadas no incidieron en las variaciones del TCA.

V/ Conclusiones

1) El hecho de que el salto se efectuara desde el trampolín o la plataforma, no influyó en la cantidad del TCA empleada.
2) El lugar alcanzado no estuvo determinado por el TCA empleado. Se encontró en la categoría 11-12 años una tendencia a ocupar un mejor lugar cuando emplearon un mayor tiempo.
3) En general, las hembras emplean un mayor tiempo en concentrarse que los varones
En Levantamiento de Pesas no encontramos relación alguna entre el TCA y las variables de interés; al menos para las condiciones de este estudio.
(1) Para todas las pruebas de hipótesis realizadas establecimos un nivel de significación de 0,05%.

BIBLIOGRAFIA

BAROGA, L. Influencia sobre el resultado deportivo del procedimiento y del TCA- en el caso de los halterófilos, Congreso Mundial Psicología, 1973

BERMUDEZ, A. Algunas características del tiempo de concentración en los atletas, Deporte Derecho del Pueblo, 9:2, 1976

FRAISSO, P. Manual práctico de Psicología Experimental, Editora Revolucionaria, La Habana, 1966

GUENOV, F. Estados de movilización del deportista, Editora Medicina y Cultura Física, 1972

JOSIAH, P. La preparación psicológica en el atleta, Deporte Derecho del Pueblo, 8:11, 1975

KASHIN, A.P. y colaboradores, Concentración de la atención en los elevadistas, Teoría y práctica de la Cltura Física, 10:10, 1969

PUNI, A.Z. Ensayos de Psicología del Deporte, Editora INDER, La Habana, 1972

PERCEPČNÉ SCHOPNOSTI AKO PREDPOKLADY ŠPORTOVEJ VÝKONNOSTI

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Športový výkon je podmienený mnohými predpokladmi. Na základe psychologickej analýzy určitých športových disciplín najmä v oblasti nárokov na postrehnutie a zmapovanie sitácií, buď na úrovni teoretickej analýzy, alebo uplatnením analýzy videorekordingových, filmových, grafických a písomných záznamov, prichádzame k názoru, že úspešnosť riešenia situácie je závislá od úrovne potrebných percepčných schopností. Osobitne je tomu tak v športových hrách, úpolových športoch i v niektorých individuálnych športoch /orientačný beh, cyklistika/.

Uvedená analýza nám umožňuje zistiť nároky na rýchlosť a presnosť rôzneho druhu reagovania, na rozdelovanie, prepájanie a tenacitu pozornosti, na odhadovanie času, rýchlosti a vzdialenosti objektov /spoluhráčov, súperov, lopty/; v športových hrách môžeme zistiť časové a priestorové charakteristiky pri streleckých situáciach a pod.

Vychádzame z predpokladu, že úroveň percepcie, úroveň rýchlosti a presnosti zmapovania situácie - čo je bližšie, čo je ďalej, čo je rýchlejšie a čo pomalšie, čo sa zrýchľuje a čo sa spomaľuje; postrehnutie rozostavenia objektov v priestore, ich nasmerovanie - podmieňuje úroveň priestorovej orientácie, na základe ktorej sa napr. hráč rozhoduje a volí jeden z možných spôsobov riešenia situácie. Prebieha tu analýza situácie, možno povedať na psychofyziologickej úrovni, keď v neustále sa meniacich podmienkach prebieha proces merania a porovnávania. Bez kvalitnej percepcie, bez zorientovania sa v situácii nemôže byť ani správna anticipácia situácie a úspešné riešenie.Osobitne pre športové hry je charakteristické spracovávanie veľkého množstva informácií. Väčšina herných činností sa vykonáva v časovej a priestorovej tiesni. Hráč je spravidla nútený vykonávať paralelne viacero činností a môžeme povedať, že myslí v činnosti a koná pri myslení. Spätosť a nadväznosť percepcie sa vyššie psychické procesy, nároky na rýchlosť a presnosť percepcie lepšie vystihuje termín percepčná pohotovosť a môžeme si ju operačne definovať ako schopnosť rýchleho a presného zachytenia všetkých dôležitých informácií v športovej situácii.

Našim cieľom je vytvoriť psychologické metódy, pomocou ktorých by bolo možné v športovej praxi, najmä pri výbere talentovanej mládeže, efektívnym spôsobom aspoň orientačne diagnostikovať úroveň percepčných schopností.

Vytvorenie takých diagnostických metód, ktoré by zahrňovali všetky potrebné parametre percepčnej pohotovosti vzhľadom na reálne športové situácie si zrejme vyžiada mnoho rokov intenzívnej práce. Na našom pracovisku sa snažíme v prvej etape konštruovať jednoduché testy formou "ceruza, papier", ktoré možno administrovať skupinovou formou v športovej praxi už na začiatku športovej prípravy. Ukážky testových situácií a inštrukcie k ich rešeniu uvádzame na obr. 1-5.

Metodologickým problémom je overovanie validity týchto testov. Je nesprávne alebo sporné, keď úroveň výkonu v týchto testoch sa dáva do závislosti s tak komplexným kritériom ako je športový výkon. Športový výkon je limitovaný mnohými faktormi a úroveň percepčnej pohotovosti ho determinuje iba sčasti. O váhe percepčnej pohotovosti v štruktúre limitujúcich faktorov môžeme zatiaľ uvažovať len teoreticky. V športových hrách sa zrejme percepčná pohotovosť uplatňuje viacej u dynamických hier, kde nároky na rýchlosť a presnosť zachytávania a spracúvania informácií sú vyššie /viacej v ľadovom hokeji, basketbale, menej vo futbale/.

Pri overování validity testov percepčnej pohotovosti bude treba hladať vhodné medzičlánky medzi testovým výkonom a športovým výkonom. Overovacie situácie /napr. v športových hrách/ majú byť modelom hernej situácie v tom zmysle, že obsahujú v sebe podobné prvky percepčnej pohotovosti ako v samostatnej hre, ale úroveň výkonu v týchto modelových situáciach nesmie byť ovplyvňovaná úrovňou zvládnutia techniky, resp. inou pohybovou činnosťou. Musíme hodnotiť len schopnosť postrehnutia situácie a nie realizáciu riešenia. Vytvorenie takýchto modelov je náročným problémom a v praxi sme často nútení voliť kompromis, že realizácia sa iba naznačuje, ale nehodnotí alebo realizácie je po technickej a pohybovej stránke tak nenáročná, že posúdenie úrovne percepčnej pohotovosti ovplyvňuje len v minimálnej miere. Ukážky niektorých modelových situácií a ich stručný popis uvádzame na obr. 6-8.

Uvedené testy sme použili vo viacerých modifikáciach - i so sekundárnou úlohou pohybového charakteru - u skupín : volejbalistky, hádzanárky, futbalisti, basketbalisti. Osobitný význam má percepčná pohotovosť pri orientačnom behu, kde rýchle a presné zorientovanie sa v mape podmieňuje vo veľkej miere úroveň športového výkonu. Z toho dôvodu sme tu testové výkony dávali do závislosti k športovému výkonu a zisťovali sme tiež zmenu úrovne percepčnej pohotovosti pred a po preteku.

Stručné výsledky. Vo všetkých sledovaných súboroch sme zistili pozitívne závislosti alebo všeobecné tendencie k závislosti medzi testovými výkonmi a výkonmi v modelových situáciach. Korelačné koeficienty sa pohybujú vo väčšine prípadov medzi 0,5 - 0,6. Výskumné súbory boli príliš malé a často o nižšej závislosti rozhodujú diskrepancie u dvoch probandov. Pri početnejších súboroch by výsledky boli priaznivejšie. Treba tiež povedať, že modelové situácie majú viacej nedostatkov a nezodpovedajú teoretickým predstavám. Nakoľko tendencie k závislosti sú vo všetkých sledovaných súboroch, domnievame sa, že schopnosti, ktoré sa uplatňujú pri riešení testov percepčnej pohotovosti sa sčasti uplatňujú aj pri riešení modelových sitácií. Podobné výsledky sme zaznamenali tiež u orientačných bežcov. Naviac sme zistili, že po preteku sa znížila úroveň percepčnej pohotovosti priemerne o 35%. Interindividuálne rozdiely v zhoršení dosahujú u nich viacej ako dvojnásobku a môžu ukazovať na rezervy pri zvyšování výkonnosti.

Naše výsledky chápeme ako sondy do tejto problematiky. Zistené výsledky však ukazujú, že je užitočné uvedené testy používať pri výbere talentovanej mládeže na posúdenie úrovne percepčných schopností.

Ukážky testových situácií a inštrukcie k ich riešeniu.

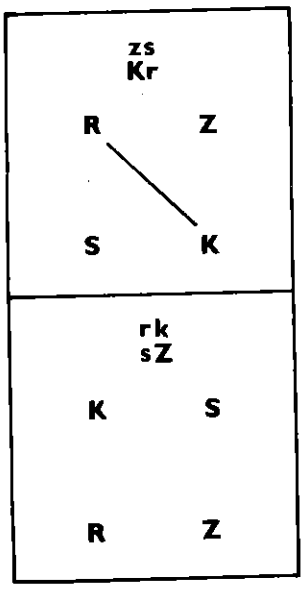
Obr. 1 V malom "štvorci" /hore/ sú vždy 3 malé písmena a 1 písmeno veľké. Treba si všimnúť veľké písmeno a písmeno, ktoré je vedľa neho. Úlohou je spojiť čiarou /naznačiť spojenie/ tieto písmena vo väčšom štvorci /dole/. Umiestnenie v malom a veľkom štvorci je iné. V teste je celkom 80 úloh /40 + 40/. Čas na riešenie 140 sek. /70 + 70/.

Obr. 2 Modifikácia testu na obr.1. Namiesto písmen sú geometrické tvary. Plná časť geometrického tvaru /jeho smer/ v malom štvorci označuje, ktoré dva tvary vo väčšom štvorci treba spojiť.

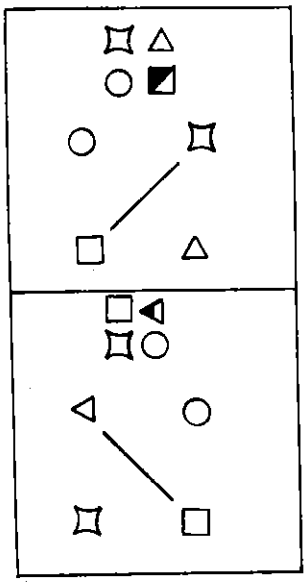
Obr. 3 V každej situácii /štvorci/ je v priestore rozmiestnených 6 farebných krúžkov: 2 červené, 2 zelené a 2 žlté. Úlohou je čo najrýchlejšie zistiť, ktoré 2 krúžky rovnakej farby sú od seba najďalej a jeden z týchto krúžkov zaškrtnúť. V teste je celkom 70 úloh /35 + 35/. Čas na riešenie 80 sek. /40 + 40/. Ťažšie modifikácie : 8 krúžkov štvorfarebných alebo 9 krúžkov trojfarebných.

Obr. 4 Modifikácia testu na obr. 3. Namiesto farebných krúžkov sú geometrické tvary : 2 trojúholníky, 2 štvorce, 2 krúžky. /Uvádzame z toho dôvodu, že výsledky z oboch testov nebývajú rovnaké/.

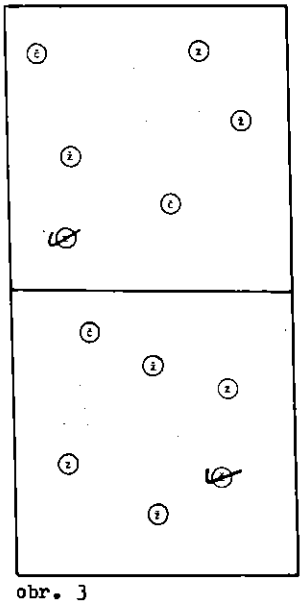
Obr. 5 Od čierneho bodu je v rôznych vzdialenostiach rozmiestnených 5 krúžkov /A - D/. Úlohou je čo najrýchlejšie zoradiť krúžky podľa vzdialenosti k čiernemu bodu od najbližšieho po najvzdialenejší /B,A,D,C,E : D,B,C,E,A/.



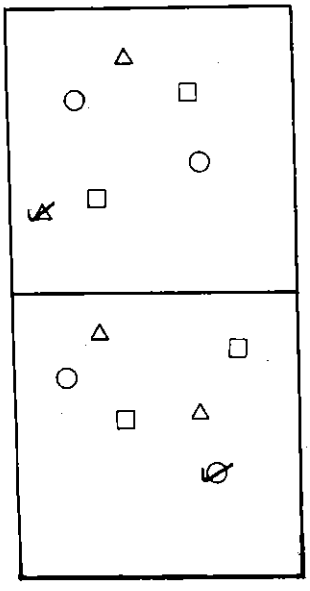
obr. 1



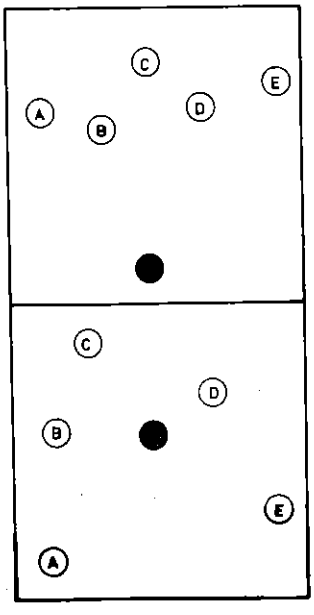
obr. 2



obr. 3



obr. 4



obr. 5

Ukážky niektorých modelových situácií a ich stručný popis

Obr. 6 (Model 1. volejbal)

Je zostavený zo 6 rôznych situácií obranného postavenia hráčov na ihrisku vo volejbale. V každej situácii má jeden hráč chybné postavenie a tým vytvára voľný priestor "najvhodnejší na smečovanie". Úlohou skúmaného, ktorý je na druhej strane ihriska pri sieti obrátený chrbtom k situácii, je na povel "teraz" obrátiť sa a čo najrýchlejšie postrehnúť nevykrytý priestor a dokumentovať tento postreh hodením lopty do tohto priestoru z výskoku oboma rukami. Sieť bola znížená.

Obr. 7 (Model 2. hádzaná)

Cvičenie trvalo 1 min. a úlohou sledovaného bolo :

1/ opakovane spracúvať prihrávky od spoluhráča

2/ postrehnúť a verbálne určiť pohyb brankára - nepravidelne : dopredu, doľava, doprava - celkom 12x

3/ postrehnúť uvoľňujúceho sa hráča a verbálne určiť uvolnenie slovom "voľný" - 12x

4/ sledovať a verbálne určovať ukazované čísla od 0 do 5. Pri exponovaní nuly má sledovaný vystreliť na bránku. Celkom bolo ukázaných 20 čísel a z toho 5x nula.

Obr. 8 (Model 3. univerzálny)

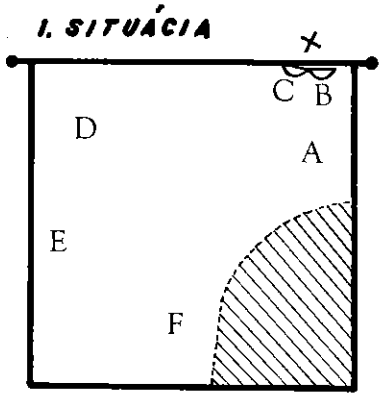
Na signál sa skupina 7 hráčov /3 a 4 hráči v rozdielnych dresoch/ začne pohybovať zo stanoveného miesta určeným smerom (priestor cca 10 x 10 m/. Súčasne na tento signál sa skúšaný proband, stojaci chrbtom k ostatným, obráti o 180°. Jeho úlohou je čo najrýchlejšie určiť verbálne

1/ smer vpravo-vľavo; podľa toho ktorým smerom sa pohybuje menej hráčov

2/ farbu dresu, ktorá prevažuje

3/ meno hráča, ktorý sa pohybuje dozadu

Príklad odpovede : vpravo, červená, Peter.



Hráč A zbehol k bloku

obr. 6

LEGENDA

○ - uvažujúci sa hráč

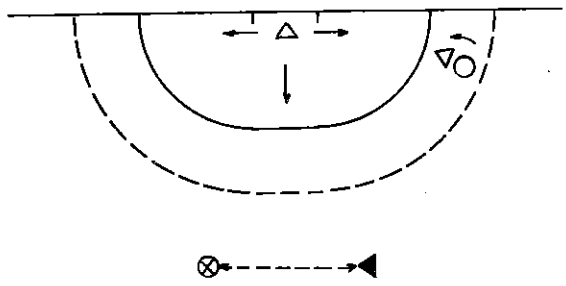
△ - hráč v obrane

⊗ - sledovaný hráč

▲ - prihrávajúci hráč

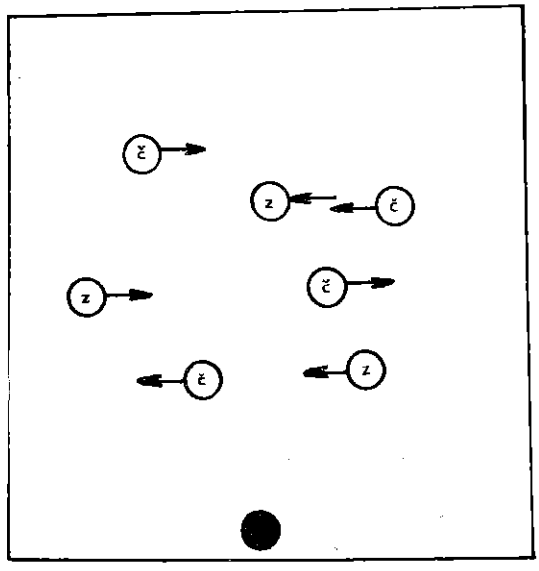
X - pomocník ukazujúci čísla

------➤ prihrávka



obr. 7

X 0,1,2,3,4,5



obr. 8

UPLATNENIE METÓDY SEKUNDÁRNEHO ZAŤAŽOVANIA PRI ŠPORTOVEJ ČINNOSTI

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Podstatou metódy sekundárneho zaťažovania je zisťovanie interferenčného vplyvu pro paralelnom vykonávaní dvoch alebo viacerých činností.

Pri mnohých športových činnostiach je športovec nútený paralelne riešiť viacej úloh. Z psychologického hľadiska ide o problematiku rozdelovania a prepájania pozornosti pri súčasne vykonávaných činnostiach. Paralelné vykonávanie dvoch úloh tu pôsobí ako psychická záťaž, ktorá spôsobuje u rozných jedincov rozdielny stupeň zníženia výkonu v oboch činnostiach.

Pomocou metódy sekundárnej záťaže môžeme zistovať zložitosť a náročnosť vykonávanej činnosti, úroveň jej zvládnutia, resp. stupeň zautomatisovania niektorých pohybových štruktúr u daného jedinca, ktoré psychické funkcie sú vykonávanými činnosťami zaťažované, nároky na vlastnosti pozornosti, odolnosť voči rozptýleniu a pod.

V našom príspevku informujeme o aplikácii metódy sekundárneho zaťažovania pri zisťování úrovne zvládnutia pohybovej činnosti.

Každej vykonávanej činnosti musí jedinec venovať určitú kapacitu pozornosti. Predpokladáme, že pri tej istej činnosti je táto kapacita pozornosti u rôznych jedincov rozdielna v závislosti od úrovne zvládnutia tejto činnosti. Pomocou sekundárnej záťaže - pridaním vhodne zvolenej sekundárnej úlohy - môžeme potom posúdiť veľkost rezervnej kapacity a určiť do akej miery je určitý jedinec vykonávanou činnosťou zaťažený.

Zvyšovanie náročnosti pohybovej činnosti sa nemusí prejaviť v znížení výkonu, ale len v znižovaní rozervnej kapacity. Až vtedy,keď náročnost presahuje možnosti celkovej kapacity u daného jedinca,dochádza k znižovaniu výkonu. Vhodne zvolená sekundárna úloha tu môže byť teda indikátorom zložitosti primárnej úlohy u príslušného jedinca.

Ako sekundárne úlohy sa vo výskumoch používajú rôzne jednoduché činnosti : jednoduché počtové úkony, modifikácie reakčného času, pamäťové úlohy a pod. V športovej praxi sme sa s použitím metódy sekundárného zaťažovania nestretli.

Metódy : V našom výskume sme aplikovali metódu u 10 ročných gymnastiek /úloha bola zadaná ako diplomová práca V.Šuchovej/.

Primárne úlohy pozostávali z gymnastických zostáv v akrobacii, na kladine a na hradze.

Ako sekundárne úlohy boli použité :

1/ Akustické prezentácia dvojíc slov. Úlohou bolo určiť to slovo, ktoré predstavovalo hmotne alebo plošne väčší predmet, napr. kniha-dom, hotel-auto, pero-stol.

2/ Sčítanie jednomiestnych čísel napr. 4 + 2, 3 + 6, 7 + 2.

3/ Opakovanie prezentovaných dvojmiestnych čísel v opačnom poradí, napr. 35 /53/, 28 /82/, 36 /63/.

Keď sa sekundárne úlohy vykonávali samostatne nespôsobovali u probantov žiadne ťažkosti a výkon bol u všetkých bezchybný. V každej sekundárnej úlohe bolo 10 podnetov, ktoré boli prezentované v 20 sekundách.

Jednotlivé zostavy cvičili najprv samostatne bez sekundárnej záťaže v dvoch pokusoch. Hodnotenie bolo podľa pravidiel športovej gymnastiky. V ďalších troch pokusoch boli aplikované tri rôzne sekundárne úlohy. Zostavy trvali 20 sek.

Niektoré výsledky: Pri hodnotení jednotlivých zostav bez sekundárnej úlohy sme zistili len malé interindividuálne rozdiely. Cvičenky boli výkonnostne vyrovnané. Pri aplikování sekundárnych úloh sme zistili nielen výraznejšie zníženie výkonov v primárnej a sekundárnej činnosti, ale tiež vysoké interindividuálne rozdiely v znížení výkonov. Priemerné zhoršenie výkonov v gymnastických zostavách uvádzame v tab. 1.

Tab. 1. Priemerné bodové hodnoty v gymnastických zostavách.

	Akrobacia	Hrazda	Kladina
Samostatný pokus	9,43	9,60	9,33
Pokus v záťaži 1.	8,26	9,25	8,58
Pokus v záťaži 2.	8,99	9,32	8,35
Pokus v záťaži 3.	8,34	9,27	8,70

Výsledky ukázali, že sekundárne úlohy mali u rôznych probantov rozdielny interferenčný vplyv. Miera zhoršenia výkonu môže byť ukazovateľom úrovne zvládnutia gymnastických zostáv u jednotlivých cvičeniek.

Najnáročnejšia zosteva bola v akrobacii. V sekundárnej záťaži si cvičenky zamieňali cvičebné tvary, vynechávali prvky a pridávali prvky, ktoré tam nepatrili, vymieňali poradie prvkov v zostave.

O ničeo nižší interferenční vplyv mali sekundárne úlohy pri cvičení na kladine. Zatiaľ čo v samostatných pokusoch sme nezaznamenali ani jeden pád, v sekundárnom zaťažení ich bolo celkom 13. Vyskytlo se tiež vymenené poradie cvičebných tvarov a opakovanie jedneho prvku dvakrát.

Najmenší vplyv mali sekundárné úlohy na cvičenie na hrazde. Vysvetlujeme to tým, že zložitosť zostavy na hradze bola najnižšia.

Určitým problémom v našom výskume bolo verbálne odpovedať pri súčasnom cvičení.

Záver : Výsledky ukázali, že pomocou metódy sekundárneho zaťažovania možno zistovať úroveň zvládnutia pohybovej činnosti, zložitosť vykonávanej činnosti a schopnosť koncentrácie pozornosti pri cvičení.

VYUŽITIE HODNOTENIA NIEKTORÝCH PSYCHICKÝCH VLASTNOSTÍ U FUTBALISTOV

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Predpokladom zvyšovania kvality každej ľudskej činnosti je kontrola a hodnotenie tejto činnosti. Keď človek vykonáva nejakú činnosť a vie, že táto jeho činnosť, resp. výsledok tejto činnosti bude predmetom hodnotenia, pristupuje k nej s väčšou váženosťou a zodpovednosťou.

V športovej praxi, najmä v dlhodobom tréningovom procese sa systematické hodnotenie nedostatočne využíva. Pri jeho správnom používaní môže trenérovi poskytovať celý rad cenných informácií a športovcoch a umožňuje mu správne riadiť a usmerňovať výchovno vzdelávací proces. Osobitý význam má pre trenéra pri voľbe správneho individuálneho prístupu k športovcovi. Poznanie výsledkov hodnotenia samotným

športovcom je pre neho silným motivačným činitelom, núti ho poznávať sa s ostatnými, zamýšlať sa nad sebou, podnecuje ho k aktivite, súťaživosti a zodpovednosti.

V našom príspevku chceme ukázať na možnosti hodnotenia niektorých psychických vlastností priamo v športovej praxi. Cieľom hodnotenia však nie je len zistenie úrovne posudzovaných psychických vlastností, ale prostredníctvom neho odkryť možnosti rozvíjania týchto vlastností a tým zvyšovať športovú výkonnosť. Vychádzame z predpokladu, že športovec, ktorý je v posudzovanej vlastnosti v družstve hodnotený ostatnými spoluhráčmi veľmi nízko - medzi poslednými, bude sa snažiť svojou činnostou v budúcnosti presvedčiť a dokázať ostatným, že tam už nepatrí. Rovnako športovec, ktorý je hodnotený vysoko sa bude pravdepodobne snažiť udržať si svoju pozíciu i keď sa niekdy môže stavať, že niektori športovci práve preto, že sú hodnoteni vysoko, spohodlnejú. V pravidelnom systéme hodnotenia však sa toto spohodlnenie čoskoro ukáže a pre budúcu činnosť pôsobí stimulačne. Pre trenéra, vzhľadom na idividuálny prístup k športovcovi je výhodne poznať u ktorých športovcov sa tento jav vyskytuje.

Metódy :

1/ Použili sme vlastné dotazníky s posudzovacími stupnicami na zistenie úrovne prejavov vôľových vlastnosti a psychickej odolnosti formou :

a/ sebahodnotenie hráčov

b/ vzájomné hodnotenie hráčmi a trenérom podľa prejavov vôľových vlastnosti a psychickej odolnosti

2/ Zostavenie rebríčka hráčmi a trenérom podľa prejavov vôľových vlastností a psychickej odolnosti.

3/ Hodnotenie prejavov vôľových vlastností hráčov divákmi v troch po sebe idúcich majstrovských stretnutiach na domácom ihrisku.

Príklady položiek dotazníkov pre vzájemné hodnotenie :

- hráča treba na tréningu pri plnení úloh kontrolovať
- hráč i keď je kondične dobre pripravený má tendenciu, keď to stretnutie umožňuje, šetriť sa
- nevydarené akcie, neúspešné zásahy hráča v priebehu stretnutia pôsobia na neho nepriaznivo a chvíľu mu trvá než sa znova "nájde".

Položky sebahodnotiacich a hodnotiacich dotazníkov sú identické, len ináč formulované. Dotazník vlastnosti obsahuje 28 položiek a dotazník psychickej odolnosti 10 položiek. Jednotlivé položky sú formulované ako výroky o prejavoch správania sa hráčov v špecifických športových situáciach.

Hráči boli posudzovaní v každej položke na 7 bodovej stupnici :

a/ podľa intenzity resp. souhlasu s výrokom

6 - je to celkom tak
5 - je na tom hodne pravdy
4 - je to viacej pravdivé ako nepravdivé
3 - ťažko je rozhodnúť
2 - je to viacej nepravdivé ako pravdivé
1 - je na tom hodne nepravdy
0 - vôbec to nie pravda

alebo

b/ podľa frekvencie

6 - vždy
5 - veľmi často
4 - väčšinou
3 - niekedy
2 - občas
1 - len výnimočne
0 - nikdy

Hodnotenie sme vykonali :

a/ v prvoligovom družstve futbalistov Slovana Bratislava /vôľové vlastnosti/

b/ v prvoligovom družstve futbalistov Internacionál Bratislava /vôľové vlastnosti a hodnotenie divákmi/

c/ v prvoligovom dorasteneckom družstve futbalistov Tatrana Prešov /vôľové vlastnosti a psychická odolnosť/.

Na vyjdrenie zhody medzi jednotlivými hodnoteniami sme použili Spearmanov koeficient poradovej korelácie.

Niektoré výsledky : Podla očekávania sa u niektorých hráčov pri sebehodnotení prejavila tendencia k preceňovaniu sa. Dávali tzv. sociálne žiadúce odpovede, tj. také, ktoré charakterizujú "dobrého športovca". Dostali sme informácie nie o tom akí v skutočnosti sú, ale akými by mali, resp. chceli byť. Výrazne sa to prejavuje v nezhode s ostatnými hodnoteniami. Na druhej strane sme zaznamenali významnú zhodu medzi vzájomným hodnotením hráčmi a trenérom.

	+ Inter	+ Slovan	++ Tatran
Sebahodnotenie - hodnotenie trenérom	0,185	0,386	0,341
Sebahodnotenie - hodnotenie hráčmi	0,232	0,324	0,316
Sebahodnotenie - rebríček trenéra	0,009	0,450	0,420
Sebahodnotenie - rebríček hráčov	0,083	0,594	0,436
Hodnotenie trenérom - hodnotenie hráčmi	0,650	0,636	0,852
Sebahodnotenie - hodnotenie divákmi	0,262		
Hodnotenie trenérom - hodnotenie divákmi	0,596		
Rebríček trenéra - hodnotenie divákmi	0,523		
Rebríček hráčov - hodnotenie divákmi	0,620		

\+ vôľové vlastnosti
++ psychické vlastnosti

Psychologický účinok hodnotenia bol najmä v tom, že hráči, ktorí sa pri sebahodnotení nadhodnotili, chceli potom v stretnutí dokázať, že sa ohodnotili pravdivo. Vyššie nasadenie v uvedených stretnutiach bolo zrejme. Kladne to ohodnotil tréner, diváci i športové tlač. Kladne k tomu prispelo i hodnotenie divákmi. Hráči boli o výsledkoch hodnotenia divákmi informovaní a najlepší tiež zverejnení v rozhlase v prestávke následujúceho stretnutia.

Z nízkej úrovne zhody medzi sebahodnotením a ostatnými hodnoteniami nie je možné usudzovať, že používanie sebahodnotenia je neúčelné. Bolo by tomu tak vtedy, keby se používalo ako jediné metóda.

Záver : Výsledky ukázali, že použité metódy hodnotenia umožňujú objektívnejšie posudzovať prejavy hráčov v špecifických situáciach, umožňujú trenérovi odhalovať u hráčov tendencie k pretvárke, k preceňovaniu či podceňovaniu, aktivizujú hráčov v tréningu i v samotných stretnutiach. Pre hráčov sú výsledky silným motivačným činiteľom pro odstraňovaní nedostatkov a v konečnom dôsledku pri rozvíjaní hráčskej výkonnosti.

UNTERSUCHUNGEN ZUR DIMENSIONALITÄT SPORTBEZOGENER SCHÜLEREINSTELLUNGEN

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Problemstellung:

Im Vergleich mit anderen Gegenstandsbereichen, insbesondere dem 'klassischen' Forschungsgebiet der Vorurteilsforschung gegenüber sozialen Randgruppen und ethnischen Minoritäten, kann auch in der sportbezogenen Einstellungsforschung ein zunehmendes Methodenbewußtsein festgestellt werden, welches sich in verstärkter Hinwendung zu testtheoretisch abgesicherten Skalierungsverfahren ausdrückt.

Bei Entwicklung und Anwendung solcher Skalen kommt jedoch der 'dimensionalen Repräsentanz', d.h. der Identifikation homogener Itemgruppen besondere Bedeutung zu, da sonst möglicherweise Itemwerte zusammengefaßt werden, die auf unterschiedliche Bedeutungsattribuierungen zurückgeführt werden können.
Andererseits vermag nur eine multivariate Analyse die für die erfaßte Stichprobe charakteristischen Variationsquellen des Beantwortungsverhaltens, bzw. die hauptsächlichen Beurteilungsaspekte des jeweiligen Einstellungsgegenstandes zu bestimmen und im Sinne pädagogischer oder differential-psychologischer Intentionen nutzbar zu machen.

Literaturanalyse:

Aussagen über die Dimensionalität der im Sprach- und Kulturraum der DDR und der Bundesrepublik Deutschland zur Anwendung gekommenen sportspezifischen Einstellungsskalen, (neben einer Anzahl von Untersuchungen mit der sog. 'ED-Technik', vgl. BIELEFELD 1976), v.a. die von MÜLLER & BAUM (1965) und KENYON (1968), sind allerdings äußerst widersprüchlich.

Während MÜLLER & BAUM unter Ausschluß aller spezifizierenden Aussagen eine explizit 'eindimensionale Reihung der Statements' und damit hohen Allgemeinheitsgrad ihrer Skala anstreben, entwickelte KENYON eine mehrdimensionale Einstellungsskala, welche die aus einem "various hypothesized instrumental values" repräsentierenden Strukturmodell des Sports abgeleiteten sechs "independent or quasi-independent subdomains" erfassen soll (KENYON 1968, p.97).

Insbesondere die empirisch nicht gesicherte Eindimensionalität der MÜLLER & BAUM-Skala hat verschiedentlich Kritik hervorgerufen (SACK 1971, BIELEFELD 1975, BECKER 1976), v.a. weil die Vp aufgefordert wird, "ein Objekt eindimensional zu beurteilen, welches in Wirklichkeit mehrdimensional ist" (BECKER 1976, p.7). Auch gegen eine Vielzahl der in der nordamerikanischen Sportwissenschaft publizierten Skalen (vgl. BARROW & McGEE 1972) sind mit gleicher Begründung kritische Einwände vorzutragen.
Vornehmlich wegen des mehrdimensionalen Skalierungsansatzes ist die KENYON-Skala in den letzten Jahren von verschiedenen Autoren (SINGER & REHS 1975, ARTUS 1975) für bundesrepublikanische Verhältnisse adaptiert worden, doch haben bisherige Anwendungen weder die vorgegebene, durch schiefwinkelige Rotation replizierte sechsfaktorielle Struktur, noch die Notwendigkeit geschlechtsspezifischer Parallelformen der Skala empirisch eindeutig belegen können.

Eigener Untersuchungsansatz:

Im Gegensatz zu den referierten Untersuchungen gingen wir bei der Dimensionalitätsanalyse des a priori nicht vorstrukturierten Merkmalraumes 'sportbezogener Einstellungen' nach der 'enumerativen Methode' sensu CATELL vor, wie sie bspw. auch in der Dissertation von BECKER (1976) Anwendung gefunden hat. Während

sich BECKER jedoch ausschließlich mit Aspekten des Hochleistungssports befaßte, zielte unsere Untersuchung im Sinne eines Evaluierungsansatzes des Lernzieles "nachschulischen Sporttreibens" auf die Analyse der Einstellung von Schülern zur eigenen sportlichen Betätigung ab.

Ergebnisse: Auf der Basis umfangreicher Statements-Sammlung und verschiedener Vorerhebungen wurde ein Fragebogen mit 91 Items zusammengestellt und 670 Gymnasialschülern im Alter von 12 bis 18 Jahren vorgegeben. Berechnete Schwierigkeitsindices legten wegen mangelnder Beantwortungsvariation den Ausschluß von 30 Items nahe, so daß für alle Vpn des mehrfach geschichteten 'cluster samplings', wie auch für alle Untergruppen Korrelationsmatrizen über 61 Variablen berechnet und auf Signifikanz überprüft wurden (BARTLETT-Test). Die mit dem BOX-Test ermittelten Prüfgrößen ergaben keinen Hinweis auf die Notwendigkeit getrennter Dimensionsanalysen der Untergruppenmatrizen (bspw. männl. und weibl. Vpn). Die faktorenanalytische Auswertung ließ nach verschiedenen Kriterien (insbesondere dem Prinzip inhaltlicher Eindeutigkeit) eine Fünf-Faktorenlösung angemessen erscheinen, welche auch bei weiterer Itemselektion auf letzlich 32 Items konstant blieb und eine Varianzaufklärung von 41,5 % leistete.
Aus pragmatischen Erwägungen werden -trotz aller Vorbehalte- folgende Benennungen vorgeschlagen, die sich vornehmlich am Bedeutungsgehalt der jeweiligen Kennvariablen orientieren:

Faktor 1: positives Stereotyp des Sporttreibens,
Faktor 2: negatives Stereotyp des Sporttreibens,
Faktor 3: Sporttreiben als indiv. Bed. vs gesell. Verpfl.
Faktor 4: Sporttreiben als zielgerichtete Aktivität,
Faktor 5: Sporttreiben als Frustrationserfahrung.

Die Eindeutigkeit und Konstanz der ermittelten Faktorenstruktur über alle Untergruppen konnte auch mit anderen Analyseverfahren repliziert werden (Cluster-, Alpha-, Imageanalyse, Ähnlichkeitsvergleich nach FISCHER & ROPPERTS). Für die Homogenität der fünf Itemcluster sprechen auch relativ hohe Trennschärfe- wie Reliabilitätskoeffizienten, weiterhin Ergebnisse durchgeführter GUTTMAN-Skalierungen der Subskalen.
Inhalts- wie Konstruktvalidität sollten aufgrund des empirisch-methodischen Vorgehens fraglos gegeben sein, Untersuchungen zur externen Validierung stehen noch aus, müssen zudem in Zusammenhang mit der generellen Problematik der Einstellungs-Verhaltens Relation gesehen werden.
Varianzanalytische Auswertungen belegen die mit zunehmendem Alter der Vpn negativer werdenden Einstellungen, jedoch keinen geschlechtsspezifischen Einfluß. Besondere Aufmerksamkeit verdienen die für alle Untergruppen nachgewiesenen hohen Werte im Faktor F_5: 'Sporttreiben als Frustrationserfahrung'.

L I T E R A T U R :

ARTUS, H.G.: Zum Problem der Messung der Einstellung zum Sport. Aufgezeigt am Beispiel des Kenyon-Tests. In: Rieder, H. (Hrsg): Empirische Methoden in der Sportpsychologie. Schorndorf 1975, 110-113

BARROW, H.M./McGEE, R.: A Practical Approach to Measurement in Physical Education. New York 1972

BECKER, P.: Sportspezifische Einstellungsdimensionen und ihre Veränderung. Dissertation, Frankfurt 1976

BIELEFELD, J.: Zur Anwendung eindimensionaler Skalierungsverfahren in der sportbezogenen Einstellungsforschung der DDR und der Bundesrepublik Deutschland. In: Rieder, H.(Hrsg): Empirische Methoden in der Sportpsychologie, Schorndorf 1975, 139-145

BIELEFELD, J.: Zur Problematik der Erfassung und des Vergleichs sportspezifischer Eindrucksbeurteilungen. In: Rieder, H./Hahn, E. (Hrsg): Psychomotorik und sportliche Leistung. Schorndorf 1977, 110-117

MÜLLER, S./BAUM, L.: Untersuchungen über die Einstellung zum Sport als psychologisches und methodisches Problem. In: Wiss. Ztschft. DHfk Leipzig, 7 (1965) 3, 5-13

KENYON, G.S.: A conceptual Model for characterizing physical activity. In: Ztschft Research Quarterly 39 (1968) 96-105

SACK, H.-G.: Anwendung und Kritik der Einstellungsskala von Müller, S./Baum,L. zur Messung von sportbezogenen Einstellungen. In: Ztschft. Die Leibeserziehung 20 (1971) 11, 366-370

SINGER, R./REHS, H.J.: Bericht über eine vorläufige deutsche Fassung der mehrdimensionalen Sporteinstellungsskala von Kenyon. In: Rieder, H.(Hrsg): Empirische Methoden in der Sportpsychologie. Schorndorf 1975, 103-109

COMPETITIVE SPORT AND ATTRIBUTIONS OF ACTORS AND OBSERVERS

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Jones & Nisbett (1972) have drawn our attention to the fact that systematic differences in causal attribution between actors and observes are to be expected. Actors were shown to emphasize situational constraints whereas observers were more likely to attribute personal causation. According to the authors these differences are primarily due to informational biases, such as different inputs and/or information processing strategies. Though regarded as less important, motivational factors are also considered, above all a need to maintain self-esteem on the part of the actors and dissonance reducing processes on the part of the observers. In certain cases these motivational influences can lead to a reverse pattern of attribution, the actor relating more to personal factors and the observer to situational constraints (of Jones and Nisbett 1972, p.93). This paper is to be seen within this framework.

Studies done so far on motivational factors influencing the attributions of actors and observers favored a paradigm which was to examine the reasons for certain effects of behaviour (e.g. success and failure) rather than a behavioral incidence (e.g. why does X go in for sport?). The latter is the focal point of the present investigation. It was assumed that the more socially desirable the behavior in question is considered to be, the more the actors are inclined to employ self-enhancing strategies. Confirming this assumption Lowe & Hansen (1976) were able to show that differences between actors and observers decreased if they had to judge a highly desirable behavior . Thus with high social desirability actors held personal factors responsible rather than situational ones, while with low social desirability they showed a reverse pattern of attribution.

The aim of the present study is to examine the following question: If actors are to judge their own behavior which can be regarded as important and socially desirable are they more likely to hold intrinsic rather than extrinsic motives responsible and how do **observers** behave in comparison to the actors? The behavior to be judged was competitive sport, the judges were competitive athletes (and thus in the role of actors) and noncompetitive athletes (and thus in the role

of observers). It was assumed that the former regard their sport as important and desirable and are more ego-involved in the topic than the latter so that motivational differences could come into play.

Subjects: Out of 116 interviewees there were 32 competitive athletes (12 female, 20 male) with a mean age of 22.9 years (SD = 2.5). The 84 noncompetitive athletes (41 male, 43 female) had a mean age of 22.8 years (SD = 3.2). Subjects were grouped according to their subjective self-classification as a competitive athlete or not. In a former study (Bierhoff-Alfermann 1975) this method had led to the same results as a classification according to "objective" performance figures.

Dependent measures: Subjects were asked to name and grade three reasons (1) why someone engages in competitive sport (measure 1) and (2) why they themselves did (or would do so) (measure 2). Measure 1 is thus reflecting a higher degree of distance to the topic than measure 2.

These are the main dependent measures. In addition Ss specified (measure 3) to what extent success in competitive sport can be attributed to the athlete himself (internal factor) or to public financial support (external factor). Finally subjects estimated on a 7-point scale the subjective 'importance of competitive sport' for our society (measure 4).

Results: The remarks of the subjects to measures 1 and 2 were first of all classified into a category system of causes, 11 categories in all. To check the assumption that both groups of Ss differ in their attribution of motives the categories (1) 'wish for acknowledgement from others', (2) 'wish for fame', and (9) 'financial benefits' were grouped as one factor "extrinsic rewards" and the categories (3) 'competitive ambition', (4) 'physical fitness', (6) 'pleasure or interest in sport', and (11) 'wish for 'self-acknowledgement' as one factor "intrinsic rewards". These two clusters can be compared with extrinsic and intrinsic motivation respectively and comprise a total of 84% of all the reasons given.

As can be seen from Table 1, which summarizes the reasons placed in the first position for measures 1 and 2, intrinsic rewards were regarded as more important by the competitive athletes than by their noncompetitive colleagues. The differences are significant for both measures ($\chi^2 = 5.863$; $\chi^2 = 5.905$ for measures 1 and 2 respectivelly; df = 1, $p < .025$). The same pattern is found for the reasons in position 2 and 3, so that for lack of space the results of these separate analyses are not shown. The assumption that motivational influences lead to a higher attribution of intrinsic rewards on the part of the competitive athletes because of a self-enhancing attribution bias is thus confirmed by this analysis.

Table 1 Number of extrinsic and intrinsic rewards stated in the first position (measures 1 and 2)

	Measure 1		Measure 2	
	Intrins.Rew.	Extrins.Rew.	Intrins. Rew.	Extrins. Rew.
Competitive	28 (90.3%)	3 (9.7%)	30 (96.8%)	1 (3.2%)
Noncompetit.	48 (67.6%)	23 (32.4%)	43 (76.8%)	13 (23.2%)

The results of measure 3 also show significant differences between the two groups (in the sense of the hypothesis). The competitive athletes emphasize the importance of the athlete himself more and the importance of financial support less than the noncompetitive sportsmen and -women (t = 2.209 and 2.227 respectively; df = 113; $p < .05$).

Discussion: The results of this study can be seen in the light of motivational differences between the two groups of subjects. This interpretation is supported by Lowe & Hansen's study (1976) showing a similar pattern of attribution with regard to personal factors to that of this study when the behavior to be judged was of high social desirability. The influence of motivational factors can also be observed in the fact that the competitive athletes considered competitive sport to be 'more important for our society' (measure 4) than the noncompetitive athletes (4.9 vs 3.7 : $t = 3.621$; $df = 113$; $p < .001$), thus regarding competitive sport as more socially desirable.

Apart from the importance of the results for attribution theory, practical implications for the relation between competitive and noncompetitive athletes can also be derived. While the former attribute considerably more intrinsic motives the latter consider also extrinsic rewards to be important, at least to a certain extent. This indicates attributional conflict between the two groups.

When Orvis, Kelley & Butler (1976, p.380) come to the conclusion that "most attributional conflict concerns not which causal factors were present, but which one was crucial" then in this case the 'crucial' factor for the competitive athletes are clearly the internal rewards. Attributional conflicts as they obviously exist between competitive and noncompetitive athletes indicate difficulties in communication which could possibly be overcome by vicarious role-taking.

References

Bierhoff-Alfermann, D.: A motivational analysis of sports activities. Inn: G.J.K.Alderson & D.A.Tyldesley (Eds.) British proceedings of sports psychology: FEPSAC congress Edinburgh 1975, 79-83.

Jones, E.E. & Nisbett, R.E.: The actor and the observer: Divergent perceptions of the causes of behavior. Inn: E.E.Jones, D.A. Kanouse, H.H.Kelley, R.E.Nisbett , S.Valins & B.Weiner (Eds.) Attribution: Perceiving the causes of behavior. Morristown: General Learning Press 1972, 79-94.

Lowe, G.A. & Hansen R.D.: Motivational influence of behavioral desirability on actors and observers attributions. Social Behavior and Personality 1976, 4, 17-25.

Orvis, B.R., Kelley, H.H. & Butler, D.: Attributional conflict in young couples. Inn: J.H.Harvey, W.J.Ickes & R.F.Kidd (Eds.) New directions in attribution research. Hillsdale: Lawrence Erlbaum 1976, 353-386.

AN INTERCULTURAL COMPARISON (ITALY-USA) REGARDING INTERESTS FOR MOTOR ACTIVITIES IN CHILDREN, PRE-ADOLESCENTS AND ADOLESCENTS

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Introductory notes

The problem of carrying out motor activities for urban areas inhabitants is a real one, as in these areas active motion is considerably reduced due to the influence of such factors as the sedentary nature of most of these activities; the high degree of special concentration, the large use of mechanical means of transportation in horizontal direction (vehicles), vertical (elevators) and diagonal (escalators); but also due to the concomitant and interagent

influence of specific attitudes, habits, tradition and values, referring to educstion, work and amusement.

This subject relates to sensory-motor deprivation which can be determined by precise spacial constraints, by confinement, and also by ettitudes and choices (J.Gross, L.Sveb, 1964; P.Bonaiuto, 1967, 1969).

At the same time, in our cities diffusion of "mass media" and the same presence of sport centres, small or large constitute occasion of motorial show, partially and also unquestionably sporty; with a contribution to information which can be high, but which initially is only the visual and hearing perception of other people's actions.

These are all factors which can motivate towards doing, towards action: the first by lack of action; the latters by suggestion and contagion or by learning.

But these are also factors which can favour the incorporation of limiting rules and the privileged and unilateral development of symbolic activities entirely substitutive when compared to motor.

Consequently the cities present contradictory conditions: valid for the development and activation of strong motivation towards motor activity; but also for their inhibition and constraint (coarctation).

The ambivalent action-of stimulus, but also restraint-carried out, in various ways, through various devices, unconsciously, in part, by school and school controlled organizations, by sports societies, by recreational associations and by single operators.

These conditions contribute to the development of interests for the numerous range of motor activities, each with its defined character. Students are aware in different ways of different activities and specialties; they work out wishes and refusal, they exercise or accept choices.

These interests, as others, can be singled out and described; through their study we better understand the effects of a specific urban culture on the evolution of personality. Orientation, from which decisions and practical behaviour in the young and the adult depend, can be detected; expectations, values, conditions which are at the origin of obliteration and constructive development of capacity, are inferred.

Investigation procedure

Our research group has systematically gathered information on motor activities and sedentary activities, expressed by children, pre-adolescents and adolescents of various urban centres, in Northern and Southern Italy; this in the turn of a decade from 1966 to 1975 (P.Bonaiuto, G.Bartoli Bonaiuto, 1967, 1969; P.Bonaiuto, 1969, 1970).

In 1969-1970 a systematic information collection carried out among subjects of corresponding age and schooling, leaving in a highly industrialized area of California, was added.

It was in various cases, a transversal type of research. In a first series of data gathered - on which we will refer- we examined 100 subjects in each city (50 males and 50 females) for each age level, from eight to sixteen years of age inclusive; this was done in the urban centres of Bologna and Bolzano (Northern Italy) Salerno (Southern Italy), and Los Angeles (California, USA).

This first data series involved the examination of 3600 subjects altogether, 900 subjects from each city. The subjects constituted a representative sample of city school students. Each student filled two paper works, part written, part drawn; assigned in subsequent days according to an order systematically changed in the various school classes.

One paper work investigates how the subject would like activities to be organized in school, during the lesson of physical education; and allows us to identify interests, necessities, positive or negative valences as to motor activities in school environment. The other paper work investigates how the student would like activities to be organized in a playground, a place where to spend free time out of school.

This second exercise allows us to identify interests, necessities, positive and negative valences, personal motives and situations, as to motor activities in extra-school environment.

The exercises were given on paper of a format familiar to students, with a printed heading on the upper part. They were assigned through their previously instructed teachers and each student worked them out individually under the teacher's control (1).

(1) Research was supported in Italy by School Authorities in Bologna and Bolzano, and helped by the active cooperation of teachers in the various schools of the above mentioned cities and Salerno.
To the gathering and elaboration of part of these data, cooperated some graduating students of the Bologna Institute of Physical Education, students, interns and graduating students at the Faculty of Education of the University of Bologna and Salerno. In California with the consent of the Board of Education, Los Angeles City School Districts and the cooperation of local schools teachers. Partial funds were assigned by the Physical Education Study Centre of Bologna, The Salerno Cultural Services Centre, by the Environment Research Centre "P.Manzù" of Rimini and S.Marino, the Psychology Laboratory, Faculty of Education, University of Bologna, Italy.

Results

Subjects, generally, have willingly given verbal declarations and have enriched them with sketches, maps, drawings, expressing themselves with participation, care and genuinity.

The contents expressed refers to numerous aspects of motor activity: the time they would like to spend on it, setting and configuration of environments, furnishings and equipment; the type and form of activity, programmes; characteristics of technical assistance and various facilities, other students' and adults' behaviour; some general concepts about society and life, to which the

practice of motor activity is connected; gratification and frustration conditions, certain fundamental human motivations.

The various information can be coordinated both for scientific and applicative purposes.

Regarding the study of child, pre-adolescent and adolescent personality, it seemed important to us contributing to outline certain characteristics, which allow to maintain these three development phases distinct among them, or to underline its evolutive continuity.

Furthermore the strong influence of the type of urban culture on these differential traits was confirmed. To this purpose it is advisable to distinguish urban areas examined, in function of certain important cultural aspects; which can be considered as variable independent, distributed according to different levels.

A certain situation of minor industrialization, scarce initiative, accompanied by strong affiliation, economic depression, little availability of sport centres and playgrounds, strong socio-cultural pressure on motor limitation, is typical of crowded urban centres of Southern Italy.

In urban centres of Northern Italy, industrialization level is higher, there is a certain economic welfare, there are more initiatives; but playgrounds and sport centres are however few and scarcely available; socio-cultural pressure on motor limitation remains accentuated.

The California urban culture examined, places itself still at a higher level as to economic welfare, initiative, the abundance of both school and extra-school playgrounds and sport centres, acceptance and encouragement attitude towards practice of motor activities at various age levels.

One of the personality traits isolated from some time, is represented by the individual width of interests range, there is to say the number of different specific activities, which the subject would like to undertake.

In Italian subjects, such multiplicity of interests has been increasing constantly and in a steep way, from childhood to early pre-adolescence; to reach an acme which sets itself, on the average, for motor activities, at 12 years of age (13th year of life). This can be observed in subjects of both Northern and Southern Italy (P.Bonaiuto, G.Bartoli Bonaiuto 1967, 1969). The subject indicates at this age, an average of over eleven different interests per single motor activities, while at eight years of age he indicates only eight interests.

In late pre-adolescence in Italian subjects appears a reduction on multiplicity of interests, which becomes more evident at adolescence, indicating a sort of contraction in their own projects; an incorporation of limits and with this a specialization of interest.

American subjects also present a progressive increase in interest multiplicity in passing from childhood to pre-adolescence. In late pre-adolescence, such multiplicity continues to increase; so that the acme in the average individual width of the range of interests is set at over 14 years of age (15th year of life) and reaches nevertheless values superior to Italian subjects' values: over 13

different interests per single motor activity. At adolescence, reduction of interest multiplicity appears in a noticeable way, but remains slightly noticeable in American subjects.

These data delineate a very clear influence not only of personality evolution, but also of the type of culture; if we consider that the individual average range of interests remains constantly lower in subjects from Southern Italy, is constantly higher in subjects from Northern Italy, is still higher in subjects from California.

Particularly, the differentiation operated by different cultures appears to be very evident on children. The situation of minor industrialization and more motor frustration, seems to contribute in considerably depressing the interest range in 8 and 9 years old Italian subjects, especially so in the South.

An other marked intercultural difference appears at adolescence: when less activating cultures and more limiting towards the subject's motor activities, are those which see him reducing, realistically, the range of interest; while this remains high in function of availability of suggestion, of centres, of equipment. There is in reality a very regular proportion (statistically significant) between type of culture and multiplicity of motor interests in adolescence.

An other trait which came out at an early stage of this series of research, was the capacity of the pre-adolescent of Italian cultures to conceive the two environments, school and extra-school as likely to be integrated. This was estimated by counting the number of subjects not programming any joint activity between school and extra-school environment. These subjects who strictly dichotomise their day and their own vital environment, are very frequent in childhood and adolescence, while they decrease in pre-adolescence probably in relation to the pre-adolescent's need for self assertion and constant identity in various environments.

American subjects, show a preference, since childhood, for a strong integration of the two environments of activity, they easily programme numerous activities common to school and playground; the percentage of subjects who carry out a rigid dichotomy between the two areas, is really minimum in pre-adolescence but is however low at all ages.

Therefore also this aspect of personality shows a clear influence of the type of culture: integration tendency of various activity environments is on the whole lower in Northern Italy subjects(that however are rather strict at the extreme of age range considered), is still clearly higher in California subjects.

Also here there is a strong evidence of differentiation operated by different cultures in children and adolescents.

The situation of minor industrialization, more motor limitation, together with precise cultural tradition of scholastic seriousness, are those favouring a rigid dichotomy, constructively overcome by pre-adolescents and not congenial to American subjects.

A general observation which can be made at this point is that preadolescence brings about a resemblance among subjects from various cultures, at least in subjects we have examined.

There are also interesting analogies and differences in the type of activity which, in reality, these students would like to practice; related both to culture and in function of the subjects' sex; besides the age.

Bibliography

Bonaiuto, P.: Le motivazioni dell'attivita nell'eta evolutiva. Analisi fenomenologica, riferimenti e indicazioni per la sperimentazione; C.N.S.R., Milano, 1967, e.C.I.G.I., Ivrea, 1970.

Bonaiuto, P.: Determinazione di campi di esigenze e scelta di strutture funzionali, Bienn. Internaz. di Metodologia della Progettazione, Rimini, 1969.

Bonaiuto, P.: Sulle ricerche psicologiche europee in tema di monotonia percettiva e motoria ("Sensory Deprivation") e simili. Il processo della saturazione di qualita fenomeniche, Internat. Symp. "Man in Isolation and/or Enclosed Space", O.T.A.N., C.N.R., Rome, 1969; publ. also in : Rass.Neuropsich., 1970, 24, 3-4, 1-114.

Bonaiuto, P., Bartoli Bonaiuto, G.: Ricerca su esigenze manifeste in preadolescenti di ambiente urbano. Molteplicita degli interessi e tendenza all'integrazione degli ambiti d'attivita in luogo di dicotomie rigide, 1st.Internat.Conf.Phys. Ed., Bologna, 1967; publ. also in: Rass Psicol.Gen. Clin., 1967, 8.

Bonaiuto, P., Bartoli Bonaiuto, G.: Caratterizzazione del fanciullo, del preadolescente e dell'adolescente mediante indagini sugli interessi, in differenti socio-culture; I Conv. Med. "Citta di Cattolica", Cattolica, 1969; publ. also in: Minerva Pediatr., 1970, 22, 44, 2156 - 2163.

Gesell, A., Ilg, F.L.: Child Development. The Child from five to ten, Harper, New York, 1946.

Gesell, A.,Ilg, F.L., Ames, L.B.: Youth. The Years from Ten to Sixteen; Harper, New York, 1956.

Švàb, L., Gross, J.: Bibliography on Sensory Deprivation and Social Isolation, Psychiat.Res. Inst., Prague, 1964.

Wolfenstein, M.: French parents take their children to the park; in: M.Mead, M.Wolfenstein: Childhood in Contemporary Cultures, Univ.Chicago Press, Chicago, 1955.

НЕКОТОРЫЕ ОСОБЕННОСТИ КРАТКОВРЕМЕННОЙ ПАМЯТИ У БАСКЕТБОЛИСТОВ

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Чтобы успешно участвовать в баскетбольной игре, спортсмен должен обладать быстрой и гибкой ориентировкой. При ее осуществлении баскетболисту приходится запоминать за очень короткий срок особенности создавшейся игровой ситуации и активизировать усвоенные до этого тактические приемы и действия. Необходимо получить адекватную информацию, которая ставится в основу эффективности процесса ее переработки во время игры.

Для осуществления этой по своей сущности аналитико-синтетической деятельности необходимо реализовать ряд требований и актуализировать значение кратковременной памяти баскетболистов. Этот процесс лежит в основе рационального решения ряда тактических задач при отыгрывании игровых ситуаций.

Проявления кратковременной памяти в игре связаны с:

- быстротой воспроизведения технико-тактического арсенала посредством актуализации приобретенных знаний и заученных комбинаций. От всего этого зависит и эффективность самих действий;
- восприятием точного расположения объектов на площадке (одноклубники и соперники), кратковременное запоминание которых лежит в основе построения тактических комбинаций;
- умением быстро составить характеристику незнакомого противника;
- наличностью богатого индивидуального опыта об однократно возникнувших в игре ситуациях и их специфическом развитии.

Конкретной задачей исследования является диагностика кратковременной памяти у баскетболистов путем раскрытия:

1. Изменений, наступающих после тренировочной игры; - какие специфические особенности вызывает игра при запоминании объектов, условие, имеющее очень большое значение во время ее реализации. Раскрытие этих особенностей позволяет нам более целенаправленно и интенсивно вызывать и усовершенствовать данные процессы, существование которых является очень важным для игры; обеспечивает правильную методическую ориентацию для осуществления учебно-тренировочной работы; характеризует кратковременную память в условиях высокой эмоциональности и динамики игры.
2. Насколько использованная нами модификация методики Джекобсона отражает особенности кратковременной памяти у баскетболистов. Модификация ставит себе целью максимально адаптировать спортсменов к специфическим особенностям баскетбольной игры. Она выражается в следующем: Материал для запоминания представлен в виде фигур серийно по 13 чернобелых и цветных. Фигуры цветной серии окрашены постоянными цветами - зеленым, красным и синим. Мы использовали две серии с целью сопоставить объем и точность запоминания на хроматическом и ахроматическом материалах. Сначала испытуемым показывались 2 картона (6 фигур), а затем их количество постепенно увеличивалось по определенной программе. Фигуры расположены в решетке из 9 квадратов и сгруппированы в каждом картоне по 3. Время на воспроизведение было свободным, но не более 2 минут. Фигуры, которые исследуемые запоминали отмечались в специальных картах.

Мы учитывали количество правильно воспроизведенных по форме и месту фигур и количество сделанных ошибок. Предварительно при помощи анкеты мы получили данные о субъективной оценке исследуемых, о их психическом состоянии и желании участвовать в игре, которые оценивались по пятиступенчатой шкале, как и о характере выбираемой исследуемыми нагрузки во время тренировки, которые участники сорев-

нования определяли по заранее продуманным показателям (тренировка на усовершенствование техники и тактики игры, на развитие физических качеств и свободная игра).

Было проведено 96 исследований до и после тренировочных матчей во время подготовки к соревнованию с 40 баскетболистами высокой квалификации (по 20 мужчин и женщин).

Полученные нами результаты раскрывают следующие особенности кратковременной памяти у баскетболистов - участников соревнования:

1. Количество сделанных во время эксперимента ошибок увеличивается в процентах под влиянием тренировочной игры. Замечается и чувствительное увеличение ошибок при запоминании расположения фигур по сравнению с отражением их характера. Процент допущенных ошибок при определении фигур после тренировки в качественном отношении у мужчин гораздо выше чем у женщин. Это мы связываем с большими тренировочными нагрузками у мужчин (табл.1).

2. При запоминании типа фигур в цветном тесте наступают и изменения в количестве допущенных ошибок. При исследовании цветных фигур исследуемые делают наименьшее количество ошибок при треугольниках, обозначенных красным цветом, что связывается с длиной волны цвета (700 манометров). Сопоставление количества допущенных исследуемыми ошибок (в процентах) при решении цветного теста до и после тренировки не показывает большое различие что, вероятно, объясняется фактом, что нагрузка не влияет в большой степени на цветовое восприятие, а также и на запоминание.

3. Неточность при запоминании расположения фигур в цветном тесте меньше неточности в чернобелом тесте, что можно объяснить применением цветового восприятия. В состоянии четко выраженного утомления при запоминании расположения фигур в цветном тесте количество ошибок (в процентах) у баскетболистов увеличилось.

4. При запоминании расположения фигур мужчины допускают меньше ошибок чем женщины, что говорит о более хорошем запоминании пространственно-логических характеристик объектов.

5. Направления изменений кратковременной памяти при нагрузках в условиях баскетбольной игры подтверждаются высокой (для мужчин 0,527) и хорошей (0,402 для женщин) коррелятивной зависимостью самооценкой их психического состояния, желанием участвовать в игре, физиологическими показателями изменений, наступивших в организме под влиянием нагрузки (табл.2).

Значительно выше рассеяние сигмальных отклонений (в рамках средних величин) при самооценке психического состояния у мужчин. У женщин эти сигмальные отклонения в рамках средних величин, что раскрывает зависимость изменений от индивидуальных характеристик. Различия имеют высокую гарантированную вероятность и доходят до 0,909. Средние величины самооценки у мужчин и женщин одинаковы.

Взаимосвязь между изменениями в количестве и характере запечатленных фигур и данными и самооценке психического состояния выше у женщин в отношении точности при запоминании, а у мужчин эта разница замечается при определении расположения фигур. Баскетболистки запоминают лучше тип фигуры.

Данные исследования раскрывают специфику кратковременной памяти у баскетболистов в зависимости от характера применяемого раздражителя. Они раскрывают специфические пункты опоры в баскетбольной игре, т.е. с чем связываются объекты и что делает их уже знакомыми, уменьшает в значительной степени новую информацию. Эти данные указывают на характерную избирательность кратковременного запоминания, на специфическую селекцию информации, которая непосредственно связана с деятельностью баскетболистов.

Наблюдается зависимость объема и точности запоминания материала от степени нагрузки, психического состояния и желания участвовать в игре.

Установленные нами закономерности дают нам возможность сделать определенные рекомендации о более результатном осуществлении психологической подготовки баскетболистов и о направленности диагностического контроля исследуемого психического параметра.

Таблица 1 СДЕЛАННЫЕ ОШИБКИ ПРИ ОПРЕДЕЛЕНИИ ТИПА ФИГУР И ИХ РАСПОЛОЖЕНИЯ, ВЫРАЖЕННЫЕ В ПРОЦЕНТАХ

Исследованные лица	Черно-белые фигуры		Черно-белые фигуры по расположению		Цветные фигуры		Цветные фигуры по расположению	
	До нагрузки	после нагрузки	До нагрузки	после нагрузки	До нагрузки	после нагрузки	До нагрузки	после нагрузки
МУЖЧИНЫ баскетбол	38.0	35.3	54.6	61.9	33.1	33.1	48.1	52.4
ЖЕНЩИНЫ баскетбол	34.5	34.6	57.3	59.2	33.7	33.6	58.2	53.0

Таблица 2 КОРРЕЛЯТИВНЫЕ ЗАВИСИМОСТИ МЕЖДУ ПОКАЗАТЕЛЯМИ ЭКСПЕРИМЕНТА И САМООЦЕНКОЙ ПСИХОЧЕСКОГО СОСТОЯНИЯ

Исследование	Вид фигур		Разница между исследованиями до и после нагрузки	Расположение фигур		Разница между исследованиями до и после нагрузки
	до	после нагрузки		до	после нагрузки	
МУЖЧИНЫ черно-белые фигуры	0.594	0.527	0.107	0.126	0.294	0.433
МУЖЧИНЫ цветные фигуры	0.530	0.010	0.010	0.690	0.370	0.420
ЖЕНЩИНЫ черно-белые фигуры	0.402	0.010	0.529	0.103	0.107	0.091
ЖЕНЩИНЫ цветные фигуры	0.160	0.520	0.150	0.600	0.431	0.411

ЛИТЕРАТУРА

1. Брадбент Д.Е. - Современные исследования кратковременной памяти, Вопросы психологии, кн.3., 1966г.
2. Зинченко П.И. - Функциональная модель сенсорного звена зрительной системы и вовменении механизм кратковременной памяти, Вопросы психологии, кн.6, 1967 г.
3. Кравков С.В. - Цветовое зрение, Изд. Академии наук, СССР, М., 1951 г.
4. Ларуя Я.Р. - Новые монографии по психологии памяти. Вопросы психологии, кн.1, 1972 г.
5. Лурия А.Р. - О модальной организации кратковременной памяти, Вопросы психологии, кн.5, 1968 г.,
6. Невельский П.Б. - О скорости запоминания, Вопросы психологии, кн.1, 1967 г.
7. Сноник В.И. - К проблеме единства механизмов кратковременной и долговременной памяти. Вопросы психологии, кн.6, 1970 г.
8. Трашлиев Р. - Память и дейност., Наука и исскуство, София, 1975г.
9. Хилова - Устойчивость кратковременной памяти в некоторых экспериментальных условиях, Вопросы психологии, кн.5. 1970 г.
10. Чароян О.Г. - К вопросу о физиологическом механизме краткосрочной памяти, Вопросы психологии, кн.1, 1968 г.

CRITICISMS OF A "PSYCHOLOGICAL" NATURE WHICH ARE LEVELLED AGAINST SPORT

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The realm of psychology has provided certain people with a vocabulary, if not reasons for criticising sport. Thus a kind of "antipsychology" of sport has grown up which members of the I.S.S.P. will doubtless be curious to examine.

I will endeavour to do this by considering the three following main points:

Firstly, themes of a psychological nature which are held against sport.

Secondly, the conceptual and ideological aspects of such criticism and the assumptions it presupposes.

Third and lastly, the hypotheses of a psycho-sociological nature which might be borne in mind concerning the adherence which is given to the so-called "psychological" arguments brought against sport.

I hasten to add that my intention here is not to reply to these arguments or even to discuss them. I only wish to put them into context and explain them.

I.

The "psychological" themes which have developed in the criticism of sport are sufficiently well known and in this paper I intend to limit myself to briefly summarising them: their common argument is that, from a psychological point of view, sport has harmful effects on the individual's behaviour, personality and his relations with other human beings. It is held moreover that spectators are similarly affected.

1) The theme of the human being as a machine.

There we are faced with the notion that sport is a mechanisation factor on human behaviour because of the degree of precision required, due to both the teaching of stimulus-response and the drill-conditioning in training. The author of Critiques du sport writes: "Sport is essentially a mechanisation of the body conceived as an automation ruled by the principle of productivity". A sportsman's psyche is thus thought to become mechanised along with his body. He is imprisoned by the narrowness of gestural specialisation whose artificial and abstract nature is condemned by the authors as well as its repetitive, compulsive and obsessive tendencies. There is no room left for any creativity whatsoever.

The major consequence of such mechanisation and its corollaries is profound tedium which is characterised by the governing principles of quantitative measurements and bureaucratic rulings. Similarly one notes conformist attitudes and behaviour which are marked by dependence amongst individuals and regimentation in crowds.

2) Theme of negative relationships with others

Sport and especially competition stand accused of exacerbating the rivalry which sets individuals and groups against each other and develops dominating feelings of jealousy and envy, instead of sociability.

The so-called "psychologist" critics of sport lay great emphasis on the destructive violence deployed not only as a means of winning at all costs, but also as a way of life (fascism). They also stress that the selection procedures and the hierarchical system in sport frequently engender the feeling of being insignificant or rejected, whilst the happy few who emerge as winners are either isolated by their ostentatious awareness of their superiority or else suffer from guilt complexes.

3) The theme of repression of instincts

There the body and the realm of the senses and pleasures are thought to be suppressed. Sexual impulses are repressed and displaced. The physical effort involved in sport bears witness to an "inability to find sexual fulfilment." Freud can be of assistance here, the following text being frequently cited: "Modern education makes great use of sport to turn young people away from sexual activity. It would be more correct to say that sport specifically replaces sexual fulfilment by one provoked by movement and that it causes a regression of sexual activity to one of the auto-erotic stages." (Three essays on Sexuality. p.212 from the French edition, 1951, Paris).

It is also said that a psychotic state of sado-masochism is induced in the sportsman's psyche which enables him to derive pleasure from his pain.

4) Theme of personality deterioration

Generally speaking critics show sport to be a factor leading to personality imbalance and maladaptation. It subjects individuals to tensions which are too strong for them to bear, to excessive stress and produces inhibitions and frustrations. It creates superiority as well as inferiority and failure complexes.

Motivation is thought to be extrinsic and superficial, instead of intrinsic, and hardly likely to give substantial satisfaction to the sportsman who risks ultimately loathing any participation in sport whatsoever. Lastly the emotional factor in all this is fundamental anxiety which profoundly disturbs the sportsman's personality.

5) A fifth theme is not so much to do with sportsmen as with the spectators: watching sport is supposed to regiment, manipulate and alienate them, as well as goading them to violence whilst it strips them of all real power (ie political power) to be aggressive. It is said that sport renders its passive participants "cretinous", as they are subjugated by the mythic fame of their champion-idols.

After this brief recapitulation of themes, which it must be admitted, are of a somewhat pessimistic nature, let us now turn to some of their epistemological features, and ask ourselves what these notions might be a priori.

-II-

The first comment to be made is that such ideas are rarely developed by psychologists proper in their works (T.D. ORLICK is an exception to this rule but he, it must be noted, has never minimalised the positive aspects of sport practised intelligently; he has above all tried to find ways of reinforcing them). These ideas are most frequently encountered in the works of social philosophers, of sociologists, educationalists, essayists, journalists and sometimes of exchampions themselves.

These themes often appear in the form of polemic discussions which are characterised by outrageous generalisations concerning isolated cases, carefully chosen to back up their argument; they provide mere examples rather than scientifically established data. These examples belong to the highly competitive world of professional sport, and the extrapolations which are made from them have very little to do with the great mass of practising sportsmen. To be frank, I can hardly find any empirical research which has been carried out in a methodical fashion which can authoritatively prove that sport has intrinsically "destructive" properties from the psychological point of view.Longitudinal studies especially, which one expects to find on this subject, are missing.

It should be noted that the themes which I have summarised here are concerned mainly with the <u>effects</u> of the practising and spectating of sport. One might, moreover, conceive of a more radical approach which would have analysed sport as itself the effect and the reflection of a deficient or deviant psychic structure. If this approach is not the one chosen by the critics of sport, it is because

a) they would have come up against, rather too brusquely no doubt, the great mass of opinion which still remains favourable to sport, and which still believes that sport is a concrete illustration of the old adage: "mens sana in corpore sano".

b) a purely psychological critique of sport would have risked appearing apolitical, not thereby seizing the opportunity of using sport to question Power and its ideology - as is the objective of those who see sport as a ready - made social target.

c) lastly, since one wants to influence and rally people to one's banner, it is certainly more diplomatic to pass sportsmen off as victims of the sports industry and its institutions.

In fact, beneath the "psychological" themes evoked, there lies a social and ideological analysis which seeks to enlarge its field of activity, and in order to do so, it uses the expedient of setting itself up against all those who, following COUBERTIN, have indulged themselves - quite gratuitously! - in a sort of psycho-apologia of sport (sport as educator of personality, as developer of social sense etc.; their slogans are well known enough!). It is self-evident that such critics have set out along the path of ideology rather than that of psychological science. Theirs is a closed shop which can be defined by a conceptual interpretation which was formulated as far as sport is concerned - (rather late in the day)- by theorists who generally speaking take the view known as "leftist critique". This analysis is more or less shared by other authors who likewise expose the exploitation of sport by the elite in power. I need not recall in detail these socio-political ideas which are so frequently hammered home nor all their variations (to wit, the differences, for example, between RIGAUER, BÖHME, BROHMS on the one hand and J.SCOTT, H.EDWARDS, P.HOCH on the other).

Beneath the uproarious proliferation of texts, there run the same monotonous leit-motivs: sport is an institutionalised product of industrial capitalism (in both the East and West) which commercialises and politicises the human body; and also keeps the masses under the dominion of the bourgeois categories (economic,competition, technical production, social hierarchy,

bureaucratic centralisation): it thus represents a form of man's alienation and a new "opium of the people". I do not propose to discuss the basis of this thesis, as this has been done admirably by Hans LENK (whose texts I strongly recommend), but I will content myself by adding that, between the ideological foundations of the criticism of sport and the "psychological" themes through which sport occasionaly is presented, there lies implicitely a certain number of assumptions or postulates which may be qualified as ideologico-psychological.

They all subscribe to a general psychological concept of man which is to be found in many a doctrine in vogue and which retain nonetheless a hint of persistent rousseauism. It also seems that they stem from the bents of the cultural mentality in a consumer society, which is marked by the idea of easy fulfilment. Thinking more especially of sport criticism, here are some of these ideologico-psychological assumptions:

I. The body is not a machine (i.e. Anticartesian postulate concerning the body).

II. The body is the expression of a spontaneity, where man is proportionately more himself the more his environment is stripped of obstacles, rules and restrictions (that is to say Body as desire postulate).

III. Each individual's spontaneity is without precedent and is creative, and, as such, "immeasurable". Selection, competition and hierarchy are coercitive (Creativity postulate).

IV. As SCHILLER has pointed out, man is never more natural than when he is playing (Primacy of play and immediacy of pleasure postulate).

V. The fundamental structure of relationships of others is a state of indifferent and informal co-existence (In-difference postulate).

It is not for me to discuss these assumptions, which are rather utopian. I merely wish to suggest that they are derived from critical procedures which have not been directed by objective research. Even as far as the apparent description of facts is concerned, such assumptions contribute to the representation of phenomen in a particularly warped manner. The concrete and genuine experiences of sportsmen themselves are treated gratuitously. However let us not be surprised if a caricature of phenomenology shores up arbitrary psychology.

- III -

In this third section to terminate these few reflections, I would like to set forth some quite conjectural hypotheses concerning psycho- sociological explanations which could be given relating to the adherence to the themes and assumptions I have just mentioned.

Hypothesis I: One might be allowed to suppose that an expression of an opinion which is so poorly founded belies a state of very subjective motivation. This I would see in the resentment which, in different ways, shows that sport is thought to cause unfulfilled ambitions amongst certain top sportsmen ; inferiority complexes in physically inept people; envy in those who dislike the fact that a champion can make a career and his fortune out of his "muscles";

disdain amongst those who see culture as the summum bonum of Ideas, Intelligence and Art; the need in others to justify unchanging physical inactivity, etc.. In all such cases an unfavourable portrait of the sportsman provides an alibi, revenge and reassurance.

Hypothesis II: The contemporary mentality, which has been overtaken by a desire for comfort, for an easy life, by habits of technical and social aids (and which still denies the power of the technology which has produced material and human progress), baulks at the values of sport, which go against facility and which cultivate effort in energy and efficiency (i.e.technique), and rigour which lays emphasis on the principle of reality and action. Hense the tendency to subscribe to theories which put sport on trial by making the sportsmen out to be the slave to absurd muscular drudgery. The relentlessness with which the technical aspects of sport are pursed must be understood in relation to modern man's inability to assimilate and dominate (from the interior) the technological universe in which however he lives.

Hypothesis III: "Psychological" criticism of sport has produced psycho-pedagogical development (and applications?) from amongst the mass of teachers of physical education and sport. The principal themes which are reproduced boast that free movement, pure play, and "corporal expression" (which is neither dance, nor mime, nor anything else definite, and whose concept remains singularly "deprivatory"...) are panaceas, in a nondirective framework. A set of conditions which exist in this milieu favour the rallying of physical educationists to the criticism of sport, especially from the "psychological point of view". Finaly, they wish to set themselves apart from sport where they can control neither its development or destiny; and neither do they wish, and quite justly, neither do they wish to bear the weight of some manifest aberrations and deviations.

Furthermore, in their slow struggle for a statute as a fully recognised educator, and a full part to play in cultural activities, the teaching and research which are encompassed by the terms "corporal expression" and "language of the body" etc. seem to correspond better to their aspirations than to be passed off merely as specialists in sporting techniques. They too teach a language!

Lastly, as they demand nonetheless to remain the masters of every kind of corporal involvement, they hope to gain leadership for themselves in the rising domain of non-sporting physical activities which, in multiple ways (-yoga, bioenergy, "psycho-kinetics", etc..-), and in a liberating psychological climate, all claim to save man and his psychic equilibrium by freeing his body.

Hypothesis IV: Another category of persons may possibly have provided motives of adhering to the themes of sport criticism and may these people not be the psychologists of sport who devote themselves solely to competitive sport, to improvement of the champions productivity, talent selecting, conditioning to the maximum the training and preparation of those from whom nations expect victories and "records", and who occasionally turn their hand afterwards to psycho-therapeutics? Their "psychology" has certainly not always been "humanistic"!

x

x x

My conclusion will be brief. I feel that in such instances the "psychological" aspects of sport criticism are based much more on ideological speculation than efficient psychological research. In this way, although we must be grateful to these provocative criticisms for having drawn attention notably to the deviations in sport, they have hitherto been unable to provide a means of advancing objective research in this field. I even wonder if they will not prevent these means from being found, inasmuch as their ready-made conceptual schemes can be applied to any circumstance.

Bibliography

Beisser, A.R. : The madness in sports
New York, 1967

Böhme, J.O.etc.: Sport in Spätkapitalismus
Frankfurt, 1971

Bouet, M.A. : "Basic principles of an interpretation of high-performance sport" in Sport in the modern world,
Berlin, 1973 - PP 523-530

Bouet, M.A., Orlick, T.D. :"Le "fun" dans le sport" in Psychologie du comportement moteur
U.Q.Trois-Rivières, 1974, PP 18-34

Brohm, J.M. : Critiques du sport
Paris, 1976

Brohm, J.M. : Sociologie politique du sport
Paris, 1976

Butt, D.S.: "Agression, neuroticism and competence" in Int.Jel of sport psychology 4, 1, 1973, PP 3-15

Cagigal, J.M.: Deporte y agresion
Barcelona, 1976

Caviglioni, B.: Sport et adolescents
Paris, 1976

Edwards, H.: Sociology of sport
The dorsey press, 1973

Gantheret, F. : "Psychanalyse institutionnelle de l'éducation physique et des sports" in Partisans No 43, juillet - septembre 1968, PP 66-73

Hoch, P.: Rip off the big game
New York, 1972

Leith, L.M., Orlick, T.D.: "The effect of viewing aggressive and non-aggressive sport models on the aggressive predispositions of young audience" in Trabajos cientificos, tomo II, PP 101-107, Madrid, 1975

Lenk, H. : "Alienation, manipulation and the self of the athlete", in Sport in the modern world,
Berlin, 1973, PP 8-18

Lenk, H. : "Sport, achievement, and the new left criticism". Paper delivered at the Third Int. Symposium on the sociology of sport,
U.Waterloo, August 1971

Lenk, H.: "Manipulation oder Emancipation im Leistungssport" in Sportwissenschaft
3 Jahrgang, 1973/1, PP-9-40

Mazzoni, J.C.: "Le corps cartésien"
in Quel corps? No 4/5, 1976, PP 14 A -18 B

Meggyesy, D.: Out of their league
Berkeley, 1970

Orlick, T.D.: "The sport environment : a capacity to enfance, a capacity to destroy" Paper delivered at Halifax Symposium, octobre 1974 (31 pages)

Orlick, T.D. and Botteril, C.: Every kid can win
Chicago, 1975

Parlebas, P.: "Jeu sportif, reve et fantaisie"
in Esprit, No 446, mai 1975, PP.784 - 803

Parrish, B.: They call it a game
New York, 1971

Redna, A.: "Sport et agressivité"
in Partisans, No 43, juillet - septembre 1968, PP 91 - 97

Rigauer, B. Sport und Arbeit
Frankfurt, 1969

Roche, D.: Contribution de la pratique du judo au développement de la personnalité de l'adolescent (dactylo)
Thèse de psychologie, U. Tours, 1977

Schafer, W.: "Sport, socialization and the school" Paper presented at III Int. Symp. Socio of Sport, U.Waterloo, August 1971

Schafer, W.: "Sport and youth counterculture" Paper presented at S.U.N.Y. Brockport, Decembre, 1971

Schaw, G.: Meat on the hoof
New York, 1973

Scott, J.: The Athletic Revolution
New York, 1971

Smith, M.D.: "Violence in sport"
in Sportwissenschaft 4.Jahrgang 1974/2 - PP 164-173

Thibault, J.: Sport et éducation physique
Thèse Sciences de l'Education, Université de Bordeaux 1970, publiée par Vrin, Paris

Tutko, T., Burns, W.: Winning is everything and other American myths
Mac Millan, 1976

Vinnai, G.: Fussballsport als Ideologie
Frankfurt, 1970

Pirsig, R.M.: Zen and the art of motorcycle maintenance
New-York, 1974

UN PROJET DE RECHERCHE SUR LA VOILE, LE VOL À VOILE ET LE SKI

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Les sports de pleine nature comme l'alpinisme ou la descente de rivière en canoë peuvent se caractériser essentiellement par la notion de conquête motrice d'un environnement naturel. Mais, à partir de ce trait commun au genre qui les englobe tous, on voit deux catégories se différencier, suivant qu'est employé ce que nous appelons un engin d'évolution /bateau par exemple/, ou seulement un outil de progression/par exemple un piolet/.
Il y a également lieu de distinguer les spécialités qui exploitent les forces motrices de la nature /par exemple, un yachting: le vent/, et celles où l'environnement reste relativement passif.
Mais dans tous les sports de pleine nature, le milieu dans lequel ils se déroulent est source de problèmes, d'incertitude, voire de danger. Les notions de choix, de décision et de stratégie d'action y apparaissent donc comme fondamentales. Et c'est encore, a-fortiori, le cas lorsqu'ils donnent lieu à des compétitions ou des tentatives de record.
Pratiquant depuis de longues années moi-même la voile, le ski et surtout le vol à voile, je ressentais le besoin d'étudier l'élément décisionnel et stratégique de ces sports, d'autant plus que la psychologie de la décision et du risque m'a toujours intéressé et m'a toujours semblé contenir les maîtres-problèmes d'une psychologie spécifiquement humaine.
C'est ainsi qu'avec une équipe de collègues+/ du Centre de recherche du département de Psychologie de mon Université, j'ai été amené à formuler un projet qui a obtenu récemment pour deux ans-et-demi une "aide à la recherche" de la Délégation Générale à la Recherche Scientifique et Technique. Le Laboratoire de Psychologie Sociale que je dirige réalisera le programme dont je suis le responsable scientifique, en liaison avec de grands Etablissements Nationaux de la Jeunesse et des Sports et du S.F.A.
L'objectif général poursuivi se définit ainsi: "Psychologie des décisions et des conduites stratégiques dans des sports de pleine nature /Voile, Vol à voile, Ski/ médiatisant par un engin d'évolution l'interaction incertaine avec un milieu naturel qui est source d'énergie mais aussi de dangers".
Trois axes principaux de la recherche se dessinent: un axe "cognitif", un axe "influence sociale", et un axe "affectif". Le premier est pour nous fondamental; le deuxième lui est nécessairement associé; quant au troisième - plus difficile certainement à maîtriser - nous pensons le traiter surtout résiduellement.

+/ Enseignants-chercheurs en:Psychologie sociale/3/, Psychologie expérimentale/1/, Psychologie de l'éducation /1/, Psychologie clinique /1/.

L'ensemble des hypothèses générales qui ont été provisoirement formulées serait trop long à exposer ici en détail, de même que leur opérationalisation. Je vais donc me contenter d'indiquer schématiquement, en fonction des trois axes que j'ai mentionnés, leur orientation principale et les termes de leur problématique.

- 1er axe: Décisions ainsi que choix et mise en oeuvre des stratégies dépendent du degré de compétence des sportifs, et plus particulièrement a/ de la disponibilité des informations et des indices qui leurs sont accessibles, b/ de leur expérience acquise, c/ de leur capacité de réorganiser leurs stratégies, d/ de leur tolérance à l'incertitude.
- 2ème axe: On pense mettre en évidence l'effet de facteurs tels que a/ la référence aux expériences négatives ou positives qui sont arrivées aux autres , l'intériorisation de certains autres considérés comme modèles, l'influence des ordres et des conseils émanés des responsables, b/ la compétition diffuse ou organisée, le groupe /structure , type d'intéraction/ etc.
- 3ème axe: Les risques inhérents aux situations sportives étudiées impliquent l'intervention de facteurs tels que l'attitude envers la sécurité , le mode d'appréhension du danger, le stress ...

Le programme des opérations de recherche se décompose en cinq phases, dominées par le souci d'appliquer une méthodologie principalement orientée vers la "recherche sur le terrain",et tendant à "une expérimentation en milieu naturel qui offre l'avantage d'allier des conditions privilégiées d'observation à des risques dont la nature et l'intensité engagent davantage l'individu" /R. Lambert/.

- La 1ère phase comporte une série d'entretiens sur thèmes avec des experts, à but exploratoire.
- La 2ème phase consiste en une enquête par questionnaire sur des échantillons de pratiquants des sports étudiés.
- La 3ème phase est celle des observations participantes, systématiques et contrôlées qui seront menées sur le terrain selon des grilles d'observation appropriées, et qui nécessiteront, en fonction de la nature de chaque spécialité, la mise en oeuvre de différentes techniques d'enregistrement /radio, magnétoscope, etc./.
- La 4ème phase s'appliquera à des tentatives expérimentales impliquant la manipulation de certaines variables, soit en salle /expérimentations simples du type résolution de problèmes/, soit sur le terrain.
- La 5ème phase sera consacrée à la mise au point des résultats et à l'élaboration du rapport final.

Par la réalisation de ce programme de travaux nous espérons atteindre des résultats à trois niveaux:

1/ Niveau de la psychologie des sports, dans le domaine jusqu'ici assez délaissé des sports de pleine nature.

2/ Niveau de la psychologie fondamentale, dans le domaine des processus de prise de décision et de comportement stratégique /considérés tant à l'échelle de l'individu qu'à celle du petit groupe/.

3/ Au niveau des applications pratiques /apprentissages, perfectionnement, entraînement, sécurité, formation des formateurs, etc./.

En conclusion de cette simple présentation de notre projet, je voudrais dire que notre recherche qui est essentiellement du type "recherche sur le terrain" sera l'occasion d'une expérience /que nous voudrions si possible exemplaire/, d'échanges et de collaboration entre les hommes de terrain, spécialistes des activités sportives étudiées et une équipe de psychologues.

GRUPPENDYNAMIK UND LEISTUNGSPROGNOSE BEI SPORTMANNSCHAFTEN

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In den letzten Jahren sind die gruppenpsychologischen Untersuchungen in der Sportpsychologie immer häufiger geworden. Forscher und praxisorientierte Trainer haben immer mehr erkannt, daß die Leistung der Sportmannschaften in erster Reihe durch die zwischen den Spielern bestehenden Beziehungen, durch die Atmosphäre, den Geist und die kollektive Struktur der Mannschaft bestimmt wird. Auch alltägliche Erfahrungen beweisen, daß sogar die aus den hervorragendsten Spielern bestehende Mannschaft nicht im Stande ist, ein ausgezeichnetes Ergebnis zu erreichen, wenn die entsprechenden gruppenpsychologischen und sozialpsychologischen Bedingungen fehlen. Das Leistungsniveau eines jeden Sportlers wird aber in einer sozialpsychologisch gut struktuierten Mannschaft erhöht, die - mit einem wohl verbreiteten Ausdruck - den Sportler quasi "mit sich zieht" und ihn zu hervorragenden Leistungen antreibt.

Trotz all diesem sind die Anwendungsmöglichkeiten der gruppenpsychologischen Gesetzmäßigkeiten und der soziometrischen Methoden in viel größerem Kreise verbreitet als vorher. Sie können nicht nur in der Zusammenstellung der Mannschaften benutzt werden und können nicht nur zur pädagogischen Arbeit einen guten Anhaltspunkt bieten. Wenn die Interpretation sorgfältig adaptiert wird, können diese Methoden - unseren Untersuchungen nach - auch in der Leistungsprognose mit Erfolg benutzt und ausgebeutet werden.

In unseren derart gerichteten Experimenten haben wir - den spezifischen Charakter und die Aufgaben der Sportmannschaften in Rücksicht genommen - auch einige bekannte, allgemein angenommene Grund-Vermutungen der Gruppendynamik unter kritische Analyse gestellt. Auf Grund der eingehenden gruppendynamischen Untersuchung einer Oberliga-Fußballmannschaft und der Nationalmannschaft im Handball (deren Angaben auch mit den späteren Leistungen der Mannschaften verglichen wurden) haben wir folgendes erkannt:

1) Die klassischen Gesichtspunkte und angenommenen Indexe der Gruppendynamik können in der Untersuchung von Sportmannschaften nur nach einigen Änderungen und Umwertungen mit Erfolg angewandt werden. Es braucht keine Beweise, daß sich der Charakter der Sportmannschaften, die Bedingungen ihrer Organisierung und ihre Zielsetzungen von allen anderen Kollektivformeln in ihrem Wesen unterscheiden.

Die innere Harmonie der Mannschaft hat sich in der Leistungsprognose praktisch nicht als maßgebend erwiesen. Wie es auch aus den Untersuchungen von Lenk hervorging, verhindern die interpersonellen Konflikte nicht unbedingt "die leistungfszilitierende" Wirkung des Kollektivs, und den ausgezeichneten Gruppeneffekt. Eine bestimmte Rivalität, das Erscheinen der interpersonellen Gegensätze kann die Dynamik der gemeinsamen Tätigkeit sogar noch steigern und den Schwung der Mannschaft verstärken. Manchmal kann eine Erregung, ein Ausbruch die aus der Bestrebung nach hohen Leistungen herstammende und sich in Sportmannschaften oft stabilisierende Spannung ableiten.

Man muß in Betracht nehmen, daß die interpersonellen Gegensätze in einer größeren Mannschaft praktisch fast unvermeidbar sind. Experimentelle Forschungen haben es klargesetzt, daß höchstens drei- vier Personen längere Zeit ohne kleinere Konflikte zusammenarbeiten können. Eben in dieser Beziehung stehen ernste Aufgaben vor der Sportpsychologie: die Konflikttolerenz der Spieler zu erhöhen und zu steigern.

/2/ Auch die Wertung des Kohäsionsindexes braucht eine Revision. Die Leistung der Sportmannschaften ist nicht durch den Kreis und die Intensität der persönlichen, gefühlsmotivierten Beziehungen der Spieler bestimmt, wie die Struktur einer Freundengesellschaft oder einer Studentengruppe. Die hohe Kohäsion, die Zusammenbestimmtheit - die als eine Identifikation erlebt wird, kann die gemeinsame Leistung sogar bremsen z.B. bei miteinander zu solidarischen Spielern entstehen und verschärfen sich oft Konfrontationen mit dem Trainer, mit der Fachleitung, manchmal sogar zum Nachteil der ganzen Mannschaft.

/4/ Schließlich können an und für sich auch die Vorteile der festen, geschlossenen inneren Struktur - wo ein jeder mit einem jeden in persönlicher Beziehung steht und so keine hierarchische Gliederung nach Fähigkeiten oder Interessen in der Mannschaft zustande kommt - nicht bewiesen werden. In solchen Mannschaften gibt es im allgemeinen keinen Star, keine zentrale, im Mittelpunkt stehende Leitfigur. Es ist eine alte Erfahrung,daß eine Mannschaft ohne richtunggebende, auf Initiative anspornende Leitfigur, ohne "Star" nicht zu maximalen Leistungen fähig ist. Das beweisen auch exakte psychologische Aufnahmen.

In unserer Arbeit erwiesen sich als wichtigste vom Gesichtspunkt der Leistungsprognose aus, in der Analyse der Gruppenstruktur folgende Parameter:

1. Wie ist der innere Kern der Mannschaft, gibt es in der Mannschaft eine zentrale, verhältnismäßig größere Gruppe oder nicht, und falls ja, aus welchen Spielern welchen Niveaus sie besteht. Im Zusammenhang damit: wie viele Mitglieder der Mannschaft an die Peripherie verdrängt sind?

Als Mittelpunkt haben wir die geschlossenen Formeln betrachtet, zu denen wenigstens ein Viertel der Mannschaftsmitglieder unmittelbar oder mittelbar gebunden ist.

Die Mannschaftsmitglieder, die mit dem zentralen Kern keine Beziehungen haben, bilden die Peripherie oder Rand.

Es kann als durch Erfahrungen bewiesen angenommen werden, daß die geschlossene Formel, in der ein jeder wenigstens zwei Beziehungen hat, das Aktionspotenzial der Mannschaft erhöht, und mehr Möglichkeiten zur Ausbildung gemeinsamer Traditionen, zur Befestigung von Gewohnheiten, und zu gemeinsamen Erlebnissen bietet. All dies hat aber eine wesentliche Bedingung: die zum Mittelpunkt gehörenden dürfen sich nicht isolieren, sie müssen wenigstens mit einem Drittel- oder Viertelteil des Kollektives in Beziehung bleiben. Diese kollektive Entscheidung ist auch zur Informationsverbreitung und zur Herausbildung der entsprechenden Wirkungskette unentbehrlich.

2. Einen weiteren unentbehrlichen Gesichtspunkt der Leistungsprognose bilden selbstverständlich in der Beurteilung der Soziogramme der Charakter der Beziehungen und die Aspekte der Wahlen. (z.B. "mit wem möchten Sie an einem Ausflug teilnehmen?") müssen von den Wahlen getrennt werden, die eine objektive Bewertung und die Beachtung der gültigen Normen anfordern (z.B. "Wenn der Trainer erkrankt wäre, wen würden Sie zum Vertreter vorschlagen?").

Vom Gesichtspunkt der Leistung aus weist es auf eine günstige Struktur der Mannschaft hin, wenn die persönlich, subjektiv begründeten Wahlen stark zerstreut sind, einer verhältnismäßig hohen Zahl der Mannschaftsmitglieder zufallen, während die eine objektive Ermessung verlangenden Wahlen einheitlich sind, auf eine kollektive Übereinstimmung hinweisen, also fast alle Wähler im großen Ganzen denselben Personen ihre Stimme geben. Diese Verteilung der Wahlen zeigt sich schon bei den Mannschaften in Entwicklung, und berechtigt die vorteilhafte Leistungsprognose.

INTELLIGENZ - SPIELINTELLIGENZ - LEISTUNG

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Die Spieltätigkeit der Basketballspieler ist ein rationelles Komplex zweckmäßiger Handlungen. Sie äußert sich in motorischen Prozessen, aber auch als psychische Geschehen, in Problemsituation als Ergebnis der Denktätigkeit. Den Erfahrungen nach werden dieselben Spielsituationen von den Spielern auf verschiedene Weisen gelöst. Die Lösungen der Spieler von einer höheren Spielintelligenz sind aber im allgemeinen erfolgreicher.

Im Rahmen einer Komplexuntersuchung versuchten wir die Frage zu beantworten, in welchem Maße das Intelligenzniveau die Leistung beeinflußt, und ob sich die individuellen Leistungen aufgrund des IQ oder aufgrund der Spielintelligenz voneinander unterscheiden.

Nützliche Anleitungen zur Untersuchung der Spielintelligenz sind in den Arbeiten der erwähnten Spezialisten zu finden.

Folgende Methoden wurden gebraucht:

Zur Messung der Spielintelligenz stand keine objektive Methode zur Verfügung. Deshalb haben wir einen Fragebogen mit Punktwertungssystem zusammengestellt. Unsere Fragen bezogen sich auf die Beurteilung der in den verschiedenen Phasen der taktischen Handlung (MAHLO) erreichten Leistung. Die originellen Lösungen wurden getrennt bewertet. Ein jeder Spieler wurde unabhängig voneinander von 3 verschiedenen Trainern gewertet. Auf Grund des Durchschnittes der Ergebnisse wurde die Spielintelligenz-Rangreihe festgestellt.

Die Zusammenhänge zwischen den Ergebnissen der verschiedenen Methoden wurden mit Rangkorrelationsmethode untersucht.

Teilnehmer:

Die Untersuchungen wurden in 9 Gruppen, insgesamt mit 119 Personen durchgeführt. Das Muster repräsentierte die Durchschnittspopulation.

Besprechung der Ergebnisse

Intelligenzergebnisse (IQ)

Die Tabelle 2 zeigt die Verteilung nach Kategorien.
Das Durchschnitt-IQ der Basketballspieler - 115 - entspricht einer hohen Kategorie.
Zwischen der Anzahl der zu den zwei oberen und zu den zwei unteren Kategorien Gehörenden gibt es keinen wesentlichen Unterschied.
Es hat sich also nicht bestätigt, daß alle Basketballspieler von hoher Spielintelligenz seien, obwohl ihr Durchschnitt höher ist als bei der ungarischen Durchschnittspopulation. - Wohl wurden 92 % der zur extremen Kategorie gehörenden Spieler Mitglieder der Nationalmannschaft, ihre Prozentzahl ist aber annäherungsweise gleich auch in den Kategorien von niedrigerem IQ.
IQ kann also nicht als Auswahlfaktor betrachtet werden.

Zusammenhang zwischen IQ und Leistung

Weder innerhalb der Gruppen, noch zwischen den Gruppen wurde ein Zusammenhang gefunden. IQ beeinflußt also die Leistung nicht.

Zusammenhang zwischen IQ und Spielintelligenz

- in zwei Gruppen signifikanter, in den übrigen Gruppen schwach-positiver
- die zwei Teste messen ähnliches, aber nicht das selbe.
- Demgegenüber wurde zwischen SI und L überall ein stark signifikanter Zusammenhang festgestellt.
- Also war die Lösung hier zu suchen. Wir haben festgestellt, daß unsere Methode zur Untersuchung der Spielintelligenz auf die Anwesenheit des "s"-Faktor hinweist, und eignet sich in erster Reihe zur Signalisierung:
  - der Fähigkeit der Begreifung und Erkennung der visuellen Gesamtsituation sowie
  - der logischen - und Denkfähigkeit.

Diese zwei Faktoren sind von unstreitbarer Wichtigkeit in der Lösung der Spielsituation, sie bestimmen vermutlich auch das Niveau der Spielintelligenz. Es kann nämlich auf Grund der Logik abgeleitet werden, daß im Falle einer insäquaten Situationserkennung die Lösung erfolglos sein wird, d.h. der erste Faktor spielt eine entscheidende Rolle. Dementsprechend kommt die Spielintelligenz in den Phasen Situationserkennung-Denken-Entscheidung zur Geltung, und wird auf dieser Weise bestimmend für die Lösung. Wenn das stimmt, dann muß es einen engen Zusammenhang zwischen Leistung, Spielintelligenz und Entscheidungsinhalt (Qualität der Lösung) geben. Um dies zu beweisen haben wir mit einer Gruppe die schon dargelegte, instrumentale Untersuchung von ISTVÁNFI durchgeführt.

Der gegenseitige, stark signifikante Zusammenhang zwischen SI, E und L beweist, daß die Spielintelligenz durch den Entscheidungsinhalt die erfolgreiche Lösung und dadurch auch die Leistung bestimmt. Eine höhere Spielintelligenz ergibt eine bessere Leistung.

Tab. 1

	Leistung	Entscheidungsinhalt
SI	0,6964	0,6072
L	-	0,8036

Schlußfolgerungen

1. Das IQ-Niveau ist für L nicht entscheidend; obwohl das IQ der Basketballspieler höher ist als bei der Durchschnittspopulation, kann es kein Auswahlfaktor werden.
2. Durch die Auffassung und Erkennung der visuellen Gesamtsituation, durch die logischen - und Denkfähigkeiten (die "s"-Faktoren") beeinflußt die Spielintelligenz den Inhalt der Entscheidung, d.h. die erfolgreiche Durchführung.
3. Unseren Angaben nach kann das SI-Niveau - dem IQ-Wert gegenüber - sowohl in der Auswahl der Basketballspieler als auch in der Auswahl in die Nationalmannschaften, verwendet werden.

Tab. 2

IQ- ERGEBNISSE

Kategorie	Personen	%
EXTREM	12	11
SEHR HOCH	40	33
HOCH	34	28
DURCHSCHNITTLICH	33	28

N = 119

KATEGORIE	AUSWAHLSPORTLER		NICHT-AUSWAHLSPORTLER	
EXTREM	20 %		1,5 %	
		52 %		36,5 %
SEHR HOCH	32 %		35 %	
HOCH	20 %		36,5 %	
		48 %		63,5%
DURCHSCHNITTLICH	28 %		27 %	

IQ-LEISTUNG

innerhalb der r'- Gruppen

zwischen den r'- Gruppen

SI-L

Tab. 3

PHASEN DER TAKTISCHEN HANDLUNG
(MAHLO, F. 1965)

1. PHASE	AUFFANGUNG - ANALYSE SITUATIONSERKENNUNG
2. PHASE	LÖSUNG IN GEDANKEN ENTSCHEIDUNG
3. PHASE	MOTORISCHE HANDLUNG

A STUDY ON RELAXATION IN SCHOOLCHILDREN OF 10-14 YEARS

CSIDER, T. Budapest, Hungary

Relaxation techniques tend to involve more and more diverse methods. Classical autogenic training cannot be applied to sport without modification as the relaxation technique elaborated for sports purposes is useless if the improvement of mental creativity is in the objective of our endeavours. All this has led us to elaborate a relaxation method suitable for children of 10 to 14 years and in accordance with the special purposes of hygienical gymnastic at school.

After some experiences and theoretical considerations the conclusion had to be drawn that Schultz's autogenic training method is unsuitable for

children. Adult alertness and the data processing activity are formed along with the maturation of the cerebral cortex. Interrelationship between the cerebral cortex and the formatio reticularis constitute a relay loop. There is a mutual reinforcing process between the two systems regulating the level of induction of the formatio reticularis, while the perfection of the cerebral cortex gives rise to a selection of stimuli. With children, a relaxed state characteristic of adults cannot come about, precisely because they are not yet able to select from stimuli: they treat all stimuli as informational data and so are unable to regulate the level of induction of the formatio reticularis. It is only while playing that the child attains a really relaxed state.

Biological Justification of the Experimental Hypothesis

As regards relaxation employed for clinical and gymnastic purposes, the question might arise as to whether it is advisable to bring about a conscious interoception systematically.This is an especially crucial problem with children who, besides showing neurotic and dystonic vegetative symptoms, are inclined to observe the activity of their own internal organs. This is implied in Schultz's traditional method, emphasizing the regulation of the internal organs by a wilful concentration of attention, at the same time, however, contributing to the formation of hypochondriac characteristics of the individual in adolescence.

In our opinion, by learning consciously to relax the muscular system, instead of conscious interoception, the visceral activity can also be influenced. Our hypothesis seems to be supported by data and researches on muscular biology /Hettinger/, where it is recorded by the authors that the formatio reticularis within the brain is activated by afferences of the circular muscles. It is also remarkable how close a connection there is, on all levels of the central organization, between the visceral sensory organs and the cutaneous and muscular sensory paths.

A Muscular Relaxation Version of Relaxation Techniques

The exercises of the muscular relaxation method constitute a structure of logical successions. Besides preserving the structure of movement, its advantages are the mastering of an economical muscular activity and the regulation of harmoniously functioning internal organs.

Phases of the Muscular Deinnervation

a) In the first phase the relaxion exercises, proportioned according to body parts and muscle groups, were done by children lying supine. Gradually relaxing the parts of their bodies and attaining a relaxed state all over, they finished the exercises by repeating the phrase "I am lying relaxed."

b) After arriving at a "sense of heaviness" concerning their limbs, they began to move their arms and legs loosely, while still lying. They concentrated their attention on consciously contracting and relaxing their muscles.

c) In the third phase, the children learned to contract and relax their muscles in standing position, then in motion,with and without apparatus.

Experimental Groups and Results

The experiment went on for eight months, with two groups of children of 10 to 14 years. Relaxation exercises were done, during a 45 minutes physical load, three times a week. One group had Schultz's autogenic training, the other did the first phase of the muscular relaxation version. We observed the changes of the vegetative muscular system by pulse-rate, and approached the degree of relaxation from two angles:

/1/ How closely the pulse value at rest was approximated by the calming of the pulse-rate: the result of the double-sampled "t" test was 1.099 /$p < 0.1$/.

/2/ The slowing-down of the heart-rate as compared to the loaded pulse: the result of the double-sampled "t" test was 1.137 /$p < 0.3$/.

According to the results, there is no significant difference between Schultz's autogenic training and the muscular relaxation method. The benefit of this method is, however, that is does not depend on interoception and contributes, by teaching relaxation also in movement, to the development of the movement of children as well.

CONTROL OF ANXIETY IN TEAM SPORTS

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1.0 INTRODUCTION

Performance in sport is dependent upon three factors, namely, skill, fitness and psychological variables such as personality, motivation, arousal and anxiety (Davey 1976). This paper is concerned with the control of anxiety in a team sport such as Australian Football.

2.0 AUSTRALIAN FOOTBALL

Australian football is a unique game bearing little resemblance to any of the world's major games of football, rugby, soccer or gridiron. It is played between two teams of 18 players, lasting for 120 minutes, on a field approximately 200 yds. long by 150 yds. wide.

It is an extremely fast, skilful and rugged game played in the major capital cities of Australia, and is watched regularly by many hundreds of thousands of spectators. During the winter season of approximately six months, games are played weekly between twelve clubs with the top five teams playing off in the finals during the last month.

Although all matches may be watched by crowd averaging 30,000/and could be described as an anxiety producing situation,/ the finals in Victoria usually are watched by crowds of between 80,000 and 120,000. Also, 'final fever' is accentuated by an undue daily emphasis on football from the press, radio and television. With extremely vocal partisan spectators, anxiety appears to be the downfall of many teams whose good performance during the season was not sustained

during the finals series. Such results indicated the need for research in order to see if certain teams could be helped to overcome their nervous tension in important finals matches.

3.0 PERSONALITY OF AUSTRALIAN FOOTBALL TEAMS

During the last five years research (Davey 1977) into the personality characteristics of Australian footballers has been undertaken using the Eysenck Personality Inventory (E.P.I.). The E.P.I. measures the two independent variables of extraversion-introversion and neuroticism-stability (Eysenck 1970).

Whilst each of the four categories, stable extraverts, neurotic extraverts, stable introverts and neurotic introverts, have been found to exist in each team, the vast majority of footballers come from neurotic extraverts. The average footballer from some 500 subjects tested lies at the 60th persentile for extraversion and the 60th percentile for neuroticism. However, some interesting results appear between the average footballer of individual teams. Whereas the average percentile for extraversion varies little from the 60th percentile for each team, there are large differences in neuroticism ranging from the 50th to the 70th percentile.

An examination of the teams which eventually make the grand final revealed that they are significantly more stable than the teams which "blow up" in the final series. For example, the scores on neuroticism on two teams that consistently reached the finals, but performed poorly, were averaged at the 68th and 70th percentile. The teams that actually played off in the grand final in recent years have averaged between the 50th and 55th percentile on neuroticism. An example of an anxious team can be seen from figure 1 and table 1:

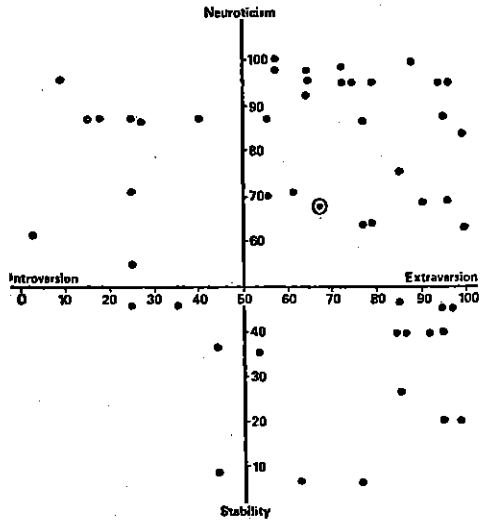


FIGURE 1. EYSENCK PERSONALITY INVENTORY, AUSTRALIAN FOOTBALL TEAM

TABLE 1. DISTRIBUTION OF AUSTRALIAN FOOTBALLERS ON EYSENCK PERSONALITY INVENTORY

	EXTRAVERSION	INTROVERSION	TOTAL
NEUROTICISM	9	24	33
STABILITY	4	13	17
TOTAL	13	37	50

Such information led the writer to test Suinn's (1976) theory of Visual Motor Behaviour Rehearsal (V.M.B.R.).

4.0 VISUAL MOTOR BEHAVIOUR REHEARSAL

According to Suinn, V.M.B.R. is a combination of mental practice and behaviour modification techniques. In this particular project both the highly anxious teams were instructed in the use of V.M.B.R. and recommended to use it frequently during the final series. Instructions were given to each player to choose a quiet place, relax, and then to use imagery to practice the specific skills used in the Australian game of football. For example, players were asked to visualize arriving at the ground during the final series, getting dressed, listening to the coach's speech, and running onto the field in front of some 100,000 spectators. (This latter task is probably the most tension producing experience in a football season).

It was then suggested that they mentally practice all the skills used in the game, such as kicking, marking, handball, etc., and to visualize themselves being successful against the particular opposition player they were due to meet in the next match. They were also asked to mentally rehearse particular moves, drills or plays that they had physically practised with their own team members during training.

5.0 CONCLUSION

It is difficult after only two years to make any categorical statement on the success or otherwise of this type of therapy on football teams in general. However, some interesting results show that such research is worth persevering with, as both teams have won final matches for the first time in four years. It must be emphasized that the factors of skill and fitness are far more crucial variables in success, than the suggested psychological treatment using V.M.B.R. Nevertheless, this research suggests that V.M.B.R. may assist highly anxious teams to achieve the potential of which they are capable.

6.0. REFERENCES

Davey, C.P. "Psychology of Coaching" Sports Coaching, Department of Environment, Housing and Community Development, Canberra, 1976.

Davey, C.P. "Psychology of Coaching" Chapter II, Coaches Manual, National Football League of Australia, 1977

Eysenck, H.J. and S.B. Manual for the Eysenck Personality Inventory California, 1970.

Suinn, R.M. "Visual Motor Behaviour Rehearsal" in Krumboltz, J.D. and Thoresen, C.E. (eds.) Counselling Methods, pp. 360-360, Holt, New York, 1976.

PSYCHOLOGICAL PREREQUISITES OF THE ETHIC EFFECT IN THE STUDY PROCESS

DETCHEVA, M. Sofia, Bulgaria

The formation of thoroughly developed persons brought up in communist spirit is a main task of socialist education. Physical education is an essential part of the dialectic entity which is called communist education. It is in unity and correlation with the other aspects - intellectual, polytechnical, ethical and esthetic education.

Physical education uses prerequisites created by other aspects of communist education and creates such itself to participate in their more successful formation. Thus, in perfecting the educational process guidance a necessity arises to reveal possibilities through concrete specialized influences, produced by physical education for instance, to search for and to achieve a larger and more complex instructive result.

The agreement between physical and ethical education of the growing-ups and their psychological prerequisites is one of the problems in this respect that has not been thoroughly studied yet. The reason for research in this direction is based on the following important positions:

a) according to the scientific materialistic psychological theory of personality (A.N.Leontiev, S.L. Roubinstein, V.V.Davidov, etc.) and pedagogical practice (A.S.Makarenko, V.A. Suhomlinski, etc.) personality formation as an educational aim, developes under the influence of those social relations only, which the person enters through his activities and the activities of the person is the main track through which the influences conditioning its formation are introduced.

b) the specificity of the educational process in physical education creates various opportunities for the trainees in the process of their own activity, to be placed under conditions of varied behaviour, process and social situations, which influence purposefully the formation of their personality.

The task of our study was to reveal some possibilities and psychological prerequisites which help to build up purposefully certain ethical qualities in primary and secondary school children by specialized means and conditions of the physical education process. The object of the investigation were the ethical qualities: collective spirit, honesty, self-criticism, friendship and discipline. The pedagogical experiment was based on the study of plays and sports games. Two games of definite ethical character connected with the specificity of the material studied according to the programme were included in each lesson to meet this purpose.

130 second and fourth grade school children divided into two experimental and two control groups were studied. The methods of the investigation include pedagogical experiment, planned observation, expert evaluation and diagnostic experiment applying the poler profiles method and the method of the unfinished sentences in our modification specially worked out for the purpose. As an addition the functional state of the children under study was controlled too.

The results obtained display the following regularities:

1) On all indices the results of the two experimental groups are significantly better than those of the control groups (see table 1 and 2). They are significantly better also in respect of the indices of physical ability of the children after the completion of the experiment (see table 3). These results show that the means properly selected according to their instructive influence in the educational process (plays and sports games) can fulfil the specific tasks of physical education parallel with those of the ethical education.

2) To achieve this results, however, it is necessary to create certain psychological prerequisites and conditions. The analysis of the pedagogical experiment and observation show that an important condition for ethical education is the availability of formed ethical conscience and its agreement with the ethical behaviour under the leadership of the former. It was proved that the more consciuos, personally engaged and ethically motivated is the participation of the pupil in the physical education process, the greater and more thorough the effect of its influence is. For this purpose the trainees must have certain knowledge about the moral principles and norms of behaviour which they have to follow.

The transition from knowledge to conviction necessarily requires experiencing of correspondent ethical emotions and personality engagement of the evaluation and self-evaluation of his own behaviour and actions as well as the behaviour and actions of the others in the collective group. The latter requires formation of certain ethical criteria, value orientation in the growing-ups and an ability of self-guidance and self-control.

The formation of ethical qualities as well as of other conscious human actions has a step-by-step character. The knowledge of the ethical norms, qualities and criteria, field-proved in corresponding situations of action and supported as acts by the collective evaluation and by the self-evaluation cause certain ethical emotions and experience changing gradually into convictions, motivating and inducing the person actively to action. At this stage the ability of conscious regulation of the actions is of great significance. The experiment results definitely show that the increase of the ethical effect in the plays of more complicated motor actions and particularly the sports games require the motor actions of the pupils to be preliminarily reasonably and consciously acquired with a completely formed orientation basis.

4) The formation of permanent ethical qualities require systematic creation of conditions for purposeful exercise of the correspondent ethical behaviour in varied conditions. This imposes the introduction of a new type of problem situations elaborated and called by us social problem situations in the educational process. Different from the cognitive situations applied in the

educational process up to now, characteristic feature of the problem situations is the presence of a moment of conflict in the provoked situation and the obligatory presence of social evaluation.

5) Certain age differences in the sequence, mutual stipulation and dynamics of the development of definite qualities are displayed. The qualities of the primary school children are developed more dynamically, the quality of discipline being of highest increase. The development of honesty and self-criticism are prevailing with secondary school children.

The regularities found out reveal possibilities to apply scientific approach in perfecting the physical education process in order to intensify its instructive effect.

Bibliography

Dimitrova S., Detcheva M. - Psychological Prerequisites for the Moral Effect in the Learning Process, Collection: 1st Congress of the Psychologists in Bulgaria, 1977.

Dimitrova S.: Some Preconditions and Modern Tendencies for Further Improvement of the Learning Process in Physical Education, "Voprosi na Fisicheskata Cultura", 8/1977, 397-403

Dimitrova S.: Psychological Peculiarities of the Educational Process, "Za yarki kommunisticheski dobrodeteli", 10/1975, 17-29

Leontiev A.N.: Deatelnost, soznanie, lichnost, Polit. liter., M.1977 (activity, consciousness, personality).

FEAR AS A STIMULATING FACTOR

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Fear as well as joy are human emotions. Two manifestations are obvious in all emotional processes. One of them stimulates the activity of the body, while the other suppresses and detains it. In most of the cases, however, joy is considered as a positive stimulating emotion, while fear is generally regarded as hampering, detaining and impeding human emotion. Pavlov notes that, in many cases, fear is an obstructing process representing a different stage of passive defensive reflex and gives a different gradation of fear - falling from fear, timidity, uncertainty in one's own abilities, etc. H.Selye calles such experiences "stress" and especially in these cases he calls them "distress" - "bad" provoking passive reaction or resignation.

This makes many authors regard fear as an impeding factor only. The importance of fear as a stimulating factor in motor activity, however, and particularly in sport is not taken into account and is underestimated. Fear, besides being an impeding factor, may serve as a stimulator and activator Darwin says that when experiencing fear man reacts either by stupification or by a number

of active deeds not typical for him in normal state. A.Ben say: "Horror may be full of energy, the body is in a state of extreme anxiety ready for an unbelievable act." H.Selye calls this type of reaction - evstress "good", expressed in active fighting.

It is clear that fear, in its stimulating form, influences the tone and chemical content of the muscles, activates and involves into action other factors having great importance for the increase of working ability and capacity of the body.

All this inspired us to investigate fear and its varieties, to find out when and at what circumstances it is an impeding and when it is a stimulating factor.

For that purpose 138 boys and girls from sports clubs,students at the Higher School of Physical Education and Sports and active sportsmen were studied. The investigations were made in the following way: we carried out control tests on 100 m dash, 400 m running, shot putting, relay and hurdle races as follows:

a) normal conditions (one by one)

b) with an opponent (strong and weak)

c) in trials of crucial importance causing great fear such as elimination at contests, expelling from the club or the college.

d) in real contests

An inquiry-interview was carried out with all people under study and their behaviour and actions in certain situations were under planned observation. Before and after the control tests the pulse and the attention of the persons under study were measured by Schultze's test. The results were processed mathematically and statistically. Their analysis shows the following:

Certain increase of sports achievements is noticed with all investigated persons when they experience some fear. When the fear is relatively small it causes a slight tonic and stimulating effect. Musculature is stimulated, the pulse is quickened with 10-12 beats, and the attention concentration is increased. The work time by Schulte's test is shortened with an average of 7.5 seconds. The results of 100 m dash improve by 0.35 seconds, of high jump - 5 - 7 cm, of shot putting - 32 cm and of 400 m run - 2.7 seconds. The fact is interesting that the increase of the achievements is much higher (almost double) with 11-12 year olds than that of 14-15 year olds. Probably where unconscious fear reactions are greater (the biological instincts and unconditional reflect fear are dominant) the results are higher. With elder persons the so called by us reduced fear exists which has a prevailing social character and importance.

The other fact that is noticeable is that in one age group, totally, the influence of fear in boys is weaker than in girls. The results of the investigations show that the level of fear influences also the achievements at various sports events in a different way. For instance, its influence is strongest with the single time actions (high jump, shot putting) which proves that fear influences mostly the concentration, mobilization and power of the processes. Naturally, this, together with the increased metabolism and pulse frequency, causes a general improvement of the state.

At the inquiry interview almost all investigated children answered the question why they improved their results with the following:..."I didn't want to be the last". "That was what we feared," or "I am afraid they will overtake me"... .."I was afraid that we will be slow"..."It's terrible to be overtaken" that's why I mobilized myself and I felt more concentrated and mobilized." When asked whether it didn't detain them they answered: "No, on the contrary, without that feeling of fear I would not have mobilized"...."I would have relaxed", etc. Australia's great hope Steve Holland, who set two new world records in 800 m and 1 500 m says that he likes swimming..."in a state of anxiety" and speaks of "speed of fear" which has brought him the two world records. He says that he has achieved them by imagining that a gigantic shark was after him while he was swimming. That is what he says about the specific "psychological adjustment" which looks for when getting ready to swim:"It may sound funny but, actually it is something serious. Once I was watching fish in an aquarium and noticed that they started swimming faster when I rubbed the walls of the aquarium with my fingers. The fish were frightened. I thought this over. At first I doubted that I could swim faster if I was afraid. Then several times I tried to imagine that an enormous shark is chasing me. The results were very high." The world champion SK says: "I always run as frightened and chased." "I run not to be overtaken, and if they reach me and overtake me, I feel that I am undone", says another champion... "I always run possessed with fear", etc. And Alen Boben says:"I swim because I'm afraid of drowning."

All these show that the emotion of fear is a natural "normal medium" for achievement of higher sports results. That is the reason why readiness, the fighting readiness, is immediately connected with a certain feeling of fear from the unknown, from the opponent, the terror of losing and the self-preservation instinct. That is a natural preserving reaction, a feeling to keep the achieved, especially when it is connected with social responsibility.

These statements were proved in the experiment connected with causing of intense fear while performing a fatal, decisive trial. The investigated persons improved their results at jumping 14 cm and at shot putting 69 cm. Naturally, when the fear is very intensive a decrease of the result in some cases is observed (they are 5 in our experiment). When asked what the reason for the decrease is they answered: "It was no use to try, I had no hope for success." In such cases the intensive fear has not caused positive reactions, active and stimulating, but on the contrary, has caused deprivation of confidence, stiffness and unability to apply its activity in the motor action carried by him. This has led to the decrease in the results. The facts show that fear activates behaviour and increases physical abilities and the results of the human activity when opportunity to struggle exists with a perspective for success and an appropriate emotional background is also present. This is particularly accentuated in relay races. There, we noticed an average improvement of the results of 0.9-1.1 seconds at 4 X 100 and 1.8 - 2.0 seconds at 4 X 400 m which is a considerable increase. At the inquiry review the investigated runners answered that the fear to be overtaken and the possibility their collective (the team) to be overtaken and to lose mobilized and inspired them, made them stronger, more agile and hard..."I feel surge of power", one of them says and another answers: "I'm out of my wits with fear but I feel such power within myself that can do much more as if I am not myself", etc. Of course, other factors also have their influence in relay race but that

particular feeling of fear and responsibility to the collective is dominating and probably it arises from the peculiar and specific collective "relay" feeling.

Conclusions:

1. Fear in sports (motor activity) plays an activating, stimulating and positive role, in many cases, but it is not yet thoroughly researched.

2. Fear influences positively in all cases when it is moderate and has a medium level of expression. Its influence is greater in one act actions.

3. When extremely great fear is experienced the positive result depends on the individual peculiarities, ways of perception, the state and motivation of the person.

4. Fear influences more strongly the younger children "where the bilogical factor and the self-preservation instinct are dominant" mostly with girls which is connected with their emotional background.

5. In sports activities it is not always necessary to eliminate fear, on the contrary, the availability of optimum "useful" fear is an important condition for achievement of good results. It does not impede but activates and involves into action additional inner abilities of the body and personality.

SOME PSYCHOLOGICAL ASPECTS OF PERFECTING THE CONTEMPORARY SCHOOL PHYSICAL EDUCATION

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The increasing social role of physical education in human life and contemporary society objectively expands the area and importance of the psychological and social element in motor education and the complete result of physical education. Particularly significant is that problem as far as growing-ups are concerned. It defines the basic trends of perfection of the physical education process in contemporary schools and the importance of the psychological regularities for their realization.

Our theoretical and experimental studies during the last 10 years show that these trends must be searched for in complex in three interrelated aspects: process and psychological personality and methodical.

The application of the structural and functional approach in the analysis of the experimental data obtained give us the opportunity to specify the following basic groups of psychological problems and aspects of perfecting the physical education process in contemporary schools.

The first group of problems concerns the psychological level of formation of the motor actions and the correlating grade of self-regulation possibility. Our investigations showed that the educational process is possible to occur on three different levels of psychic activity in education: conscious

performance level, realized performance level and full realization level. These levels are characterized with different psychological specificity of the activity carried out and, respectively, provide different level of self-regulation ability.

Their psychological characteristic basic criterion is the completion and the psychological level of the orientation basis of the studied actions. The third level reveals the greatest and most flexible possibilities for the educated, its orientation basis being clear, complete and its psychological mechanisms are on the level of high psychological functions.

The second group of problems concerns the correlation between personal approach and motor education.

In contemporary conditions the approach towards physical education at school as towards an activity whose aims are only to develop physical qualities and to learn certain motor habits must be considered narrow because it underestimates or ignores the personal requirements and effect and does not meet the actual demands of society thus, lying on behaviourist basis.

The results of our study show that the realization of personal approach in the educational process requires the creation of special preliminary conditions and requirements, current and following the direct influence, which will develop independent cognitive activity in the trainees, motivation and conviction, permanent necessity for motor activity, will create certain moral principles and esthetic criteria which are in the basis purposeful self-regulation of the thorough behaviour of the person.

A characteristic feature of the personality effect in the educational process is its being both a prerequsite and a result. According to the data obtained in our studies it may become a result only if it has been included as a prerequisite and provided that the trainees' conscience has been actively directed towards the fulfillment of the activity as well as towards orientation in the situation where the activity occurs. The influence of physical education on the psyche of the person under study must be considered as a guided realization of concrete structural and functional changes in the conscience of the trained persons. On the other hand, the problem personal approach - motor education naturally develops into the problem of personal approach, motor education, development.

Our investigations explicitly prove that a complete development, generally and concretely, in the conditions of physical education is impossible without the processes of active following of the purpose, personal motivation, self-regulation and self-development. Personality development is influenced mostly by the degree of transition of the outside influences into inner property in the process of its own activity. The formation even of such a basic personal component as need is (in this case the need for motor activity) in its conditioned reflectory form, which we found in the 12-13 year olds under study, different from the unconditioned reflectory form characteristic for younger children, has two decisive prerequisites - the availability of certain motivation, personality position and value orientation of the individual and a high psychic activity level, providing thorough rationalization of the activity and regulation of the actions and behaviour through a rich personally rationalized direct and, particularly, reverse information.

These regularities define the third group of psychological problems concerning the interrelation - motor activity, psychic orientation.

It was found out that, in the conditions of motor education and special psychological situation rich possibilities are created to develop certain social orientation together with the subject orientation. It is a prerequisite of realization of ethical effect in the educational process. (The results of the investigations in this field are given in a separate report).

We found out that the formation of points of support by using and objectivizing certain outside and, particularly, inner orientators is of crucial importance for the subject orientation in motor education. The pedagogical significance of this regularity issues from the complex and dynamic character of action regulation when the large variety of physical exercises is performed. The latter requires creation of appropriate conditions for rational direction of the intellectual activity of the trainees.

Our study showed that the requirements of intellectual activity of the trainees in their motor education increase with age.

The factor analysis of the components of the psychological regulation of motor actions displayed the availability of two different types of regulation called by us - praxeological and analytical. They are characteristic, respectively, the first for the age of 13-14 and the second for the period after this age. With the praxeological type of regulation the factor weights of the separate components are close to each other and have close factor relation defining the effectivity of the motor behaviour of the child in their entirety.

The analytical type of regulation is characterized with data in groups and separate differentiated factor groups. According to the character of the data they are: intellectual, motor and functional (vegetative).

Thus, the formation of the ability of action self-regulation requires two psychologically and methodically different approaches to the physical education of children of different age groups. It accounts for the different methods and direction of education in the respective age groups. The level and character of the intellectual activity in learning the physical exercises are, according to the data obtained from the experiment, a considerable prerequisite for the will abilities of the growing-ups.

The realization of the complicated and complex result described above, determines the contents of the fifth group of problems - motor activity, personal activity, collective.

It was found out in the study the close relation between the way of motor action formation - the methods of education, the independence and creative activity of the students- and the social status of the group and the social and psychological climate in the class collective. It was proved that the ability of self-control and realistic self-evaluation are functionally connected with the formation of the control part of the motor action psychological structure. Motor actions themselves define the level and character of communication the educational process conditions and the motivation of the students' activity.

As far as methods are concerned, if close interaction between pedagogy and didactics exists the following opportunities for optimization of the educational process show out: a) by selection and perfection of the educational methods; b) by creating situations for independence and creativity of the educational process; c) by individualization and differentiation of education; d) by intensification of the social effect on the personality and the collective group through introduction of a new type of personal and social problem situations.

Bibliography:

Dimitrova S. : Psychological Peculiarities of the Guidence of the Learning Process in Physical Education "Voprosi na fisicheskata kultura", 8/1970

Dimitrova S. : Some Preconditions and Modern Tendencies for Further Improvement of the Learning Process in Physical Education, "Voprosi na fisicheskata kultura", 8/1977, 397-403

Dimitrova S. : Investigations on the Process of the Building up of the Movement Idea at the Formation of the Motor Habit, Collection "Scientific Works of WIF", 2/1971

Dimitrova S. : Development of the Creative Thinking in the Lesson of Physical Education, Publ.the Ministry of Education, 1970

Dimitrova S. : Investigation on the Contribution of the Process of Formation of the Movement Idea when Building up the Motor Habit, Scientific Works of WIF, 2/1971

Dimitrova S., Sjulyokchieva O. : The interests of the Primary and Secondary School Pupils for the Lesson in Physical Education, "Voprosi na fisicheskata kultura", 4/1971

Dimitrova S., Bujuklieva I. : Education of Independence and Creativity during the Learning Process in Physical Education, "Voprosi na fisicheskata kultura", 9/1972

Dimitrova S., : Psychological Problems of Physical Education (Second Revised Edition), Monography, Publ. "Medicina i fiskultura", Sofia,1975,

Dimitrova S., : Influence of the Formulation of the Teaching Process in Physical Education on the Socio-Psychological Climate in the Teaching Collective, Collection "Socio-Psychological Climate in the Pupils´and Teachers´Collective and the Communist Education of the Pupils", Sofia NNP, 1975, 89-96

Dimitrova S., Yordanova S., Yakimov M., Vangelov B., : Unity and Interdependence between the Independence, the Individualization and the Differentiation in the Teaching Process of Physical Education, 1975,

Dimitrova S., : Intellect and Sport, "Voprosi na fisicheskata kultura", XX,1975. 4/233-237

Dimitrova S., : Development of the Interest and Necessity of Physical Culture and Sport Activity in the Growing Generation according to the Formation of the Teaching Process.Jubilee Scientific Culture Conference - "30 Years of Physical Culture in Bulgaria" Publ. "Medicina i fiscultura" , 1976

Dimitrova S., : Psychological Prerequisites for the Development of the Volitive Possibilities with Men, Collection "1-st Congress of the Psychologists in Bulgaria", S., 1977

Galperin P.Y., : Types of Orientation and Activity at Education, "Narodna Prosveta, 1/1963

Leontiev A.N., : Deyatelnost, soznanie, lichnost, Polit. litera, M.1977 (Activity, consciousness, personality)

THE PSYCHO-SOCIAL CONDITIONING OF TENNIS

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The paper presented here is on the sports game of tennis. It attempts to define the most essential activities of the tennis player and to work out the personality profile on the ground of the multiaspect analysis of the discussed discipline. The paper is also concerned with the social conditioning which consists of the knowledge about the active tennis players in Poland and the characteristics of human relations in tennis sections and teams.

The extensive problem needed a variety of method and technics for the research. For the personality study of the tennis players the R.B.Cattell's questionnaire was used, their temperamental traits were determined with the L.L.Thurstone's scale and intelligence was tested with the D_{48} test. The social characteristics of tennis and some psychological aspects, such as motivation, emotional experience, were ascertained with the help of an inquiry, which was prepared on the results of the interviews with the competitors, coaches, social workers in sports and on the observations of the tennis players in their variable training and competing sports activities.

Psychologically tested were the tennis players who belonged to the national representation teams /9 women and 11 men/ and the youth representation /11 women and 19 men/, 46% of them with the first sports class and 38% with the second, 16% with the champion class.

The inquiry was carried out for all the women and men tennis players of all the tennis centres in Poland /162 persons/.

The answers of the competitors show that clubs, schools, teachers and coaches take a small part in the propagation of tennis, on the other hand decisive are the family sports traditions /27.8%/, the influence of the active women and men friends /11.7%/. Many responders stress the attractiveness and beauty of tennis, the curiosity and the growing interest with this kind of game /44.0%/. 37.7% of the questioned have started their career in sports with tennis, 19.1%

with football, others with skating, athletics, swimming. Most of the children /38.3%/ started playing tennis between their 11th and 12th year of age.

The continuation of the tennis career is determined largely by the motives of pleasure, delight and satisfaction found in the play /17.3%/, but also by getting used to playing tennis /14.2%/.

The sports activity of the tennis players is formed in the specific social conditions, which are fragmentarily reflected in the human relations in clubs and tennis sections. Three quarters of the inquired group have estimated their club conditions, from the point of view of the material base, as good or very good. At the same time they stated that the atmosphere in sections plays an important part in scoring good sports successes. Not without value is also the attitude of the superiors in work and in school, which, as estimated by the sportsmen themselves is in 75% of cases positive. But apart from all this the competitors come against different difficulties: 34% of them complain of the lack of time for training and competitions, 14% complain of the lack of tennis equipment and some relate their difficulties to their own qualities, such as low resistance, weak nervous system and insufficient training.

It was found that the situations in competitions are differently experienced by the tennis players, depending on all the external factors and their personality features. The emotional tension during a match changes the degree of its intensity in relation to the momentary state. Two thirds of the questioned tennis players judge that the difficulties during the match arise as a result of excessive nervous and emotional tension. It is related, among others, to the temperamental traits of the tested persons.

The investigation showed that the women and the men tennis players are characterized with: high physical vigour, high degree of impulsiveness and low reflectiveness.

The 16 factor questionnaire reveals that the tennis players obtained the highest saturation in factors C_2, Q_4, G, M. It follows that they are self-sufficient and self-dependent, quiet and with low nervous tension, persevering and responsible /G/, unconventional and egocentric /M/. Large percentage of the tested shows low degree of emotional stability /C/. The Polish team players are sociable and not jealous /L/, they are not too self-confident, they are timid /O/. To work out the personality profile of the tennis player I exposed the scores of testing of the champion and the first sports class players and compared them with those of the second class competitors. It showed that the tennis players with the highest achievements in sports are marked with higher intelligence level /B/, - same as in the D_{48} test. They are better adapted to resist threatening situations /H/, are more self-dependent in action /Q_2/, enthusiastic /F/ and willing to dominate /E/. Temperamentally they are more active than the tennis players with the second sports class, are more impulsive and far less reflexive.

Summing up we can draw a general conclusion that for the improvement of sports achievements it is necessary to compare the demanded standards of the sports discipline with the characteristics of the sportsmen who are practising it. The profound knowledge of the discipline and the competitors' qualifications show the right direction for the schooling and educational process.

Bibliography:

1. Fish R.A. : The anatomy and psychology of tennis. Maybend Press, Ltd. London 1968.

2. Tomaszewski T. /red/: Psychologia. PWN. Warszawa 1975.

3. Vaněk M., Hošek V., Svoboda B.: Studie osobnosti ve sportu, Universita Karlova, Praha 1974.

NEUROPSYCHOLOGICAL ASPECTS OF SPORTSMEN'S ANXIETY

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The anxiety of top, trained sportsmen is a psychophysiological and a psychosocial aspect at the same time, because it presents the complexity of a specific form of emotional tension with an anticipation of the result of a sport happening - a match most often.

The sportsmen's anxiety is caused by a vast spectrum of causalities, from genetical, constitutional, all the way to social and culturological ones. It is more or less evident in sub-culture of sportsmen in each society, but in different conditions it is differently "cultivated". The ultra-modern technology and just as modern (sometimes modernistic) "technological" education stress in their own way the importance of the "programmed" within the whole of the training treatment and the competitive situation.

The physiological correlate of anxiety is tension. The morphology by which anxiety is presented is polimorphic, as it contains different structures of the central, neuro-vegetative, neuro-endocrinic and musculatory apparatus.

Anxiety, as a bio-energetic potential of a mostly subcortical origin, can be directed, by a system of return connections, in all directions: upwards, ascendent to the brain and downwards, descendent by neuro-vegetative and motor canals, including the endocrino-metabolitic areas of the brain comlex. The hypothetical ways of the distribution of tension are shown on the pictures of the so-called ascendent or descendent diffusive projective system of the brain complex.



Fig. 1 RETICULAR ACTIVATION SYSTEM

Applying the technique of the simultaneous polygraphical registration (EEG, ECG, respiration, tremor, psychogalvanic reaction, artery tension before and immediately after the registration, we worked on an experimental group of top sportsmen - basketball players, N 60 and a control group of neurotic, anxious patients who had asked for medical help, N-56. The patients from both groups have been submitted to the same methodology and both groups were exposed to an objectively equal anxious influence of technique and the electronic ("omnipotent") technology - a neurophysical laboratory with imposing apparatuses, the "switching in" of patients to all that technique, acoustic isolation..The results of the obtained polygraphic findings were compared starting with the premise that the anxiety of top sportsmen containe specific aspects both in the dynamism of its "taking away" and its psycho-physiological expression. We wanted to set some preliminary criteria of the prognosis of sportsmen's behaviour in the conditions of a direct action of anxiety factors.

Figure 2 shows a normal poligram of a grown-up, awake person in the state of psycho-physical relaxation. We can see the lack of the influence of tension to higher, cortical levels (normal electrocortical activity with a well-expressed and symetrical basic Alpha activity) with a normal tonus of all neuro-vegetative parameters (a normal cardiac frequency, rhythm and depth of breathing, a mild, spontaneous psychogalvanic reaction, normal values of the TA before and after the registration).

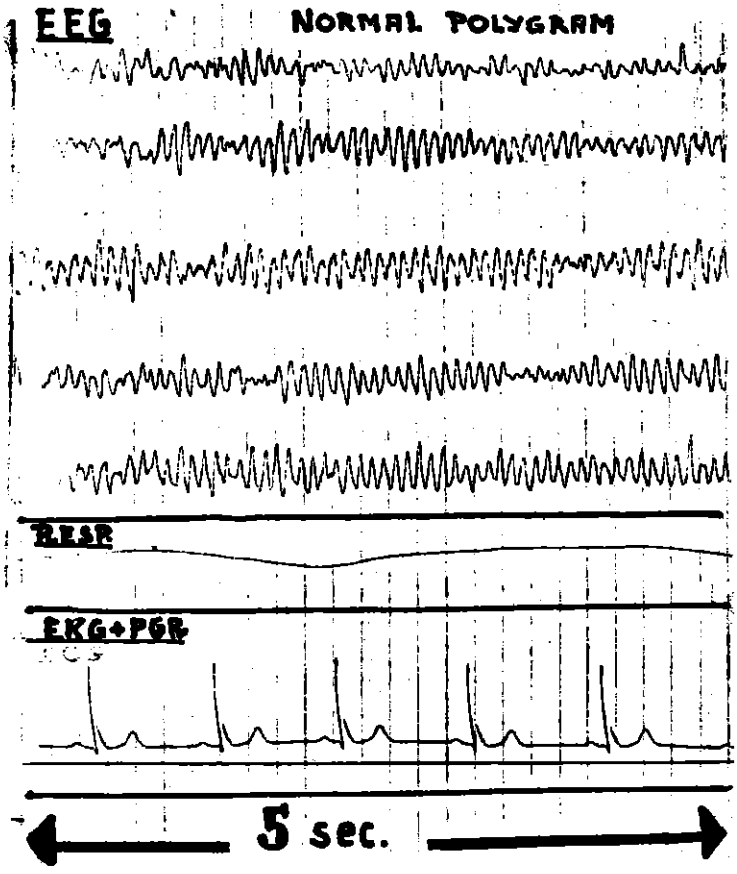


Fig. 2

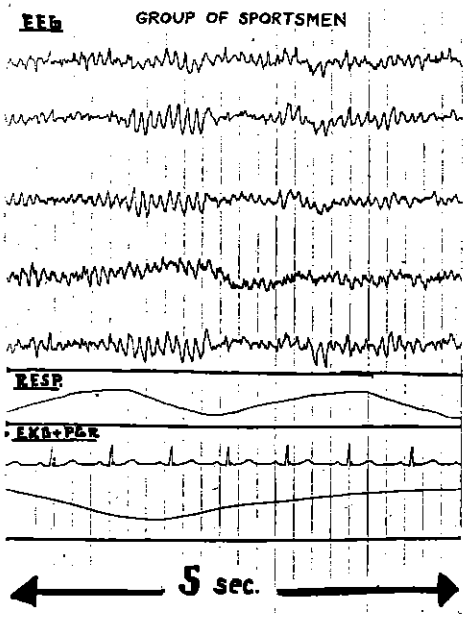


Fig. 3

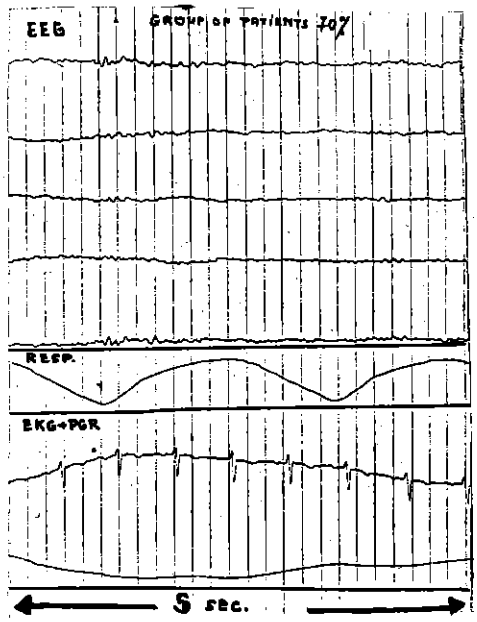


Fig. 4

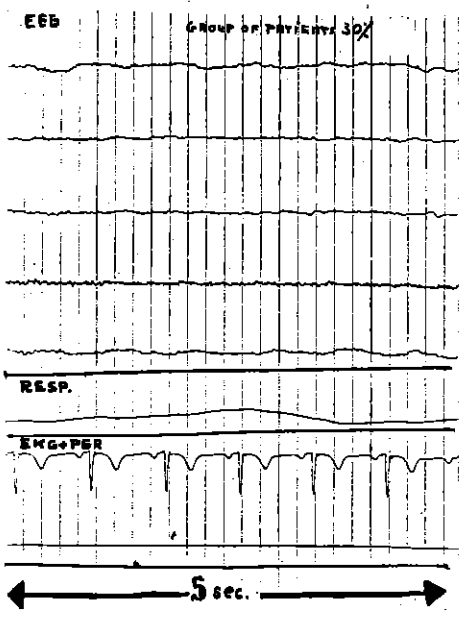


Fig. 5

Fig.3. The following pictures of the poligram show the bioelectrical behaviours, first in the experimental group (top, trained sportsmen), and then within the control group.

Fig. 4 and 5. - A. The experimental group (sportsmen):

The poligram shows a normal EEG with a stress in vegetative systems: a faster cardiac work, a more intense and prolongued psychogalvanic reaction, a mild increase of artery tension with a fast normalisation at the end of the registration.

Such a polygraphic finding allows for the following neuro-and psycho-physiological interpretation:

With subcortically caused anxious energy the ways of ascendent taking away are blocked, and the normal cortical tonus (a normal EEG), results from it, while the "surplus" of anxiety is taken away by descendent, neurovegetative canals with the engagement (most probably) of endocrinic-metabolitical systems. From neurophysiological aspect such a model of reaction is appropriate and welcome from at least two reasons: the cortex is protected from an unneccessary overburdening, and the diminishing of a higher anxious tension is achieved through "chosen", i.e. trained neurovegetative canals. From a psychophysiological aspect, it means the non-awareness of one's own anxiety, while at the same time showing its vegetative equivalents which can easily be recognized by educated and experienced sport pedagogists (wide eyes, augmented sweating, a faster cardiac frequency and the like...).

B. The control group (neurotics):

1. 70% of polygraphic picture of an increased "stress" of cortex (the so-called phenomenom of desinchronisation in EEG, figure 3) with parallel stress of neurovegetative systems. The neuro-physiological aspect of this reaction shows a simultaneous bringing of anxious energy towards the brain (ascendent) and towards vegetative and motor effectors (descendent). The psychophysiological expression is a feeling of anxiety which is partly sometic. Clinically: a psycho-somatic reaction.

2. 30% of the polygraphic pictures shows a maximum desinchronisation of the EEG with normal indicators of neurovegetative functions. Neurophysiologically: almost all of the anxious tension is taken towards the brain (ascendent) causing its maximum "stress". Psychophysiologically: it is a brain activity trying to (most often unsuccessfully) work out the tension which has flooded it. Clinically: it is a neurotic-anxious state.

Conclusion:

Sportsmen show important specificity in neuro-physiological and psycho-physiological showing of anxiety. The specificity, more or less known in sport praxis, are judged by sport pedagogists empirically and intuitively.

The technique of simultaneous polygraphic registration can offer not only the objectivisation of anxiety and the potential for anxious reactions, but it also offers an evaluation and the foreseeing of such states.

AN EVOLUTIONARY FRAMEWORK FOR PLAY

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Effectance and Evolution

In meeting the challenges inherent in living together in an enlarged ecological niche the earliest humanoids evolved into envestigative animals, non-specialists with a high flexibility of response. In the view of Dolhinow and Bishop (1970) modern man is the product of selective pressures which in acting on our species favoured those individuals with the greatest exploratory tendency. This need-to-know, to attribute meaning to novel stimulus patterns, is undoubtedly fundamental not merely to our specific cognitive development but also to species survival. In the human alone do we find object curiosity so highly evolved, for we humans are the supreme opportunists, the epitome of non-specialization. Adaptations such as tool construction and use, optional in the more specialist primates but vital to our survival, all arise from this initial investigative, exploratory behaviour. We see, seek out and seize (or even create) surplus behaviour opportunities. Consequently, as Gregory (1974) has so ably demonstrated, human perception itself is not merely exploratory but is already subtly governed by expectancies which are investigated by the sense organs in a regulated manner. The physiological linkages involved in the visual sensing of an object and the actions to be carried out in regard to that object are depicted as extremely close-knit: visual perception and the plans for voluntary action are so intimately bound together that they may be the products of one cerebral function. It is thus useful to consider the acts to which these functions give rise as a testing of ways to modify the environment in line with previously established expectancies. This first occurs in play: in behaviour where means not ends are everything, where process not product is all important. A toy hammer, for example, is very important to any human toddler, for through this he discovers and confirms for himself the substance of which the world is constructed, establishing expectancies which will last life-long in the process.

Play and Effectance

According to Piaget (1971) play is pure assimilation, an activity in which the child adapts situations to its own requirements and responds at its own pace in a risk-free world where urgent, reality demands are minimal. This psychological situation is created by the mother for each infant. But a mother is also alert to her baby's smile as the first indication of active, directed, intentional behaviour. Infants probably become aware that they are capable of modifying the mother's behaviour at roughly the same time as the mother feels she has achieved contact and communication with her child. Directable and directed smiles are the key to the mother's ability to elicit by means of world-wide vocalizing, touching and cooing games based on such responses, other complex responses in the child's repertoire. These responses are also capable of causing the mother to modify her behaviour relating directly to the movements and sounds of the child. In this initial directed response - a smile on glimpsing the mother's face - is revealed a human ability to encode, decode and respond to complex stimulus patterns, to make sense of sensation and to demonstrate that meaning has been so attributed; to play the major game of childhood, if not human life itself.

Now is set up an almost unbroken stream and flow of interactions between the child and the surrounding physical and social elements which interweaves contingencies between acts and objects, means and ends, actions and outcomes, self and things-out-there which will underpin all subsequent cognitive and affective development. Information seeking and processing, encoding and decoding is the name of the game intiated by that first, directed response, the smile. Learning that actions on objects have consequences and that these can be predicted, each child "invents" objects (in the sense of making them meaningful) and thus discovers himself and the world of objects, evolving the rules which govern our physical and social worlds in so doing. These rules (or expectancies) once established, mean that early spontaneous responses give way to purposive, intentional behaviour; behaviour designed to test ideas about how the world is constructed and will respond. As recently observed by Watson (1970) the game is not important to the child because people play it, people are important to the child because they play this game.

From here on the child responds in ways that seek a response. Children and other animals thus quickly establish not only response contingencies but expectancies derived from contingencies.A game of peek-a-boo for example depends for its arousal and excitement value (no matter how many times repeated) on a falsification of the child's expectancies, often in ways which startle and alarm. Many mother-child games, as several psychologists have pointed out, provide physically threatening information that would terrify an infant in the absence of the mother (Bruner, 1974). Peek-a-boo thus has elements of terror for the young child and moments of real anxiety, yet children persist in seeking out and responding to situation which provide just such emotive stimuli. Similarly children turn toward physical objects which provide complex stimuli and by touching and manipulating these elicit further high rates of information from them. Tendencies toward increased interaction with the physical and social environment in ways surplus to, or unconnected with, immediate gratification or extrinsic reinforcement earlier noted in chimpanzees.... "with no incentive the chimpanzee displayed a higher variety of handling objects than under the pressure of a lure" (Schiller, 1952, p.186), provide the basis of theories of human learning (Leuba, 1955) and thus more recent explanations of human play (Ellis, 1973). Arousal seeking, fundamental to play and thus learning, by providing increased interaction with the environment culminates in man's unique ability to traffic in nonsensory meanings, to elect what we will react to, to create the world in which we will henceforth live.

Competence, Comparison and Craftmanship

The term competence denoting the attainment of recognized levels of performance predicates the exhibition of response and methods appropriate to a task. Highly competent people who select just the right signals as cues, match appropriate responses to this information and check results in a most rapid and reliable way, today called "experts" or in the sports arena, "super stars". Yesterday they were termed craftsmen or artists and served as role models for the unskilled multitude.

Just as animals are seen to be subtly adapted to their physical environment so the actions of experts or craftsmen are governed by and beautifully adapted to problems of the task in hand. Most of us pause willingly to admire

such exhibitions of skill (sometimes paying large sums of money for the privilege) but fail to recognize the cost of such expertise; a price which in the past was accepted by all craftsmen as inseparable from learning their craft. The cost of this neatness of fit between the end-result and the means employed is time and effort in task analysis, in discovering and practising the best ways to achieve a desired end. Too frequently in sport this is brought about by suppressing spontaneous, carefree, innovative responses in favour of studiously copied, rehearsed, taught (and in some cases, carefully coached) responses arising from the experience of others in similar tasks. Little time is allowed in such a process for experiment and self-discovering experience. Too much emphasis is placed on outcomes or results. We are applying an industrial work paradigm to play activities and fail to recognize the cost of this.

Play and Work Differences

Problem solving usually requires that goals or ends are held invariant while solutions are tried out--means are varied. This is the process we follow when outcomes are important. If the task involved, for example, modifying the obdurate physical characteristics of scare and hard-won materials to provide a widely used and valued product, apprenticeship was held essential. Means to achieve ends were too important to be varied in these situations. Blacksmiths, carpenters, shoemakers and coopers were taught their craft over long periods of time by more senior craftsmen who themselves demonstrated skill and painstaking effort in achieving agreed-upon ends while demanding this of their pupils. Regular tests of capacity were arranged. Each step toward the attaining of mastery required the demonstration of a major skill increment and this alone provided status in the craft. The parallel with athletics and athletic attainment in age group competition and leagues is clear.

Play, on the other hand, provides activity where ends are not, as in apprenticeship systems whether in work or athletics, held all-important and invariant. Reality checks are not rigorously applied. Purpose need not in play be steadfastly maintained; the solution of a biologically or socially significant problem is not urgent, even if playfully we respond as if it were. Only in play and in art do we find the acceptance of self-elected and selfsatisfying challenge.

Frequently in play an admixing of ends and means can be seen. The young child, kitten or chimpanzee applying newly acquired motoric skills in ways that are clearly inappropriate does not check on outcomes and is demonstrably stimulated by the process itself, just as a child with a toy hammer discovers that every object within reach needs hammering. In our exasperation with the noise this activity generates few of us may note the importance of this behaviour for the child. Recently, however , the behaviour of baby chimpanzees in detaching, splitting, wetting, probing and playing with small leaves in the presence of the mother has been recorded by zoologists of greater patience. Such behaviour is clearly linked with the undoubted capacity for later tool construction of some chimpanzees, with their ability, for example, to use twigs to extract termites from logs. Indeed chimpanzees who miss this play opportunity never acquire the same skill as those which experimented with twigs as play-objects in a play way, according to Schiller (1952) and van Lawick Goodall (1968). For the chimpanzee termites are not an important item of diet. Thus the skill of extracting them is not crucial for survival. The picture is somewhat different for humans; skill

with a hammer may not be essential for many of us but investigative behaviour is essential in growing up human. We lose this forever when play too early or generally is replaced by the carefully programmed athletic achievement process followed in many countries today.

References

Dolhinow, P.J. and Bishop, N. "The development of motor skills and social relationships through play," Minnesota Symposium in Child Psychology.

Ellis, M.J. (1973) Why People Play. Englewood Cliffs: Prentice-Hall.

Gregory, R.L. (1974) Concepts and Mechanics of Perception. London: Duckworth.

Lawick-Goodall, J. van (1968) "The behaviour of free living chimpanzees in the Gombe Stream Reserve", Anim.Behav.Monog., No.1, 165-301.

Piaget, J. (1971) Structuralism. - London: Routledge and Kegan Paul.

Schiller, P.H. (1952) "Innate constituents of complex responses in primates", Psychol.Review, No.59, 177-191.

Wilson, J. (1972) "Smiling, Cooing and "The Game", " Merrill-Palmer Quarterly, Vol.2, 73-94.

К ПСИХОЛОГИЧЕСКОЙ ТЕОРИИ СПОРТИВНОЙ ДЕЯТЕЛЬНОСТИ

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Дальнейшая разработка психологической теории спортивной деятельности остается одной из актуальнейших проблем психологии спорта. И тем более актуальной, чем шире круг эмпирических исследований и чем острее необходимость в психологических рекомендациях для практики спорта. Это необходимо не только по принципиальным основаниям, отражающим роль научной теории в познании мира, но в такой же мере по чисто прикладным соображениям: только на основе современной целостной психологической теории спортивной деятельности можно объединить в систему огромный эмпирический материал уже выполненных и выполняемых исследований, обобщить и перевести на научный уровень практические рекомендации, преодолевая их разобщенность и фрагментарность, и, что особенно важно, определить направления, задачи и пути дальнейших исследований в этой области.

Объектной основой нашего исследования является психологическая теория спортивной деятельности. Методом-теоретическое исследование. В докладе будут рассмотрены некоторые, преимущественно методологические аспекты психологического изучения спортивной деятельности. Такой акцент представляется уместным тому, что, как справедливо заметил видный советский методолог Э.Г.Юдин (1976) "... деятельностный предмет не дан исследователю непосредственно, как сама реальность, но требует специального конструирования в качестве особого идеального объекта, выявления и четкой фиксации разнородных функций, выполняемых понятием деятельности. Здесь без предварительной и весьма серьезной методологической работы едва ли можно надеяться на позитивный результат".

Деятельность как предмет научного изучения занимает особое место в системе современного гуманитарного знания. Для психологии категория деятельности приобрела ключевое методологическое значение. Именно с позиций деятельностного подхода, с позиций представлений о единстве и взаимообусловленности сознания и деятельности, о личности как субъекте деятельности достигнуты наиболее впечатляющие результаты в построении общепсихологической теории и в разработке более частных, в том числе прикладных проблем. Однако дальнейшая разработка общей и частных теорий деятельности оказалась в определенном тупике, в связи с отсутствием адекватной методологической концепции, которая позволила бы объединить в систему громадный материал исследований различных видов деятельности и отдельных аспектов ее общей теории.

В последнее время при изучении объектов, отличающихся "организационной сложностью", исследователи многих направлений стали обращаться к системному подходу как наиболее адекватному и мощному методологическому инструменту (В.П.Кузьмин, 1976). Не составляют исключения в этом отношении многие проблемы психологии, в том числе, проблема деятельности (В.Ф.Ломов, 1975). Однако системный психологический анализ конкретных видов деятельности фактически только начинается. Это определяется несомненной сложностью системного анализа и недостаточной разработкой его "технологических" принципов и приемов. Однако, так или иначе, такая работа ведется с нарастающим размахом и уже сейчас дает определенные позитивные результаты.

Спорт как социальное явление и как особый вид деятельности с полным основанием должен быть отнесен к системным объектам значительной сложности, и тем большей, чем выше ранг спортивных состязаний и уровень достижений спортсменов.

Качества системного объекта спортивной деятельности придает прежде всего ее компонентная, структурная и функциональная полимодальность, а также качественное своеобразие и внутренняя целостность этого феномена XX века, именуемого "спортом". Это отчетливо прослеживается при анализе на общетеоретическом, социологическом, педагогическом и психологическом уровнях. Не случайно, что в этом своем качестве спорт, спортивная деятельность все чаще становится предметом системного исследования специалистами различных областей спортивной науки (Н.И.Пономарев, 1976; В.А.Демин, 1975; В.Н.Дмерский, А.А.Костин, 1976 и др.).

Известно, что системный подход предусматривает необходимость рассмотрения изучаемого объекта прежде всего в качестве составной части (подсистемы) более сложной системы. В контексте данного анализа такой системой более высокого иерархического уровня является человеческая деятельность вообще. Однако утверждение о том, что спортивная деятельность является специфической разновидностью человеческой деятельности, не сводимой ни к одному из основных ее видов – ни к игре, ни к учению, ни к труду, на этом уровне рассмотрения является недостаточным. Более продуктивным в этом отношении представляется концепция, согласно которой классификация основных видов деятельности производится на основе анализа субъектно-объектных и субъектно-субъектных отношений. Не вдаваясь в ход рассуждений и приводимую автором этой концепции аргументацию укажем только, что в качестве основных им выделены четыре вида деятельности: преобразовательная, познавательная, ценностно-ориентационная и коммуникативная (М.С.Каган, 1974).

Спортивная деятельность в этой классификации должна быть отнесена к категории преобразовательной деятельности. При этом, главным субъектом и одновременно объектом этой специфической преобразовательной деятельности становится спортсмен (А.Ц.Цуни, 1973). Использование категорий субъектно-объектных у субъектно-субъектных отношений в качестве исходного пункта анализа деятельности и критерия для классификации ее видов представляется особенно конструктивным при решении задач психологического анализа спортивной деятельности, что мы постараемся показать в дальнейшем.

Следующий этап системного анализа предусматривает выделение подсистем изучаемого объекта. Широко признано в психологии спорта представление о двух компонентах или подсистемах спортивной деятельности: спортивной тренировке и спортивном соревновании (А.Ц.Пуни, 1973). Однако общетеоретический и методологический анализ, и здесь мы солидарны с рядом авторов (В.А.Демин, 1975; Л.П.Матвеев, 1978 и др.), правильнее начинать с соревновательной деятельности. Это справедливо по крайней мере по трем основаниям: во-первых, соревновательная деятельность является подлинным "ядром" спорта, наиболее специфической и неотъемлемой его частью; во-вторых, и генетически и субординационно спортивное состязание "старше" спортивной тренировки; в-третьих, именно соревновательная деятельность является главным полигоном психологического исследования, экспериментальной проверки и практической реализации выработанных рекомендаций.

Кульминационным моментом соревновательной деятельности является акт спортивного противоборства спортсменов или команд. Поэтому спортсмены, соревнуются ли они в одиночку или в составе команд, были здесь и остаются центральными фигурами, главными субъектами соревновательной деятельности в спорте.

Однако в субъектно-объектные и в субъектно-субъектные отношения в современном спорте вовлечены не только спортсмены, но также тренеры, спортивные руководители, организаторы спорта, судьи, научные работники, журналисты и представители других средств массовой информации, зрители, любители и "болельщики" спорта. Их участие в процессе спортивной деятельности, в первую очередь в процессе соревновательной деятельности существенно различается по мотивам, целям, составу действий, степени их регламентации, по возможностям влиять на спортивные результаты, на общественное мнение и общественное настроение в области спорта и т.д., но очевидно одно, что все они являются активными участниками этой деятельности (в известном смысле ее творцами), то есть ее субъектами.

Это существенно учитывать особенно с психологической точки зрения, так как совокупное воздействие, специфическая активность всех перечисленных субъектов спортивной деятельности (хотя многие из них находятся как бы на втором и даже на третьем планах) создает своеобразное силовое поле, в котором протекает соревновательная, а также пред- и постсоревновательная деятельность спортсменов. Это оказывает существенное, все возрастающее влияние на психологические характеристики спортивного противоборства.

В этой связи представляется продуктивным ввести в контекст анализа категорию взаимодействия. Именно процессы взаимодействия всех субъектов соревновательной деятельности в спорте должны составить одну из центральных проблем психологического изучения.

Первичный этап такого анализа, связанный с изучением психологических аспектов взаимодействия двух субъектов соревновательной деятельности и внутригрупповых взаимодействий в спортивных командах, проводится довольно давно. Наиболее изученными являются вопросы взаимодействия спортсмена с другим спортсменом:с противником или с партнером. В первом случае взаимодействие приобретает форму противоборства, характеризующегося всеми чертами антагонистических спортивных действий. Во втором - форму взаимодействия, когда действия партнеров носят содружественный характер, а иногда отличаются даже двигательным синергизмом. Эту линию исследований "парного" взаимодействия, которая широко представлена в исследовательских программах многих центров психологии спорта, следует всячески поддержать и в дальнейшем.

Психологическое изучение каждого аспекта взаимодействия необходимо начинать с установления его качественной определенности, функционального смысла и критериев, по которым можно судить о реальной эффективности данного взаимодействия.

Так, в исследовании проводимом на нашей кафедре Л.К.Серовой, на этом уровне анализа было показано следующее. Совместная деятельность тренера и спортсмена в процессе соревнования носит характер взаимодействия, направленного на получение конечного спортивного результата – планируемого или максимального. Это взаимодействие может быть рассмотрено с трех взаимосвязанных сторон: структурной, информационной и функциональной.

Структурный анализ позволяет выявить пространственно-временные характеристики взаимодействия, обусловленные нормами и правилами проведения соревнований по различным видам спорта. Информационная сторона взаимодействия включает рассмотрение путей и способов обмена информацией, ее количественный и содержательный анализ. Функциональный анализ выявляет регулятивные возможности взаимодействия, которое в данном случае развивается по типу взаимодействия, направленного на получение определенного результата (П.К.Анохин, 1971). Более конкретно функции регуляции и управления заключаются в воздействии на тактико-технические действия спортсмена, на его психическое состояние и поведение в целом.

Эффективность взаимодействия находит выражение в следующих критериях: в программе действий и ее изменениях в зависимости от воздействий тренера, в некоторых особенностях динамики психических состояний спортсменов, во взаимопонимании и взаимной удовлетворенности совместной деятельностью, в результативности спортивных действий.

Более трудным, но вместе с тем перспективным может явиться исследование совокупности наиболее существенных взаимодействий, возникающих между всеми субъектами спортивной деятельности в ходе соревнований, что, как и во всех других случаях, тесно связано со спецификой вида спорта. Можно предположить, что именно это взаимодействие и порождает то интегральное, системное качество, которое характеризует психологическую сущность соревновательной деятельности в спорте как целостного явления.

Построение психологической теории спортивной деятельности предполагает также разработку психологической классификации видов спорта и соревновательных упражнений. Составление такой классификации должно явиться как бы промежуточным итогом, этапом системного исследования. Предварительный анализ показал, что это отнюдь не простая задача, так как здесь приходится исходить не из одного, а из нескольких оснований. В качестве необходимых и достаточных могут быть выделены следующие: совокупность межличностных, внутригрупповых и межгрупповых взаимодействий всех ранее перечислявшихся участников спортивной соревновательной деятельности; психологическая структура соревновательной деятельности спортсменов, определяемая совокупностью пространственно временных, средовых и предметных условий состязаний; особенности нервно-психических напряжений и волевой регуляции, связанные с биодинамическими и энергетическими характеристиками соревновательных упражнений. Каждому из перечисленных оснований соответствует преимущественно социально-психологический, собственно психологический и психофизиологический уровни анализа во всех естественных взаимосвязях и взаимопереходах. Актуальной, но более сложной задачей является создание многомерной классификации видов спорта и соревновательных упражнений, опирающейся на систему оснований.

Здесь уместно высказать частное но важное соображение о необходимости выявления наиболее существенных характеристик "парного" взаимодействия и создания по этим признакам максимально укрупненных группировок видов спорта и соревновательных упражнений. Это является важным условием системного анализа совокупности возникающих взаимодействий и создания многомерной психологической классификации спорта. Специальная проработка этого вопроса на примере анализа степени взаимосвязанности действий партнеров по команде в процессе соревнований, выполненная нами совместно с В.И.Румянцевой, показала, что 74 вида спорта и соревновательных упражнений,

которые были вовлечены в анализ, группируются по этому признаку всего в 5 таксонов: с жесткой взаимосвязанностью действий (например, гонка на тандемах, гребля, кроме одиночек, бобслей); с сильной (фигурное катание на коньках - парное, акробатика парная и групповая, командная гонка преследования); с умеренной (все виды командных и парных спортивных игр, парусный спорт); со слабой (эстафеты в разных видах спорта); не взаимосвязанные (спортивная гимнастика, все виды единоборства, плавание, гребля - одиночки).

В своем докладе я стремился обратить внимание на необходимости дальнейших усилий по разработке психологической теории спортивной деятельности в рамках определенной методологической концепции. Применительно к изучаемому объекту - споритвной деятельности - наиболее адекватной методологией следует считать системный подход, являющийся конкретизацией марксистского диалектического метода применительно к исследованию системных явлений.

Исследования, опирающиеся на методологию системного подхода, обычно охватывают следующие последовательно решаемые задачи: описание изучаемой системы, объяснение ее, предсказание ее поведения и управление ею. Поэтому работа по системному психологическому анализу спортивной деятельности, которая находится еще в самой начальной стадии, не является самоцелью. Конечная задача и высшая цель этой работы состоит в создании целостной психологической теории спортивной деятельности, которая могла бы служить теоретической и методологической основой при разработке прикладных проблем психологии спорта и обосновании практических рекомендаций.

ЛИТЕРАТУРА

1. Анохин П.К. - Принципиальные вопросы общей теории функциональных систем.М., 1971.
2. Демин В.А. - Методологические вопросы исследования спорта в аспекте теории деятельности. Автореф.дисс.М., 1975.
3. Дымерский В.Н. - "Материалы УШ Всесоюзной конференции по психологии спорта"., Костин А.А. М., 1976
4. Каган М.С. - Человеческая деятельность.М., 1974.
5. Кузьмин В.П. - Принцип системности в теории и методологии К.Маркса.М., 1976.
6. Ломов В.Ф. - "Вопросы психологии", 1975, № 2.
7. Матвеев Л.П. - Теория и методика физического воспитания. Часть П, М.1976.
8. Пономарев Н.И. - "Теория и практика физической культуры".М.,1976, № 7.
9. Пуни А.Ц. - "Теория и практика физической культуры". М., 1973, № 11.
10. Юдин Э-Г. - "Вопросы философии", 1976, № 5.

THE EFFECT OF INTENSIVE GROUP EXPERIENCE APPLIED TO A SPORT TEAM

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Recently, Intensive Group Experience rapidly spreads. This group goes by many names. "Sensitivity Training", "T-Group", "Encounter Group" are among the most common. This method is for purpose of learning of interpersonal relations and understanding toward others and himself through their interactions in a group with of almost ten members.

The participants of Intensive Group Experience gradually tend to be developed freedom of expression and reduction defensiveness by the interactive

processes in group. They tend to express many of the immediate feeling reactions of each member toward others, and of each member toward himself. They move toward greater acceptance of real-self. Furthermore, in this group, there is a development of feedback from one person to another, such that each individual learns how he appears to others and what impact he has in interpersonal relationships. With this greater freedom and improved communication, new idea, new concepts, new directions emerge. These learnings tend to carry over, temporarily or more permanently into human relations in the real life. These hypotheses are almost supported for the previous studies (1, 2, 3, 5).

In a game of team sports, though each member's physical ability and basic skills are important, the collective skills as a team being able to display their full resource take more important role. In order to acquire good collective skills at a team, the author said that each member has to accept real feelings as comrades to make great efforts toward the goals and to enhance each other's ability. If all member can hold in common it as real feelings, each member plays the hard practice of his volition, and the advice or comment among members will be not repulsed and will be frankly accepted as encouraging expressions. And then, all members tend to focus on team goals and to behave more powerfully. If relations of mutual trust and mutual support among members are established, morale and cohesiveness of a team are increased and a team is developed better.

This study was suggested by the above instances, and was tried to analyze and to make clear the effectiveness of Intensive Group Experience applied to a university basketball team.

Procedure

Subjects: The experimental team applied Intensive Group Experience was the CUC basketball team. The TIT, TEEC and Mus.U teams that belonged to the same league with the CUC team were the control teams to make comparative study of productivity, morale and cohesiveness on each team. The number of investigated subjects on each team was 19 male students of the CUC team, 12 male students of the TIT team, 10 male students of the TEEC team and 13 male students of the Mus.U team.

Method: Investigations were made to use following questionnaires to members of each team before and after the summer training camp to the league series in 1975. And the record of league series was investigated too.

Questionnaires: Questionnaires on this study were composed of a morale survey, a group membership test and a team effectiveness test.

1) A morale survey constructed by Takemura & Niwa (6) is composed of 20 items and four categories for relationship of athletic club & its members, human relationship in the athletic club, group function of the athletic club and personal satisfaction.

2) A group membership test constructed by Niwa (4) is composed of 20 items and four categories for attraction of the group, values to the group, loyalty to the group and identification with the group.

3) A team effectiveness test is composed of 9 items for degree of mutual trust, degree of mutual support, openness of communication, degree of understanding of group goals, degree of commitment to the group goals, acceptance & resolution of intragroup conflict, using of participant's resources, degree of control toward their group and freedom of group organization. It was made before and after Intensive Group Experience.

Schedule of Intensive Group Experience: Intensive Group Experience was held for five days and four nights with eight sessions. The practice of basketball took place daily afternoon, because it was applied to the CUC team as a part of the program of its training camp.

Table 1 Schedule of Intensive Group Experience (Aug. 24 - 28/1975)

8/24	8/25	8/26	8/27	8/28
9:00	T-GROUP			Closing Session
	(2)	(4)	(6)	(8)
12:00				
12:00	FREE TIME & LUNCH			
14:30				
14:30	PRACTICE OF BASKETBALL			
17:30				
17:30	FREE TIME & DINNER			
19:30				
19:30	Exercise Session (1)	Fish Bowl (3)	T Group (5)	Exercise Session (7)
21:30				

Contents of each session was as follows. 1st and 7th sessions were an exercise session to task resolution, 3rd session was named "fish bowl" to person observation learning, 8th session was a closing session as a retrospective session and other sessions were so called T-Group. The participants were 17 male students including the captain and vice-captain of the CUC team. And besides two psychologists participated as facilitators including the author.

Results

Though a morale of each team had a tendency to increase by means of its training camp, the only CUC team which had the experience of Intensive Group, showed a statistically significant increment on the morale (see Table 2).

The TIT team showed statistically significantly higher morale score than the CUC and TEEC teams at the before-test. The TIT and CUC teams showed statistically significantly higher morale scores than the TEEC team at the after-test, but there was no significant difference between the CUC and TIT teams (Table 3).

Table 2 Scores of a Morale Survey administered before & after training camp

Team		Before		After		
		Mean	S.D.	Mean	S.D	t
CUC	(N=19)	68.421	7.909	72.632	6.935	3.536 **
TIT	(N=12)	74.250	5.584	76.917	6.859	1.443
TEEC	(N=10)	64.200	5.793	65.500	6.974	0.834
Mus.U	(N=13)	68.538	10.537	71.231	11.832	0.697

** $P < .01$

Table 3 Statistically significant differences of Morale Survey between teams

Before-test					After-test			
	CUC	TIT	TEEC	Mus.C	CUC	TIT	TEEC	Mus. U
CUC							*	
TIT	*		***				**	
TEEC								
Mus.U								

* $P < 0.5$ ** $P < .01$ *** $P < .001$

Each team was no significant difference on a group membership test by means of its training camp (Table 4). The CUC team showed statistically significantly higher its score then the TIT and TEEC teams at the before test, and than the TEEC team at the after-test (Table 5).

Table 4 Scores of a Group Membership Test administered before & after training camp

Team		Before		After		
		Mean	S.D	Mean	S.D	t
CUC	(N=19)	78.421	7.221	77.684	6.990	-0.690
TIT	(N=12)	72.583	5.868	73.250	6.111	0.456
TEEC	(N=10)	68.700	11.454	70.200	10.805	0.599
Mus.U	(N=13)	75.385	8.921	73.462	12.085	-0.523

Table 5 Statistically significant differences of a Group Membership Test between teams

Before-test					After test			
	CUC	TIT	TEEC	Mus.U	CUC	TIT	TEEC	Mus. U
CUC		*	*				*	
TIT								
TEEC								
Mus.U								

* $P < .05$

The results of a team effectiveness test which had be held by 17 members of the CUC team applied Intensive Group Experience, was as follows. Eight items showed statistically significant increment to have the experience of Intensive Group, except a degree of control toward their group (Table 6).

Table 6 Effectiveness of Intensive Group Experience (N=17)
rating of members toward their team (5 point rating scale)

Item	Before Mean	Before S.D	After Mean	After S.D	t
degree of mutual trust	3.35	.76	3.82	.85	3.12 **
degree of mutual support	3.23	.64	3.88	.58	3.80 **
openness of communication	3.11	.75	3.64	.68	3.50 **
degree of understanding of group goals	4.11	.75	4.82	.37	3.79 **
degree of commitment to the group goals	3.52	.77	4.12	.51	3.80 **
acceptance & resolution of intragroup conflict	2.70	.66	3.35	.47	4.41 ***
using of participant's resources	2.94	.63	3.41	.49	3.12 **
degree of control toward their group	3.52	.84	3.76	.64	1.46
freedom of group organization	3.47	.91	3.88	.67	2.13 *

* $P < .05$ ** $P < .01$ *** $P < .001$

The record of league series is presented in Table 7. Though the CUC team belonged to one cut below this league the last time, it had just changed place this league.

Table 7 Record of the varsity basketball league (9/14/'75 ---10/12/'75)

	Hit U	TIT	CUC	Sei.U	TEEC	Mus.U	Kok.U	TMU
Hit.U		won 71-70	won 61-52	won 83-58	won 80-76	won 76-61	won 89-58	won 79-62
TIT	lost		won 71-67	lost 75-80	won 97-75	won 101-71	won 78-65	won 88-56
CUC	lost	lost		won 60-57	won 63-42	won 67-63	won 61-55	won 85-59
Sei.U	lost	won	lost		won 60-39	won 68-57	won 81-66	won 76-54
TEEC	lost	lost	lost			won 87-76	won 71-50	won 68-64
Mus.U	lost	lost	lost	lost	lost		won 75-72	won 71-56
Kok.U	lost	lost	lost	lost	lost	lost		won 63-60
TMU	lost	lost	lost	lost	lost	lost	lost	

Discussion

Intensive Group Experience was begun an exercise session to task resolution, because the motivation of the team members to participate it was so low. According to making successive sessions, the participants could gradually understand as real feeling that a previous himself was very little to express his opinion, to check whether his opinion exactly communicated to others or not and to understand justly other's opinion and idea. Then the participant's expressions of their feeling and spontaneous participation to a group increased and it had a

tendency to increase a listening to other's opinion and a consideration to others. Because the interpersonal communication was activated, the participants recognized himself and other's role, existence values and human values in a team, and the CUC team had developed on its understanding of the group goals, commitment to the group goals, mutual trust and mutual support. It is clear from results of a team effectiveness test and a morale survey.

The results of a group membership test showed that if a sport team kept up a fair measure of cohesiveness, each member of a team had a tendency to attach great importance to spend his energies on the performance of a team goals more than the maintenance of a team.

The ability of the CUC team was low, because it belonged to one cut below a league the last time. But it had gotten a good record of the basketball league.

The author thinks that a good record had be gotten for following reasons. Interpersonal relations in a team were developed through Intensive Group Experience and each member in a team defined their team goals and so practiced hard to take part in a basketball game. And he emerged a consciousness that to practice hard himself had enhanced other's skills and a team ability, though he did not take part in a game. And then each member had enhanced the personal satisfaction with playing basketball. In other words, the function of competition and cooperation among members in a team had met well.

References

1) Blake, R.R., and Mouton, J.S. (1964) "Organization Development and Performance", in R.R.Blake and J.S.Mouton, The Managerial Grid, Houston Texas, Gulf Publishing, pp.290-311

2) Bunker, D.R, (1965), "The Effect of Laboratory Education upon Individual Behaviour," in E.H. Schein and W.G.Bennis (Eds.), Personal and Organizational Change through Group Methods: The Laboratory Approach, New York, John Wiley & Sons,

3) Miles, M.B. (1960), "Human Relations Training: Processes and Outcomes," Journal of Counseling Psychology, Vol.7, pp.301-306

4) Niwa, T. (1968), "An Attempt to Construct a Group Membership Test of the Athletic Club Member" Research Journal of Physical Education, Vol. 13, No.1, pp.13-20

5) Rogers, C.R. (1970), Carl Rogers on Encounter Group, New York, Harper & Row

6) Takemura, A. and Niwa, T.(1967), "A Study on the Morale of Athletic Club (1): An attempt to construct a morale survey, Research Journal of Physical Education, Vol.12, No.2, pp.77-83.

EFFEKTIVITÄTSMESSUNG IM SOZIALPSYCHOLOGISCHEN VERHALTENSTRAINING

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Es soll über Methoden und Ergebnisse der Effektivitätsbestimmung eines sozialpsychologischen Verhaltenstrainings für Leitkader und Sicherheitsinspektoren berichtet werden.

1. Zu Methoden der Effektivitätsbestimmung

In der Praxis des Verhaltenstrainings wurden u.a. folgende Methoden eingesetzt:

(1) Expertenauswertung von schriftlichen, Tonband- oder Videobandprotokollen

(2) psychologische Tests als Prä-Post-Variante

(3) Einschätzung durch die Teilnehmer selbst. Die Relativität solcher Einschätzungen ist evident. Die Methode ist beliebt, attraktiv und abwechslungsreich im Vergleich zu vor allem passiven Lehr- und Lernmethoden.

(4) Bewährungskontrollen über längere Zeiträume
Diese Variante wurde bisher kaum wegen ihrer Aufwendigkeit und methodischen Schwierigkeiten angewandt. Sie ist aber notwendig, weil die Impulsivierung erst nach dem Training einsetzt. Stabile Wirkungen in der Zeit können nur so gemessen werden.

Ein entsprechendes Beurteilungsverfahren wurde entwickelt /1/, das als Fragebogen zur Selbst- und Fremdeinschätzung benutzt wird. Wir haben ausgewählte Items, die aus einer Anforderungsanalyse gewonnen wurden, und das 7-stufige Antwortmodell. Da bei solchen Verfahren ein Trend in positive Richtung anzutreffen ist, kann keine Gleichabständigkeit der Stufen angenommen werden. Für jedes Item wurde deshalb die Testrohwertverteilung in eine Normalverteilung überführt.

Der Vergleich Selbst-/Fremdeinschätzung sowie eine Faktorenanalyse[1] führten zu einer Itemselektion und zu heuristischen Skalen, die wir wie folgt definieren:

- Fähigkeit zu zielgerichteter Kommunikation — 6 Items
- Durchsetzungsfähigkeit — 9 "
- Kritikfähigkeit /-bereitschaft — 9 "
- aufgabenadäquater Arbeitsstil — 7 "

Durchführungs-, Auswertungs- und Interpretationsobjektivität sind gegeben durch die Art des Verfahrens. Die Trennschärfe ist auch bei Beachtung der Teil-Ganzes-Korrelation[2] gegeben. Die Reliabilitätswerte sind befriedigend. Die Konsistenzquotienten sind größer als die Retestwerte, was auf echte Merkmalsfluktuation schließen läßt. Dadurch ist das Verfahren besonders für Veränderungsmessungen geeignet.

Konkretes Ziel unserer Validitätsbestimmung war, quantitative Beziehungen zwischen unserem Verfahren und einem weiteren Kriterium herzustellen. Dieses Kriterium wurde durch semantische Bezüge zu den einzelnen Skalen definiert, z.B. Skala 1 (zielgerichtete Kommunikation) = Menschenkenntnis, Kontaktfähigkeit, Sprachgewandtheit.

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1) Items mit geringer und mittlerer Ladung sowie mit Kommunalitäten $h^2 < 0{,}4$ wurden weggelassen.

2) Sie führt nur zu unwesentlichen Verschlechterungen von ca. 5/100.

Jeder Proband schätzte sich selbst ein, wurde durch 3 Vorgesetzte/Mitarbeiter bewertet:
- einmal mit unserem Verfahren,
- zum zweiten mit Hilfe des "Bewertungsquadraten" (analog dem Paarvergleich).

Jeder der 33 beteiligten Probanden wurde so mit jedem anderen verglichen hinsichtlich der den Skalen entsprechenden Begriffsgruppen incl. des Gesamtpunktwertes (das sind: Leistung, Verhalten, Qualität der Arbeit).

Die Ergebnisse sind signifikant. Damit wurden wichtige Validitätshinweise erbracht

2. Ergebnisse der Bewährungskontrolle /2/

Es standen 4 Trainingspopulationen (N = 27-32) zur Verfügung. In einem Prä-Post-Test wurden Selbst- und Fremdeinschätzung (zumindest 3 Urteiler) erhoben. Der zeitliche Abstand betrug 3, 6, 12 bzw. 15 Monate. Es wurden Veränderungen über die vier Skalen und die Gesamtpunktwerte, also für jede Gruppe 10 Signifikanzprüfungen, bestimmt. Wir benutzen den WILCOXON-Test als relativ scharfes parameterfreies Verfahren /3/. Es handelt sich hier um korrelierende Stichproben. Eine Kontrollgruppe - ohne Verhaltenstraining - zeigte keine Veränderungen.

Die Ergebnisse der Veränderungsmessung sind ermutigend. Bei 40 Prüfungen ergaben sich 25 "positive" Ergebnisse; keine einzige Verschlechterung trat ein. Es kann zunächst mit Sicherheit behauptet werden, daß das Training nicht zu Verunsicherungen und Labilisierungen der Teilnehmer führt[1], daß die Trainingsdauer (in der Regel mindestens 8 Sitzungen) also ausreicht, Mißerfolge einzelner Gruppenmitglieder am Anfang des Trainings zu neutralisieren. Die meisten "positiven" Ergebnisse finden sich in den Gruppen 1 (Δt = 3 Monate) und 4 (Δt = 15 Monate). Man kann diesem Sachverhalt folgende Überlegung zugrunde legen: Unmittelbar nach dem Training ist zu erwarten, daß die Teilnehmer mit größerer Sicherheit auftreten, was sich auch in den Selbstbild-Signifikanzen (Δt = 3 Monate) eindeutig niederschlägt. Möglicherweise überschätzen sich die Trainingsteilnehmer durch diese Anfangserfolge und brauchen dann eine bestimmte Zeit der Orientierung an der sozialen Realität, um das im Training Gelernte konstruktiv umzusetzen. Jedenfalls sprechen unsere Ergebnisse (Signifikanzen bei Δt = 15 Monate!) für eine solche Theorie, wobei wir uns darüber im klaren sind, daß die relativ kleinen Stichproben nicht ausreichen, eine solche theoretische Aussage zu fundieren.

Weniger spekulativ erscheint auf jeden Fall ein anderes Ergebnis. In allen vier Gruppen werden die Teilnehmer nach dem Training als durchsetzungsfähiger (Skala 2) eingeschätzt. Damit glauben wir, eines der wesentlichsten Trainingsziele realisiert zu haben. Die Probanden gehen konsequenter und energischer an ihre Aufgaben heran, jedenfalls wird dies von ihren Leitern und Mitarbeitern so gesehen und eingeschätzt.

Die Fremdeinschätzungen über alle 4 Skalen ("Gesamtpunkte") zeigen bei der Zweitmessung Verbesserungen an. Es kann deshalb interpretiert werden, daß das Training positive Wirkungen auf das soziale Gesamtverhalten der Trainingsteilnehmer hat, daß sie sicherer im Umgang und in der Anleitung ihrer Kooperationspartner geworden sind.

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1) Der kritische Hörer weiß, daß das Verhaltenstraining solche negativen Effekte nicht prinzipiell ausschließt. Deshalb betonen wir auch dieses Ergebnis.

Unseres Erachtens läßt die durchgeführte Effektivitätskontrolle den Schluß zu, daß die intendierten Trainingsziele weitgehend erreicht wurden. Daß wir bei dieser Untersuchung nicht alle möglichen Effektivitätsvariablen einbeziehen konnten, ist evident.

L I T E R A T U R :

EHRICH, P., KIES,K.: Standardisierung des Beurteilungsverfahrens für Sicherheitsinspektoren. Forschungsbericht, WTZ für Arbeitsschutz beim MfB, Berlin 1974

EHRICH, P., KIES,K.: Beurteilungsverfahren für Sicherheitsinspektoren des Bauwesens. Forschungsbericht, WTZ für Arbeitsschutz beim MfB, Berlin 1975.

CLAUS, G., EHNER, H.: Grundlagen der Statistik. Berlin 1975.

SOZIALPSYCHOLOGISCHE ASPEKTE DER BEZIEHUNGEN ZWISCHEN STAMM- UND ERSATZSPIELERN IN FUSSBALLMANNSCHAFTEN

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Überblickt man im Rahmen gruppenpsychologischer Forschung die Befunde hinsichtlich der Strukturierung von Gruppen, so kann festgestellt werden, dass eine akzentuierende Betrachtung von zwei Dimensionen im Mittelpunkt steht, nämlich

1. der Aspekt einer vertikalen Differenzierung im Sinne der Ranghierarchie der Gruppenmitglieder nach ausgewählten Merkmalen und
2. der Aspekt einer horizontalen Differenzierung im Sinne der Ordnung der interdependenten Substrukturen in einer Gruppe.

Problem

Der vorliegende Beitrag will sich vorwiegend mit einigen ausgewählten Gesichtspunkten hinsichtlich der horizontalen Differenzierung von interagierenden Sportmannschaften beschäftigen. Die einschlägige Literatur liefer diesbezüglich zusammenfassend die folgenden Resultate:

1. Die horizontale Differenzierung scheint das produkt eines interdependenten Variablenbündels zu sein, in dem in einem je unterschiedlichen Grade verschiedene Variable (z.B. Gruppengrösse, Gruppenaufgabe, Persönlichkeit der Gruppenmitglieder, Führungsstil, andere Gruppenmitgliedschaft) dominant werden können, die jeweils verschiedenartige interpersonale Substrukturen als bedeutsame Potentiale in der Gruppe zur Folge haben können.
2. Untersuchungen von Klein und Christiansen (1966) sowie Münnich und Szakacs (1974) an Ballspielmannschaften haben gezeigt, dass interpersonale Beziehungsmuster die aktuellen Spielinteraktionen beeinflussen können.
3. Substrukturen sind nach Hiebsch (1969; S. 105) allgemein dadurch charakterisiert, "dass in ihnen die Kommunikationen (quantitativ) häufiger und (qualitativ) intimer sind, als die Beziehungen zu den anderen Angehörigen der Gesamtgruppe."

Entsprechend der Zielsetzung dieser Untersuchung ist zu prüfen, ob das Merkmal: Zugehörigkeit zur Untergruppe der Stamm- bzw. Ersatzspieler einer Mannschaft die interpersonalen Einschätzungsstrukturen beeinflusst. Die folgenden Hypothesen wurden aufgestellt:

1. Die in einer Fussballmannschaft von Stamm- und Ersatzspielern anerkannte Rangordnung hinsichtlich der Spielerfolge- und der sozial-emotional orientierten Interaktion weist längsschnittlich eine hohe Stabilität auf.
2. Stammspieler nehmen in den Merkmalen der Spielerfolge- und der sozial-emotional orientierten Interaktion höhere soziometrische Ränge in der Mannschaft ein als Ersatzspieler.
3. Stammspieler sind in den Merkmalen der Spielerfolgs- und sozial-emotional orientierten Interaktion hinsichtlich ihrer soziometrischen Bevorzugungen "intern" und hinsichtlich ihrer soziometrischen Ablehnungen "extern" orientiert.
4. Ersatzspieler sind hinsichtlich der soziometrischen Bevorzugungen in den Mermalen der Spielerfolgs- und sozial-emotional orientierten Interaktion "extern" ausgerichtet.
5. Ersatzspieler sind hinsichtlich ihrer soziometrischen Ablehnungen im Merkmal spielerfolgsorientierte Interaktion eher "intern" und im Merkmal sozial-emotional orientierte Interaktion eher "extern" ausgerichtet.

Methode

Um diese Hypothesen zu prüfen, wurden bei 10 Fussballmannschaften mit insgesamt 183 Spielern - 121 Stamm- und 62 Ersatzspieler - soziometrische Daten erhoben. Es wurden jene Spieler als Ersatzspieler eingestuft, die weniger als die Hälfte der Meisterschaftsspiele mitmachten und/oder von ihrem Trainer als solche bezeichnet wurden und als Stammspieler jene die mehr als die Hälfte der Meisterschaftsspiele mitmachten.

Im Zeitraum eines Jahres wurden in regelmässigen Abständen (7 - 8 Wochen) insgesamt 6 soziometrische Erhebungen durchgeführt. Der Fragebogen umfasste 6 soziometrische Merkmale; jedes Merkmal enthielt je eine Bevorzugung und eine Ablehnung. Im Rahmen unserer Fragestellung wählten wir die folgenden Kriterien aus, von denen wir annehmen, dass sie schwerpunktmässig die Spielerfolgsorientierung und die sozial-emotionale Orientierung repräsentieren:

1. Spielerfolgsorientierte Interaktion:
   a) Welche Spieler aus Ihrer Trainingsgemeinschaft tragen in den Spielen Ihrer Mannschaft am meisten zum Erfolg bei?
   b) Welche Spieler aus Ihrer Trainingsgemeinschaft tragen in den Spielen Ihrer Mannschaft am wenigsten zum Erfolg bei?
2. Sozial-emotional orientierte Interaktion:
   a) Mit welchen Spielern aus Ihrer Trainingsgemeinschaft würden Sie im Trainingslager am liebsten in einem Zimmer wohnen?
   b) Mit welchen Spielern aus Ihrer Trainingsgemeinschaft würden Sie im Trainingslager nur ungern gemeinsam in einem Zimmer wohnen?

Jede Vp sollte mindestens 3 Wahlen bzw. 3 Ablehnungen je Frage abgeben. Für die Berechnung von Korrelationskoeffizienten wurden Erstwahlen und Erstablehnungen mit 3-Plus- bzw. 3-Minuspunkten gewichtet; Zweit- und Drittwahlen analog mit 2 Punkten bzw. 1 Punkt. Die erhaltenen Plus- und Minuspunktzahlen wurden je Vp getrennt summiert und von diesen wurde eine Differenzreihe gebildet. Von dieser Differenzreihe

wurde je Kriterium je Untersuchung eine Rangreihe abgeleitet. Die Rangreihen wurden nach Spearmann korreliert. In allen anderen Fällen wurde die Summe der erhaltenen Wahlen bzw, Ablehnungen ermittelt.

Ergebnisse

Prüfung der Hypothese 1: Für 7 Mannschaften wurden für die Merkmalsrangreihen Stabilitätsuntersuchungen durchgeführt,. Die ermittelten Korrelationskoeffizienten streuen für das Merkmal "spielerfolgsorientierte Interaktion" zwischen r_s= .63 und .88 mit dem Mittelwert r_s= .78 (p 1%) und für die "sozial-emotional orientierte Interaktion" zwischen r_s= .75 und .85 mit dem Mittelwert r_s= .82 (p 1%). Diese Befunde bestätigen die Hypothese 1. Sie sprechen der soziometrischen Rangstruktur in Fussballmanschaften eine sehr signifikante längsschnittliche Konstanz zu.

Prüfung der Hypothese 2: Gemäss dieser Hypothese nehmen Stammspieler in der Ranghierarchie einer Mannschaft höhere Ränge ein als Ersatzspieler. Die sehr signifikanten Chi^2-Werte verifizieren diese Hypothese sowohl für die "spielerfolgsorientierte Interaktion" (X^2= 46.7; p 1%) als auch für die "sozial-emotional orientierte Interaktion" (X^2= 39.1; p 1%). Die Bestätigung dieser Hypothese zeigt, dass die - jeweilige Untergruppenzugehörigkeit eine sehr bedeutsame Determinante der Rangstruktur ist.

Prüfung der Hypothese 3: Sie ergibt, dass Stammspieler in den Merkmalen der spielerfolgsorientierten und sozial-emotionalen Interaktion hinsichtlich der Bevorzugung sehr signifikant häufiger Mitglieder der eigenen Teilgruppe nennen als Mitglieder der Ersatzspielergruppe (X^2= 862; p 1% bzw. X^2= 244; p 1%). Demnach lässt sich feststellen, dass die Zugehörigkeit zur Untergruppe der Stammspieler sehr bedeutsam das soziometrische Wahl- und Ablehnungsverhalten beeinflusst.

Prüfung der Hypothese 4: Sie erbringt, dass Ersatzspieler im Merkmal "spielerfolgsorientierte Interaktion" sehr signifikant häufiger Stammspieler bevorzugen als Mitglieder der eigenen Untergruppe (X^2= 316; p 1%). Hinsichtlich der Bevorzugung im Merkmal "sozial-emotionale Interaktion" kann die Annahme nicht verifiziert werden (X^2=2.4; p 5%).

Prüfung der Hypothese 5: Die Kontrolle ergibt, dass Ersatzspieler im Kriterium "spielerfolgsorientierte Interaktion" sehr signifikant häufiger Mitglieder der eigenen Untergruppe ablehnen als Stammspieler (X^2=147; p 1%). Bezüglich der Ablehnung im Merkmal "sozial-emotional orientierte Interaktion" kann nur auf einem signifikanten Niveau nachgewiesen werden, dass Ersatzspieler eher Mitglieder der eigenen Untergruppe ablehnen als Stammspieler.

Die Ergebnisse der Hypothesen 4 und 5 zeigen demnach, dass die zugehörigkeit zur Untergruppe Ersatzspieler das Wahl- und Ablehnungsverhalten im Merkmal "spielerfolgsorientierte Interaktion" sehr bedeutsam beeinflusst; diesbezüglich kann im Merkmal "sozial-emotional orientierte Interaktion" lediglich eine Tendenz hinsichtlich des Ablehnungsverhaltens festgestellt werden.

Diskussion

Durch die Befunde der vorliegenden Analyse wird akzentuierend aufgewiesen, dass das Merkmal der Zugehörigkeit zur Untergruppe der Stamm- bzw. Ersatzspieler eine bedeutsame Determinante für das Wahl- und Ablehnungsverhalten der Mannschaftsmit-

glieder darstellt, d.h. die informellen interpersonalen Beziehungen in der Mannschaft werden durch das Merkmal wesentlich beeinflusst.
Bei der Betrachtung von leistungsorientierten Sportmannschaften steht das Verhalten bei der Lösung der jeweiligen Aufgaben im Mittelpunkt. Im Zuge der Bewältigung von sportlichen Aufgaben, die durch Spielregeln normiert sind, tritt eine Rollenverteilung ein, so dass eine Mannschaft innerhalb ihrer eigenen Grenzen Untergruppen, besonders wirksame Organisationssysteme, bildet, d.h. "dass der Binnenkontakt selbst sich an einzelnen Stellen (zwischen Mitgliedern gleichen Ranges) verdichtet, während sich an anderen Stellen (zwischen Mitgliedern verschiedenen Ranges) weitere Distanzen ergeben" (Hofstätter 1973; S. 331). Dabei können wir zur Erklärung das gruppendynamische "Affinitätstheorem" zugrunde legen, das in Anlehnung an Hofstätter (1973) die Bildung von Untergruppen nach dem Gleichheitsprinzip annimmt. Es hat zur Folge, dass von den Stammspielern die positiven Wahlen in die eigene Untergruppe gebracht während die Ablehnungen demnach ausserhalb verteilt werden müssen. Ferner macht das Bewertungsverhalten der Ersatzspieler deutlich, dass sie die Stellung der Stammspieler nicht als fragwürdig beurteilen; ihre Nützlichkeit hinsichtlich der Erreichung des Mannschaftszieles wird durchweg nicht bestritten.

Literatur

EBERSPÄCHER, H. and W. ESSING, A factoranalytic description of sociometric dimensions. in: Brooke, J.D. (Ed.), British Proceedings of Sports Psychology. University of Salford 1974. P. 265 - 272

HIEBSCH, H., Sozialpsychologische Grundlagen der Persönlichkeitsforschung. Berlin: Deutscher Verlag der Wissenschaften 1969

HOFSTÄTTER, P.R., Einführung in die Sozialpsychologie. Stuttgart: Kröner 1973

KLEIN, M. und G. CHRISTIANSEN, Gruppenkomposition, Gruppenstruktur und Effektivität von Basketballmannschaften. in: Lüschen, G. (Ed.), Kleingruppenforschung und Gruppe im Sport. Köln und Opladen: Westdeutscher Verlag 1966. P. 180 - 191

MÜNNICH, I. und F. SZAKACS, Der Weg des Balles auf dem Feld. Sozialpsychologische Untersuchung im Fussball. in: Studientexte zur Sportpsychologie. Leipzig: Detsche Hochschule für Körperkultur 1974. Kap. 6. 3. 1 - 6. 3. 5

PREDICTION OF SPORT BEHAVIOUR FROM PERSONALITY CHARACTERISTICS

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One of the most popular, if not the single most popular, topic in sport psychology is personality assessment. There must be several hundred research studies in the English language alone dealing with such concerns as the profiles of successful athletes, the personal outcomes of sport participation, and sport types. Inherent in most of the studies is the belief that personality data can provide some insight into sport behaviour and performance. Most of the studies are descriptive in nature but the investigators often hold out the hope that eventually personality data will enable us to predict sport performance.

If we as sport psychologists are interested in predicting sport performance, and I assume that most of us are, then it seems that one of the personal qualities that should interest us is behaviour consistency. That is to say, how much consistency can one expect in sport behaviour across situations? This seems to be an important aspect to consider since, if there is no consistency of behaviour across sport situations, then what reason is there to expect that we will be able to predict behaviour. Some generalized predictions would serve a purpose but if predictions have to be made in all sport situations, then perhaps the whole idea ought to be abandoned as not feasible.

Theories of personality differ widely on the issue of behaviour consistency. As you know the great majority of empirical research in sport personality has utilized assessment devices that embody factor theory and traits as their main premise. Factor theory searches for consistencies in behaviour. It is assumed that internal dispositions or traits are relatively stable and so enduring that they are not susceptible to environment shifts. This infers that behaviour could be observed in most any situation and generalized to sport or that, within sport, behaviour is generalizable. Such an idea is represented in Figure 1. Each person's (P_1, P_2, P_3) level of

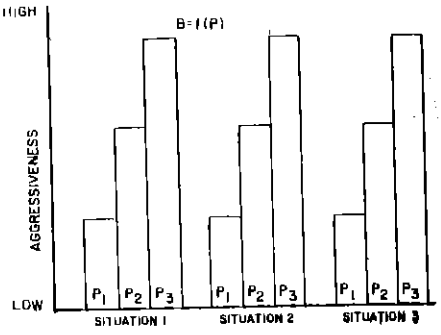


FIGURE 1

TOTAL PERSON VARIABILITY (TRAIT)

expressed aggresiveness is consistent across three situations. Person 1 shows rather limited aggression whereas Person 3 reacts aggressively to all situations.

Very few individuals would ascribe to such a strict theoretical viewpoint since there is no room for behavior shifts. Figure 2 is more palatable

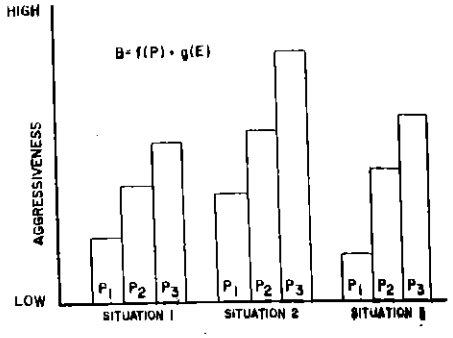


FIGURE 2

DISPOSITIONAL VARIABILITY

and more accurately reflects the trait theorists' position. This so-called dispositional approach to personality allows behavioral fluctuations across situations while at the same time maintaining relatively stable individual differences. To clarify, P_1's aggressive behavior fluctuates across situations but notice that P_1 always exhibits the least aggression.

As a counterargument to the trait position, there are those who advocate that the situation is all-important. Brunswik (1956) based his rationale for adopting the situationist approach on the assumption that it is more relevant to sample situations since situations are more variant than people. In other words he suggested that we should seek out the larger source of behavioral variance and claimed that this was to be found in the environment. Attributing greater variance components to either persons or situations, however is nothing more than a false issue (Endler, 1973). It is just as illogical to conceive of behavioral variation being totally attributable to traits as it is to overemphasize situations at the expense of individual consistency.

What is the solution? By now you might have guessed that I will argue for an interactionist viewpoint--one that simultaneously takes both traits and situations into account in the determination of behavior. Such an idea is certainly not new (see Ekehammar, 1974). The ANOVA research paradigm was suggested in 1962 by Endler, Hunt and Rosenstein. These investigators constructed a S-R Inventory of Anxiousness designed to partition total behavioral variance. The basic intent is to sample the self-reported behavior of individuals across a series of situations along certain physiological modes of response. Analysis of data reveals the magnitude of behavioral variation, or in the specific instance of the Endler et al. study the anxiety variance attributable to persons, situations, and persons x situations interaction. Figure 3 represents the typical results. Neither person nor situation

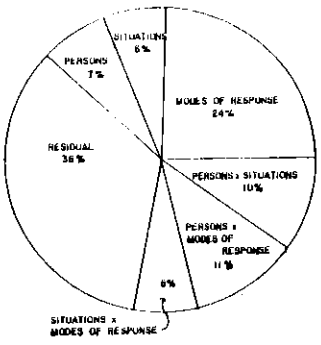


FIGURE 3

PARTITION OF TOTAL BEHAVIORAL VARIANCE

variance is very significant alone. However, the main sources plus the interactions do account for a large amount of variance.

What does this suggest? It suggests that the trait model does not provide nearly enough information to understand, let alone predict behavior. Based upon this fact it suggests that our trait-laden sport personality research studies

might be less than adequate. Is sport behavior more an outgrowth of personality traits than is general behavior? Is the sport environment less likely to alter behavior than is the non-sport environment! It was to these very questions that three separate research studies[1] have been directed.

Each study was modeled after the Endler et al. (1962) study and S-R sport inventories of anxiousness and hostility were constructed. The testing instruments consist of a series of sport situations chosen to elicit various

Table 1

Sample Questions from Anxiousness and Hostility Inventories

You are continually fouled and the referee doesn't call it.
After a hard fought game which your team won, you go over to congratulate your opponent. As you tell him that it was a good game, he counters that "you only won because of the officials".
As there are no officials nearby you have the opportunity to retaliate against a player who has roughed you up. He is in a vulnerable position.

degrees of the characteristic under consideration. The sport situations were chosen also on the basis of their familiarity to the athletes being tested. Situations represented pre-game, game, and post-game conditions. Basketball, football, soccer, lacrosse, and ice hockey athletes responded to each of the questions along selected modes of response, again chosen from previous research studies constructed by Endler and his co-workers. A five-step scale ranging from "none" to "very much" was utilized to record the athletes' perceived intensity of responses to each situation in turn. All data were analyzed by the partitioning of variance technique (Gleser, Crónbach, and Rajaratnam,1965).

Table 2

Summary of ANOVA Sport Personality Studies

	% Variance		
Source of Variance	Anxiety Study N=106 basketball athletes	Anxiety Study N=105 football athletes	Hostility Study N=108 soccer, ice hockey, and lacrosse athletes
Persons (P)	9.20	8.92	20.17
Situations (S)	6.11	10.49	12.22
Modes of Response (M-R)	9.84	10.04	5.07
P x S	7.61	7.71	15.35
P x M-R	10.36	12.69	8.65
S x M-R	15.37	7.46	3.19
Residual	41.52	42.67	35.35

FOOTNOTES

[1]Grateful appreciation is extended to Stuart Horsfall, Larry Czarnecki, and Alan Burton for data collection, and to Harold Morris for data analysis.

The summary of the three ANOVA sport personality studies is revealed in Table 2. Variance components for both the anxiety studies are strikingly similar. Person variance is approximately nine percent. Individual differences do not account for a very large proportion of behavioral variance. Trait theorists would have anticipated a large percentage of variance due to persons since they claim that behavior is primarily a function of one's trait structure. Clearly such is not the case. From these data, predictive validity of anxiousness from person components is approximately . 30 (see Moos, 1969). When main sources of variance are combined with all the simple interactions, validity is increased to . 75 ($.75^2$ 58%). The obvious conclusion is that individual differences, situations, and their interactions must be considered if one is hopeful of understanding sport behavior.

The hostility study revealed larger person variance and the magnitude is in line with that reported earlier by Endler and Hunt (1968). The variance of hostility across sport situations is due in larger part to the person or individual difference component. Predictive validity of hostility using only person variance is approximately . 45. However, should we be satisfied with the 20 percent accounted-for variance that we see in Table 2 or do we wish to explain the 80 percent unaccounted-for variance that a trait approach would leave us with? How much longer can we overlook that large portion of behavioral variance?

Although predictive validity of sport behavior from some personality characteristics may well be greater than that of others, trait approaches to the study of sport personality issues appear to be less than adequate. Much time and effort has been spent on classifying individuals and this has provided a small portion of behavior prediction information. Future concerns must lie with the analysis of situations, especially determining their meaning to individuals. Therefore, means by which situations can be ordered psychologically is a next step in unravelling the question of behavioral consistency. If behavior is consistent at all, then similarities will likely appear in situations perceived similarly. The task is to ferret out these person-situation commonalities in various sport environments if prediction of behavior is ever to be a reality.

References

Brunswik E.: Perception and the representative design of psychological experiments. University of California Press, Berkeley, 1956.

Ekehammar B.: Interactionism in personality from a historical perspective. Psychological Bulletin, 81, 1026-1048, 1974.

Endler N.S.: The person versus the situation--a pseudo-issue? A reply to Alker. Journal of Personality, 41, 287-303, 1973.

Endler N.S., Hunt J.M.: S-R Inventories of Hostility and comparisons of the proportions of variance from persons, responses, and situations for hostility and anxiousness. Journal of Personality and Social Psychology, 9, 309-315, 1968.

Endler N.S., Hunt J.M., Rosenstein A.J.: A S-R Inventory of Anxiousness. Psychological Monographs, 76 (17, Whole No.536), 1962

Gleser G.C., Cronbach L.J., Rajaratnam R.N.: Generalizability of sources influenced by multiple sources of variance.
Psychometrika, 30, 395-418, 1965.

Moos R.H.: Sources of variance in responses to questionnaires and in behavior.
Journal of Abnormal Psychology, 74, 405-412, 1969.

PSYCHOLOGICAL ANALYSIS OF SPORT ACTIVITIES FROM AN INDIVIDUAL DIFFERENCES PERSPECTIVE

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One of the problems that besets sport psychologists is that of conceptually representing their research topics in ways that have a substantial degree of authoritative support. The psychological analysis of sports activities is one of the areas that requires some clarification. Athletes are part of sports activities, therefore what we need is a theoretical viewpoint that makes allowances for the complex interactions that occur between individuals and the physical and social environment in which individuals find themselves. It would seem reasonable that any analysis of sport activities should take psychological processes more into account than physical structure. This point serves as the central theme of this paper which includes the following subtopics: a brief description of interactional theory as it applies to sport, methods of person-by-situation analysis, and the results of a sport study using an individual differences analysis.

It has become quite evident in recent years that psychologists are not very accepting of the trait theory of personality. The idea that behavior is basically an outgrowth of one's personality is too restrictive and does not make adequate allowances for learning, development, or behavioral variation across situations. Not surprisingly, the trait view of behavior also has been found lacking in recent sport studies (Fisher, Borowicz and Morris, 1977; Fisher and Burton, 1977; Fisher and Czarnecki, 1977; Fisher, Horsfall and Morris, 1977).

Figure 1 provides a graphic representation of the interactional viewpoint.

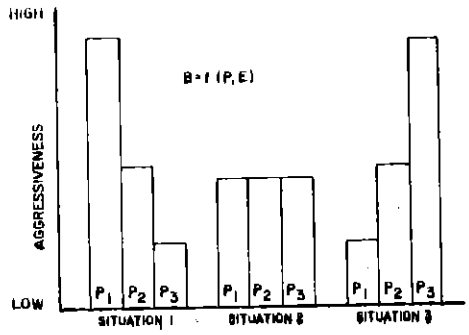


FIGURE 1

INTERACTION VARIABILITY

An individual's behavior fluctuates across situations; sometimes the level of aggression is low and sometimes it is high. Behavior, then, is an outgrowth of the individual's personality exhibited in conjunction with the dictates of the environment. Interactionism also allows for past experiences to act as mediators od current behavior. According to Endler and Magnusson (1976), the essential features of interactionism can be summarized as follows:

1. Actual behavior is a function of a continuous feedback process between the individual and the environment.

2. The individual is an intentional active part of this interaction process.

3. On the person side of the interactional equation, cognitive factors are the essential determinants of behavior although emotional factors cannot be discounted.

4. On the situation side of the equation, the psychological meaning of the situation for the individual is the key determining factor.

On the issue of behavioral consistency, it is suggested that we do not look for stability across situations but rather we should seek out the specific ways in which individuals adjust their behavior to suit situational demands. In other words, the real interest is looking for the ways individuals react to classes of situations that have personal meaning for them. The reason this strategy is important is that one of the basic assumptions of interactionism is that individual behavior is more similar across situations that are perceived and interpreted as similar by the individual.

To solve the equation, B=f(PxE), stated behavior is a function of person-environment interactions, one needs a measurable dimension of situations that is functionally related to the behavior or performance in which one is interested. Since individuals likely differ in their perceptions of the same situation, the appropriate method of investigating the problem is by using and analysing data for single individuals. More time will be spent on this exact methodology a little later in the paper.

The major reason why sport psychologists are interested in the analysis of sport activities is to enable them to better deal with the questions that arise in the activities in question. Such areas of interest might be as follows: the psychological demands of long distance running, the mobilization readiness required for international competition in a specific sport, and the aggression release (catharsis) of combative sport participation.

Sport situations, like all situations, have both physical and psychological properties. However, it has been claimed earlier that behavior is mediated by the psychological meaning situations have for the individual. What is needed then are methods that can be employed to describe, classify and systematically analyse sport situations. Although social learning theorists have advocated situational analysis for some time, they have emphasized the physical or objective dimensions of situations. That is not what is needed to solve the interactional equation and tell us what we need to know.

A careful search of the psychological literature reveals that there is a lack of appropriate methods to deal with the kinds of situational analysis that have been suggested. Present conditions have changed very little since 1963 when Sells wrote the following: "While work proceeds actively to extend the explorations of individual differences (trait studies), however, the equally important frontier of situational dimensions is virtually ignored" (p.700).

Let us examine our problem of situational analysis a little closer. What data could we collect that would reveal the meaning that any individual assigns to a situation, or the perception that one has about a situation? Ekehammar (1974) has offered several methods of data collection, two of which seem to have particular relevance to our sport concerns. Specifically these are (1) individual's reaction patterns elicited by the situation, and (2) individual's perceptions of the situation. Bowers' (1973) comment brings into clearer focus why the person must be part of any situational analysis. He asserted that "the situation is a function of the observer in the sense that the observer's cognitive schemas filter and organize the environment in a fashion that makes it impossible ever to completely separate the environment from the person observing it" (p.328). The psychological content of situations is determined by the individual's fluctuations along certain dimensions that are salient for that person. The task, then, is to find these dimensions and discover their degree of commonality for individuals.

As was indicated earlier, the literature is not replete with such studies. On the positive side, however, a couple of studies are pertinent since the investigators have been successful in identifying common cognitive dimensions that are used to discriminate between situations. Magnusson (1971) utilized a multidimensional analysis procedure to locate these cognitive dimensions and, since individuals have varying degrees of cognitive complexity, did so on an individual-by-individual basis. He formulated 36 situations along the domain of academic studies and took care to cover a variety of sub-topics within the domain. Subjects judged the degree of similarity between all pairs of situations (36 x 36 matrix of situation descriptions). Factor analysis revealed five factors or dimensions along which subjects' perceptions varied. Magnusson concluded that it was possible to identify common cognitive dimensions used by individuals to discriminate between situations, although he only utilized three subjects. As suspected, however, he did find individual differences along the common cognitive dimensions. Magnusson recommends that the sampling of situations ought to be limited to some specific domain, e.g. interpersonal relationships, leisure activities, job positions, etc. Such a recommendation was made on the basis that one's cognitive organization is variable under varying circumstances. These points will be clarified later during the description of the sport analysis study.

Earlier in the paper it was mentioned that behavioral acts are somewhat an outgrowth of an individual's personal perception of the situation. The individual has a degree of control over behavior and usually behaves according to a set of rules that are either accepted or manufactured. In any event the governing rules become personalized. Magnusson and Ekehammar (1974) tested this tenet of interactional theories, that being whether or not one's reaction in a situation is dependent upon one's perception of the situation. Anxiety was the personality characteristic under examination and 12 stressful situations were

constructed. Subjects reacted to each of the situations along 10 reaction scales comprised of psychic anxiety, e.g. "become nervous", and somatic anxiety, e.g. "heart beats faster". Perception of the perceived similarity of the stressful situation was assessed by following Magnusson's (1971) earlier methodology. The degree of congruence between perception and reaction data was assessed by a target rotation procedure which rotated the perception and reaction matrices to a common space. For the most part, results were as anticipated since there was good agreement (r's = .80's & .90's) between the perception and reaction data. The only perception-reaction incongruity occurred in the ego threat situations of which entering an athletic contest was one of the situations. Although athletic contests are perceived as achievement tasks by the subjects, some chose to approach the athletic situation and others chose to avoid the situation. It is just these interindividual differences that need to be considered when one is trying to predict behavior. Additionally it is of little use to be able to analyse a situation, sport or otherwise, if the specific descriptors do not lead one to know what to expect from individuals facing those situations.

I promised earlier that I would have more to say about the methodology of analysing sport activities from the perspective of the individual. It has been a long way round to get us home but we have finally arrived.

Data for this study[1] were derived from college basketball players' (n=38) self-reported anxiety reactions to 13 basketball situations that were devised to evoke various degrees of anxious responses (see Fisher, Horsfall and Morris, 1977). Data were arranged in a three-way matrix, 13 stimuli x 13 stimuli x 38 subjects. This matrix is represented graphically in Figure 2,

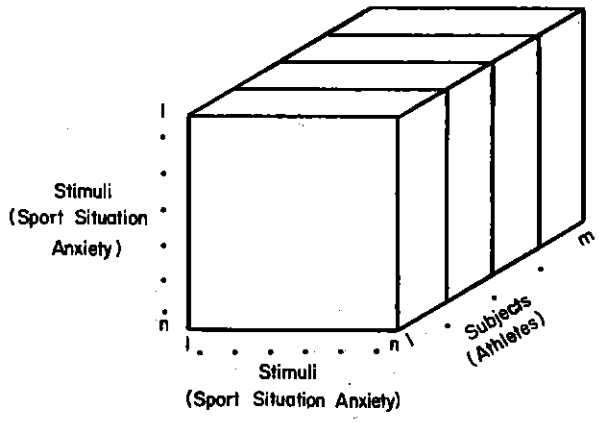


FIGURE 2

STIMULI X STIMULI X SUBJECTS MATRIX FOR INDIVIDUAL DIFFERENCES SCALING ANALYSIS (INDSCAL)

FOOTNOTES

[1]The author wishes to thank James Cunningham, Department of Psychology, Cornell University for his expertise in multidimensional scaling techniques and for his willingness to share his time and knowledge. Appreciation is also extended to Harold Morris, School of Health, Physical Education and Recreation, Ithaca College for his assistance in data interpretation.

and the significant feature to note is that each individual's data matrix is separate. This is crucial because earlier it was claimed that psychological analysis of sport activities must include the person. The stimuli x stimuli x subjects matrix is going to allow us to show the individual differences that are present in the data.

Until quite recently when an investigator dealt with data obtained from groups of individuals and the focus was to be on the individual, there were only two options (Tucker and Messick, 1963). The first and most often used technique was to ascertain group averages and then to generalize findings to the "average person" in each group. The other alternative was to work with each person separately and enumerate the results individual by individual. Each of these methods has a severe drawback. The former ("group averages") allows for false interpretations since the results for the average person may not describe very accurately the consistent responses of each individual. On the other hand, however, individual-by-individual data collection is very time-consuming and analysis by individuals make group generalizations difficult.

Multidimensional scaling procedures are the solution to the dilemma since it has as its basic concern the investigation of the perceived similarity of various objects or stimuli. Objects are represented by points in a spatial model and the significant features of the data about these objects are revealed in geometric relationships among the points (Shepard, 1972). In other words multidimensional scaling analysis allows one to get hold of the existing pattern or structure that lies hidden in a data matrix by representing the points, which could be stimuli, objects or people, by a configuration or "map" indicating the relative position of each object in a varying number of dimensions.

The precise multidimensional scaling analysis that was utilized in this study was INDSCAL, or individual differences scaling (Carroll and Chang, 1970). Figure 3 reveals the outcome of INDSCAL analysis. From the

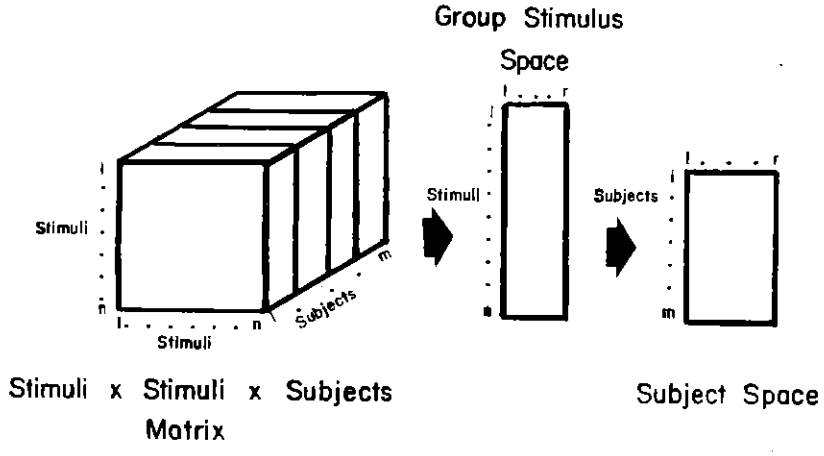


FIGURE 3

MODEL OF INDIVIDUAL DIFFERENCES SCALING ANALYSIS (INDSCAL)

original three-way matrix, group stimulus space and subject space are plotted around axes by computer analysis. There is no rotation of axes to provide a "best fit" for objects; the data structure is preserved and the resultant axes are exactly as they exist for the particular subjects tested. The axes are real rather than artificial and they correspond to immediately interpretable psychological dimensions. This is precisely what we were seeking, viz. a method by which individual differences in behavior would not only be revealed but would also be explained according to some cognitive function of the individuals themselves.

INDSCAL plots objects (in this study 13 sport situations) in a n-dimensional space. Figure 4 represents the group stimulus space along

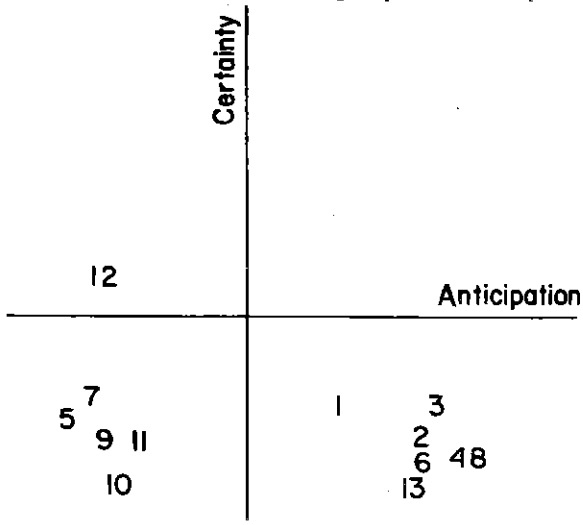


FIGURE 4

GROUP STIMULUS SPACE FROM INDIVIDUAL DIFFERENCES ANALYSIS OF SPORT SITUATIONS ALONG ANTICIPATION-CERTAINTY DIMENSIONS

anticipation-certainty dimensions. This is an analysis by stimuli in which all the subjects' anxiety reactions are represented by a single point for each situation. On the anticipation dimension, situations range from positive to negative as follows: "You are waiting for the game to begin and there is a professional scout in the audience. He's there to watch you" (#8) to "You have never had a winning season. It is the last game of the present season and you have a 1 - 19 record. You are in the locker room prior to the game listening to the coach telling you the same as he has told you all season" (#5). Situations range from positive to negative on the certainty dimension as follows: "You are in the locker room after losing a game you really expected to lose" (#12) to "The game is over and you are in the locker room. The coach then tells you that you were fouled in the last second of the game but due to the noise of the crowd the timekeeper did not hear the referee's whistle. You are now awarded two free shots (1 and 1) which you must go back to the court to take. The score was 92-91 against you, but now you have a chance to win a game you thought you had lost" (#13).

The anxiety patterns across the 13 basketball situations were represented along three dimensions. Figure 5 shows the dimensions ego threat

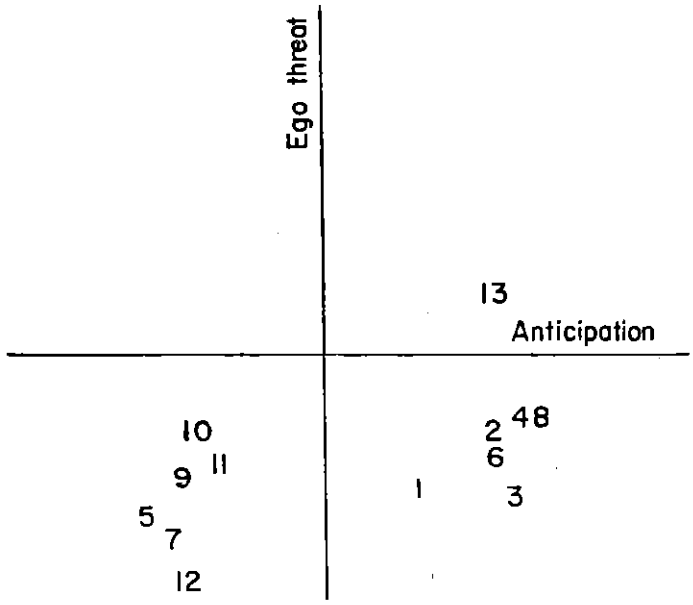


FIGURE 5

GROUP STIMULUS SPACE FROM INDIVIDUAL DIFFERENCES ANALYSIS OF SPORT SITUATIONS ALONG ANTICIPATION-EGO THREAT DIMENSIONS

and anticipation. Situations ranged from high to low as follows: "The game is over and you are in the locker room. The coach then tells you that you were fouled in the last second. . . . You are now awarded two free shots. . . you have a chance to win a game you thought you had already lost" (# 13) to "You are in the locker room after losing a game you really expected to lose" (# 12). The group stimulus space along certainty-ego threat dimensions is seen in Figure 6.

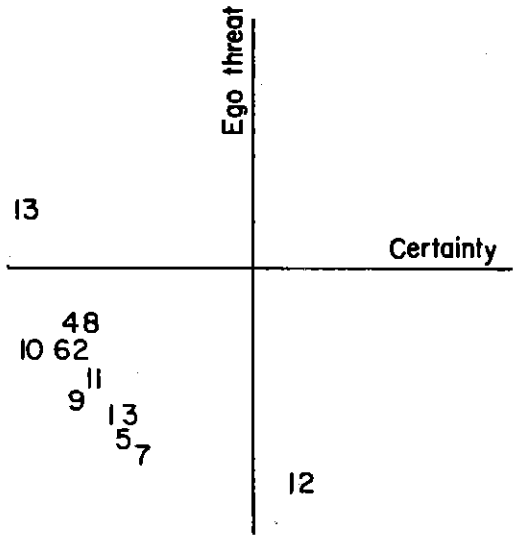


FIGURE 6

GROUP STIMULUS SPACE FROM INDIVIDUAL DIFFERENCES ANALYSIS OF SPORT SITUATIONS ALONG CERTAINTY-EGO THREAT DIMENSIONS

If one could visualize a three-dimensional space or represent it realistically on a two-place surface, Figures 4, 5, and 6 would be combined to form a single "map". Using situation 11 as the referent, athletes reported anxiety reactions to that situation on the basis that it had the following characteristics for them: low anticipation, low certainty, and moderate ego threat. Inherent in all three configurations is the assumption that different athletes perceived the sport situations in terms of a common set of dimensions but that these dimensions are differentially important in the anxiety responses of different individuals (Carroll, 1972). The "importance" could even be "0" indicating that the particular dimension was not important for a particular subject.

In addition to the three-dimensional group stimulus space INDSCAL computes the subject spaces along the same dimensions. Figure 7 reveals

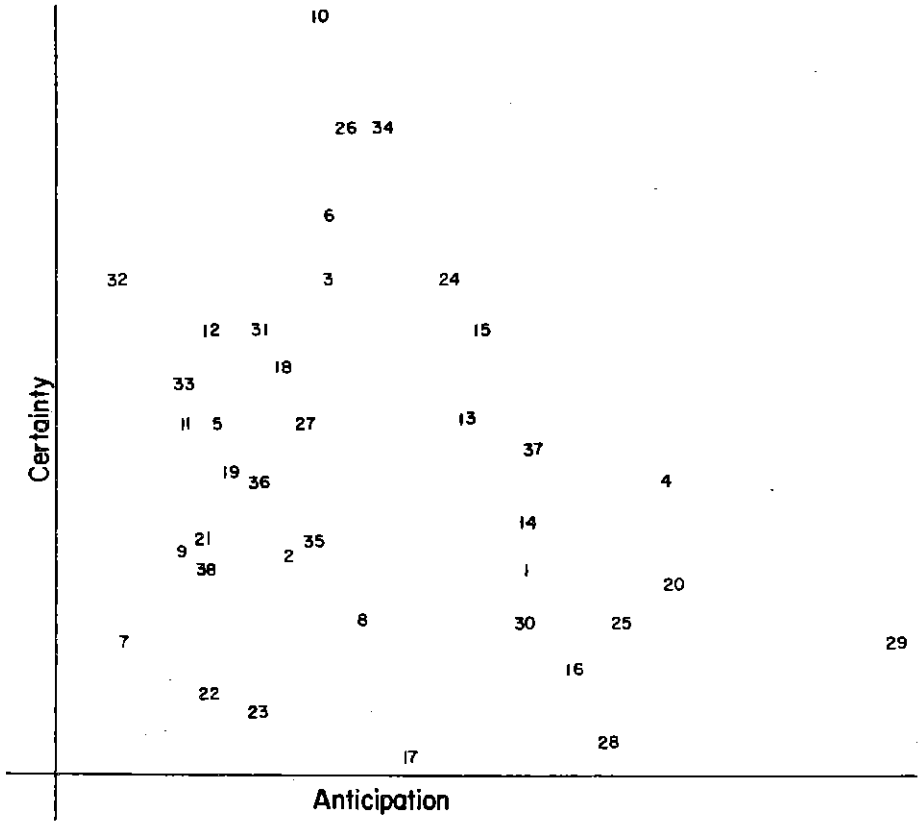


FIGURE 7

SUBJECT SPACE FROM INDIVIDUAL DIFFERENCES
ANALYSIS OF SPORT SITUATIONS ALONG
ANTICIPATION-CERTAINTY DIMENSIONS

the anticipation-certainty subject space. Note the configuration, especially the range of individual responses. Also notice that some athletes only use one dimension on which to base their anxiety responses, e.g. #'s 17 and 28 use anticipation exclusively; #'s 7 and 32 use certainty exclusively. The subject space along anticipation-ego threat dimensions is seen in Figure 8.

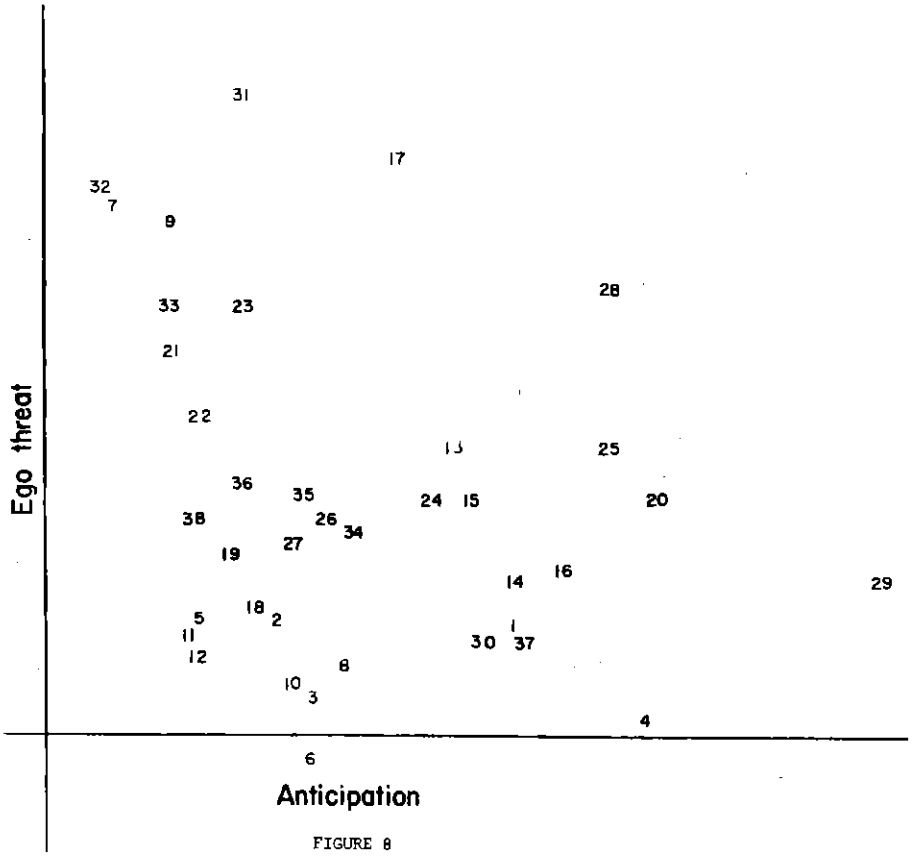


FIGURE 8

SUBJECT SPACE FROM INDIVIDUAL DIFFERENCES ANALYSIS OF SPORT SITUATIONS ALONG ANTICIPATION-EGO THREAT DIMENSIONS

Whereas subject # 17 used anticipation exclusively in the anticipation- certainty configuration, he perceived both anticipation and ego threat as important dimensions in Figure 8. The irrelevance of the dimension certainty for subject # 17 is again clearly visible in Figure 9. This pattern could be traced for each athlete for the purpose of establishing that particular individual's cognitive schemes from the respective dimensional weights.

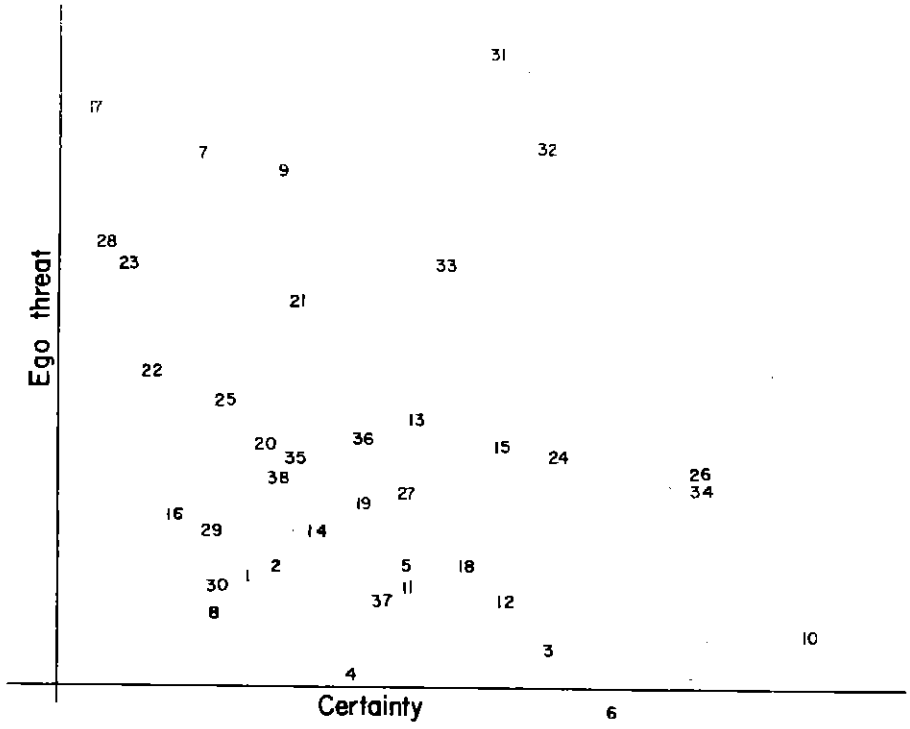


FIGURE 9

SUBJECT SPACE FROM INDIVIDUAL DIFFERENCES ANALYSIS
OF SPORT SITUATIONS ALONG CERTAINTY-EGO
THREAT DIMENSIONS

INDSCAL is not a perfect analysis; it is difficult at best to compartmentalize individuals. Figure 10 shows the degree to which the three-dimensional model (anticipation-certain-ego-threat) fits the athletes' anxiety

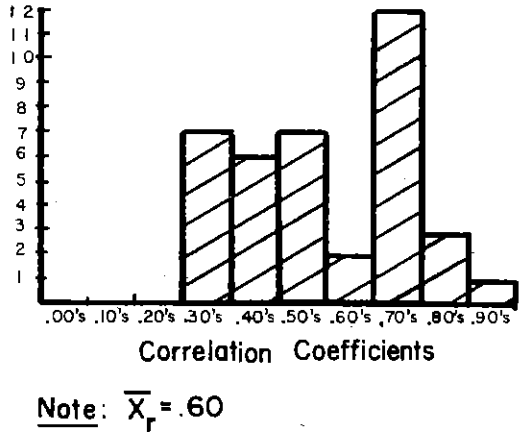


FIGURE 10

MODEL FIT RELATIONSHIPS FOR ALL ATHLETES (n=38)

responses to the 13 basketball situations. Correlation coefficients range from .3 to .92 with the mean being .60. For some athletes the model provides a good fit but for others the model fails. The next step, and one not yet done, would be to eliminate those athletes who did not fit the model and to reanalyse their reaction data on a separate n-dimensional model.Some athletes did not fit for the existing model because they were using other dimensions that were relevant to them. It is necessary to locate all the dimensions relevant to a sport if one is to have a complete psychological analysis. However, due to the complexity of individual differences there are bound to be some individuals who will never fit any model but their own. Not every athlete marches to the beat of his own drummer but some do. For these latter individuals psychological analysis of sport activities for them is a dilemma that will likely remain unraveled.

REFERENCES

Carroll J.D., Chang J.J.: Analysis of individual differences in multidimensional scaling via a N-way generalization of "Eckart-Young" decomposition. Psychometrika, 35, 283-319, 1970

Ekehammar B.: Interactionism in personality from a historical perspective. Psychological Bulletin, 81, 1026-1048, 1974

Endler N.S., Magnusson D.: Toward an interactional psychology of personality. Psychological Bulletin, 83- 956-974, 1976.

Fisher A.C., Burton A.L.: Sources of hostility variance in sport situation. Unpublished research, Ithaca College, 1977.

Fisher A.C., Czarnecki L.R.: Sources of anxiety variance in sport situations. Unpublished research, Ithaca College, 1977.

Fisher A.C., Horsfall J.S., Morris H.H. Sport personality assessment: A methodological re-examination. International Journal of Sport Psychology, 8, 92-102, 1977.

Fisher A.C., Borowicz S.K., Morris H.H. Behavioral rigidity across sport situations. Paper presented at the North American Society for the Psychology of Sport and Physical Activity Annual Meeting, Ithaca College, May, 1977.

Magnusson D.: An analysis of situational dimensions. Perceptual and Motor Skills, 32, 851-867, 1971.

Magnusson D., Ekehammar B.: Perceptions of and reactions to stressful situations. Journal of Personality and Social Psychology, 31- 1147-1154, 1975.

Sells S.B.: An interactionist looks at the environment. American Psychologist, 18, 696-702, 1963.

Shepard R.N.: Introduction to Volume I. In R.N. Shepard, A.K. Romney, S.B.Nerlove, eds.: Multidimensional scaling: Theory and applications in the behavioral sciences. Vol. I, Theory. Seminar Press, New York, 1972.

Tucker, L.R., Messick S.: An individual differences model for multidimensional scaling. Psychometrika, 28, 333-367, 1963.

ŠPORTOVO-REKREAČNÁ AKTIVITA V SPÔSOBE ŽIVOTA ZAMESTNANÝCH MUŽOV A ŽIEN

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V posledných rokoch sa u nás, ako i v ostatných socialistických krajinách rozšíril odborný záujem o problematiku tvorby a formovania socialistického spôsobu života. Dôvody tohoto záujmu majú hlboké spoločenské opodstatnenie.

Socialistická spoločnosť vstúpila do obdobia, kedy sa utvára reálna cesta k plneniu hlavného spoločenského cieľa - dosiahnuť vyššiu kvalitu rozvoja osobnosti, vytvárať všestranne rozvinutú osobnosť. Tento cieľ vyžaduje i nový prístup k problémom orientácie ľudských potrieb a aktivít, kvalita ktorých je meradlom rozvoja osobnosti, odrazom jeho myslenia, svetonázoru, etických noriem a princípov. Máme záujem na tom, aby človek zahrňoval do svojich činností vo volnom čase také, ktoré obohacujú ľudský život, pôsobia na všestranný rozvoj osobnosti a tvorivých síl, rozvíjajú kvalitatívne vyššie spoločenské a individuálne potreby. Je objektívne dokázané, že súhrn takýchto činností predstavuje i telesná kultúra, ktorá okrem špecifického prínosu pre telesný rozvoj, zdravie človeka, prispieva k obnoveniu psychických síl, na ktoré kladie súčasný život zvýšené nároky v zmysle zvyšovania ich odolnosti, zdatnosti, schopnosť vysporiadať sa s meniacimi sa podmienkami a požiadavkami života v čo najkratšom čase, k ich udržiavaniu na optimálnej úrovni počas celého života.

Z toho vyplýva, že telesná kultúra komplexne, mala by byť vo vedomí človeka spätá s jeho životom v pracovnej i mimopracovnej sfére, snahou účinne prispieť tvorbou týchto hodnôt spoločnosti aj sebe. Preto je zákonité, že v systéme výchovy a vzdelávania venujeme zvýšenú pozornosť formovaniu vzťahu k uvedomelému využívaniu telesnej kultúry, hlavne mladej generácie, u ktorej prerod na novú kvalitu života je proces menej zložitý ako u dospelej populácie. Rovnako štátne i politické orgány venujú týmto otázkam v rámci celkovej tvorby socialistického spôsobu života zvýšenú pozornosť, vyjadrenú konkrétnymi úlohami v zabezpečovaní masového rozvoja telesnej výchovy a športu.

V našom výskume zameranom na získanie informácií o telesnej kultúre zamestnaných mužov a žien sme si vzali za cieľ okrem iného analyzovať štruktúru ich voľného času cez dovolenku, zistiť aké miesto v nej zaberá športovo-rekreačná aktivita.

Vychádzali sme z toho, že spôsob využívania dovolenky je jedným zo základných indikátorov spôsobu života našich pracujúcich, je úzko spojený s dosiahnutým stupňom uspokojovania ľudských potrieb, ktorý zahrnuje tak materiálne, ako aj kultúrne podmienky života, odráža subjektívnu aktivitu, záujem jednotlivca, ktoré sa viažu na ďalšie, nie menej významné faktory - z nich okrem pohlavia, vzdelania, veku, rodinný stav, charakter práce a ďalšie. Súčasne sme si chceli overiť, ktorý z týchto činiteľov sa najvýraznejšie premieta v obsahu dovolenky, zvlášť z aspektu jej využitia na optimálnu regeneráciu fyzických a duševných síl, na športovo-rekreačnú činnosť a tiež, či jestvujú rozdiely v spôsobe života mužov a žien v uvedených oblastiach ich voľného času.

Výskum sme uskutočnili v roku 1974 v priemyselnom závode Slovena Žilina dotazníkovou metódou u pracujúcich vo veku 18-59 rokov. Otázky boli priamo zamerané na zistenie, akým spôsobom trávili pracujúci hlavnú časť dovolenky v tomto roku. Okrem športovo-rekreačnej činnosti sme vyčlenili také skupiny činností, ktoré sa s určitou pravdepodobnosťou v živote človeka počas dovolenky

vyskytujú a môžu tak poskytnúť kvantitatívne i kvalitatívne informácie o niektorých stránkach spôsobu života pracujúcich tohoto závodu. Konkrétne sme se sústredili na analýzu týchto druhov činností :

1. práce v domácnosti
2. stavba rodinného domu, pomoc pri stavbe rod.domu, chaty
3. liečenie
4. dovolenka spojená s telovýchovnou, športovou činnosťou
5. nečerpaná dovolenka
6. iné využitie dovolenky.

Pretože nám išlo tiež o získanie informácií o preferenčných hodnotách dovolenky, respondenti mali označiť len jednu z uvedených činností, tú, ktorej sa v prevažnej miere venovali v tomto čase.

Výber závodu bol ovplyvnený dobrou znalosťou výrobno-technického, sociálneho a kulturného rozvoja závodu, mentality jeho pracujúcich - obyvateľov Žiliny a jej okolia, čo vytvorilo dobré podmienky pre realizáciu výskumu. Výskumu se zúčastnilo 650 náhodne vybraných zamestnancov závodu ,(307 žien, 141 mužov), od ktorých sme získali 448 správne vyplnených dotazníkov, čo je 21,8% zamestnancov celého závodu.

Získané údaje sme štatisticky spracovali vo Výskumnom výpočtovom stredisku UK na samočinnom počítači Siemens.Štatistickú významnosť závislostí sme overovali chí-kvadrátovým testom.

Analýza empirického materiálu ukázala, že v porovnání s podobným výskumom spred desiatich rokov naďalej existuje výrazný rozdiel v spôsobe využívania dovolenky mužov a žien, tieto sú však spôsobené hlavne väčším podielom žien na činnosti, ktorá súvisí so starostlivosťou o domácnosť /ženy 41%, muži 22,7%/, u mužov s prácou, spojenou so stavbou, resp. pomocou pri úprave domu,chaty /muži 32,6%, ženy 10,7%/, čo značí, že ide o činnosti, ktoré podľa ich obsahu /ak nie sú záľubou/ nemožno zaradiť do voľného času, ale do času mimopracovného. Tento čas nie je cieľovým zámerom našej spoločnosti, tvorí iba prechodné štádium uspokojovania záujmov vyplývajúcich zo skupinových potrieb. Pravda, nemožno ich chápať vždy negatívne. Väčšina aktivít v súvislosti so zlepšovaním domáceho a víkendového prostredia neodráža iba osobný záujem ich vykonávateľov, ale aj celospoločenskú prosperitu a najmä ekonomickú silu, ktorú dosiahli v podmienkach socialistických výrobných vzťahov.

Potešiteľné však je, že štruktúra činností zamestnaných žien počas dovolenky v porovnání s mužmi i z hľadiska činností, ktoré smerujú k žiadúcej regenerácii fyzických i duševných síl predstavuje vcelku oproti minulosti vyrovnanejší podiel mužov a žien. Dovolenku, spojenú so športovo-rekreačnou aktivitou uprednostnilo 30,5% mužov a 34,2% žien, liečenie 7,1% mužov a 6,8% žien, 5% mužov a 2% žien nečerpalo dovolenku v hlavnom, letnom období, 1,4% mužov a 5,2% žien využívalo dovolenku na iné druhy činností.

Zo získaných výsledkov ďalej vyplýva, že spôsob života zamestnaných žien počas dovolenky v porovnáni s mužmi je výraznejšie diferencovaný vzdelaním, vekom, rodinným stavom, sociálnou príslušnosťou. Zistili sme, že u žien sa vzdelanie veľmi významne premieta v obsahu činností počas dovolenky v smere čím vyššie vzdelanie, tím je vyššia účasť respondentiek na činnostiach smerujúcich k reprodukcii pracovnej sily. Športovo-rekreačnú aktivitu uviedlo 5,9% žien so základným vzdelaním, u stredoškolsky vzdelaných žien je to už 27,4% ako prvoradá aktivita počas dovolenky. U mužov sme v tomto smere nezistili štatisticky významné rozdiely.

Rovnako tendencia, potvrdená v mnohých výskumoch - s pribúdajúcim vekom sa mení hodnotová orientácia osôb, účasť na vykonávaní telovýchovnej činnosti sa v našom výskume výrazne prejavila len v súbore žien, zvlášť v kategórii do 46 čo 50 rokov, kde účasť na aktivite športovo-rekreačného charakteru uviedlo 2,9% respondentiek, čo je až 4-té miesto v celkovej štruktúre činností.

Tiež predpokladaná závislosť obsahu trávenia dovolenky od rodinného stavu sa ukázala veľmi významná u žien, menej u mužov. U slobodných mužov i žien bola športovo-rekreačná aktivita udaná ako prvoradá aktivita co využívaní dovolenky - u vydatých žien, ženatých mužov je na 1. mieste práca v domácnosti a športovo-rekreačná aktivita na mieste druhom.

Pozoruhodné je, že sme nezistili výrazné rozdiely v orientácii mužov na jednotlivé druhy činností, vrátane športovo-rekreačnej v závislosti od socio-profesionálnej príslušnosti.

Závery: Z uvedených analýz vyplýva, že štruktúra činností realizovaných po čas dovolenky podľa pohlavia nepriamo svedčí o existencii rozdielov života žien a mužov v tejto oblasti voľného času a že táto je z hľadiska svojho spoločenského i ekonomického dosahu ďalej otvorená spoločenskej intervencii.

Racionálne využitie dovolenky predpokladá vymedziť zodpovedajúci priestor na regeneráciu fyzických a psychických síl spotrebovaných v pracovnom procese, na všestranný rozvoj osobnosti. Z tohoto aspektu analýza činnosti u našich respondentov ukázala, že ešte nie sú vo všetkých skupinách zamestnaných mužov a žien, vzdelanostných, vekových, profesionálnych a ďalších v prevahe činnosti takéhoto charakteru, čo nie je v celkovom súlade s podmienkami a spoločensky žiaducimi cieľmi našej spoločnosti.

Na dominantnosť športovo-rekreačnej aktivity počas dovolenky vplýva u žien výraznejšie než u mužov úroveň dosiahnutého vzdelania, socioprofesionálna príslušnosť, vek, rodinný stav.

Ukazuje sa, že na plné rozvinutie základných funkcií voľného času počas dovolenky v procese rozvoja spôsobu života zamestnaných mužov a žien je potrebná spoločenská regulácia tých činiteľov, ktoré pôsobia ako determinanty spôsobu života. Prakticky to znamená, že socialistická spoločnosť musí u dospelej populácie ešte účinnejšie, hlavne prostredníctvom pracovného prostredia vedome pôsobiť na utváranie vzťahu k aktívnemu vykonávaniu telovýchovnej činnosti, k pochopeniu významu jej realizácie, zaradenia do systému svojich životných činností, dať jej zodpovedajúce miesto v hierarchii vlastných potrieb.

AN ANALYSIS OF THE EFFECTS OF DEVELOPMENT AND TRAINING UPON SELECTIVE JUMPING REACTION TIME

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Though there are many factors associated with skilled performance in sports activities, speediness of physical movement is undoubtedly a most important one. In fact, in most practical sports situations, in ball game situations in particular, innumerable changes of stimuli exist, and athletes have to react to the changes of stimuli with their whole bodies speedily and

accurately. Such situations may be called the situations of selective body reaction. And, in such situations, it is assumable that the speediness of physical movement depends upon the promptness of eye movement toward stimulus and decision making in the central nervous system and contraction of the muscle groups of the body. So it was intended in the present paper that, as an index of motor skill in practical sports situations, selective jumping reaction time for different stimuli should be measured and analyzed into several time phases, and that the effects of development and training upon them also should be clarified.

Method

In a darkened room which is shielded from noise and electric current, the subject stands on a jumping platform (50x50x11 cm) to which a paper straingauge is attached, and he looks at the center lamp which is set in front of him at a distance of 87 cm at eye-level. As soon as the center lamp disappears, and simultaneously another side lamp which is made of an arrow shaped signal pointing either upwards or downwards appears on the position of right or left at a visual angle of 30° from the center lamp, the subject has to move his eyes toward the side lamp after receiving the light by peripheral vision first, and secondly has to react to the arrow by a high vertical jump when it is pointing upwards (high jump), and has to react by a low vertical jump when it is pointing downwards (low jump).

The stimuli were presented at random order including 5 times of each stimulus variable, such as right side upward arrow, right side downward arrow, left side downward arrow.

To check the eye movement of the subject, an oculogram was recorded on a paper oscillograph by attaching electrodes to both sides of the left eye, tracing the change of corneoretinal standing potential. And for body reaction, the response curve was recorded on the same oscillograph after tracing the change of body weight on the jumping platform which is attached by a straingauge, while the electromyograms of Tibialis Anterior muscle and Gastrocnemius muscle of the left leg were also recorded.

Based on these records, reaction time was analyzed into 9 phases. (Fig.1)

I. Latency of Eye Movement; the time elapsed from the presentation of stimulus until eye movement begins.

II. Eye Movement Time; the time spent by eye movement from the center lamp to the side lamp.

III. Decision Time; conduction time in nervous system from the moment of reception of the stimulus on the retinal foves to the moment when Gastrocnemius muscle begins contraction.

IV. Contraction Time; contraction time of leg muscles from the initiation of Gastrocnemius muscle contraction to the moment when the subject's feet depart from the jumping platform.

IVa. Contraction Time before Max.; the time from the initiation of Gastrocnemius muscle contraction to the moment when the response curve reaches maximum level. In this time phase, knees are still flexed.

IVb. Contraction Time after Max.; the time from the moment when the response curve reaches the maximum level to the moment when feet depart from the jumping platform. In this time phase knees are extended resisting body weight.

V. Reaction Time; total reaction time from the moment of the presentation of the stimulus to the moment of the departure from the jumping platform.

VI. Latency of Leg Flexion; the time from the moment of presentation of the stimulus to the initiation of Tibialis Anterior muscle contraction to bend knees as a preliminary action for jumping.

VII. Jumping Time; the time from the departure to the moment of the landing on the jumping platform. This time phase was used to check the correctness of reaction.

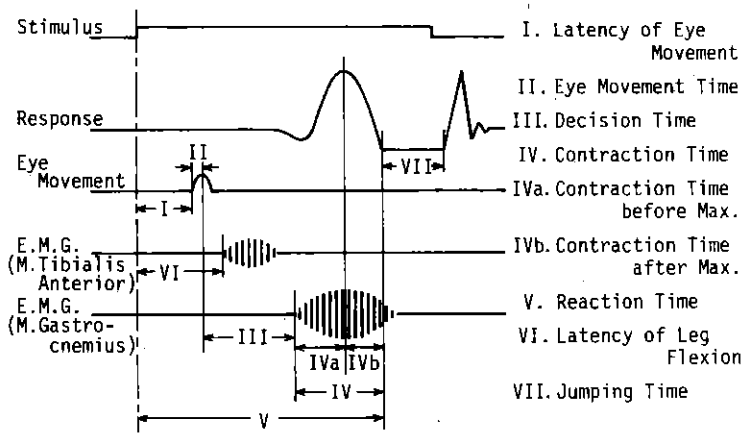


Fig. 1 Pheses of Selective Jumping Reaction Time

To make clear the effect of development, 6, 9 and 12 year-old male children, 10 for each and 30 in all, who belonged to the kindergartens and the elementary schools located in Tokyo were subjected to the experiment. And to make clear the effect of training by comparison, 10 top level tennis players, gymnasts and sprinters of 20 - 25 years old were subjected as sportsmen, and college students of same years old who have not engaged in specific sports were subjected as non- sportsmen. All of them were male sex.

Results

Means and standard deviations were computed at milli-meter level after measuring each time phase of individual data on an oscilograph. After that, they were changed into temporal orders at milli-second level.

1) Comparison among each children group

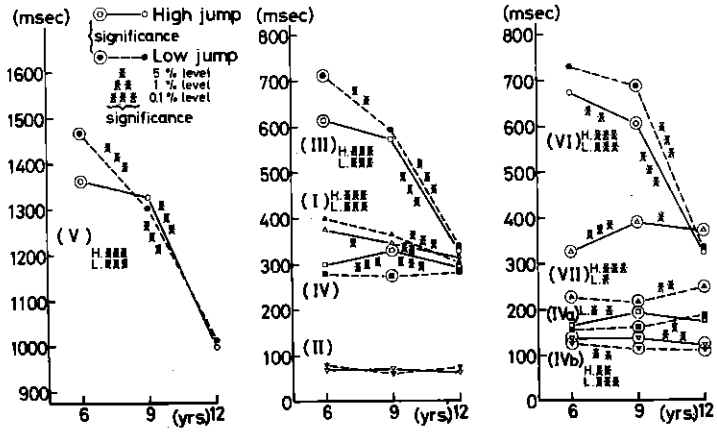


Fig.2 Developmental Changes in each Phase of Selective Reaction Time

Fig. 2 illustrates the effect of development by the means of each group, in which the developmental tendencies between 6 yrs. and 9 yrs., 9 yrs. and 12 yrs. are shown by significant levels on each line, and those of between 6 yrs. and 12 yrs. are shown after H (high jump) and L (low jump), while the significant levels between high jump and low jump are shown by large circles.

As it is clear by the comparison among each group, Reaction Time (V) shows remarkable developmental changes both in high jump and low jump as a whole. From the analytical point of view, the developmental changes do not depend upon the changes of Eye Movement Time (II) and Contraction Time (IV), but upon Latency of Eye Movement (I) and Decision Time (III). That is, it can be said that the developmental change of Reaction Time does not depend upon the peripheral process of contraction time of eye muscles and leg muscles, but upon the phase which is mainly related to the conduction time of impulses in the central nervous system. It is also obvious that the shortening of Decision Time (III), the conduction time associated with cognition of stimulus and decision making for response, plays a more important role than that of Latency of Eye Movement Time (I), the conduction time for eye movement.

Now,it is important to notice that Latency of Leg Flexion (VI), the time phase associated with preliminary action, shortens to the level of Latency of Eye Movement (I) with the advance of the age from 6 to 12. This fact means that the children who bend knees after looking at the signal tend to bend knees looking at the signal simultaneously as the development proceeds. In other words, the preliminary action of knee bending for jumping which appears separately after eye movement, is integrated into simultaneous control as the development proceeds. And, it is very important to notice that this developmental tendency of Latency of Leg Flexion (VI) coincides almost with that of Decision Time (III).

2) Comparison between sportsmen and nonsportsmen

The means of sportsmen and nonsportsmen are shown in Fig. 3.

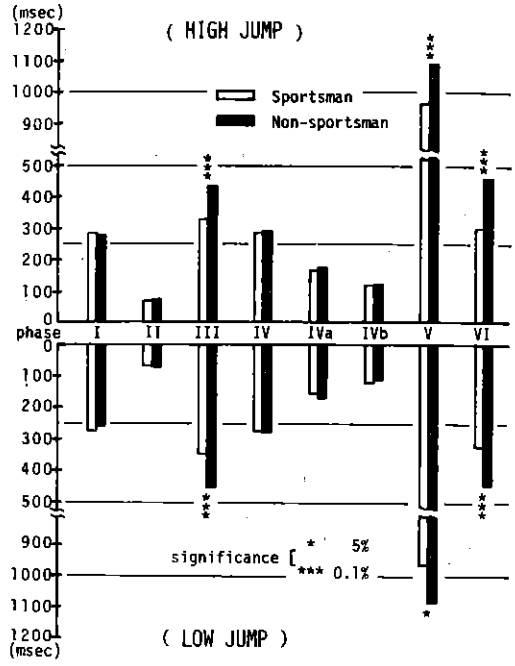


Fig. 3 Comparison of each Phase of Selective Reaction Time between Sporstmen and Nonsportsmen

The results shows that Reaction Time (V) of sportsmen group is shorter than that of nonsportsmen group both in high jump and low jump. It is clear that the difference of Reaction Time depends upon the difference of Decision Time (III). And it is very important to notice that Latency of Leg Flexion (VI) of the former is also shorter than that of the latter as well as Decision Time and Reaction Time, and that in the former the value of Latency of Leg Flexion (VI) coincides almost with that of Latency of Eye Movement (I). This means that sportsmen tend to bend knees looking at the signal simultaneously but nonsportsmen tend to bend knees after looking at the signal. This is the important difference associated with the very integration of eye movement and preliminary action for physical movement.

3) Comparison between 12 yrs. children and nonsportsmen

Now, it is important to consider the developmental level of 12 yrs. children concerning selective jumping reaction time. The comparison of each phase of selective jumping reaction time was made between the 12 yrs. group and the nonsportsmen group. It was clear that 12 yrs. children reach the same level with adults. Rather in the result, 12 yrs. children were superior a little to the nonsportsmen in total Reaction Time (V), and the time phases of Decision Time (III) and Latency of Leg Flexion (VI). (Fig. 2 and Fig. 3)

Conclusion

From the results, it is concluded that the integration of eye movements toward the stimuli and the preliminary action for jumping is a prerequisite to the shortening of decision time associated with the conduction time of the impulses in the central nervous system and inevitably to the shortening of selective reaction time as a whole, and that the effects of development and training are almost identical in facilitating the very integration of eye movement and preliminary action.

It is generally accepted that the developmental changes depend on the convergence of hereditary factors and environmental factors. Nevertheless, this experimental results suggest that, as far as the development of selective jumping reaction concerned, the effect of learning associated with environmental factors is more dominant than that of hereditary factors, and that the training for the integration of eye movement and preliminary action which is a prerequisite to the speediness of physical movement should be emphasized in the school age prior to 12 years old.

ПСИХО-ФИЗИОЛОГИЧЕСКАЯ ДИАГНОСТИКА СПОРТИВНЫХ СПОСОБНОСТЕЙ К РАБОТЕ НА БЫСТРОТУ И ВЫНОСЛИВОСТЬ

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Стремление к объективизации критериев и методов спортивного отбора и прогноза спортивных способностей является устойчивой тенденцией современной науки. В большой числе исследований, посвященных этой проблеме, можно условно выделить два главных направления:

1. Выделение частных критериев и методов отбора и прогноза способностей и
2. Выделение генерализованных критериев.

При этом можно отметить, что предлагаемые исследователями генерализованные критерии спортивного отбора являются, как правило, в значительно большей степени обусловленными генетически, чем критерии частные.

В задачу нашего исследования входил поиск генерализованного критерия отбора и прогноза способностей лиц для успешной специализации в упражнениях на быстроту или на выносливость.

Высокий уровень развития быстроты во многом определяет спортивные результаты не только в легкоатлетическом спринте, но и в беге на средние дистанции, барьерном беге, легкоатлетических прыжках и метаниях, в спортивных играх и т.д. Известно, что быстрота чрезвычайно трудно развивается в процессе тренировки. Этот факт стимулирует поиски таких обоснованных методов отбора в соответствующих видах спорта, установление которых невозможно без точных представлений о структуре и психо-физиологических механизмах определяющих скоростные возможности человека. Выносливость обуславливает уровень достижений в большой группе циклических видов спорта (легкоатлетический бег и ходьба, лыжные гонки, коньки, вело, плавание, гребля). Сейчас под выносливостью принято понимать способность к длительному выполнению физической деятельности без снижения ее эффективности, или как способность противостоять утомлению (Зациорски, 1966 г.).

В литературе неоднократно высказывалось мнение о том, что результативность различных видов физической деятельности во многом зависит от свойств нервной системы (З.И.Вирюкова, 1961; Л.Ф.Егупов, 1967; В.М.Лейник и А.А.Модель, 1967; В.С. Гороханин, 1970-1972 и др.).

Сотрудники лаборатории дифференциальной психо-физиологии Института психологии АН СССР показали, что слабая (невыносливая) нервная система характеризуется низкими порогами ощущений. Поэтому те раздражители, которые являются пороговыми для сильной нервной системы, одновременно являются сверхпороговыми для слабой нервной системы. Это приводит к тому, что лица со слабой нервной системой обладают высокой чувствительностью к минимальным раздражителям. Иными словами, с ростом интенсивности раздражителя слабая нервная система быстрее подходит к пределу функционирования, чем сильная.

Учитывая сказанное выше, мы выдвинули предположение о том, что поиск генерализованных критериев и методов отбора одаренных спортсменов в виды спорта, связанные с преимущественным проявлением быстроты или выносливости, должен базироваться в первую очередь на определении одного из важнейших свойств нервной системы - свойства силы чувствительности.

Для подтверждения высказанной гипотезы мы провели многолетнее исследование, в ходе которого было обследовано большое количество (более 600 человек) спортсменов различной специализации и квалификации (от новичков до мастеров спорта), различного возраста (от 10-11 до 29 лет), а также около 200 человек не занимавшихся спортом. Исследование было завершено 3-х летним педагогическим экспериментом, в котором приняли участие 60 юных спортсменов (22 в группе со скоростной направленностью и 38 - в группе с направленностью на развитие выносливости).

Кроме общепринятого педагогического тестирования, мы использовали предложенную В.Д.Небылицыным (1960) двигательную методику исследования силы нервной системы относительно ее возбуждения.

В качестве критериев силы нервной системы относительно возбуждения использовались три показателя:

1. Время реакции на звук интенсивностью 40 децибел.
2. Отношение времени реакции на звук интенсивностью 40 децибел ко времени реакции на звук в 120 децибел $\frac{ВР_{40}}{ВР_{120}}$
3. Коэффициент "В", вычисляющийся по формуле

$$"B" = \frac{n\sum XY - \sum X \sum Y}{n\sum X^2 - (\sum X)^2},$$ где

У - время реакции,
Х - громкость звука;
n - число ступеней громкость звука

В результате эксперимента было обнаружено, что высококвалифицированные спортсмены, специализирующиеся в видах спорта, связанных с выносливостью, отличаются прежде лой значительным временем реакции на звуковые стимулы малой интенсивности 40 дб (в среднем, 239 мсек), высокими значениями отношения $\frac{ВР_{40}}{ВР_{120}}$ (в среднем 1,72), высокими значениями коэффициента "В" (от 1,48 до 2,75). Таким образом, нервную систему у квалифицированных спортсменов, связанных с выносливостью, можно оценить как сильную, малочувствительную. Важно отметить то обстоятельство, что среди квалифицированных бегунов на средние и длинные дистанции лыжников - гонщиков, конькобежцев и велогонщиков не было выявлено ни одного человека со слабой нервной системой. Это дает основание утверждать, что высокие достижения в этих видах спорта доступны лишь лицам, обладающим непременным свойством - достаточной силы нервной системы.

Психофизиологическим механизмом, определяющим способность к проявлению важнейшего компонента быстроты-способности к ускорению также является сила - чувствительность нервной системы. Нами установлено, что спортсмены с высокой способностью к ускорению обладают - слабой, высокочувствительной нервной системой, что заведомо ограничивает возможность достижения ими высоких результатов на дистанциях, превышающих 100 м. Спортсмены с низкой способностью к ускорению, наоборот, обладают сильной, малочувствительной и выносливой нервной системой, что позволяет им достигать высоких результатов в беге на 200 и 400 м.

Наш эксперимент показал, что способность к ускорению очень мало изменяется под влиянием тренировки (в среднем, на 0,24 м/сек от первоначального уровня). Это говорит еще раз о тесной зависимости способности к ускорению и свойства силы чувствительности нервной системы, которое также не поддается переделке и воспитанию.

Проведенное многолетнее исследование позволяет рекомендовать в качестве генерализованных критериев отбора спортсменов такой психофизиологический критерий как отношение $\frac{ВР_{40}}{ВР_{120}}$, характеризующий силу-чувствительность нервной системы. При этом большие способности к спортивной деятельности, связанной с преимущественным проявлением быстроты, будет характеризовать величина этого отношения, равная 1,0 - 1,55. Большие способности к видам спорта, связанным с преимущественным проявлением выносливости, определяет величина указанного отношения в пределах от 1,6 до 2,5.

ИЗУЧЕНИЕ ЛИЧНОСТИ ЛЫЖНИКОВ-ГОНЩИКОВ

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Современный так называемый большой спорт характеризуется резким повышением уровня достижений, которые находятся в прямой зависимости не только от физических, но и от психических параметров человека-спортсмена, его личностных особенностей. Это обусловливает возрастающий интерес к изучению личности спортсменов в различных, конкретных видах спортивной деятельности. Аспектов рассматриваемой психологической проблемы несколько. Одним из них является попытка создания некой гипотетической модели успешного спортсмена, представляющего определенный вид спорта, с помощью количественных и качественных оценок психических свойств и структуры личности.

Стремление создать такой вероятностный эталон продиктовано необходимостью повысить эффективность отбора перспективных молодых людей для спорта высших достижений, эффективность селекции спортсменов при комплектовании команд для ответственных соревнований и необходимостью усовершенствовать методы воспитания бойцовских психических качеств.

Для получения сравнимых, сопоставимых психологических характеристик, преследующих сугубо прикладные цели, оправдано применение методик исследования, в известной степени схематизирующих и формализующих личность. В психологии спорта нашел довольно широкое применение личностный опросник Р.Кеттела (16 PF), разработанный на основе факторной теории личности. Этот опросник, в частности, опробован в московской психологической лаборатории доктора Гиссена Л.Д. В 1974 году была опубликована интересная книга уважаемых коллег из Чехословакии М.Ванека, В.Гошека и

В.Свободы, посвященная личности спортсмена и тренера, в которой, наряду с другими методиками, использован и опросник 16 PF Кеттела.

В нашем совместном с Н.М.Козловой исследовании 16 PF применен для характеристики личности лыжников-гонщиков. Предпринята попытка построения "психологического профиля" представителей лыжных гонок. Как известно, этот вид спорта широко культивируется в нашей стране.

Обследовано 203 спортсмена. Мужчин - 101 человек. Женщин - 102 человека. Средний возраст лыжников - 21 год. Сто сорок человек имели высокую спортивную квалификацию (включая мастеров спорта).

Полученные данные анализировались отдельно для групп мужчин и женщин. В свою очередь, мужчины и женщины были распределены на группы лыжников высокого класса (мужчин - 26 человек, женщин - 23), группу с хорошей квалификацией, то есть имеющий первый спортивный разряд (мужчин - 41 человек, женщин - 50) и группу средней и низкой квалификации, то есть имеющих массовые спортивные разряды - второй и третий (мужчин - 34, женщин - 29).

Каковы результаты исследования? Если говорить о половых различиях, то у мужчин и женщин,в основном, имеет место однонаправленное и примерно одинаковое развитие психических качеств (факторов). Существенные, статистически достоверные различия между мужчинами и женщинами обнаружены в четырех факторах первого порядка: по фактору А (скрытность, обособленность - общительность) у женщин средняя оценка 6,05 $\pm$ 1,68стен, у мужчин - 6,8 $\pm$ 1,81 стен. Различия в группах достоверны по критерию Стьюдента ($t = 3,04$ $p < 0,01$). Таким образом, для мужчин-лыжников более характерна аффектотимия, для женщин-лыжниц - шизотимия. Подобные данные были получены в нашей лаборатории и на спортсменах других специальностей: на пловцах В.Леоновой (1975), на гимнастах А.Гурьяновым (1975), на конькобежцах С.Марковым (1976).

По фактору Е (покорность - доминирование, властность, настойчивость) у женщин средние оценки 5,53 $\pm$1,45 стена, у мужчин - только 4,91 $\pm$ 1,95 стен. Различия между группами достоверны при $t = 2,64$, $p \leqq 0,01$. Очевидно, что женщины-лыжницы заметно превосходят мужчин по доминированию, властности, настойчивости.

По фактору F (дисургенсия - озабоченность, рассудительность, осторожность, предусмотрительность; сургенсия - беспечность, беззаботность) у мужчин средняя оценка 4,41 $\pm$ 1,77 стен, у женщин - 4,98 $\pm$ 1,74 стен ($t = 2,25$, $p \leqq 0,05$). То есть, сургенсия характерна в большой мере женщинам, дисургенсия - мужчинам.

По фактору L (аляксия - доверчивость, терпимость, претенсия - подозрительность, внутренне напряжение) у женщин средняя оценка 7,2 $\pm$ 1,88 стен, у мужчин - 6,5 $\pm$ 1,66 стен ($t = 2,71$, $p \leqq 0,01$). Внутреннеенапряжение в большей степени выражено у женщин.

Итак, можно предполагать наличие половых различий в складе личности женщин и мужчин, занимающихся лыжными гонками, по ряду качеств.

Большинство средних для всей выборки оценок факторов личности либо укладывается в границы средней зоны (5-6 стен), либо ненамного выходит из нее. Но отдельные факторы могут быть квалифицированы как относительно более важные для занятий лыжными гонками. Фактор Q_3 (волевой самоконтроль) имеет значение 6,34 стена и является одним из наиболее развитых у лыжников. У мужчин группы сильнейших показатель Q_3 выше, чем у группы низкой спортивной квалификации ($p \leqq 0,01$). Фактор С (эмоциональная устойчивость) значительно более выражен у мужчин высокой квалификации (7,97 стен), на достоверном уровне различий ($p \leqq 0,001$).

Для всех лыжников довольно высокими оказались оценки факторов L = 6,89 стен (выражающий внутреннее напряжение), О = 6,59 стен (эмоциональная напряженность) и F_1 = 6,12 стен (интегральный показатель тревожности). Сравнительно низкой оказалась оценка фактора F = 4,72 (фон настроения). Отрицательные значения подвижных ситуативных характеристик объясняются тем, что обследование проводилось в разгар

зимнего спортивного сезона, то есть в самый напряженный момент для лыжников. Сравнение "психологического профиля" лыжника-гонщика, построенного нами с полученным М.Ванеком и В.Гошеком обнаруживает в них существенные различия по многим факторам, кроме факторов A, C.

При анализе полученных данных обращают на себя внимание большие индивидуальные отклонения от средних оценок факторов личности. Наименьшее значение среднего квадратического отклонения $\sigma = \pm 1{,}64$ (фактор Q_4), наибольшее - $\sigma = \pm 2{,}19$ (фактор B). Значительный индивидуальный разброс показателей заставляет с осторожностью отнестись к эталонному "психологическому профилю" лыжника-гонщика. Вероятно, степень выраженности личностных качеств первоклассного лыжника может быть весьма разнообразной.

Однако, такое заключение не ставит под сомнение целесообразность применения опросника 16 PF Кеттела.

A POSSIBLE MARS EFFECT AT THE TIME OF BIRTH OF SUPERIOR ATHLETES

GAUQUELIN, M., Paris, France

An investigation made on a large group of superior athletes led us to observe a statistically very significant relationship between the hour of their birth and the daily movement of the planet Mars. Control groups of non-athletes do not show this tendency.

Methodology: Each day, according to the 24 hours revolution period of the Earth, all the celestial bodies, like the Sun and the Moon, rise at the horizon, culminate in the sky, set and rise again on the next day at about the same hour as on the preceding day. So does the planet Mars. For example, on February 6,1924, in Paris, Mars rose at 3.13, culminated at 7.29, set at 11,44. This daily schedule of rising and culminating times changes regularly along the years, months, days, hours and places of observation. The astronomical positions of the planet Mars can be read in technical almanachs published by professional astronomers. In order to perform statistics, we divided this diurnal movement of Mars in 12 sectors, beginning with the rising of the planet and proceeding clockwise in the direction of the diurnal movement.

We gathered a group of 1,553 superior athletes listed in bibliographical references like the "Who is who in Sport" and sports directories. The birth data, with the hour of birth of these athletes, have been obtained from the registry office of their birth places. The corresponding positions of Mars have been calculated from the informations found in the astronomical yearbooks. All the bibliographical references used for gathering the athletes of this experiment, their names, births and planetary data were published by our Laboratory. Interested persons can ask for these documents (1).

Results and controls: We have observed that superior athletes have a tendency to be born more often than expected by chance after the rise and the culmination of the planet Mars. Table I-A gives the observed values of Mars in the twelve sectors division of its daily movement at the birth of the 1,553 gathered top-

athletes. This observed distribution of Mars is significantly different from the expected distribution, that is from the values found in the general population of non-athletes. The probability of the chi-square test is inferior to .001. Sector 1 (rise) plus sector 4 (culmination) gather 332 births of athletes instead of 266 normally found in the general population of non-athletes. This excess has a probability inferior to .0001.

This Mars effect appears to be reproducible. It was observed whatever the nationality of the athletes: French, Italian, Belgian or Dutch. It was successfully replicated by a Belgian committee of scientists at the Royal Observatory of Brussels (2). These scientists gathered a new group of 535 other superior athletes, also taken in sports directories, and found the same significant result for Mars (see Table I-B). The probability of the chi-square test is inferior to .01 and the maximum of births occur again after the rise and after the culmination of the planet. Figure 1 illustrates this reproductiveness of the Mars effect. The coefficient of correlation between the two experiments is significant at the .01 level.

Control experiments have been performed with a large group of 17,000 non-athletes born on the same day and in the same place as the superior athletes, that is under the same demographic and astronomical conditions. This population of non-athletes does not display the Mars effect; it is thus not due to methodological errors (3).

The accuracy of our conclusions was recently controlled by several scientists: psychologists like Prof. Hans Eysenck, London University, astronomers like Prof. George Abell, University of California at Lost Angeles, statisticians like Prof. E.L.Scott and Stan Willie, University of California at Berkeley, and Prof. Marvin Zelen, Harvard University. Their analyses can be found in published scientific papers (4). The Mars effect at the time of birth of superior athletes seems therefore well established, and it deserves further study. Another paper, presented at this Congress by Françoise Gauquelin, summarizes the new inquiries carried out in our Laboratory. They give a tentative interpretation of the effect in terms of the psychology of personality.

TABLE 1

Daily variations of Mars at the time of birth of superior athletes

A sector	1	2	3	4	5	6	7	8	9	10	11	12	Total
actual	172	126	128	**160**	117	**104**	126	125	132	112	118	133	1553
expected	138	135	133	128	126	124	122	122	127	130	134	134	1553
B sector	1	2	3	4	5	6	7	8	9	10	11	12	Total
actual	68	47	35	52	35	31	36	51	53	53	40	34	535
expected	48	47	45	**44**	43	43	42	42	43	45	46	47	535

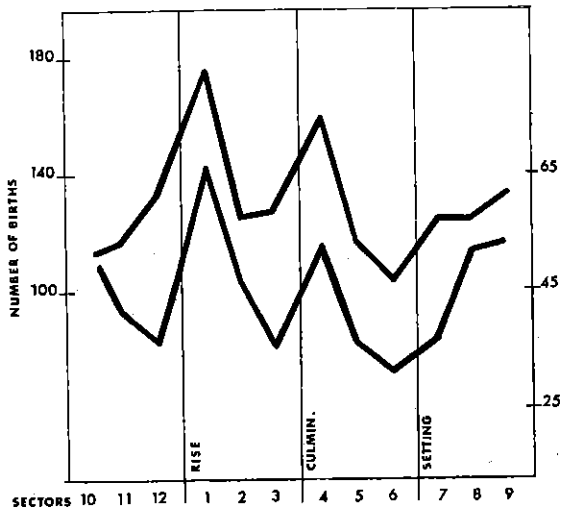


Figure 1 : The planet Mars at the birth of superior athletes
Upper curve: first experiment with 1,553 athletes;
Lower curve: second experiment with 535 other athletes;
The two curves show the same pattern : maximum of births of athletes after the rise and the culmination of Mars. These excesses do not appear with control groups of non-athletes.

References:

(1) Gauquelin: Birth and Planetary Data of 2,088 Sports Champions (Series A, Volume 1, 1970); Correeponding Statistical Results (Series C, Volume 1, 1972), Lab. d'Et. des Rel. entre Rythmes Cosmiques et Psychophysiologiques, Paris.

(2) Gauquelin: Possible Planetary Effects at the Time of Birth of Successful Professionals, an Experimental Control. J. Interdiscipl. Cycle Res., 3 (3-4) : 381-389, 1972.

(3) Gauquelin: The Zelen Test of the Mars Effect. The Humanist, Nov/Dec 1977.

(4) Eysenck: Planets and Personality. New Behaviour, 25 May 1975.

THE MARS FACTOR IN PERSONALITY AMONG SPORTSCHAMPIONS

GAUQUELIN, F., Paris, France

Another paper delivered in this Congress shows that the superior athletes, statistically speaking, have a tendency to be born, more often than expected by chance, after the rise and after the culmination of the planet Mars. The psychological implications of this result will be described here.

Sports psychologists (Bouet, 1969; Vanek & Cratty, 1970) mention personality traits that appear very often associated with great success in sports. We give here the most frequent among these traits: "aggressive, concentrated, controlled, determined, hard, efficacious, long-suffering, energetic, explosive, self-controlled, powerful, rapid in action, resistant, rough, stable, tenacious" (Gauquelin, 1973). From this observation, we derive following hypothesis: the personality traits considered by the psychologists as favourable for success in sports would describe a temperament that would be related with Mars's positions.

In order to verify this hypothesis, we checked numerous dictionaries of sports and sporting weeklies for biographical descriptions of the athletes' personality. These biographies contained character-traits that were put on index-cards. The Mars position at the birth time of each described athlete was calculated. Then we computed the Mars positions for the athletes described with traits considered by the psychologists as favourable for success in sports. The obtained distribution of Mars showed, after rise and culmination, significant "over-frequencies", i.e. peaks exceeding those already observed in the same zones for the whole group of athletes.

We then enlarged the list of favourable traits with all the synonyms indicated by linguistic dictionaries (Larousse 1971, Petit Robert 1972). The enlarged distribution of Mars showed, after rise and culmination, still higher "over-frequencies" than the preceding one (Gauquelin 1970, 1973). These results are illustrated by Figure 1.

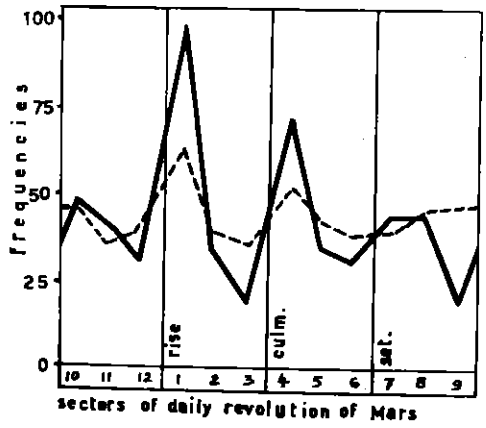


Figure 1: Mars and the superior athletes' temperament

The dashed line indicates the results in the whole group of athletes: more champions are born after the rise and the culmination of Mars than in the other zones of its diurnal movement.
The solid line indicates the results with the athletes described with character-traits that appear favourable for success in sports. The frequencies of Mars positions after rise and culmination are much higher in this selected group than in the whole group. This confirms our hypothesis that the athletes' specific temperament would be related to the diurnal positions of Mars.

Expressed in percentages, the addition of the frequencies after rise and culmination of Mars gives: 17 % in the general population, 22 % in the whole group of champions (see Michel Gauquelin's paper), 36 % with the athletes described by two or more traits that are favourable for success in sports. And if we check the athletes described by opposite traits, like "soft, diletante, dreaming, quiet, inconsistent in his effort", etc., we find a percentage that is near to the general population's one in the sectors following the rise and the culmination of Mars.

These results require further investigations. We intend to apply now the modern technique of tests and questionnaires. A large inquiry has been initiated with Hans Eysenck, of London University, who, as a specialist in personality assessment, made the hypothesis that a correlation could exist between the personality factor extraversion - introversion explored with his questionnaire, and the Mars effect that appeared in our researches with sports figures. Positive results of this new approach would allow to detect potential successful athletes among the young population.

References:

Bouet M. (1969) : Les motivations des sportifs. Ed.Univ., Paris, 239 pp.

Gauquelin M. & F. (1970) : Sports Champions
(1973) : The Mars Temperament and Sports Champions
Publications Lab. d'Et. des Rel. entre Rythmes Cosmiques et Psychophysiologiques,
Series A, Volume 1; Series C, Volume 2.

Gauquelin M., Deloche R.-M. & Tanon F. (1975) : Temperamental significance of the planetary effect in heredity, methodology and results.
J.Interdiscipl.Cycle Res., 6(1):60-70.

Vanek M. & Cratty B.J. (1970) : Psychology and the Superior Athlete.
Mac Millan Company, 212 pp.

PERCEPTION OF HEARING IN SPORTS ACTIVITY

GEBLEWICZ, M., Warszawa, Poland

Man moves around in the world of things and people surrounding him, thanks to his locomotion abilities and a specialized system of sensory organs which provide a link between him and his environment.

Sensory organs permit us to perceive and this fact determines the directions of our activity.

Efficient performance of all sensory organs makes our life much simpler; in some situations, however, their efficiency and reliability are just of utmost importance. This applies to sports activity, where the problem of perception, especially of sight and hearing perception, plays an essential part.

Out of the whole "ocean" of stimuli coming from external environment, some reach our consciousness, while others are eliminated from the scope of our attention. It is not a matter of fortuity that we react immediately to certain situations, while being completely indifferent to others.

Perception of sounds is determined by the scope of man's hearing sensitivity, provided that the hearing organ performs its functions efficiently. Hence, the scope of audibility of sounds as regards their level ranges from 20 to 20,000 cycles per second, and the ear is most sensitive to sounds of 2 thousand cycles per second. As regards sound intensity, the range is limited from 0 to 160 decibels.

In sports activity of importance is also the time in which an athlete hears a given sound.

A special case is the situation of start when the athlete prepares, for example, to sprint runs. Having completed his preparatory activities, he awaits the starter's signal in order to start running. According to the custom, this is not one signal but three successive ones, namely: "steady", "ready" and a shot.

From the psychological point of view, the intervals between these three successive elements are of essential importance. In order to answer the question in what time intervals they should follow one another, in view of the athlete's optimal conditions, we have carried out experimental studies simulating a model of start situation. Reaction time was studied using warning signals which preceded exposition of a stimulus. The results permit certain conclusions, among others, that the shorter the intervals between two warning signals, the shorter reaction time is obtained. In our study the significant shortest reaction times were obtained with an interval of 0.5 second, the longest ones - with 2.5 second, and intermediate reaction times with 1.5 second intervals.

The conclusion resulting from our study may be of practical value for start situations.

In view of the athlete's well-being, the successive signals preceding start should be given with short intervals, thus creating a psychologically convenient conditions for immediate start, and that, in turn, is vital for a good final result in sprint runs.

Immediately before start the athlete expects definite sound stimuli, while during sports competition he concentrates his attention on proper performance of definite actions as dictated by the situation of the moment. Sound stimuli - cheers from the audience, noise of the stadium - though they disturb concentration, nevertheless reach the athlete and he, against his will, perceives them. They are disturbing factors, often referred to as distractors.

Experimental studies have shown a specific effect of distractors upon man's reaction time. At the beginning, any permanent distraction caused by

external factors prolongs the reaction time, After some time, however, it stops to distract and begins to help, resulting in shortening of reaction time. This is confirmed, for example, by inhabitants of big cities who are so accustomed to concentration despite of street noisethat they find it difficult to work efficiently at the conditions of a peaceful village.

Athletes are a similar case. The perceived, rather than expected sound stimuli play a part of distractors - at the beginning only, but soon they start to create a common background together with the sports audience and mobilize the athlete to sports competition.

References

1. Geblewiczowa M.: Influence of the number of warning signals and of the intervals between them on simple reaction time. Acta Psychologica, European Journal of Psychology, 1963, Vol.XXI, 1, 40-48.

2. Wyburn G.M., Pickford: Zmysły i odbiór wrażeń przez człowieka. /Senses and perception of man/. PWN, 1970

СУЩНОСТЬ И ВИДЫ ПСИХИЧЕСКИХ СОСТОЯНИЙ В СПОРТЕ

ГЕНОВ, Ф., София, Болгария

Из числа проблем, связанных с психологической подготовкой спортсменов, особое место занимает проблема формирования и регулирования психических состояний во время тренировок и особенно во время состязаний. В них, как в фокусе отражается степень психологической подготовленности спортсмена. Значение этой проблемы возрастает и в связи с увеличением гонки высоких спортивных достижений. Это требует от спортсменов тренироваться с максимальной нагрузкой, которая в несколько раз превышает объем и интенсивность работы, выполняемой рабочими самых разных профессий. Эти необычные для обыкновенного человека физические и психические нагрузки ведут к возникновению не только специфических психических состояний, но и к нагрузкам, которые по своей интенсивности и силе протекания различаются по сравнению с обыкновенным тружеником.

Применение различных стимулирующих средств - физических, электрофизиологических, химических, моральных, психических и тому подобные, вызывают физиологические и психические состояния у спортсмена, которые по своей силе, интенсивности и продолжительности протекания воспринимаются как отклонения от общепринятых - нормальных. Все это обязывает спортивных психологов продолжить исследования психических состояний в спорте и разрабатывать новые методики об их диагностировании, предлагать новые средства их формирования и регулирования.

В научной литературе на эту тему известны много трудов, в которых делается попытка раскрыть сущность психических состояний и сущность отдельных психических состояний. Более обстоятельно и полно их рассматривает Н.Д.Левитов . По его мнению психическое состояние является целостным синдромом личности человека, характеризующим его психическую деятельность на более продолжительный период времени.

Значительны достижения в спортивной психологии по изучению различных психических состояний. Известны труды О.А.Черникова , А.П.Пуни , Ел.Генова и другие, о предстартовых состояниях. Другие авторы, как В.М.Дячков , Ф.Генов , Ел.Генова , В.М. Петрович , В.Първанов и другие, раскрывают особенности сосредоточения внимания как специфическое психическое состояние спортсменов до, во время и после состязания.

В течение многих лет мы изучали целостные личностные состояния спортсмена непосредственно до выхода на старт как состояние мобилизующей готовности. Е.Генова Г.М.Гагаев , Ф.Генов , В.Първанов , Е.Генова и другие исследовали особенности психической устойчивости во время состязаний в спортивных играх. Сделано немало и в области диагностирования этих состояний и их регулирования. Особенно значительные успехи достигнуты в связи с применением автогенной тренировки (Алексеев , Гисен , Черникова и Дашкевич , Фрестер , Е.Генова и др.).

Разные авторы обращают внимание на различные аспекты сущности психического состояния. На основе существующих в научной литературе определений, и, исходя из собственных исследований, мы можем предложить в качестве рабочего определения следующее определение психического состояния: это целостное, многообразное, многоструктурное и многостепенное временное состояние психики личности, которое обусловлено ее условиями жизни и, в особенности, конкретной деятельностью, которую предстоит выполнить, выполняет или уже выполнила и детерминирует эффективность ее в соответствующей деятельности.

Источник психического состояния мы ищем прежде всего в самой человеческой деятельности. Реализация этих состояний происходит тоже в самой деятельности. Несомненно, в спорте иногда необходимо воздержаться от данного действия и это гораздо часто является средством достижения поставленной цели в соответствующей деятельности.

Виды психических состояний в спорте

В литературе предлагаются различные классификации психических состояний в спорте. О.А.Черникова и А.И.Пуни указывают на три разновидности предстартовых состояний: б о е в у ю готовность, с т а р т о в у ю лихорадку и с т а р т о в у ю апатию. Н.Д.Левитов различает также три основных вида стартовых состояний: о б м а н о в е н н а я , п о в ы ш е н н а я и п о н и ж е н н а я готовность.

Мы рассматриваем мобилизационную готовность как адекватную и неадекватную. Кроме этого подхода известен и другой подход классификации психических состояний в спорте, в зависимости от времени, к которому относятся: до состязания, во время состязания и после состязания. Кроме того в сосредоточении внимания и в формировании мобилизационной готовности указываются два этапа: подготовительный и основной. Со своей стороны каждый из этих этапов делится на две отдельные фазы.

Мы предлагаем новый подход классификации психических состояний в спорте. В качестве базы принимаются потребности в спортивной деятельности. Одна их этих потребностей – это потребность в достижении определенных спортивных результатов. Мы рассматриваем психические состояния спортсменов, вызванные потребностью в достижении определенного спортивного результата.

Активность человека коренится в его потребностях. Основная потребность спортсмена – это достижение определенного спортивного результата. Эта потребность является осознанной необходимостью для спортсмена. Она удовлетворяет и некоторые другие личностные его потребности, как: потребность в творческом выражении, потребность в общественной оценке, потребность в саморазвитии, потребность в коллективном выражении, потребность в деятельности в пользу общества и другие.

Потребность спортсмена в определенном спортивном результате является необходимостью, вызванной уравновесить несоответствие, которое существует между наличной степенью выполнений соответствующего долга спортсмена к обществу и его личными, коллективными или общественными претензиями для выполнения этого долга. Этим спортсмен получает более высокий социальный статус.

В процессе формирования потребности в данном спортивном результате у спортсмена появляются различные психические состояния. Они все еще мал изучены. Эти психические состояния имеют исключительно важное значение для развития мотивационной деятельности спортсменов, для достижения определенного результата. Нечто больше, эти психические состояния обуславливают силу доминанты, вызванную потребностью в спортивном результате, и на этом основании влияют на следующие психические состояния спортсмена. Необходимо исследовать эти состояния, чтобы раскрыть их особенности в различных видах спорта и особенно для групп - индивидуальных и коллективных.

Психические состояния спортсмена при формировании спортивной цели

Потребность в достижении удовлетворяется только достижением определенного результата. Для этой цели необходимы определенные условия, как объективные, так и субективные. В процессе определения цели и особенно при обдумывании многочисленных вариантов программ ее достижения, у спортсмена формируются много и разные психические состояния. Это творческий и не только мыслительный, но и эмоциональный процесс. Что это за психические состояния? Какова их структура, сила, интенсивность и продолжительность? Которые из них имеют положительное и которые - отрицательные отражения на определение оптимальной цели спортсмена?

Классификацию этих психических состояний можно сделать по-разному, но мы снова будем придерживаться нашего подхода и в качестве основы возьмем этапы формирования спортивной цели.

Это э м о ц и о н а л ь н ы е состояния, вызванные представлением о достигнутой цели. Эти состояния стимулируют активность мыслительных процессов в разработке более целесообразной программы для достижения поставленной цели. На этом основании спортсмен, выбирая из возможных вариантов самый лучший, формирует в себе уверенность или неуверенность в достижении поставленной цели. Это состояние самое продолжительное и отражается наиболее сильно на волевую активность спортсмена при выполнении программы и особенно при преодолевании всех трудностей, в том числе и неожиданных, по пути достижения цели.

Но это состояние не всегда находится на одном и том же уровне. Оно меняется в ходе выполнения программы. Успешное достижение или превышение этапных целей, повышает уверенность и наоборот, недостижение этих целей, вызывает неуверенность, что отражается негативно на активность спортсмена.

Мы не будем останавливаться на сущности структуры, динамики и факторов, определяющих уверенность в собственных силах или в силах коллектива.

Интенсивность психических состояний спортсмена во время формирования спортивной цели определяется степенью осознания значимости спортивного результата. Ряд исследований Ал.Жарова, Б.Първанова, Е.Геновой и Ф.Генова показывают, что чем больше общественная значимость цели, тем больше волевая активность спортсмена.

И когда идет речь о психических состояниях во время формирования цели нужно учитывать и роль психической готовности соответствующего спортсмена. Велико значение как социальной, так и индивидуальной готовности, а также общей и конкретной. Психологическую готовность следует рассматривать как вид психического состояния спортсмена. Несомненно она имеет и определенные особенности, главным образом в структуре, продолжительности и скорости изменения.

НЕКОТОРЫЕ ПСИХОЛОГИЧЕСКИЕ РАЗЛИЧИЯ МЕЖДУ ЮНОШАМИ, ЗАНИМАЮЩИМИСЯ ЛЕГКОЙ АТЛЕТИКОЙ И БОРЬБОЙ

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Наукой и практикой давно доказано положительное влияние физкультурных и спортивных занятий на развитие психических свойств человека. Это влияние не одинаково в разных видах спорта. Раскрытие его специфики дает возможность оценить роль отдельных видов спорта в формировании и развитии отдельных психических качеств. Это необходимо педагогам и особенно тем, кто занимается воспитанием юношей и девушек. Они должны выбрать оптимальный комплекс средств для педагогического воздействия в соответствии с целями и задачами воспитания. Вот почему мы поставили перед собою цель установить, каким образом влияют занятия по легкой атлетике и борьбе на юношей, если учитывать три основных качества: интенсивность внимания, быстрота реакции и подвижность высшей нервной деятельности. С этой целью были исследованы 1600 юношей, участвующих в ученических спортивных школах по легкой атлетике и борьбе. Исследования проводились в 7 возрастных группах с 10 до 16 лет. Интенсивность внимания исследуется с помощью специально составленного у нас коррективного теста. Количество правильно зачеркнутых знаков за одну минуту является показателем степени развития интенсивности внимания (см.таблицу № 1). Приведенные в таблице № 1 данные показывают, что с повышением возраста – повышается интенсивность внимания, как у занимающихся легкой атлетикой, так и у занимающихся борьбой. Но это явление не одинаково для обеих групп. Если у десятилетних почти не наблюдается различия, или же если оно и существует, то это в пользу занимающихся борьбой – pt = 0.18, с повышением возраста эти различия повышаются и уже в пользу занимающихся легкой атлетикой (таблица № 1). Самые большие различия наблюдаются у 14, 16, 12 и 13-летних. Величина достоверности критерия = 0.99. Она показывает, что эти различия существенны. Следовательно занятия по легкой атлетике отражаются положительно на развитие интенсивности внимания, чем занятия по борьбе.

Таблица № 1

Возраст	виды спорта	$\bar{X}$	равница d	t	pt
10	атлетика	44.52	- 0.46	0.24	0.18
	борьба	44.98			
11	атлетика	50.34	+ 3.01	1.94	0.94
	борьба	47.33			
12	атлетика	57.25	+ 4.22	3.58	0.99
	борьба	53.03			
13	атлетика	61.44	+ 3.64	2.86	0.99
	борьба	57.80			
14	атлетика	69.41	+ 7.32	2.66	0.99
	борьба	62.09			
15	атлетика	66.62	+ 1.59	1.28	0.79
	борьба	65.03			
16	атлетика	72.01	+ 6.90	5.06	0.99
	борьба	65.11			

II.

Быстрота реакции определяется на основании величины латентного периода при исследовании сложных двигательных реакций. Исследования проводятся с помощью реакциомера световых раздражителей, чередующихся по определенной программе. Данные показывают, что быстрота реакции улучшается с возрастом, как у занимающихся борьбой, так и у занимающихся легкой атлетикой (см.таблицу № 2). Если сравнивать, однако, у занимающихся легкой атлетикой это улучшение более значительное. Быстрота реакции у 10-летних, занимающихся борьбой - лучше, а после этого возраста, за исключением 14-летних, она лучше у занимающихся легкой атлетикой. Достоверность этих различий больше всего у 16-летних - pt = 0.98; у 13 и 15-летних - pt 0.97 и у 12-летних - pt = 0.96. Следовательно занятия по легкой атлетике отражаются более благоприятно на быстроту реакции юношей, чем занятия по борьбе.

Таблица № 2

Возраст	виды спорта	$\bar{X}$	разница d	t	pt
10	атлетика	634.78	+ 48	2.24	0.97
	борьба	586.76			
11	атлетика	538.99	- 12	0.57	0.43
	борьба	551.33			
12	атлетика	532.99	- 27	2.06	0.96
	борьба	560.44			
13	атлетика	504.21	- 30	2.23	0.97
	борьба	533.63			
14	атлетика	518.99	+ 4	0.30	0.23
	борьба	515.23			
15	атлетика	484.41	- 25	2.31	0.97
	борьба	508.34			
16	атлетика	457.24	- 28	2.36	0.98
	борьба	484.91			

III.

Подвижность высшей нервной деятельности определяется максимальной частотой движений за 10 сек. Она исследуется на основе тепинг-теста. Анализ данных подтверждает уже установленные зависимости при изменении различий в интенсивности внимания и быстроту реагирования у занимающихся борьбой и легкой атлетикой юношей. Подвижность высшей нервной деятельности повышается с повышением возраста, как у занимающихся борьбой, так и у занимающихся легкой атлетикой (см.таблицу № 3). У 10-летних юношей, занимающихся борьбой, она лучше. Но установленное различие несущественно pt = 0.32. В следующих возрастах подвижность высшей нервной деятельности больше у юношей, занимающихся легкой атлетикой. Различие особенно большее у 16, 15 и 12-летних - pt = 0.99.

Следовательно занятия по легкой атлетике влияют более благотворно на подвижность высшей нервной деятельности юношей, чем занятия по борьбе.

Таблица № 3

возраст	виды спорта	$\bar{X}$	абсолютная разница d	t	pt
10	атлетика	57.96	- 0.42	0.42	0.32
	борьба	58.38			
11	атлетика	64,33	+ 1.95	2.12	0.96
	борьба	62,38			
12	атлетика	66.67	+ 2.81	3.80	0.99
	борьба	63.86			
13	атлетика	68.30	+ 2.03	2.54	0.98
	борьба	66.27			
14	атлетика	69.85	+ 1.33	1.62	0.93
	борьба	68.39			
15	атлетика	71.05	+ 2.66	3.20	0.99
	борьба	68.39			
16	атлетика	72.92	+ 4.15	7.68	0.99
	борьба	68.77			

МЕСТО СНА-ОТДЫХА ПРИ ВОССТАНОВЛЕНИИ СПОРТСМЕНОВ

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Увеличенный объем и интенсивность спортивных тренировок обуславливают комплексное применение физикальных, водных и электропроцедур, также как и других средств более быстрого восстановления. Многие ученые изучают эффект самовнушенного и внушенного отдыха после тренировки и состязания (1,2,5 и 6). Мы поставили себе целью применять после некоторых физикальных процедур и внушенный сон-отдых. На основе нашего опыта и некоторых новых источников (2,3,4,5) мы уточнили словесные формулы с успокаивающим и релаксирующим воздействием для приведения спортсменов в состояние сна-отдыха. Мы формулировали наши задачи следующим образом: а) путем применения сна-отдыха научить спортсменов пользоваться им вызывая его также и при помощи самовнушения, б) установить эффект сна-отдыха путем применения контрольных показателей.

Для установления эффекта сна-отдыха измерялись до и после него: пульсовая частота, максимальная сила правой руки и КГР. Для этой же цели мы измеряли их до и после пассивного отдыха (в положение лежа в течение 15 минут без воздействия). Были исследованы 200 спортсменов. Мы приводим их в состояние сна-отдыха за 5-7 минут, оставляя их в этом же состоянии еще 10-15 минут. От спортсменов требовалось дать словесный отчет о самочувствии, настроении и их состоянии до и после отдыха, об ощущениях и степени сна. Мы регистрировали изменения в дыхании, выражении лица и др.

Анализ и обсуждение результатов

При первом воздействии словесными формулами большинство спортсменов засыпают - 76 (49.03%), 48 человек одолевает сон и дремота и 31 человек (20%) не уснули,

почувствовав только расслабление мышц. Некоторые спортсмены даже стали храпеть. Аналогичные данные получены во всех 340 применениях сна-отдыха: 175 ч.(51,47%) уснули, 101 (29,70%) были одолены сном и дремотой и 64 (18,82%) не уснули.
У большинства спортсменов самочувствие, настроение и их состояние до и после сна-отдыха хороши, тогда как эти показатели отчетены как очень хорошие и отличные меньшим процентом исследованных. Для дыхания во время сна-отдыха характерны небольшие амплитуды, лицо спокойно, с расслабленной нижней губой и веками. Эти данные раскрывают положительный эффект сна-отдыха.
2. Пульсовая частота после сна-отдыха понижается на 5.216 ударов (от 63.216 до 58.000), $P = 0.99$. Это говорит о восстановительном воздействии на сердечно-сосудистую систему и снижении эмоциональной возбудимости у спортсменов. После сна-отдыха кожное сопротивление (КГР) увеличивается от 109 до 118,6 кило/ом, $P = 0,97$. Его увеличение показывает снижение уровня бодрствования коры больших полушарий мозга и эмоциональной возбудимости. Максимальная сила правой руко после сна-отдыха снижается на 2,790 кг - от 44,123 до 41,333 кг, $P = 0,99$. Сон-отдых и иммобилизация обусловили расслабление мышечной системы и мышц руко. Понижение показателей свидетельствует о том, что первое применение сна-отдыха является эффективным восстанавливающим средством.
Эффективность сна-отдыха подтверждается и данными о пульсовой частоте, уровне бодрствования и максимальной силе руки после пассивного отдыха. Они также понижаются, $P = 0,99$, 0,93 и 0,51 за КГР. Однако, величина понижений меньше - 1,986 ударов по сравнению с 5,216, 1 кг против 2 кг и 2,703 единиц против 9,600. Эффективность сна-отдыха подтверждается и фактом, что после физикальных процедур он обуславливает дополнительное снижение уже сниженной пульсовой частоты, дополнительное восстановление сердечно-сосудистой системы и понижение эмоциональной возбудимости, $P = 0,99$. Пассивный отдых тоже способствует дальнейшему восстановлению, однако степень его воздействия ниже, $P = 0,76$. Отмечены следующие различия: 1,200 ударов при пассивном отдыхе по сравнению с 4,857 при сне-отдыхе. Сон-отдых более эффективен чем пассивный отдых, осуществляемый самым спортсменом.
3. Данные после сауны, тангентора и вибромассажа предоставляют возможность сделать дифференцированную оценку эффекта-сна-отдыха. После применения этих процедур установлено понижение пульсовой частоты и эмоциональной возбудимости, $P = 0,99$, а также и понижение силы руки, $P = 0,99$. Изменение обеих показателей в одном направлении подтверждает применимость сна-отдыха также и после трех физикальных процедур, независимо от их различного предназначения.
Пассивный отдых после трех процедур воздействует также в одном направлении на пульсовую частоту - снижается, $P = 0.99$, 0,99 и 0,92 при вибромассаже. Ее степень снижения более низка по сравнению со сном-отдыхом - 2,431, 2,543 и 1,385 ударов против 5,386, 5,226 и 4,429 ударов. Снижение после вибромассажа составляет только 1,385 ударов из-за его тонизирующего воздействия. Тогда как сила руки снижается на 1,393 кг только после сауны, $P = 0,99$. Снижение силы руки после тангентора и вибромассажа минимально (236 и 297 грамм) и недостоверно, $P = 0,31$ и 0,23. После их применения пассивный отдых не вызывает дополнительного снижения уровня мышечного тонуса. Его воздействие слабее в результате наличия психической активности у спортсменов во время его проведения.

ВЫВОДЫ:

а) Внушенный сон-отдых является эффективным средством более полного восстановления спортсменов.
б) Сон-отдых более эффективен чем пассивный отдых.

в) Сон-отдых имеет прикладной эффект после сауны, тангентора и вибромассажа.
г) Пассивный отдых является тоже полезным средством, хотя и с более слабым воздействием.
д) Применанный вариант словесных формул оказываются удачным для вызывания сна-отдыха.

ЛИТЕРАТУРА

1. Е.Генова - Автогенната тренировка в спорта, София, изд.МиФ, 1970 г.
2. Л.Д.Гиссен - Психология и психогигиена в спорте. Москва, 1973 г., изд.ФиС, стр.100-141,
3. В.В.Кувьмин - Методика проведения сеанса внушенного сна в практике спорта, сб.Психопрофилактика в спорте, тезисы докладов, областной научно-практической конференции с 27-29 мая, 1971 г., Иваново, 1971 г., стр.7-10.
4. А.Т.Филатов - Формы суггестии эмоционально-положительного отношения спортсменов к большим тренировочным нагрузкам, сб.Всесоюзный симпозиум "Проблемы восстановления работоспособности спортсменов после высоких тренировочных нагрузок" (тезисы докладов), М.1974, стр.106.
5. А.Т.Филатов - Эмоционально-волевая подготовка велосипедистов, Киев, 1975 г., изд."Здоровье", стр.3-87.
6. О.А.Черникова, О.В.Дашкевич - Активная саморегуляция Эмоциональных состояний спортсмена, изд.ФиС, Москва, 1971 г.

СТЕПЕНИ САМООЦЕНКИ СПОРТСМЕНОВ О НЕКОТОРЫХ КОМПОНЕНТАХ ПСИХИЧЕСКОЙ ГОТОВНОСТИ ПЕРЕД СОСТЯЗАНИЕМ

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Реализация высоких достижений требует состояния оптимальной психической готовности спортсмена перед и во время выполнения состязательного действия. Относительно ее структуры существует ряд исследований: Г.М.Гагаева (1), Ф.Генов (4,5), А.Ц.Пуни (9), А.Д.Ганюшкин (2), Е.Генова (3), В.В.Медведев, Н.А.Худадов, А.В.Родионов (8), М.И.Дьяченко (6), и др. Они изучают в основном положительные компоненты психической готовности.

Формирование психической готовности, раскрытие соотношения между степенями ее компонентов и установление доминирующих из них имеет актуальное значение. Наша задача состояла в раскрытии соотношения между самооценками ряда высококвалифицированных спортсменов путем скалирования и самостоятельного определения степени мобилизованности, уверенности и опасения. Исследованы: 99 легкоатлетов перед их самыми высокими и самыми низкими достижениями; 113 борцов перед их самым успешным и самым неуспешным выступлением и 40 участников соревнований по настольному теннису перед победой и проигрышем. Мы просили их отметить одну из трех степеней качеств или их отсутствие. 53 легкоатлета (в 1975 г.) и борцы (1976г.) исследованы после состязательного периода, 46 легкоатлетов (в 1976 г.) сразу и 1-3 дня после состязания, а теннисисты-до разминки перед соревнованием (исследование провела дипломантка Н.Димова).

АНАЛИЗ И ОБСУЖДЕНИЕ РЕЗУЛЬТАТОВ

1. Больший процент легкоатлетов достигли своих лучших результатов (1975г.) в состоянии значительной степени мобилизованности перед состязательным действием (56,60%), в состоянии реальной уверенности (52,83%) и при отсутствии опасения относительно успеха (37,73%). За ними следует процент предельной мобилизации (35,85%), сомнения (24,53%) и незначительного опасения (33,96%). Более низки проценты слабой мобилизованности и ее отсутствия (5,66 и 1,89%), абсолютной уверенности (18,87%), неуверенности (3,77%) и значительного и сильного опасений (22,64 и 5,66%). Подобны данные при легкоатлетах (1976г.), борцов и теннисистов. У борцов отмечено различие только для значительного опасения (более низкий процент 8,85 против 22,64%), в то время когда у этих же атлетов проценты значительной мобилизованности, реальной уверенности и отсутствия опасения выше, а для низких степеней ниже чем данные, полученные в 1975 г. Ярче всего различие при теннисистах - у них нет случаев слабой мобилизованности, ее отсутствия, неуверенности и очень сильных опасений. Это различие является результатом способа раскрытия самооценок - долгий период после состязаний, непосредственно после него и перед ним.

Следовательно, в структуре психической готовности у легкоатлетов перед самыми высокими достижениями, у борцов перед самыми успешными схватками и перед победой теннисистов, оптимальными компонентами являются средние степени - значительная мобилизованность, реальная уверенность и отсутствие опасения. Доминирующими компонентами психической готовности оказываются более высокие степени качеств: значительная и предельная мобилизованность (92,45,84,78,94,69 и 100%), реальная и абсолютная уверенность (71,70,91,30,67,26 и 95%) и отсутствие опасения и незначительное опасение (71,70,95,65,90,27 и 92,5%). Связь между доминирующими компонентами односторонна - в сторону положительных степеней качеств, причем более высок процент средних. Соотношение между ними положительное, а психическая готовность оптимальна. У большой части легкоатлетов и борцов одновременно с положительными степенями обнаружены и отрицательные. При самом исполнении они не имели отрицательного влияния. Им противодействуют положительные степени качеств и другие факторы.

2. Перед достижением самых низких результатов большее число легкоатлетов (1975г.) были мобилизованы в значительной и слабой степени (33,96 и 33,96%), реально уверены и с сомнением (30,19 и 41,51%). Их опасение относительно успеха действий незначительно и значительно (28,30 и 33,96%). С этим сходятся и данные легкоатлетов (1976г.), борцов и теннисистов. Различие у борцов, теннисистов и этих легкоатлетов выражено в более высоких процентах незначительного опасения и его отсутствия. Перед достижением самых низких результатов, а также перед самыми неуспешными схватками и проигрышем структура психической готовности иная. Компонентами готовности в сравнительно высоких процентах являются низкие степени: слабая мобилизованность и ее отсутствие в 43,39 и 36,95% у легкоатлетов, в 60,2% про борцах и в 62,5% при теннисистах, сомнение и неуверенность в 52,83 и 43,47% при легкоатлетах, в 35,40% при борцах и в 65% при теннисистах, значительное и очень сильное опасение в 49,06% при легкоатлетах, 21,24% борцов, и в 55% теннисистов. У большой части спортсменов психическая готовность перед состязательными действиями не была оптимальной, ее компонентные и отрицательные. Односторонняя связь (одних только положительных степеней) нарушена. У них налицо психическая неустойчивость. Она не благоприятствует успешному выполнению действий - получаются самые низкие результаты и проигрыш. Это явление требует дифференцированной оптимизации психической готовности перед состязанием.

ВЫВОДЫ:

1. Наличие оптимальной психической готовности перед состязанием раскрывается самооценками, показывающими средние степени качеств: значительная мобилизация, реальная уверенность и отсутствие опасения.
2. Для оптимизации психической готовности необходимо кроме методов и средств создающих мобилизованность, использовать также и способы отстранения сомнения, неуверенности и опасения.
3. Через методы самостоятельного определения и скалирования степеней качеств легко раскрываются те компоненты психической готовности, которые не коррелируют с остальными положительными компонентами, что указывает путь к средствам коррекции и саморегулирования.

ЛИТЕРАТУРА:

1. Гагаева Г.М. - Психология футбола, ФиС, Москва, 1969
2. Ганишкин А.Д. - Исследование состояния психической готовности человека к деятельности в экстремальных условиях, автореферат диссертации, Ленинград, 1972.
3. Генова Е. - Психичната готовност у лекоатлета преди съестезания, МиФ, София, 1975.
4. Генов Ф. - Психологическите особености мобилизационной готовности спортсмена, Москва, ФиС, 1971.
5. Генов Ф. - Мобилизационна готовност на спортиста, МиФ, София, 1972.
6. Дьяченко М.И., Л.А.Кандыбович - Психологические проблемы готовности к деятельности, изд.ВГУ, Минск, 1976.
7. Левитов Н.Д. - О психических состояниях человека, Москва, 1964.
8. Медведев В.В., А.В.Родинов, Н.А.Худадов - О психических состояниях в спортивной деятельности, сб. Психология и современных спорт, ФиС, Москва, 1973.
9. Пуни А.Ц. - Психологическая подготовка к соревнованию в спорте, ФиС, Москва, 1969.

PERSONALITY COMPARISONS (MMPI 221) BETWEEN ISRAELI GROUPS OF HIGH LEVEL SPORT PARTICIPANTS

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Introduction:

Personality study in sport has usually two central aspects: theoretical and practical. The theoretical provides knowledge in regard to the structure of the personality of the athlete, its peculiarities and deviation from the general population. It also indicates intra-sport differences and points personality dynamics due to sport participation. The practical utilizes the generalizations of the theoretical to assist in the selection of the athletes and their placement within sport. Furthermore, it provides a scientific method by which we are able to indentify behavioral problems, and assist the sportsman in coping with stress to promote his psychological stability and level of performance.

For obvious and practical reasons, the theoretical level of personality research is by far more advanced compared to the practical and the inflow of personality data is sometimes too great to digest. A sincere effort has been made to generalize an "athletic personality" (Cooper 1969, Ogilvie 1968 and others) and an underlying theory of athletic personality (Kane 1964, Hardman 1973, Steinbach 1971). International projects which tried to standardise procedures and techniques have been rare, the most daring of which (Blaser and Schilling 1975) also encountering many problems.

The project we undertook in Israel aimed both at theory and practice. Our two main purposes were a) to identify the personality structure of the top level Israeli sportsman and to understand its interaction with psychological dynamics b) to correlate our laboratory findings with the observed behaviour on the sports-field to enable behavioural predictions and psychodiagnosis in the future.

Method:

The Hebrew translation (Butcher and Gur 1974) of the MMPI-221 (Blaser and Gehring 1972) was administered to 315 Israeli top athletes (220 males, 95 females) and 42 non-athletes (20 males, 22 females). The male athletes represented top level participants in eleven different sports and the female athletes in five different sports.

Table 1 presents several relevant features concerning our sample. Since T scores are not yet available for the Hebrew version of the MMPI-221 all the statistical data analysis is based upon the raw scores of the 14 classical MMPI scales. The unequal "t" test was used for all the group mean comparisons and the x^2 technique together with the "z coefficient" formulation advocated by Edwards (1970) was used for the establishment of specific MMPI "sport scales".

Results and Discussion:

It is impossible to report all the data gathered in this extensive study; therefore, I will concentrate on three specific points: 1) The personality differences between team sport and individual sport participants. 2) The personality structure of several sport groups whose deviation from the controls was found as outstanding. 3) Several pattern intra-sport differences in answering the MMPI-221 questions.

1. Team vs. individual sport participation

Table 2 summarizes the personality differences of the team and individual sport participants (both sexes) from the non-athletes. This table indicates that male athletes (individual and team) deviated only slightly from the non-athletes. The "individuals" have shown paranoidic tendencies i.e. suspicion, oversensitivity to criticism, and defensiveness whereas the "team" were less depressed, more outgoing and optimistic than the controls. The female athletes in general were found to have a healthier personality than the female non-athletes, this finding being even more pronounced in the case of the "individuals".

Table 3 summerizes the findings of the between sport type (team and individual) comparisons within sex. It clearly indicates that male team-sport participants enjoy a more positive personality than their "individual" sport counterparts. The exact reverse was found in the case of females where the "individual" sport personality showed a marked advantage over the "team".

In general terms, the "team" male athletes are more social and adaptive, less suspicious and sensitive to criticism, less withdrawn and more realistic, less tense and anxious, less depressed, impulsive and less likely to "show-off"; more extroverted and less confused than their individual counterparts.

The "teams" females are more rebellious and impulsive, more tense and anxious, more depressed and socially introverted, more confused and undecisive compared to the "individual" girls.

Table 4 presents the summary of the between sex within sport type, comparisons. It points out that when we compare the sexes, the females' personality comes out on top in the case of individual sports participation and the males' personality comes out top in the case of team sport participation.

Compared to the "individual" males, the "individual" females appear to be less impulsive, rebellious and antisocial, less socially introverted, however more feminine.

Compared to the "team" males, the "team" females appear more depressed, tense and anxious, occupied with themselves, complaining, hostile, rebellious, impulsive, antisocial, withdrawn having poorer contacts with reality, more confused, careless and feminine.

Tables 3-4 strongly indicate that, in personality terms, the Israeli female is far better chosing to engage in "individual" type competitive sport whereas the Israeli male is advocated to participate in "team" type competitive sport. These findings however require a logical explanation. The best we could come up with are a) Team sports in Israel are by far more popular than individual sports and therefore the pressures and demands put upon its participants by the public and media are extreme. Since it is more acceptable and traditional to associate males with team sports than females the latter suffer both from social alienation as well as from the attached social pressures.

Males, however, "belong" in the team sport but not so much in the low status individual sport which provides endless sources for inner psychological conflicts.

b) It is our speculation that most females, by nature, prefer situations where responsibility is laid upon themselves and the consequences, for better or worse, are totally the outcome of their individual efforts. Females do not feel at ease in situations where responsibility is shared and actions divided. In "individual" sports the psychology of the females is better fulfilled and complimented and therefore conflicts are minimized to prevent personality weaknesses. (See also Ogilvie 1975 and Peterson 1967).

Most males, as we observe it, prefer to act in situations where there is a definite division of labour and a mutual group responsibility, team sport fulfills such requirements and therefore might be considered as more suitable for the male psychology.

Our data in regard to personality, leeds to a conclusion that sport type interacts with personality trait in a way which can be described as "sex--specific". This interaction is consistant with the psycho-social structure of the Israeli specific world of sport.

2. Sport groups considerably deviating from the controls in personality tendecies.

Of the various sports groups tested, several stood out when compared to the control group of non-athletes and the average computed for all the sport participants. A sport group was considered deviant if at least three of its clinical MMPI scales scores (out of ten) significantly differed from the norms. Tables 5 and 6 summarize this comparative data. Table 5 indicates positive personality deviations in the cases of female basketball players, male volleyball players, male handball players and female swimmers. Strong negative personality tendencies were traced in female handball players and male cyclists.

It is rather interesting to note that the findings regarding the personality of females playing basketball and handball extremely opposed each other. This phenomenon is explained and discussed elsewhere (Geron, Weingarten, Goldbourt, Hietalahti). In the case of male cyclists, the negative personality tendencies are in accordance with logic, as in this sport very special variables are represented, a low status sport on the one hand and long periods of training in social loneliness and physical punishment on the other. In addition to the groups mentioned in Table 5, several other groups were found as deviants from the non-athletes on at least two clinical scales. Waterpolo (D< , MF<), Volleyball-female (Ma< , Pd<), Wrestling and Judo (Pa> , Ma>) and Weightlifters Pa> , Ma>) The last two groups resembled each other in their personality deviations appearing more on the paranoidic and hypomaniac side than non-athletes.

Table 6 indicates that none of the female sport participating groups deviated extensively from the overall average personality computer for female sport participants. Males, participating in waterpolo, volleyball, handball and tennis had positive personality tendencies in relation to the overall average personality of the male athlete whereas wrestlers and cyclists tended to the negative personality side. It should be added that football players deviated negatively from the average athletic personality in two MMPI clinical scales: Ma and MF, i.e. sociable, outgoing, impulsive, over energetic, optimistic, and in some cases amoral, flighty, confused disorientated (Butcher 1976) and demonstrating more feminine interests.

We are under the impression that at least some of the personality deviations (negative and positive) are confounded with variables associated with sociological structure and educational background since in Israel participating in some sports is regularly connected with a defined societal background (football and wrestling on the one hand, tennis and volleyball on the other).

3. Pattern differences of specific sport groups to MMPI-221 items

The x^2 analysis comparing the sport groups' individual answers to the 221 items of the MMPI, with the respective answers of the control groups yielded various pattern differences. These were subjected to a further two-step analysis as suggested by Edwards (1970) in order to construct the final pattern differences. The overall male athletes' responses differed significantly from those of the non-athletes on 17 items Yes: 2, 3, 33, 91, 130, 133, 149, 155, 183; No: 27, 28, 42, 75, 88, 112, 144, 218) and the overall female athletes responses from female non-athletes on 28 items (Yes: 155; No: 23, 25, 28, 30, 37, 39, 85, 86, 109, 115, 118, 127, 139, 144, 159, 166, 177, 181, 182, 188, 190, 192, 194, 198, 204, 208, 212). These items might be recommended as the specific athletic scales of the MMPI-221. These two athletic **scales** contain, according to an evaluation provided individually by six experts, elements of: musculinity, self-assurance, exhibitionism and autonomy. The female athletic specific scale contains elements of: social adjustment, self-criticism, psychological health and idealism, whereas the one of the males contains elements of physical health, vigor and energy level, egocentric tendencies and positive achievement orientation. Male athletes differed from female athletes on 40 MMPI-221 items; male "team" participants from male non-athletes on 14 items; male "individual" participants from male non-athletes on 17 items; female team participants from female non-athletes on 23 items and female individuals from the female non-athletes on 22. The intra-sport "individual" vs. "team" item differences indicated 38 differences in males and only 12 in females. Intra-specific-sport comparisons indicated that the male sport groups differing most in their MMPI-221 item responses from non-athletes were; wrestling and judo (26), weightlifting (19), cycling (30) and handball (25). The least deviants were track and fielders (10) and basketballers (9). When compared with the overall male-athletes-responses, wrestlers and judo (27), **cyclists** (36) and handballers (17) were found the most deviating sports groups.

Comparisons to the female non-athletes responses revealed that all female sports group deviated substantially in their item responses: swimming (17), track and field (20), basketball (18), volleyball (21) and handball (23); however, when compared to the overall female athletes pattern of responses, the female specific sport groups showed resemblance. Consequently, the general indication is that male sport groups react to MMPI-221 items in a specific way (sport specific). In contrast, female sport participants react to the MMPI-221 items in a non-specific and an almost unified pattern, regardless the criterion group and the group affiliation. Findings of somewhat similar tendencies were reported by Ogilvie and Tutko (1971).

A final comment:

The results of this study in regard to the personality structure of sport participants in Israel point to various interesting differences and deviations, most of which are explained by psycho-social dynamic terms. Whether the personality differences found are the consequence of specific sport participation or the instigator for such participation in the first place, is not at all clear. It is our contention that many physically talented youngsters are recruited arbitarily into competitive sport participation, those who fit psychologically

persist, and their specific personality traits reinforced and shaped throughout their career to enable them to cope better with stress, pressure, victories and defeats. Therefore, the personality of an athlete is an interaction between initial traits and environmental dynamics.

Table 1

Several Characteristics of the MMPI-221 Sample

Sport & Sex		Standard of Participation	N	x age	Sd.
1. Football (Soccer)	(M)	National Division	25	20.10	5.87
2. Basketball	(M)	National Division, National Youth Team	23	21.32	4.31
3. Volleyball	(M)	National Division and National Team	20	22.76	3.94
4. Handball	(M)	National Team	21	22.78	3.94
5. Water Polo	(M)	National Division and National Team	24	19.62	2.58
6. Track & Field	(M)	Top level, mostly National Team	20	20.35	2.06
7. Swimming	(M)	Qualifiers for National Championship including several champions	14	16.96	2.73
8. Judo & Wrestling	(M)	National Division Clubs & National Champions	21	20.95	3.99
9. Weight Lifting	(M)	National Team	19	22.83	5.12
10. Cycling	(M)	National Standard	20	18.60	3.53
11. Tennis	(M)	National Standard	13	20.19	4.51
1. Basketball	(F)	National Team	20	20.95	5.12
2. Volleyball	(F)	National Division	19	20.42	4.00
3. Handball	(F)	National Division - first two teams	23	21.20	3.54
4. Track & Field	(F)	Top level, mostly National Team	20	18.89	3.47
5. Swimming	(F)	Qualifiers for National Championship	13	15.92	1.38
		Total (M)	220		
		(F)	95		
		Non-athletes (M)	20	24.30	3.31
		(F)	22	22.04	2.74

Table 2

Summary - MMPI-221 scale differences between sport groups (individual and team) and control group

Sport type	MMPI scale	Tendency in relation to controle	p-level
Individual-Male 6 sports n = 107	Pa	Higher	.05
Individual-Female 2 sports n = 33	Pd	Lower	.01
	Ma	Lower	.05
	Pt	Lower	.05
	MF	Lower	.01
	Si	Lower	.05
	K	Higher	.01
	?	Higher	.05
Team-Male 5 sports n = 113	D	Lower	.05
Team-Female 3 sports n = 62	Pd	Lower	.05
	MF	Lower	.01
	Sc	Lower	.05
	Ma	Lower	.01
	K	Higher	.01

Table 3 Summary - Between sport type within sex differences

Sex	MMPI scale	Tendency	p-level
Male: (Team vs Individual)	pd	T < I	.01
	pa	T < I	.01
	Sc	T < I	.01
	pt	T < I	.01
	D	T < I	.05
	Ma	T < I	.05
	Si	T < I	.05
	F	T < I	.01
Female (Team vs Individual)	pd	T > I	.05
	pt	T > I	.05
	D	T > I	.05
	Si	T > I	.01
	F	T > I	.01

Table 4 Summary - Between sex within sport type comparisons

Sport type	MMPI scale	Tendency	p-value
Individual	pd	M > F	.01
	Si	M > F	.01
(Male vs Female)	MF	M < F	.01
	D	M < F	.01
	Pt	M < F	.01
Team	Hs	M < F	.01
	pd	M < F	.05
(Male vs Female)	Sc	M < F	.01
	MF	M < F	.01
	F	M < F	.01

Table 5 - Specific sport groups considerably differing (clinical MMPI scales) from non-athletes

Sport	Sex	MMPI scales	p-level	Interpretation of clinical findings in behavioral terms (Butcher 1976).
Basketball	Female	pd <	.01	Less rebellious, impulsive, hedonistic and antisocial
		MF <	.01	Less attending to feminine interests
		Ma <	.05	Less impulsive, hyperactive, more controlled and oriented
Volleyball	Male	Hs <	.01	Less preoccupied with self, complaining, hostile and presenting physical problems
		Ma <	.01	Less impulsive, hyperactive, more controlled and oriented
		pd <	.01	Less rebellious, impulsive, hedonisitic and antisocial
		D <	.01	Less moody and shy, less pessimistic and distressed
Handball	Male	pd <	.05	Less rebellious, impulsive, hedonistic and antisocial
		pt <	.01	Less tense, anxious, phobic and rigid
		Sc <	.01	Less withdrawn, shy, hallucinative and better contact with reality
		MF <	.05	More masculine
Handball	Female	Hy >	.05	More dependent, naive, expressing psychological conflicts through physical complaints
		Hs >	.05	More occupied with self, complaining, hostile and presenting physical problems
		MF >	.05	Attending more to feminine interests
Swimming	Female	pd <	.01	Less rebellious, impulsive, hedonistic and antisocial
		Ma <	.01	Less impulsive, hyperactive, more controlled and oriented
		MF <	.01	Attending less to feminine interests
		D <	.05	Less moody and shy, less pessemistic and distressed
Cycling	Male	Pa >	.01	More suspicious, worrisome, over sensitive to criticism
		Sc >	.01	Withdrawn, shy, hallucinative, weak contacts with reality
		Ma >	.05	Impulsive, hyperactive, less controlled and oriented
		Si >	.01	Socially introverted, inhibited

Table 6 Specific sport groups considerably differing (clinical MMPI scales) from all athletes

Sport	Sex	MMPI scale	p-level	Interpretation of clinical findings in behavioral terms (Butcher 1976).
Waterpolo	Male	D <	.05	Less moody and shy, less pessimistic and distressed
		pa <	.05	Less suspicious and worrisome, less sensitive to criticism
		MF <	.05	More masculine
Volleyball	Male	Hy <	.01	Less dependent, naive and repressed
		Hs <	.01	Less occupied with self, complaining and hostile, presenting less physical problems
		pd <	.01	Less rebellious, impulsive, hedonistic and antisocial
		pa <	.05	Less suspicious, worrisome and sensitive to criticism
		Sc <	.05	Less withdrawn, shy and hallucinative, better reality contacts
		Ma <	.01	Less impulsive, hyperactive more controlled and oriented
Handball	Male	pd <	.05	Less rebellious, impulsive, hedonistic and antisocial
		MF <	.05	More masculine
		Sc <	.01	Less withdrawn, shy and hallucinative, better reality contacts
		Ma <	.01	Less impulsive, hyperactive, more controlled and oriented
		pt <	.01	Less tense and anxious
		Si <	.01	More socially extroverted
Wrestling and Judo	Male	Hy >	.05	More dependent, naive and repressed, tend to have multiple physical complaints
		Hs >	.05	More occupied with self, complaining and hostile, presenting more physical problems
		pd >	.05	More rebellious, impulsive, hedonistic and antisocial
		pa >	.05	More suspicious, worrisome and sensitive to criticism
Cycling	Male	D >	.05	Moody, shy, pessimistic and distressed
		Hs >	.05	More occupied with self, complaining and hostile, presenting more physical problems
		Sc >	.01	Withdrawn, shy, hallucinative, weak reality contacts
		Si >	.05	Social introversion, inhibited
Tennis	Male	pa <	.05	Less suspicious, worrisome and sensitive to criticism
		Ma <	.05	Less impulsive, hyperactive, more controlled and oriented
		pt <	.05	Less tense and anxious

BIBLIOGRAPHY

1. Bird, E.I. Personality structure of Canadian intercollegiate women ice hockey players Inn: Kenyon, G.S. (ed.) Contemporary Psychology of Sport. Chicago Athletic Inst., pp.149-156, 1970.

2. Blaser, P. and G. Schilling. Personality Tests in Sport: Report on the MMPI Evaluation within FEPSAC. Alderson, G.Z.K. & D.A. Tyldesley (eds.) FEPSAC Congress, 1975.

3. Blaser, O. and A. Gehring. MMPI Kurz Form: Handbuch, Huber, H. (ed.) in print.

4. Cooper, L. Athletics, activity and personality: a review of literature. Research Quarterly 4P: 17-22, 1969.

5. Edwards, A.L. The Measurement of Personality Traits by Scales and Inventories, Holt, 1970.

6. Eysenck, H.J. The Structure of Human Personality. Menthuen & Co., London, 1970.

7. Hardman, K. A dual approach to the study of personality and performance in sport. In: Whiting, H.T.A. (ed.) Personality and Performance in Physical Education and Sport. Henry Kimpton, London, 1973. pp.77-122.

8. Hathaway, S.R. and J.C.McKinley. Manual for the Minnesota Multiphasic Personality Inventory. New York Physochological Corp., 1943.

9. Kane, J.E. Psychological correlates of physique and physical ability. Inn: Jokl, E. and E. Simon (eds.) International Research in Sport and Physical Education. Charles C.Thomas, 1964, pp.85-94.

10. Kane, J.E. Personality profiles of physical education students compared with others. In: Antonelli (ed.) Proceedings of the 1st International Congress of Sport, 1965, pp.772-775.

11. Malumphy, T.M. Personality of women athletes in intercollegiate competition. Research Quarterly 39: 610-620, 1968.

12. Ogilvie, B.C. Psychological consistencies of competitors. J. Am. Med. Assn. 205: 780-786, 1968.

13. Ogilvie, B. and Tutko, T. Traits of athletes. Psychology Today. Oct: 61-63, 1971

14. Peterson, S.L., J.C.Weber and W.W.Trousdale. Personality traits of women in team sports vs. women in individual sports. Research Quarterly 38: 686-690. 1967.

15. Vaněk, M. and B.Hošek. Psychological differences between men and women superior athletes. In: Proceedings of 3rd Int.Congress of Sport Psychology, Madrid, 1973. pp.154-156.

PERSONALITY DIFFERENCES BETWEEN MALE AND FEMALE ISRAELI ATHLETES AS INDICATED BY THE MMPI-221

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In recent years there has developed a mass of research dealing with personality characteristics of athletes. The majority of these studies deal with the male athlete, a far lesser number exclusively deal with the female athlete and an even lesser number deal with comparisons between male and female athletes. The principal assessment tool has been the Cattel 16 PF but other instruments have also been used.

The Minnesota Multiphasic Personality Inventory - MMPI (Hathaway-McKinley, 1951) originally composed of 566 items is translated into most European languages with norms for most European countries. The MMPI-221 (Blaser and Gehring, 1972) which has had up to now only German norms, has been used successfully with athletes. Although women were included in the study as part of the track and field sample, no comparisons between men and women were made (Blaser and Schilling, 1975).

Seist (1965) investigated the personality traits of seventy-seven of Austria's best athletes from a variety of sports. He employed a personality and interest test, a modified form of the MMPI adjusted for the normal population and developed by the German psychiatrists Mittenecker and Toman as well as a short form of the MMPI. He found that male athletes seemed to be psychologically more stable under stress than female athletes who tended to be more sesceptible to depression.

Vaněk and Hošek (1973) also employed the P.I.(Mittenecker and Toman) as part of a psychodiagnostic battery in studying psychological differences between men and women superior athletes. Statistically significant differences were found in seven of nine scales. Women were found to be less self-critical, less extroverted, less manic and more neurotic, depressed, schizoid and vegetative labile.

The general hypothesis of our study in using the MMPI-221 in determining personality differences between male and female athletes was that in our understanding of the status of women in sport in Israel, sport participation would not narrow the differences between men and women but would widen them further. We did hypothesize, however, that female athletes would exhibit less of an interest in traditional female interest areas thus narrowing the masculinity-femininity gap between athletes.

Method

The MMPI-short form (221 items) was chosen as the assessment instrument for evaluating personality differences between male and female athletes. A total of 95 female and 98 male Israeli athletes representing 5 different sports as well as 22 female and 20 male non-participants were included in the study. Table 1 described the various groups more specifically.

TABLE 1

MMPI-221 Sample				
Sport and Sex	Standard of Participation	N	x-age	Sd.
1. Basketball (F)	National Team	20	20.95	5.12
2. Volleyball (F)	National Division	19	20.42	4.00
3. Handball (F)	National Division first two teams	23	21.20	3.54
4. Track & Field (F)	Top level, mostly National Team	20	18.89	3.47
5. Swimming (F)	Qualifiers for National Championship	13	15.92	1.38
	Total	95		
Non-athletes (F)		22	22.04	2.74
1. Basketball (M)	National Division, National Youth Team	23	21.32	4.31
2. Volleyball (M)	National Division and National Team	20	22.76	3.94
3. Handball (M)	National Team	21	22.78	3.94
4. Track & Field (M)	Top level, mostly National Team	20	20.35	2.06
5. Swimming (M)	Qualifiers for National Championship including several champions	14	16.96	2.73
	Total	98		
Non-athletes (M)		20	24.30	3.31

After completion of the inventory, each answer sheet was individually hand scored and raw scores for four validity and ten clinical scales were determined. The t-test was used to analyse group differences on each of the 14 scales.

Also performed was a x^2 differentiation of true and false responses to all test items. The z coefficient recommended by Edwards (1970) was introduced to define the mode of response differentiating the two experimental groups.

Results

Fig. 1 demonstrates the number of scales differentiating between male and female athletic groups and non-athletes. These and all following differences are statistically significant at or beyond the .05 level. Between all male and female athletes differences were found on one validity and five clinical scales (F, D, MF, Pa, Pt, Sc) (Fig.2) while men and women non-athletes differed on only three scales (MF, Pa, Ma). In each case women scored higher raw scores than men.

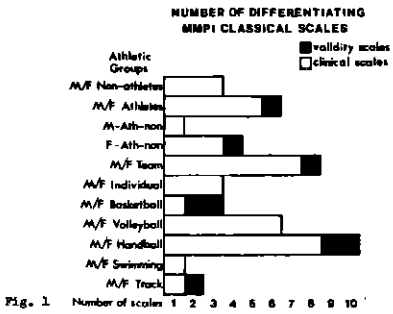


Fig. 1

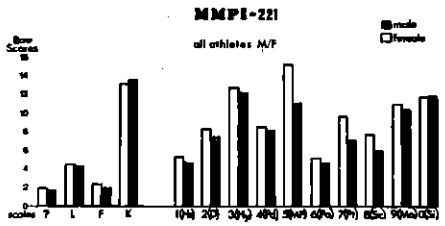


Fig. 2

Male and female team sport participants differed on one validity and seven clinical scales (F, Hs, D, Pd, MF, Pa, Pt, Sc). Women consistently scored higher raw scores (Fig. 3). Individual sport participants differed on only three clinical scales. Female athletes scored an expected higher raw score on the MF scale and lower raw scores on both the Pd and Si scales.

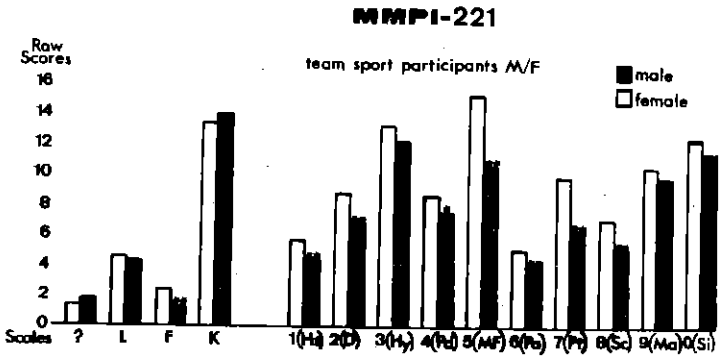


Fig. 3

Differences between specific athletic groups were also determined. Women basketball players, swimmers and track and field participants differed from male athletes in these respective sports on only one clinical scale - masculinity femininity, while volleyball players differed on six scales and handball players on eight scales with women scoring higher raw scores on all scales (see Table 2).

TABLE 2

MMPI-221

Mean Scores

MMPI Scales	Volleyball			Handball		
	M	F	Differences	M	F	Differences
?	1.35	2.72	1.37	0.57	0.77	0.20
L	4.11	4.47	0.36	4.95	5.31	0.36
F	1.77	1.42	-0.35	0.31	3.50	3.19 **
K	12.94	12.67	-0.27	16.50	12.54	-3.96 **
HS	2.88	5.72	2.84 **	5.05	6.77	1.72 *
D	6.82	9.79	2.97 **	7.35	9.04	1.69 *
Hy	10.06	13.16	3.10 **	14.25	14.00	-0.25
Pd	7.16	7.95	0.79	7.75	10.45	2.70 **
MF	10.18	15.74	5.56 **	9.95	15.22	5.27 **
Pa	3.83	4.58	0.75	4.36	6.09	1.73 **
Pt	7.44	10.21	2.77 **	3.73	11.18	7.45 **
Sc	5.05	7.26	2.21 **	3.78	9.54	5.76 **
Ma	9.38	10.16	0.78	9.00	10.86	1.86
Si	12.33	13.63	1.30	10.15	12.86	2.71 *

* $p < .05$ ** $p < .01$

Validity scale differences include the following: Basketball (K scale F M), (?-no answer scale, F< M), handball (K scale F<M), (F scale, F>M) and track and field (? F> M).

As a result of x^2 analysis of true and false responses of all test items, 40 items (N: True=21, False = 19) differentiating between men and women athletes were revealed (see Table 3).

TABLE 3

MMPI-221 - x^2 analysis

M/F Athletes

F athletes criterion group
M athletes control group

True: 4, 8, 45, 48, 49, 66, 76, 78, 90, 96, 105, 121, 129, 141, 160, 161, 172, 176, 193, 195, 215.

False: 1, 2, 5, 28, 30, 39, 70, 81, 93, 101, 116, 127, 133, 149, 153, 163, 184, 178, 206.

Further pattern differences of specific sport groups to MMPI-221 items are discussed elsewhere (Geron, Weingarten, Goldbourt, 1977).

Discussion

The findings of the present study of the MMPI-221 show that there are significant differences between male and female athletes in regard to personality traits. These differences are more marked between athletes than between non-athletes emphasising the role of sport in accentuating the psychological differences between male and female athletes (see Table 4).

TABLE 4

MMPI-221
Scale Differences

Athletes				Non-athletes			
	MEAN SCORES				MEAN SCORES		
MMPI Scale	M	F	Difference	MMPI Scale	M	F	Difference
F	1.66	2.39	0.73 **				
D	7.00	8.30	1.30 **				
MF	10.56	15.26	4.70 **	MP	12.21	17.55	5.34 **
Pa	4.23	5.20	0.97 **	Pa	3.84	5.86	2.02 *
Pt	6.74	9.66	2.92 **				
Sc	5.57	7.82	2.25 **				
				Ma	10.50	13.05	2.55 **

* $p < .05$

** $p < .01$

Both women athletes and non-athletes differ respectively from male athletes and non-athletes on two of the same scales showing them to be, as expected, more feminine as well as more sensitive, moody and suspicious than their male counterparts. Women athletes were also found to be more distressed, pessimistic, withdrawn, shy, tense and anxious with greater feelings of inadequacy when compared to male athletes.

Unlike non-athletes, women athletes do not differ from male athletes on the Ma scale, thus they are more impulsive, irritable, hostile or unreliable than men.

It should be stated that female athletes, as compared to female non-athletes, were found to exhibit a higher degree of psychological health (Fig.4). Significant differences were found on four scales (K, Pd, MF, Ma) with non-athletes scoring higher raw scores on the three clinical scales and athletes scoring higher on the K validity scale.

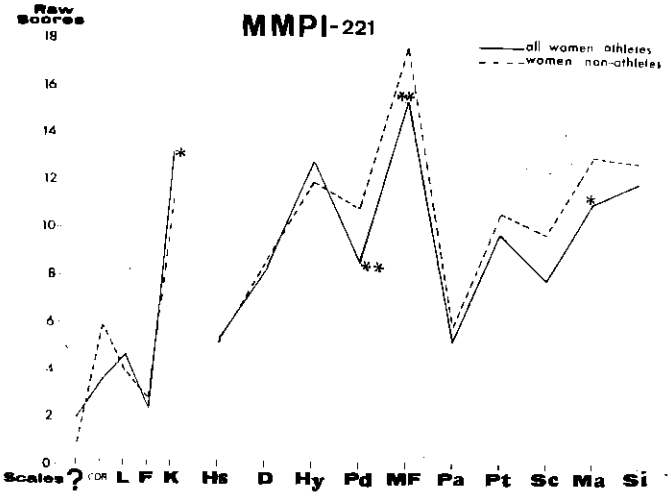


Fig. 4

The female athlete in our study can be characterized as being less impulsive and irritable, more stable and with fewer feminine interests than the female non-athlete. She is also socially better adjusted and exhibits higher moral and behavioral attitudes. However, in comparison to male athletes, female athletes exhibit less psychologically positive traits.

As was hypothesized, each of the women's athletic groups differed from its respective men's group on the masculinity-feminity scale (see Table 5). In fact, the MF scale is the only clinical scale differentiating between male and female basketball players, swimmers and track and field participants.

As seemingly lower in traditional feminine interests as female athletes are to female non-athletes, nevertheless female athletes exhibit expectedly higher feminine interests than male athletes. This difference is more marked between non-athletes and less so when comparing female athletes and male non-athletes.

TABLE 5

Sport	Mean Scores		
	M	F	Difference
Basketball	11.57	15.00	3.43 **
Volleyball	10.18	15.74	5.56 **
Handball	9.95	15.22	5.27 **
Swimming	9.78	12.27	2.49 *
Track and Field	10.84	16.00	5.16 **
Non-athletes	12.21	17.55	5.34 **
All athletes	10.56	15.26	4.70 **
M non-athletes/ F athletes	12.21	15.26	3.05 **
F athletes/ F non-athletes	15.26	17.55	2.29 **

* $p < .05$
** $p < .01$

As already noted, far greater scale differences were found between male and female volleyball and handball players. This fact deserves special consideration and can be hypothesized that these differences can be attributed to the specific position of handball and volleyball in Israel. Volleyball is considered to be a relatively low status Israeli sport unlike basketball which holds very high status, is the oldest team sport in the country and is relatively well accepted as a suitable sport for women.

Women handball players, of all the five sport groups, are revealed as having the least favourable personality not only in comparison to men but also in comparison to female athletes and non-athletes. Although male handball players appear to be more defensive than female handball players, the women can be described as being more concerned over bodily functions, more depressed, frustrated and resentful, more hostile, overly sensitive and anxious as well as more isolated, withdrawn, moody and lacking in self-confidence. Why do such negative traits appear in female handball players? One reason might be that due to the aggressive nature of the sport, handball may be a difficult sport for the Israeli woman contradicting her traditional female role expectations. However, a more significant reason could be that Israeli female handball players are considered to be only second-best; those who could not make it in basketball, a sport already mentioned as holding a high status position in Israel.

Conclusion

It can be generally concluded from the results of this study that the stressful situations in sport accentuate psychological sex differences between male and female athletes especially in the case of handball and volleyball players.

Men and women athletes exhibited differences on one validity and five of the ten clinical scales, but non-athletes differed on only three clinical scales, women scoring higher raw scales on all scales. The higher raw scores exhibited by

female athletes indicate a less psychologically favorable personality when compared to male athletes. However, as was originally hypothesized, all female athletes showed a higher level of feminine interests than male athletes but a considerably lower level than female non-athletes.

This study included a relatively large scale of 40 items differentiating between men and women athletes further stressing that differences between men and women in sport are greater than between male and female non-athletes.

BIBLIOGRAPHY

1. Blaser P. and A. Gehring. MMPI Kurz Form Handbuch, Huber, H (ed.), in print.
2. Blaser, P. and G. Schilling. Personality Tests in Sport, Report on the MPI-evaluation within the FEPSAC - paper read at the 4th European Congress for Sport Psychology, Edinburgh, September, 1975.
3. Edwards, A.L. The measurement of personality traits by scales and inventories, New York, Holt, 1970.
4. Geron, E.G. Weingarten and U.Goldbourt. Personality comparisons (MMPI 2.1) between Israeli groups of high level sport participants. Unpublished.
5. Hathaway, S. and J.C.McKinley. The Minnesota Multiphasic Personality Inventory Manual (rev.), New York, Psychological Corp., 1951.
6. Seist, H. Die psychische Eigenart der Spitzensportler (Psychic Particulars of Superior Athletes). Zeitschrift der diagnostischen Psychologie und Persönlichkeitforschung (Journal of Diagnostic Psychology and Personality), Vienna, 2, 1965.
7. Vaněk, M. and V.Hošek. Psychological Differences Between Men and Women Superior Athletes. III Congreso Mundial De la Sociedad Internacional De Psicologia del Deporte, Madrid 25/29-6-1973.

THE INFLUENCE OF PHYSICAL EDUCATION IN ELEMENTARY SCHOOL (2ND GRADE) ON THE DEVELOPMENT OF PERCEPTUAL-MOTOR ABILITIES

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The modern approach to physical education treats children's motor education not only as having the aim of teaching motor skills and encouraging health and physical development, but also of stimulating children's mental growth as an adjustment to the environmental and social milieu. This is the reason that in recent years the most frequently researched subject in the area of physical education and sport has been the role of motor activity in socialization, in promoting awareness and self-control in behaviour and in encouraging cognitive and perceptual-motor development.
(Baumann, 1974; Bond, 1975; Chaney and Kephart, 1968; Cratty, 1974; Fretz, 1974; Gruber, 1975; Harrow, 1972; Low and Ingham, 1972; Merschner, 1973; McCloy, 1974; McCormick, 1967; Scott, 1974; Snyder, 1974; Ungerer, 1973).

The supposition is that if perceptual-motor abilities take part in the execution and learning of motor acts, repetition of these acts will further develop them. However, results of study in this field have been, up to now, very contradictory. They show that positive changes in perceptual-motor abilities can be reached only through specialised motor programs (Arnheim and Pestolesi, 1973; Arnheim and Sinclair, 1974; Avramova, Geron et al., 1964; Fleishman and Hempel, 1954; Kraft, 1973; Lapierre, 1975; Millar, 1972; Scherler, 1975; Wild, 1938.), or by adopting additional means of stimulating perceptual activities as feedback information (Bilodeau, 1968; Dickes, 1975; Fleishman and Rich, 1963; Fleury, 1973; Harrow, 1972; Kiphard, 1975; Millar, 1972; Newman, 1972; Roffell, 1946; Roffell, 1946; Rychtecký, 1973; Stejskal, 1975; Whitehead, 1973/74). One of these means, according to our experience, is the self-assessment approach (Geron, 1975).

The objective of the present study is to evaluate the possibility of developing specific perceptual-motor abilities (Kinesthesis, reaction time, maximal rate of movement, time perception, distance perception) in elementary school children and checking the relative importance of the following three factors in this development:

1) Growth.
2) A specifically designed physical education program.
3) The self-assessment approach during physical education.

The activities used in this study were those suggested in the new "Program of Physical Education in Elementary Schools in Israel (1972)", grades 3-4, part 17: "Sensory Motor Learning." These activities should be part of the regular physical education program in elementary schools and develop both motor skills and perceptual-motor abilities (Herman, 1976).

The following hypothesis was defined: perceptual-motor abilities can be developed in elementary school children as general abilities through physical education by using special motor activities and self-assessment.

Research Procedure

Four classes each with fifteen second grade children (aged 7 1/2 - 8 1/2) at a Tel Aviv elementary school were the subjects of the study.

A special physical education program was conducted three sessions a week of 40 minutes each over a period of six months. The lessons were given in a standard gymnasium. One of the experimental groups was taught using the self-assessment approach. During the first two weeks of the project, the teacher instructed the children how to assess themselves by means of the 5 degree scale below:

very much less	less	just so	more	very much more

Following performance of a motor act, each child offers a verbal assessment giving concrete expression to this abstract rating. For example, the scale degree "more" can be concretely expressed: "I raised my arms more than I had to".

Before the beginning and at the end of the experiment all children were tested on five perceptual-motor abilities:

1. Kinesthesis (perception of body position).
2. Maximal rate of movement.
3. Reaction time.
4. Time perception.
5. Distance perception.

Another class of 39 third grade children at the same school (one year older than the experimental group) served as a control group to check the influence of the growth factor.

Measurements

The following laboratory tests were used to measure the various perceptual-motor abilities.

a) Kinesthesis was measured with a vertical wall Kinesiometer constructed at the psychology laboratory of the Department of Research and Sports Medicine at the Wingate Institute.

b) Rate of movement was measured by the number of movements at a maximal rate. This was tested by means of the tapping test on the equipment for Motoric Serial Performance. Three trials each at 8 and 32 seconds were given.

c) Reaction time was tested using the Reaction Meter constructed in the same laboratory. The child performs two different simple reaction time tests of 15 signals each. The first test is performed in response to a light signal and the second to an auditory signal.

d) Time perception was tested with the Motoric Serial Performance apparatus. The child produced two kinds of time ("movement time" and "waiting-free time") each in lengths of 8, 16 and 32 seconds.

e) Distance perception was measured by the child's reproducing on a "distance bar" the length shown by the tester.

Results

Each of the three factors, growth, the physical education program and the self-assessment approach influences in a different way the five perceptual-motor functions tested.

The data showing changes in Kinesthesis are presented in Table 1. They prove first that the ability to perceive movement position does not develop after one year as seen by the difference between 2nd and 3rd grade children. However, the two other factor positively influenced the perception of movement position. After six months of specialised physical activities (see the pre and post test measurement of the 2nd grade children) errors in movement position reproduction diminished significantly. The 2nd grade, after this half year period, reached far better results on the Kinesthesis testing than the 3rd grade (difference, -1.34, level of significance $p < .01$.) Moreover, a further decrease in errors can be seen when the self-assessment approach, during physical activities, was included. After the experimental period, the 2nd grade children using this approach reproduced movement positions much better than the 3rd grade children (difference, -.168, level of significance $p < .01$).

TABLE 1 CHANGES IN KINESTHESIS
(mean error in reproduction of movement positions)

Group	n	Pre - Test	Post - Test	Diff.
2nd grade	61	6.47 Sd 1.53	4.59 Sd 1.16	-1.88 **
3rd grade	39	5.93 Sd 1.29	---	-0.54
Self assess. group	15	6.89 Sd 1.77	4.25 Sd 0.64	-2.64 **

* $p < .05$ ** $p < .01$

Almost the same phenomena can be seen in the changes of free time perception. Table 2 includes data about changes in free and movement time perception. According to these results, the capability of the tested children to perceive and reproduce time intervals while moving (tapping) does not change in any way. Not one of the three factors influnced this capability and no difference was found to be statistically significant. (See second half of table 2). The perception of free time intervals, however, did improve after six months of specialised physical activities (see the pre and post tests of the 2nd grade). This improvement is greater when the physical activity is accompanied by the self-assessment of the children (see the pre and post tests of the self-assessment group). Natural growth, however, does not influence this capability. It can be concluded concerning time perceptual changes, that this ability, like Kinesthesis, does not change after one year's growth. The perception of time when children move cannot be influenced by physical activities or by the self-assessment approach in this age group - 2nd grade children. More positive changes can be achieved in the perception of free time intervals when the physical activities are accompanied by the self-assessment of the children.

TABLE 2 CHANGES IN TIME PERCEPTION
(mean error in reproduction of time intervals in sec.)

Groups	n	Free-time			Tapping-time		
		pre-test	post-test	diff.	pre-test	post-test	diff.
2nd grade	60	2.48 Sd 0.91	2.14 Sd 1.06	- 0.34**	2.41 Sd 1.15	2.28 Sd 1.02	- 0.13
3rd grade	18	2.31 Sd 0.85	-	- 0.17	2.28 Sd 0.56	-	- 0.13
Self assess. group	15	2.75 Sd 1.01	2.18 Sd 1.33	- 0.57**	2.96 Sd 1.57	2.68 Sd 1.22	- 0.28

* $p < .05$
** $p < .01$

The opposite occurs regarding distance perception (see table 3) which is positively influenced by natural growth and not by the self-assessment approach. After one year (see the pre-test data of both the 2nd and 3rd grades) children make smaller errors in assessing and reproducting distances. These errors decreased the most after six months of the specialized physical education program. When self-assessment was added to the program, the positive influence of the physical activities did not increase. This shows that the third factor, the children's self-assessment, does not positively influence distance perception as do the other two factors: natural growth and specialised physical activities.

This same influence is observed during reaction time measurements (table 4). After one year (comparing 2nd and 3rd grade children) the length of the reaction time decreases significantly. This is even more evident when the reaction is to an auditory signal. The inclusion of special physical activities stresses this positive influence. The reaction time is shorter after six months of physical activities than after a year of natural growth. The reaction time of 2nd grade children after the six months physical education program is shorter by .05 sec. than the 3rd grade children. (This difference has a level of significance of $p < .01$).

TABLE 3 CHANGES IN DISTANCE PERCEPTION
(mean error in reproduction of a distance in cm.)

Group	n	Pre - Test	Post - Test	Diff.
2nd grade	57	6.8 Sd 3.28	5.1 Sd 1.7	- 1.7 **
3rd grade	41	5.7 Sd 1.84	-	- 1.1 *
Self assess. group	15	6.6 Sd 3.2	5.1 Sd 1.5	- 1.5 **

* $p < .05$ ** $p < .01$

TABLE 4 SIMPLE REACTION TIME, $\frac{1}{100}$ sec.

Group	n	by light signals			by sound signals		
		pre-test	post-test	diff.	pre-test	post-test	diff.
2nd grade	61	33 Sd 5.6	26 Sd 4.7	-7 **	41 Sd 14.2	27 Sd 4.7	- 14 **
3rd grade	44	31 Sd 5.3	-	-2 *	31 Sd 4.6	-	- 10 **
Self assess. group	15	32 Sd 4.9	27 Sd 4.2	-5 **	34 Sd 5.5	28 Sd 4.9	- 6 **

* $p < .05$ ** $p < .01$

However, the self-assessment approach does not contribute to this positive influence. In fact, the opposite occurs. There were fewer positive changes in the group which used this approach.

TABLE 5 CHANGES IN MAXIMAL RATE OF MOVEMENT
(number of tappings for 8 sec.)

Groups	n	Pre - Test	Post - Test	Diff.
2nd grade	61	33 Sd 3.5	34 Sd 3.3	+ 1 **
3rd grade	18	35 Sd 3.2	-	+ 2 **
Self assess. group	15	33 Sd 2.7	35 Sd 2.8	+ 2 **

* $p < .05$
** $p < .01$

Table 5 illustrates changes in the maximal movement rate. Data in this table show a statistically significant positive influence of all three factors. The comparison of these changes reveals some differences in their influence. One year of natural growth contributed to a rise in maximal rate by 2 taps in 8 sec. After six months the physical education specialised program also positively influenced the maximal movement rate. The changes in this case are lower 1 tap in 8 sec., which suggests that they can be provoked by natural growth itself. When the self-assessment approach was added, the rise of the maximal rate after six months reached the rise achieved after one year of natural growth.

On the basis of this data, we can conclude that movement rate can be positively influenced by both growth and the self-assessment approach but cannot be unfluenced by the physical activities themselves.

Conclusions and Propositions

The first step in our study about the relative influence of different factors in the development of perceptual-motor abilities in children shows that this influence differs in relation to the different abilities. Several abilities such as reaction time, distance perception and maximal movement rate improved significantly after one year of natural growth. Other perceptual-motor abilities like Kinesthesis and time perception do not change in this period. However, these same abilities as well as maximal movement rate, can be positively influenced even in a shorter time if we stimulate children to use the additional mental activity of self-assessment.

The factor, specialised physical activities, positively influences almost every one of the tested perceptual-motor abilities. An exception is the

maximal movement rate which even after six months of physical activity does not change more than by natural growth alone. The perception of the length of time intervals in which children moved (tapped) also cannot be positively influenced by any of the three factors. We can hypothesize that this ability develops later.

The results of the study suggest a necessity for some additional verifications closely related to the same problem.

1. To check how long each of the three factors should operate to influence some positive changes.

2. To verify at what age the influence of every factor is the strongest.

3. To check at which age each perceptual-motor ability can best be influenced.

4. To study if the positive influenced of the self-assessment approach depend on the nature of the abilities alone or also on the children's age.

BIBLIOGRAPHY

1. Arnheim, D.D. and R.A.Pestolesi. Developing motor behaviour in children: a balanced approach to elementary physical education. St. Louis Mosby, 1973.

2. Arnheim, D.D. and W.A.Sinclair. The effect of a motor development program on selected factors in motor ability, personality, self-awareness and vision. Amer. Corr. Ther. J. 28: 167-171, 1974.

3. Avramova, S., E.Geron and others. Physical education for pre-school children. Sofia, 1967.

4. Baumann, N. Uberlegungen zur Sozialisationsfunktion des Spieles, Sportunterricht 23: 302-311, 1974.

5. Bilodeau, I. Mc.D. Information feedback. In: E.A. Bilodeau (ed.) "Acquisition of Skill", New York Academic Press, Lawther J.D.1968.

6. Bond, J. Cognitive development. Brit. J.Phys. Educ. 6 (3): 9-11, 1975.

7. Chaney, C. and Kephart, N.C. Motoric aids to perceptual training. Columbus, Merrill, 1968.

8. Cratty, B.J. Psycho-motor behaviour in education and sport (selected papers). Springfield, 1974.

9. Dickes, P. Zusammenhange zwischen motorischen und kognitiven Variablen bei Kindern in Vorschulalter. In: Müller, H.J., R. Decker and F.Schilling (R.d.), Motorik im Vorschulalter. Schorndorf: 119-127, 1975.

10. Fleishman, E.A. and S.Rich. Role of Kinaesthetic and spatial visual abilities in perceptual motor learning. J.Exp. Psychol. 66: 6-11, 1963.

11. Fleishman, E.A. and W.E.Hempel. Changes in factor structure of a complex psychomotor test as a function of practice. Psychometrica 19: 239-252, 1954.

12. Fleury, M. Perception et movement: perception du temps. Mouvement, 8: 197-214, 1973.

13. Fretz, B.R. Physical activity and developmental process. In: Johnson W.R. and E.R.Buskirk (eds.) Science and medicine of exercise and sport. New York: 287-305, 1974.

14. Geron, E. Methoden und Mittel für psychische Vorbereitung des Sportlers. Schorndorf, 1975.

15. Gruber, J.J. Exercise and mental performance. Inter. J.Sport Psychol. 6: 28-40, 1975.

16. Harrow, A.J. A taxonomy of the psychomotor domain. A quide for developing behavioural objectives. New York, 1972.

17. Kiphard, E.J. Probleme der sensomotorischen Entwicklungsdianostik im Kleinkind und Vorschulalter In: Müller, H.J. (Red.) 103-116, 1975.

18. Kraft, R.E. The relative effectiveness of teacher feedback upon motor skill when utilizing videotape recordings. Abstr. Res. Pap. 1973, 68.

19. Lapierre, A. Die psychomotorische Erziehung. Grundlage jeder Vorschulerziehung In: Müller, J. (Red) 1975, 42-46.

20. Low, J.W. and A.G.Ingham. Play, games and sport in the psycho-sociological development of children and youth. In: Rarick, Lawrence (ed.) Physical activity, human growth and development, 1972.

21. Marschner, P. Körpererziehung und Persönlichkeitsentwicklung. Theor. Prax. Körperkult. 22: 352-357, 1973.

22. McCloy Laymen, E. Contributions of exercise and sport to mental health and social adjustment. In: Johnson, W.R. and E.R.Buskirk (eds.) Science and Medicine of Exercise and Sport. New York, 1974.

23. McCormick, C.J. Schnobrich, Footliks. Willard, B.S. Perceptual-motor training and cognitive achievement. Dawner's Grove, 1967.

24. Millar, S. The development of visual and kinaesthetic judgements of distance. Brit. J.Psychol. 63: 271-282, 1972.

25. Newman, M.A. Time estimation in relation to gait tempo. Percept. Mot.Skills, 34: 359-366, 1972.

26. Roffell, G. Visual and kinaesthetic judgements of length. Amer. J. Psychol.48: 331-334, 1946.

27. Rychtecký, A. (Die Kinaesthesie und ihre Role in der Sensomotorik). Teor.praxe tel.Vých. 21: 429-435, 1973 (Tsch).

28. Serber, K. Sensomotorische Entwicklung und materiale Erfahrung. Begründung einer vorschulischen Bewegungs und Spielerziehung durch Piagets Theorie Kognitiver Entwicklung. Schorndorf, 1975.

29. Scott, M.G. The contributions of physical activity to psychological development. In: Butcher, C.A. (ed.) Dimensions of physical education Saint Louis, 1974.

30. Snyder, E. Aspects of socialization in sports and physical education In: Sage,

G.H., Sport and American Society, selected readings, Reading, Mass.1974.

31. Stejskal, T. (Über den Zusammenhang zwischen den Typen des Reagierens auf Lichtreize und dem Entwicklungsniveau der motorischen Fertigkeiten des Sportlers. Teor. praxe. těl. vých. 23: 561-566, 1975 (tsch).

32. Ungerer, D. Zur Theorie des sensomotorischem Lernens. 2nd ed. Schorndorf, 1973.

33. Wild, M.R. The behaviour pattern of throwing and some observations concerning its course. Res. Quart. 9: 20-24, 1938.

34. Whitehead, R.K. The effect of four feedback treatments on perception and performance during the early learning of a gross motor skill. Diss. Abstr. Inter. 34A: 4850-4851, 1973.

35. Herman, S.: Movement education. Sensory-motor learning and learning to move. In: Simri, V. (Ed.): Motor learning in physical education and sport, Wingate Institute, 1976.

MENTAL CAPACITY AND PERFORMANCE

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Performance in sport is an interaction of three systems - a mechanical or structural system, an energy system associated with the efficiency of aerobic and anaerobic work, and a control system concerned with the processing of information and integration of actions. This paper is concerned principally with some aspects of the control system, as well as the interaction and mutual dependence of the control and energy systems.

All of man's behaviour is controlled by the brain, and in so doing, the brain is involved in a form of 'mental effort'. The more complex the behaviour organised and controlled by the brain, the greater the 'effort' involved. Effort is associated with the degree of attention or concentration. To put it another way, the brain has a capacity (limited by both the rate and amount of information processing) which is involved in the organisation and control of behaviour. The more complex the behaviour, the greater the capacity demand. The greater the attention or concentration of effort required, the greater the capacity allocated to the particular task.

Allthough the notion of capacity has been central in modern cognitive psychology, it has been subject to a wide range of interpretations. Broadbent (1971), however, has suggested that the notion of capacity may be the most important concept to come from the information processing paradigm.

The capacity allocated to a task, or the mental load of that task, is largely determined by the intrinsic nature of the task. Thus, for example, one can work 'hard' or make a greater mental effort at dividing 13 into 4726 than remembering the sequence, 5, 2, 1, 9. It is not possible to work hard mentally at the

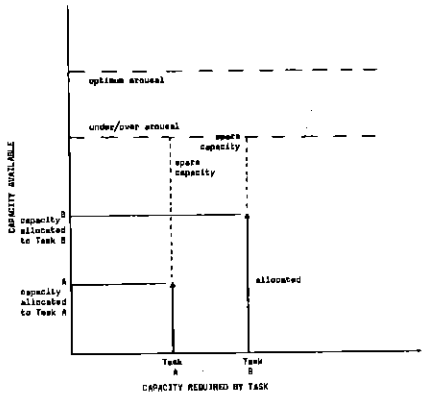
latter task. Similarly, there is a difference in the effort required to ride a bicycle for the first time, compared with jumping up and down on the spot. Another example may help clarify these notions. The momentary effort and capacity demands of a task may be likened to the effort put into a 100-metre sprint, which is greater than that exerted in walking 5 km, although the total energy expenditure is greater in the latter. Much of our day-to day on-going mental activity is characterized by the casual walk rather than the sprint effort. Intensity of effort or time-stress may be seen as a crude index of mental effort and hence capacity allocation. Time-stress may be imposed, for example, by the brief exposure of a message, overloading short-term memory, or may be intrinsic in the case of chess to the novice, who has to remember the rules as well as plan the next move.

> "...the performance of any activity is associated with the allocation of a certain amount of effort... Allocating less effort than the standard probably will cause a deterioration in performance. Allocating more than the standard seems to be beyond our ability" (Kahneman, 1973, p.15)

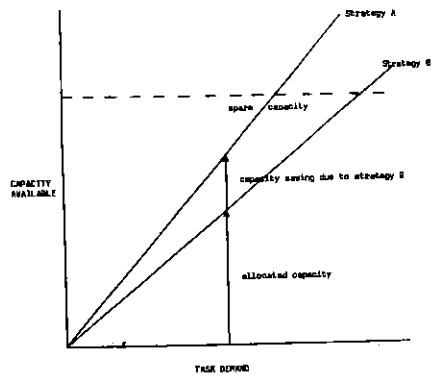
The two major conceptual notions of capacity are represented by structural models (capacity is limited by a 'bottleneck' or where parallel processing cannot occur) and capacity models, in which 'on going' processes and tasks compete for the available general capacity.

The structural models are best represented by Welford's (1952) single channel hypothesis, intermittency theory (Craik, 1948), input bottleneck models represented by filter mechanisms (Broadbent, 1958) and selective or attenuating filter mechanisms (Treisman, 1960). There is also a series of studies providing evidence for output or response bottleneck interpretations (Berlyne, 1957, 1960; Reynolds, 1964; Kantowitz, 1974).

On the other hand, capacity models are best represented by Moray (1967) and Kahneman (1973). "A capacity theory assumes that there is a general limit on man's capacity to perform mental work. It also assumes that this limited capacity can be allocated with considerable freedom among concurrent activities". (Kahneman, 1973 p.7). However, it is beyond the scope of this paper to discuss the evidence relating to these two approaches; instead, a composite model will be considered briefly. (See figures 1 & 2).



(Figure 1)



(Figure 2)

Some of the basic features of the capacity model are:

1. That the capacity available is limited.
2. That the maximum capacity available for allocation varies from time to time.
3. That the maximum capacity available varies with factors that affect the level of arousal.
4. That the capacity allocated at any instant reflects the task demands or the mental load required to perform that task.
5. That the efficient use of the available capacity depends on the strategies used by the individual.
6. That the allocated capacity is affected by such factors as fatigue, sleep loss, anxiety, physical and emotional stress, some drugs and alcohol.

Capacity and the allocation of capacity may be considered as the 'mental load' involved during the performance of a particular skill or activity. Traditionally 'mental load' has been investigated in situations where the individual has been required to perform two tasks simultaneously, and the deterioration on one or both tasks is taken as an index of the capacity demands of each task. The assumption underlying such a technique is that one task requires a time for organisation and control and that this will reflect the capacity demands of that task. A second task occurring at the same time as the first will be delayed, disrupt the first, or there will be disruption to both tasks. (Which of these, depends partly upon the strategy adopted by the subject and the task demands as specified, for example, by the experimenter). The disruption or delay provides an index of the amount of 'spare capacity' not allocated to the primary task.

Experimental procedures to investigate capacity and mental load have been largely of three types:

1. Dual task techniques.
2. Double stimulation techniques.
3. Probe reaction time techniques.

In the dual-task procedure, subjects are required to perform two tasks simultaneously, for example, car-driving whilst adding digits (Brown & Poulton, 1961), pressing pedals with the feet whilst screwing nuts onto bolts, or inserting rods into holes (Schouten, et al. 1962), recall of aurally presented lists whilst card sorting (Murdoch, 1965), exercise on a bicycle whilst adding numbers or reacting to a stimulus (Davey, 1973; Näätänen, 1973). The specific results depend upon the nature of the tasks, but, in general, performance on one task or both tasks deteriorates in the dual-task situation.

The dual-task technique has a number of methodological difficulties, such as the complexity of the tasks used, the confounding effects of changes in arousal level, as well as questions of focussed and divided attention.

At the other end of the experimental continuum is the double stimulation technique, characterised by the psychological refractory period experiments, in which two simple stimuli (S_1 and S_2) are presented in rapid succession. The response to the second stimulus (S_2) is lengthened or delayed as a function of the capacity demand of the first stimulus (S_1) and response. The capacity demands

of response mechanism have been demonstrated where no response is required to the first stimulus (S_1) or where a movement response is required to the first stimulus. The delay or lengthening of the response to the second stimulus (S_2) reflects the nature of the response made to the first stimulus. Longer delays occur when there is a movement response to S_1. (Broadbent & Grogory, 1967).

However, possibly the most valuable application of these technique has been the probe RT procedures, in which, during an ongoing primary task, a simple stimulus (the probe) is inserted at various intervals. The rationale of the procedure is that the lengthening of the probe will reflect the capacity demanded by the primary task at that point where the probe is inserted. Posner & Keele (1969) used an auditory RT probe inserted at various stages in a target tracking task. Probe RT was most delayed at the beginning and the end of the actual movement phase, and was further lengthened when it occurred during the movement to a narrower target. Ells (1973) employed a two-choise RT probe in a target tracking task similar to that reported by Posner and Keele (1969). Movements could be made to the left or right or 'no' movement, to a narrow, wide or 'no' target. When the probe occurred before the movement, the delays in probe RT were related to the number of possible alternative actions involved in the primary tracking task. However, when the probe occurred during the actual movement, the lengthening of probe RT was related to the precision of the movement, as stipulated by the target condition. Recently Kerr (1975) reported lengthening of probe RT, during movement initiation and movement execution, the delay being greater during the initiation phase. Further probe RT was lengthened when the choise between two possible directions of a movement was delayed, forcing the selection to be made whilst the movement was in progress. This was not the case if the direction of movement was indicated prior to the commencement of the movement.

This line of experiment has been extended by Glencross (1976, 1977) who used the probe RT technique to investigate the capacity demands of movements varying in the complexity of their serial organisation. Delays to the probe occurred principally during the latency phase of the movement and to a lesser extent, during the actual movement itself. The delays were greatest for a double tapping action, compared with a single tapping action and a sweep of the arm. If the subject was required to aim at a small target mid-way during the movement, the probe was further delayed, both during the latency phase of the movement and also in the region of the target.

This group of studies has pointed to one approach to the investigation of the notion of capacity and, in particular, how it can be related to investigating capacity in the sporting context. For example, with the performing athlete, probe RT procedures could be readily telemetred, with the use of an auditory probe signal and voice key response mechanism. With such a procedure, it should be possible to investigate and 'plot' the capacity demands in the field situation. Attempts at such field studies have been made by Michon (1966) and Cairney (1976), but using a continuous secondary task (tapping) and noting the changes in consistency and speed in conjuction with the demands of the primary task. Such techniques would seem to offer a valuable lead to understanding the mental load of the athlete in the competitive situation.

These considerations of the capacity demands of concurrent activities and skills have important implications for both sports performance and training and coaching procedures. The primary objectives may be seen to be the reduction of the demands or capacity required to perform a particular skill or achieve a particular outcome. The reduction of the capacity demands leaves more spare capacity to be allocated to other related concurrent activities and thus to the development of more sophisticated performance strategies.

The reduction of the capacity demands for a particular skill can be achieved by altering the two basic parameters; the capacity available and the task demands;

(i) the capacity available is a function of the state of arousal, being at a maximum, at a state of optimum arousal and being reduced with under or over-arousal;

(ii) the task demands for capacity allocation can be lessened by reducing the information load at perceptual and translatory stages, by changing the monitoring and control processes to an open-loop system, and by the development of an overall more efficient strategy to optimise capacity allocation and time-sharing between tasks.

The reduction of capacity is primarily achieved by reducing the uncertainty (information load) associated with input and perceptual factors, with translation and coding, with output and effector organisation and hence with the need for direct monitoring of the action.

With the development and refinement of skill, larger and larger segments of action are organised under the control of a single motor programme, which, once initiated, requires no further monitoring and hence has reduced capacity demands. Typically, with actions under motor programme control, the capacity demands are greatest during the initiation phase of the action, but are then substantially reduced, in comparison with actions which are under current feedback control in which the capacity demands are high both during the initiation and the movement phases (Glencross, 1977).

Decision processes can be enhanced by increasing the certainty of the input by increasing the probability of particular signals and reducing the total number of possible signals (Hick, 1952). In conjuction with this, the compatibility of the stimulus-response coding should be optimised so that the coding is direct and the translation process kept as simple as possible. The implications of such conditions are that where possible, the performer should be aware of the possible critical cues, learn to ignore irrelevent stimuli and events, and, in practice, be exposed to making the translation decisions as often and as rapid as possible.

The optimum use of the available capacity will depend largely upon the strategy adopted by the performer. Strategies may be seen as the interaction of task or situation demands and the personal demands (Welford, 1976). The task demands relate to such aspects as the speed of the ball and the position of opponents, whilst the personal demands relate to the capabilities of the performer, his ability to kick accurately, pass precisely, control the ball - i.e. the level of skill - and hence the capacity demanded in performing each of these, or

linking them into an effective sequence. Two players may be seen as performing the same activity with equal effectiveness (stopping the ball and shooting at goal) and yet be allocating quite different amounts of capacity. The 'better' or 'more skilled' performer will be able to maintain the level of this skilled action as the load increases (increased ball speed, reduced target size, reduced time as an opponent tackles) whilst the second player performing at 'maximum' capacity will make significant errors under similar conditions of increasing load. The second player should adopt a strategy, which reduces the task demands in relation to his own capacity allocation for the particular personal skills demanded, so that the amount of mental effort or the mental load required matches the capacity. If a strategy is not adopted that matches both the task demands and the personal capacity resources, then performance will deteriorate. (Bainbridge, 1974).

These notions of capacity force us to look further than performance per se for criteria of success or excellence. It shifts the emphasis to considerations of stability and consistency of performance under conditions of increasing load or stress, and in conjuction with concurrent activities. The level of learning and assumedly the level of skill attained, should be considered not just in terms of some external performance criteria, but rather in terms of being able to achieve some specifiable level of performance, with the 'minimum' of capacity. A notion such as this should then have important implications to training and practice procedures and, in particular, in relation to continued or extended practice to optimise not just performance, but to increase the level of spare capacity. Other implication relate to methods and procedures on the one hand and personal selection on the other.

One of the implications of the notion of capacity and control by motor programme is that this organisation is specific. The specifity hypothesis has important implications in training and coaching techniques. However, it has a further significant consideration and that is the 'link' between the control and energy systems.

Specifity of skill relates to the development of a cognitive scheme or plan, specific to the particular skill. The organisational and control hierarchy is developed to meet the specific demands of the task and this is most particularly evident at the level of the motor programme, which actually controls the final movement sequence. This motor programme will have a particular and specific capacity demand. In addition the implementation of the action has energy demands. The continued repetition of the motor programme places more and more demands upon the energy sources, both aerobic and anaerobic. It is proposed that the operation of the motor programme leads to a specific adaptation of the energy system, to ensure that the programme can continue at an optimum level of efficiency and performance. If the energy system cannot meet the demands of the control system (prolonged use of the particular programme and hence skill), then the control system will need to modify the action (recruit non-fatigued response units, etc.), and this will cause a greater demand for capacity, and this will lead to an overall deterioration of performance.

The specificity of the interaction between the control and energy systems is supported by a group of studies which has demonstrated the specificity of muscle training techniques. In general, the studies measured a number of

fitness parameters (blood lactate levels; heart rate; specific VO_2 max - running, cycling, swimming, - Magel et al., 1975), before and after bouts of specific or general training. The results showed that swimmers, who trained at swimming and were tested for fitness by swimming, showed higher levels of fitness, than when they trained and were tested under running conditions, for example. A similar pattern of results occurred in the comparison of kayak and bicycle training (Ridge et al, 1976) and in the comparison of treadmill and bicycle training (Pechar, 1975).

In conclusion, in the investigation and understanding of human performance, it is essential that the integration of the energy and control systems be seriously considered. It is proposed that the control system, specifiable in terms of information processing and capacity demands, is the 'stimulus' for the use and adaptation of the energy system, and that the efficiency of the latter is conditional on the specificity and elegance of the former.

REFERENCES.

Bainbridge, L. (1974) Le Travail Humain, 37, 279-302
Berlyne, D.E. (1957) Journal of Experimental Psychology 53, 399-404
Berlyne, D.E. (1960) Conflict, Arousal & Curiosity, N.Y., McGraw-Hill
Broadbent, D.E. (1958) Perception & Communication, London, Pergamon
Broadbent, D.E. (1971) Decision & Stress, London, Academic Press
Broadbent, D.E. & Gregory, M. (1967) Proceeds. Royal Society B. 168, 181-193
Brown, I.D. & Poulton, E.C. (1961) Ergonomics 4, 35-40
Cairney, P (1976) Flinders University Report
Craik, K.J.W. (1948) British Journal of Psychology 38, 147-148
Davey, C. (1973) Ergonomics 16, 595-599
Ells, J. (1973) Journal of Experimental Psychology, 99, 10-21
Glencross, D.J. (1976) 3rd Experimental Psychology Conference, Flinders University
Glencross, D.J. (1977) 4th Experimental Psychology Conference, University of Newcastle.
Hick, W.E. (1952) Quarterly Journal of Experimental Psychology 4, 11-26
Kahneman, D. (1973) Attention & Effort, New Jersey, Prentice Hall
Kantowitz, B. (1973) Human Information Processing: Tutoriels in Performance & Cognition. New Jersey, Erlbaum
Kerr, B. (1975) Journal of Motor Behaviour 7, 15-27
Magel, J.R. et al. (1975) Journal of Applied Psychology 38 (1), 151-155
Michon, J. (1966) Ergonomics, 9 401-412
Moray, N. (1967) Psychologica, 27, 84-92
Murdoch, B.B. (1965) British Journal of Psychology 56, 413-419
Näätänen, R. (1973) in Attention & Performance, London, Academic
Pechar, G.S. et al (1975) Journal of Applied Psychology 36 (6) 753-756
Posner, M.I. & Keek, S.W. (1969) Proceedings XVII Congress of Applied Psychology, Amsterdam
Reynolds, D. (1964) Psychological Bulletin, 62, 333-347
Ridge, B.R. et al., (1976) Medicine & Science in Sport 8 (1) 18-22
Schouten, J.F. Kalsbeek, J.W.H. & Leopold., F.F. (1962) Ergonomics 5, 251-260
Treisman, A. (1960) Quarterly Journal of Experimental Psychology 12, 242-248
Welford, A.T. (1952) British Journal of Psychology 43, 2-19
Welford, A.T. (1976) 21st Congress of Psychology, Paris

ОБ ОДНОЙ ИЗ ГЛАВНЫХ ПРОБЛЕМ СОВРЕМЕННОЙ ОНТОПСИХОЛОГИИ В СПОРТЕ

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Проблема связи умственного и физического развития в онтогенезе поставлена очень давно. Несмотря на это, ее практические разработки только начинаются. К настоящему времени многие вопросы проблемы требуют новой постановки исходя из современных представлений об индивидуальном развитии человека. Рассматривая сложный процесс формирования и развития высших уровней психических явлений в онтогенезе, вовсе недостаточно простого признания связей психомоторики с определяющими интеллект функциями. Исходящие из такой в целом несомненно правильной, но аморфной точки зрения опытные попытки объединить и связать умственное и физическое воспитание чаще всего носили механистический характер.

В последние годы поставлен, и частично решен вопрос о том, что физические упражнения, меняя и координируя функциональные связи между различными органами и системами организма, опосредованно влияют на умственное развитие детей. На начальных этапах нашего исследования было экспериментально показано, что оптимальные физические нагрузки оказывают положительное влияние на психические процессы различных уровней нервно-психического регулирования. Улучшения чаще всего сохраняются в течение нескольких часов после занятий физическими упражнениями. Имея в виду систематические занятия определенным видом спорта, введено понятие "доминирующие состояния последствия нагрузки". Учет этих состояний в педагогическом процессе определяет психогигиенические рекомендации в режиме учебного и трудового дня, а в перспективе коррегирующие мероприятия в плане развития определенных свойств личности спортсмена. Данные последующих исследований позволили утверждать, что одной из главных проблем современной онтопсихологии в спорте является обнаружение конкретных, позволяющих дифференцировать педагогические мероприятия в зависимости от возраста и пола, корреляций между развитием двигательных качеств (сила, быстрота, выносливость, ловкость, прыгучесть) и психических процессов (сенсорных, перцептивных, мнемических и мыслительных). Знание онтогенетических характеристик этих корреляторов позволит не только оценить физическое воспитание как средство стимулирующее, и, в какой-то мере определяющее умственное развитие личности, но и целесообразно и продуктивно использовать его в этих целях на различных возрастных уровнях. В последующих экспериментах, проведенных совместно с Кольман Л.В., Стамбуловой Н.В. и др. были сделаны следующие заключения:

1) Наибольшее количество корреляционных зависимостей между развитием и проявлением двигательных качеств и психических процессов имеется в старшем школьном возрасте; наименьшее - в среднем. Связи характеризуются противоречивостью и гетерохронностью.
2) В школьном возрасте недостаточное развитие двигательных качеств, в первую очередь, связывается на сенсорно-перцептивных процессах.
3) В каждой возрастной группе определилось ведущее двигательное качество (с точки зрения влияния его развития на развитие психических процессов).
4) В детальном лонгитюдном исследовании возрастной динамики познавательных психических процессов и двигательных качеств у школьников 8-12 лет, Стамбуловой Н.В. выявлены периоды их наиболее интенсивного развития. Психические процессы, их внутри- и межфункциональные связи отличаются большой изменчивостью в зависимости от возраста и пола. В периоды наиболее интенсивного развития того или иного двигательного качества отмечаются более тесные связи между различными его показателями, равно как и с другими двигательными качествами.
5) В младшем школьном возрасте ведущие двигательные качества почти всегда одинаковы у мальчиков и девочек, и значительно различаются в подростковом.

6) В формирующем психолого-педагогическом эксперименте доказано положительное влияние специально организованного развития ведущего двигательного качества ловкости на различные показатели психических процессов. В экспериментальной группе обнаружилось более существенное, по сравнению с контрольной, сокращение времени простой сенсомоторной реакции; более высокий прирост интенсивности и продуктивности перцепции; увеличение объема памяти при запоминании числового материала; улучшение результативности деятельности в режиме информационного поиска; сокращение времени решения задач (у мальчиков). Половые различия появились и в степени воздействия формирующего фактора: у мальчиков в наибольшей мере улучшились перцептивные, мнемические и мыслительные процессы, а у девочек сенсомоторные и комплексное проявление процессов в условиях дефицита времени.

Результаты проведенных исследований позволили сформулировать рекомендации, направленные на совершенствование программ по физическому воспитанию в школе.

ЭКСПЛИКАЦИОННАЯ МОДЕЛЬ СПОРТИВНОЙ ДЕЯТЕЛЬНОСТИ

ГОШЕК,В. - Прага, Чехословакия

Спортивная деятельность является понятием довольно широким. Оно включает виды человеческой деятельности, формально очень отличающиеся друг от друга, между которыми существуют связи только организационные, педагогические, физиологические и психологические. Этот факт весьма затрудняет проведение общего психологического анализа спортивной деятельности, необходимого для экспериментального исследования и для объединения результатов частичных конкретных анализов отдельных видов спортивной деятельности. До сих пор применяемый подход, носящий характер спекулятивного описания (Рудик, 1974), является подходящим именно для дидактических целей. В нашей работе, связанной с планированием и изложением экспериментов, направленных на определение роли неудачи в спортивной деятельности, оправдалась общая экспликационная модель спортивной деятельности. Теоретически она опирается на подходе Леонтьева (1975) и на концепции изложения проведенного Миллером, Галантером и Прибрамом (1964). Спортивная деятельность в ней рассматривается как диалектический процесс сталкивания субъекта деятельности с объектом деятельности. Как субъект, так и объект спортивной деятельности разделены в два функциональных элемента и на основе взаимодействий между этими четырьмя функциональными элементами выводится динамика спортивной деятельности.

Функциональные элементы субъекта называются "средство тестирования" и "исполнительное средство".

Средство тестирования субъекта является одновременно регулирующим элементом деятельности и оно включает рецепцию, создание образа и создание плана. Важное место в средстве тестирования спортивной деятельности занимает механизм проведения оценки, который вступает между рецепцию и образ и между образ и план. Посредством проведения оценки в области регуляции деятельности применяется влияние личности, влияние актуального психического состояния и косвенным образом также влияние социального контекста деятельности.

Исполнительным средством субъекта спортивной деятельности являются эффекторы. Их функции могут сильно отличаться друг от друга в зависимости от вида спортивной деятельности, но инвариантным остается функционирование исполнительного средства, которое оказывает собственное модификационное воздействие на объект (предмет) деятельности.

Устанавливать категории функциональных элементов деятельности объекта в общем трудно. Речь идет конкретно о различных видах движений, манипуляций, коммуникаций и других видах социального воздействия, которые можно наблюдать в широком диапазоне видов спортивной деятельности. При соответствующей мере обобщения мы можем определить два функциональных элемента объекта спортивной деятельности: "референционный объект" и "модифицированный объект".

Референционный объект в спортивной деятельности представляет собой желаемый результат. На самом деле это модель желаемого состояния объекта деятельности в будущем, на которое направляется воздействие субъекта деятельности. В области представлений он возникает как составная часть плана и до своей реализации он потенциально содержится в общем предмете деятельности. Он руководит процессом реализации результата, модификация объекта на него направлена.

Модифицированный объект деятельности становится посредством преобразования своего состояния результатом деятельности. Мы рассматриваем его как последовательный ряд состояний объекта деятельности, возникающих в результате воздействия исполнительного средства субъекта деятельности. Любая фаза преобразования модифицированного объекта подвергается удостоверению посредством средства тестирования субъекта. Отдельные состояния преобразования модифицированного объекта носят характер частичных результатов спортивной деятельности, которые постепенно подвергаются тестированию с целью определения того, отвечают ли они алгоритму деятельности, возникшему раньше в качестве составной части плана. Приближается ли состояние модифицированного объекта совсем референционному объекту деятельности, деятельность кончается.

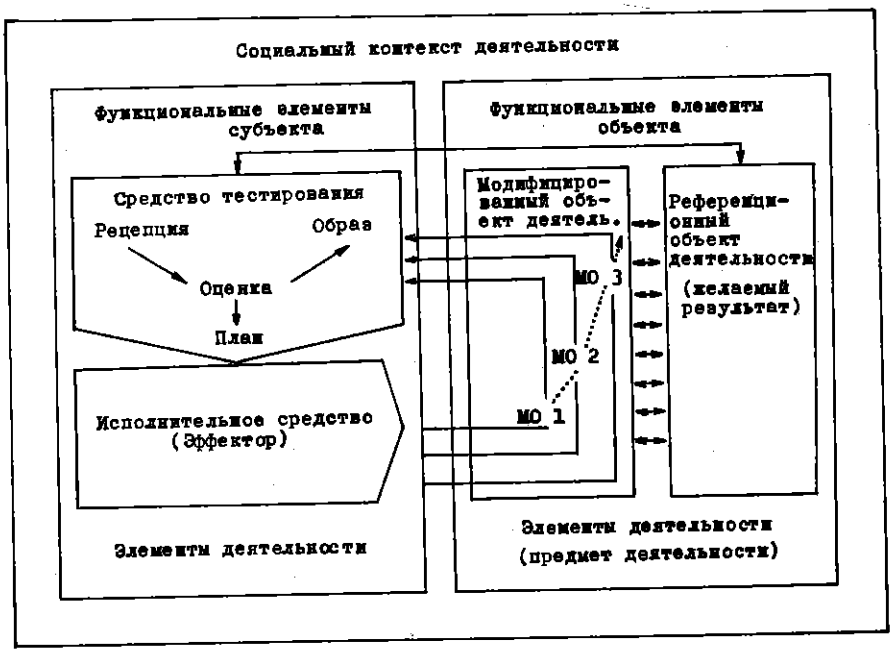


Рис.1 Система функциональных элементов спортивной деятельности

Динамика модели изображена на рисунке.(Рис.1). Элементы субъекта и объекта размещаются в области социального контекста спортивной деятельности. На основе восприятия и процесса принятия решений возникает в рамках средства тестирования план деятельности, который осуществляется посредством исполнительного средства как последовательный ряд операций. Цель любой частичной операции заключается в приближении модифицированного объекта деятельности к референционному объекту деятельности. Любое частичное преобразование модифицированного объекта деятельности проверяется с помощью средства тестирования субъекта. На основе обратной связи сопоставляется форма преобразования с первоначальным планом и результат может найти свое отражение в поправке плана и в регуляции исполнительного средства субъекта.

Понятие модифицированного объекта спортивной деятельности носит довольно общий характер. Это терминологическая конструкция, способствующая преодолению различий между отдельными видами и вариабильности ситуаций, типичных для разных видов спортивной деятельности. Говоря об общей характеристике спортивной деятельности, мы можем отметить такие общие качества модифицированного объекта спортивной деятельности. Его первоочередное качество заключается в постоянном, но меняющемся сопротивлении, оказываемом исполнительному средству субъекта спортивной деятельности. Это вытекает из диалектики отношений между субъектом и объектом спортивной деятельности. Иногда сопротивление носит характер ухода, но всегда оно является препятствием, стоящим в пути воздействию субъекта. По этой причине имеет в спорте такое огромное значение волевое усилие, представляющее собой мобилизацию энергии для преодоления сопротивления, оказываемого модифицированным объектом деятельности. Важной чертой модифицированного объекта спортивной деятельности является угроза. Она заключается во-первых в угрозе субъекту в процессе модифицирования объекта деятельности, во-вторых она имеет характер символической угрозы отрицательной социальной оценки в случае несоответствия между модифицированным и референционным объектами деятельности.

К следующим качествам модифицированного объекта деятельности числится напр.вариабильность, зависящая от ситуационных условий деятельности, но также монотонный характер циклических деятельностей, связанных с выносливостью.

Цель представленной экспликационной модели спортивной деятельности заключается в уточнении системы переменных, которые в этой деятельности выступают. В спортивной практике можно часто наблюдать стремления, направленные на предвидение и корректирование спортивной деятельности. Мне думается, что правдивое предвидение и целесообразное корректирование должно опираться на теоретическое разъяснение, которое можно провести лишь на основе общего анализа деятельности. Разъяснение, в своей очереди, служит основой для всех попыток моделирования (симуляции) видов спортивной деятельности, ценных для экспериментирования и имеющих большое практическое значение.

ЛИТЕРАТУРА:

1. Hošek,V.: Psychical resistance in unsuccessful activity. In: Proceedings of IV. Congress ISSP, Prague 1977.
2. Леонтьев,А.Н.: Деятельность, сознание, личность. Москва, Политиздат, 1975.
3. Miller,G.A.-Galanter,E., Pribram,H.K.: Plany i struktura povedenija. Znanije, Moskva, 1964

СОЦИАЛЬНО-ПСИХОЛОГИЧЕСКАЯ ПОДГОТОВКА ТРЕНЕРОВ

ГОШЕК,В. - МАН,Ф.,- Прага, Чешске Будейовице, Чехословакия

Психологические знания в области современного большого спорта приобретают все большее значение по мере того, как выравнивается уровень достижений лучших мировых больших спортсменов. Во многих странах мира имеют кандидаты спортивной репрезентации возможность почти максимального использования средств физической, технической и тактической подготовки. Среди спортсменов приблизительно одинакового уровня в соревнованиях международного характера может успеха добиться только тот, кто благодаря своему актуальному психическому состоянию сможет в данном моменте применить подготовленные способности к достижению.

Теоретические основы психологической подготовки были в нашей стране разработаны Ванеком (1964). Их практическое применение, однако, зависит от способности тренеров осуществлять отдельные принципы. Современные тренеры, как правило, являются специалистами по вопросам техники, тактики и функции своего спорта. В этих вопросах они чувствуют себя компетентными, так как в этой области они получили систематическую подготовку. Также в области политической уделяется тренерам большое внимание. Совершенно стихийно, однако, развивается важный компонент тренерской специальности, заключающийся в его способности обращаться с людьми. В этой области тренер полностью зависит от состава своей личности и способностей или врожденных, или приобретенных в течение социализации и подготовки. Рассматривая систему подготовки тренеров, мы видим, что в ней полностью отсутствует стремление к систематическому развитию их социально-психологических умений.

Эмпирические примеры деятельности тренеров ясно показывают частоту и значение таких моментов, когда тренер в социальном взаимодействии применяет свои умения эффективного воздействия на спортсменов, вызывает например его мотивационную заинтересованность, является симпатичным, провоцирует идентификацию, суггестивным образом успокаивает или стимулирует, решает социальные конфликты различных видов, вызывает в спортивной группе взаимоотношения конкуренции или сотрудничества и одновременно воздействует на преобразование позиций спортсменов. Для достижения всего этого тренер должен быть авторитетом и он должен обладать соответствующими способностями, связанными с интуицией и эмпатией, представляющими основу оперативного принятия решений в обращении с людьми.

Как в теоретической, так и в практической области становится все более очевидным, что психологическая подготовка в спорте не может достаточно применяться без содействия тренеров, специальность которых бы включалась также в эффективном взаимодействии со спортсменами, основывающемся на знаниях социальной психологии. Намеченный анализ современного положения в области обеспечения большого спорта психологическими знаниями вызывает требование введения в подготовку тренеров систематического обучения социально-психологическим умениям.

Теория социально-психологической подготовки была разработана во-первых в области традиционной социальной психологии. Речь не идет об однородной теоретической концепции, а скорее можно различать несколько теоретических исходных пунктов. Очень сильно применяется концепция Левина, рассматривающая группу как силовое поле, имеющее собственную динамику и влияющее на поведение члена группы. Второй важный теоретический источник представляет психотерапия неврозов Саливана, в рамках которой были опыт и знания в теоретической области подытожены в концепцию невроза, представляющего нарушение коммуникации между индивидуумом и окружающей средой, в концепцию личности, представляющей относительно постоянную модель индивидуальных характеристик взаимоотношений между людьми, как и в оценку обследования терапевта, нужного для осуществления психотерапии. Собственная более развернутая подго-

товка людей в области социального поведения совпадает с концом сороковых годов и подчиняется общественному спросу в подготовке руководителей. Этот вид подготовки на практике представляет собой что-то между конвенционным просвещением и психотерапией, в рамках которой внимание уделяется прежде всего обучению стратегии в социальном поведении с применением наглядного собственного опыта.

В этом отношении является более стимулирующей форма подготовки к социально-психологическим умениям, проводимая в ГДР по концепции Форверга и Хибша (1973). Эта концепция последовательно основывается на марксистской социальной психологии, что проявляется в диалектическом и материалистическом рассмотрении взаимоотношения между личностью и деятельностью, и особенно, в подчеркивании развития человека посредством деятельности кооперативного характера, которая личность не только формирует, но одновременно является проявлением активности человеческого индивидуума, т.е.человек создает какой-нибудь вид деятельности. Теория собственной подготовки исходит из создания и преобразования установки в смысле грузинской психологической школы.

Оказывается, что еще более надежная теоретическая и практическая основа подготовки к социально-психологическим умениям тренеров заключается в концепции активного социального учения (АСУ), разрабатываемой Психологическим институтом Чехословацкой академии наук. Активным социальным учением подразумевается целенаправленное приобретение и повышение уровня социальных умений, способностей и техник. Дело заключается в целенаправленном повышении уровня социальной способности человека, его социального поведения.

Теория АСУ основывается именно на работах Линхарта (1965,1972,1976), касающихся теории учения и решения проблем. Возможности практического применения, особенно в области повышения социально-экономической эффективности рабочих групп социалистических организаций разработал Перлаки (1975, 1976).

Собственная модель АСУ включает несколько этапов, которые мы приводим согласно Линхарту и Перлаки (1975):

1. Подготовительный этап
   1.1. Ознакомление с решающей теорией
   1.2. Описание целей структуры и процессов тренировочной ситуации
2. Основной цикл социального учения в тренировочной ситуации
   2.1.Предоставление данных; характерное социальное поведение
   2.2. Накопление, обработка и обратная связь данных
   2.3. Изложение данных обратной связи и принятие решения
   2.4. Предоставление данных; экспериментальное социальное поведение
   2.5. Накопление данных, обработка и обратная связь данных.
   2.6. Изложение данных обратной связи и принятие нового решения
   2.7 Предоставление данных:
      а) Проработка, повторение и совершенствование эффективного социального поведения
      б) Экспериментальное социальное поведение
3. Заключительный этап
   3.1 Планирование передачи и использования приобретенных знаний и способностей в естественной ситуации
   3.2 Обратная связь и проведение оценки подготовительных этапов, процессов и результатов социального учения в рабочих ситуациях.
   3.3 Обратная связь и проведение оценки заключительных этапов

АСУ может способствовать улучшению обстановки в подготовке тренеров в области выполнения задач психологического обучения спортсменов. Творческий руководитель может по ходу учебного процесса соответствующим способом использовать и другие

элементы подготовки к социальным умениям, способствующим повышению эффективности социального учения. Для собственного практического применения надо в области спорта создать желательные условия. Это значит, что психологам спорта должна быть предоставлена возможность ознакомления с АСУ в такой мере, чтобы они могли его позже сами преподавать. Хорошей формой является последипломная квалификация, направленная на АСУ. Надо также в области спорта разработать подходящее применяемое содержание АСУ, направленное на то, чтобы результаты соответствовали спросу. Кроме этого надо включить в систему подготовки тренеров организационные формы, способствующие использованию АСУ в области повышения квалификации тренеров.

1. Bradford,L.P., Gibb,J.R., Benne, K.D.: Gruppentraining - I - Gruppentheorie und Laboratiumsmethode, Klett - Verlag, Stuttgard, 1972
2. Hiebsch,H., Vorwerg,M.: Einführung in die marxistische Sozialpsychologie. VEB Deutscher Verlag der Wissenschaften, Berlin, 1973
3. Linhart,J.: Proces a struktura lidského učení. Academia, Praha 1972
4. Linhart,J.: Činnost a poznávání.Academia, Praha, 1976
5. Linhart,J.; Perlaki,I.: Model aktivního sociálního učení. Československá psychologie, 19, 1975, č.3,235-248
6. Vaněk,M.: Teorie psychologické přípravy sportovce. Habil.práce FF UK Praha, 1964
7. Vorwerg,M.(red.): Sozialpsychologisches Training. Friederich Schiller Universität Jena, 1971

PSYCHOLOGICAL CONDITIONS FOR PROFESSIONALLY SIGNIFICANT EFFECT OF PHYSICAL EDUCATION IN PROFESSIONAL SCHOOLS

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The dialectic connection and combination of the general educational and professional aspects in training the growing-ups is an important point in perfecting the educational and instructive process in contemporary secondary polytechnical schools. This combination is not only a means for the increase of social production but is also a necessary condition for the communist education and development of youth.

The realization of this task is characterized with a concrete specificity of teaching each subject and each branch of science.

The object of our study is the physical educational process. Its results, the data given by other authors and the experience of the sports pedagogues definitely show the necessity to enrich and direct professionally the educational contents of physical education in this type of schools.

The first stage of our investigations show that the enrichment and specialization of the physical education process must solve two basic problems:

A. To realize professionally significant results connected with the development of certain general professionally significant qualities parallel with the natural results of physical education.

B. To attain the general development effect also by the compensatory method counteracting some harms caused by the systematic participation of the growing-ups in specialized professional activities.

It was also found out that the additional educational contents must be selected not only on the anatomic and physiological characteristics basis but also on the basis of psychological and personality professiography of the labour activity performed.

The purpose of the present study was to find out whether it is enough the educational contents and purposefully selected methods, only, to be applied in order to achieve the expected results or their effect depends also on the educational process itself.

The investigation was carried out with 195 students in the secondary polytechnical school of clothes making divided into two experimental and 1 control group. The latter worked in the traditional way and with the educational contents included in the current educational programme. The two experimental groups worked with educational contents corrected on the basis of professiographic analysis. In the first of them the main accent fell mainly on the functional effect and the development of physical and motor qualities realized by enriching the lessons with additional physical exercises selected according to the anatomic and physiological analysis of the activities performed.

In the second experimental group the same educational contents was used but a special attention was paid to the psychis and personality activity of the students when they performed the offered exercises and their general participation in the educational process. The accent in this group fell on the psychological factors of the activity. We required conscious realization of the motor perception in the actions and their three parameters - space, time and effort, realization of the whole action and a corresponding motivation of behaviour. The attesting experiment in the beginning and the end of two school years showed changes in the development of the motor sensitivity of the upper limbs by cinematometric methods, reaction urgency by chronometric probing, deftness and quickness of wit by a special test, action coordination of the upper and the lower limbs by a special test, hand power and the power of the back muscles by the dynamic and metric method, abdominal muscle power by a special test, concentration activity by D-2 test and the vital capacity of the lungs.

The results processes by the methods of variation and logical analysis display the following more significant facts and regularities: there are positive changes in all investigated indices, the functional ones included. They are relatively greater in the second experimental group where the accent fell on the psychological factors in physical education.

Thus, for example, the improvement

a) in reaction urgency is greater in the second experimental group with 0.15 seconds;

b) in motor sensitivity of the upper limbs - 1.76;

c) in action coordination between upper and lower limbs with 1.96 seconds and 1.86 mistakes;

d) abdominal muscles strength - 5.20 numbers;

e) back muscles strength - 6.190 kg;

f) hand dynamometrics - 2.680 kg for the right hand and 3.030 kg for the left hand;

g) even the increase of the vital capacity is by 215 cm^3 greater in the second experimental group. All changes are statistically significant.

The only exception is observed in the hand deftness and wit index - measured by a special test. The change of this index is greatest in the first experimental group.

The degree of index improvement in hand dexterity measured by Dyruf's dexterimeter is the same - 15 seconds in both groups.

The differences in the changes of the attention activity index diagnosed by Brickenkampf's D-2 test are also typical. While the value of this coefficient in the first experimental group is 9.6 and in the control group it is 18.2, in the second experimental group it goes up to 26.4 units.

The obtained results prove that to achieve purposeful professional psychic and personality effect from the physical exercises in the course of physical education it is not enough only to perform them. The psychological effect is not as strictly regular result of the very performance of the physical exercises as is the case with the functional effect. It definitely depends on the intellectual activity level and personality position of the performer. The formation of the psychological level of the orientation basis of the actions performed, the rationalization of the physical exercises performance and its motivation is of crucial importance in this respect.

These results prove the peculiarities and requirements for the application of physical exercises in labour activity in order to achieve purposeful professionally significant effect found out by Svetlana Dimitrova in 1969. They also speak of the complexity of human activities in whose process all aspects of human personality are expressed, activated and interact. That is the reason why the task and importance of a specific type of labour education, which is the main educational aim in the secondary polytechnical schools, can not be reduced only to the theoretical and practical accomplishment of the students with certain labour abilities and habits without taking into consideration the aims of the thorough formation and education of the student and without the achievement of the corresponding intellectual, recreation and personality result.

BIBLIOGRAPHY

Dimitrova S. - Some Preconditions and Modern Tendencies for Further Improvement of the Learning Process in Physical Education, "Vaprosi na fisicheskata cultura", 8/1977, 397-403

Dimitrova S., Gocheva T. - The Role of Physical Education in the System of SPTU (polytechnical Highschool as Counteraction to the Harmful Working Conditions and the Professional Preparation of Future Tailors. Collection: "Jubilee Scientific and Theoretic Conference - 30 Years of Physical Culture in Bulgaria", Publ. H. "Medicina i fiskultura", 1976.

Dimitrova S., Gocheva T.- Physical Culture and the Psychic and Professional Preparation of Future Tailors. "Profesionalno obrazovanie". 3/1975

Dimitrova S., Gocheva T. - The Place of the Lesson in Physical Education in the Formation of Professional Qualities with Pupils of the Polytechnical Schools, Collection: Scientific Conference on the Problems over the Sports Training, Publ. BSFS, 1974.

Dimitrova S. - Education of Independence and Creativity in the Learning Process of Physical Education - "Vaprosi na fisicheskata cultura". 9/1972

Dimitrova S. Psychological Problems of the Optimization of Guidance in the Learning Process in Physical Education, Publ. H.Prosveta, S.1972

ДИНАМИКА УРОВНЯ ПРИТЯЗАНИЙ И ЕЕ ЗНАЧЕНИЕ В ДИАГНОСТИКЕ ПСИХИЧЕСКОЙ ПОДГОТОВКИ СПОРТСМЕНА К СПОРТИВНЫМ СОРЕВНОВАНИЯМ

ГРАЧ,Я., Познань, Польша

Диагноз психической подготовки спортсмена к спортивным соревнованиям вмещает оценку множества психических диспозиций. Среди этих диспозиций особого внимания заслуживает комплекс мотивационно-эмоциальных процессов (нужды, мотивы - мотивация, эмоций). Эти процессы определяемые как движущие силы влияют на уровень целей личности (уровень притязаний), обусловливают силу стремления для осуществления этих целей а также решают о значении относительно самооценки собственного действия (эмоций успеха или поражения). Успех или поражение предопределяют уровень следующего планирования относительно результата какого спортсмен надеялся добиться в последующих соревнованиях. Это планирование возможно считать индексом динамики уровня притязаний, которая проявляется в:

1) модификации уровня притязаний под влиянием прежних успехов и поражений,
2) устойчивости тенденции поддерживания определенного уровня притязаний.

Чтобы приблизить сущность измерения динамики уровня притязаний, автор желает представить часть исследований произведенных на 50-ти рекордовых бегунах относящейся к зависимости возникающей между динамикой уровня притязаний, а такими индексами эмоциональной невосприимчивости, как то невротичность и уровень боязни. Из них вытекает:

1. Большая лабильность уровня притязаний а также низкая оценка собственных возможностей у невротиков с высоким уровнем боязни.
2. Среди соревнователей с посредственным и низким уровнем невротичности и боязни делается наглядной тенденция к стабилизации уровня притязаний, а также отсутствие сильной реакции на неудачи.

Результаты могут подтверждать гипотезу о зависимости между динамикой уровня притязаний и ходом некоторых эмоциональных процессов у спортсменов.

Выводы возникающие из представленного материала можно сформулировать следующим способом:

1. Динамика уровня притязаний является признаком на столько постоянным ,что можно ее применить к описи психической подготовки спортсмена. Это истекает из факта, что каждый спортсмен выражает свой уровень притязаний, как функцию определенных черт характера, самооценки или наконец эмоциональной устойчивости.

2. Познание динамики уровня притязаний спортсмена позволяет принять соответственные мероприятия в цели приспособительной модификации уровня притязаний. Это познание создало бы условия для благоприятного образования мотивационно-приспособительной системы способствующей получить психическую готовность к спортивным соревнованиям.

ЛИТЕРАТУРА:

1. Atkinson J., Badania nad motywacja osiagnieć. Psychologia Wychowawcza 1960, Nr.2
2. Daszkiewicz O., Metodika isledowanija emocjonalnych sostojanij sparsmiena w uslowijach upravljajemowo eksperimenta modelirujuszczjewo djejatielnost. Teoria i Praktika Fiziczeskoj Kultury 1974, Nr.1.
3. Fraisse P., Pdrecznik ćwiczeń z psychologii eksperymentalnej, PWN, Warszawa 1960.
4. Frank I.D., Individual differences in certain aspects of the level of aspiration. American Journal of Psychology 1935, Nr.47.
5. Gracz J., Poziom aspiracji a lek specyficzny i sprawność fizyczna studentow wychowania fizycznego. Roczniki Naukowe AWF w Poznaniu, z.22, Poznan 1973.
6. Hošek V., Lek i możliwość jego opanowania u sportowców wysoko kwalifikowanych. Teorie a Praxe Tělesné Výchovy 1968, Nr.7.
7. Karolczak-Biernacka B., Skrzypek-Siwinska E., Pomiar leku specifycznego u zawodnikow wysoko kwalifikowanych, Wychowanie Fizyczne i Sport 1969, Nr.4.
8. Kemmler R., Psychologisches Wettkampftraining. BLV Leistungssport München, Bern, Wien 1973.
9. Obuchowski K., Modele i typy przystosowania psychicznego. Zeszyty Naukowe UAM Poznan 1961, Nr.5.
10. Skorny Z., Mechanizmy ksztaltowania sie poziomu aspiracji i jego wykorzystanie w praktyce. Psychologie Wychowawcza 1971, Nr.1.

KREATIVITÄT IM HOCHLEISTUNGSSPORT

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Der moderne Hochleistungssport kommt an vielen Stellen an die Grenzen seiner Möglichkeiten. Wenn er nicht Gefahr laufen will, zu einem ausgehöhlten Forum von Gladiatoren zu werden, müssen vielfältige Prozesse in Gang gesetzt werden, dies zu verhindern. Die Stagnation bedeutet den Tod der betreffenden Sportart.

Die immer wiederkehrende Faszination des Fussballspiels zum Beispiel beruht nicht unwesentlich auf der Vitalität dieses Spiels, das sich ständig von innen heran verändert, umstrukturiert und erneuert.

So bedarf es im Hochleistungssport eines Problemlöseverhaltens und kreativer Strategien, durch die ständig nach neuen Wegen im Entwicklungsprozess gesucht wird.

Diese kreativen Prozesse haben die bisherige Entwicklung genauestens zu analysieren und müssen Möglichkeiten einer Veränderung im Sinne einer Verbesserung oder einer Umstrukturierung eröffnen.

Kreativität im motorischen Bereich kann demnach als die Fähigkeit definiert werden, neue Bewegungsformen zu finden, aber auch als die Fähigkeit, eine zweckdienliche Zusammenstellung von Bewegungen, die bereits zum Repertoire gehören, in ein anderes, strukturiertes Modell zu ermöglichen.

Diese Weiterentwicklung und Umstrukturierung von einzelnen Bewegungsmustern, aber auch ganzer Bewegungssysteme kann sich nicht nur auf die Bewegungsausführung des Einzelnen beziehen, sondern muss auch die Rahmenbedingungen zu ändern in der Lage sein. So können im Hochleistungssport kreative Prozesse im technomotorischen, taktischen, materialtechnischen, trainingstheoretischen, sportwissenschaftlichen und regelkundlichen Gebiet liegen.

Diese Feststellung zeigt aber ganz eindeutig, dass nur in Ausnahmefällen der Athlet in der Lage sein kann, kreative Veränderungsprozesse selbst durchzuführen.

Noch weniger aber haben sportexterne Gruppen oder Personen die Möglichkeit auf die Bedürfnisse des Sports und des Sportlers einzugehen, um kreative Prozesse anzustossen. Dem Trainer kommt hier eine zentrale Bedeutung zu. Er strukturiert den Trainingsprozess und weiss daher, wo die Grenzen liegen, aber auch wo Bereiche sind, in denen noch Entwicklungsreserven ausgeschöpft werden können. Er entwickelt die taktischen Systeme und Varianten und erfährt deren Wirksamkeit. Er kennt die Anforderungen an Material, Wettkampfbedingungen und Athlet. Er weiss um die Entwicklung in seiner Sportart. Daher überblickt er auch am besten die Entwicklungschancen.

Ein Trainer wäre aber überfordert, wollte er die kreativen Prozesse allein lösen. Hier sollte er sich der Fachleute vergewissern, die aus ihrer "sportfremden" oder "praxisfernen" Sicht nicht so sehr in der "Fachblindheit" verhaftet sind. in dieser Konfrontation und Kombination von sportartspezifischer Erfahrung und wissenschaftlichem oder technischen knowhow liegt jenes fruchtbare Anregungsmilieu, das benötigt wird, um mit andersartigen Strategien die sportspezifischen Probleme zu lösen. Der Sport benötigt die Hilfe von ausserhalb, um nicht zu stagnieren.

Dies bedeutet jedoch nicht, dass nur noch auf diesem Weg kreative Veränderungsprozesse möglich sind. Die sportimmanenten kreativen Prozesse werden auch in Zukunft eine entscheidende Rolle spielen müssen.

Als Beispiel ein Sportimmanenten kreativen Entwicklung möchte ich die technische Fortentwicklung des Kunstturnens heranziehen. Im Training entstanden und entstehen auch der Kombination erlernter Elemente und aus dem Zwang grössere Schwierigkeiten präsentieren zu müssen, Bewegungsverbindungen, die in ihrer Komplesität und Neuheit herausragen. Bei jeder neuen Weltmeisterschaft werden wir mit solchen Kombinationen überrascht. Als Beispiel möge die Radochla-Felge dienen. Fosbury-Flop, O Brian-Technik sind Marksteine in der Leichtathletik.

Als Beispiel für die kreative Entwicklung taktischer Systeme sei hier an die Bildung unterschiedlicher Spielstrukturen im Fussballspiel erinnert. Schweizer Riegel, 4-2-4 System, die Einführung des Libero oder die Rolle der Vorstopper sind solche kreative Lösungsprozesse, die in der Konfrontation mit bisherigen Strategien eine andersartige Bewältigung der Situation versuchten.

Im Eiskunstlauf werden unterschiedliche Laufstile sichtbar. Nach der mehr läuferisch orientierten Phase wurde durch die Propopotova eine mehr rhythmisch-tänzerische eingeleitet, Rodnina/Ulanov bevorzugten den stärker sportlichen Stil, während sich jetzt immer stärker die akrobatische Variante durchsetzt. Auch hier wird ein kreatives Verhalten sichtbar. In der Umzentrierung der Formen wird eine neue Schwerpunktsetzung erreicht, die sich auf die weitere Entwicklung auswirkt.

Sehr systematisch hat sich die Sportindustrie mit der Entwicklung im Skilauf befasst. Neben der Fortenwicklung der Skitechnik hat der Einfluss der unterschiedlichen Materialien den Skilauf beeinflusst. Aus der Luftfahrt- und Weltraumtechnik wurden verschiedene Legierung adaptiert, im Windkanal die unterschiedlichen Eigenschaften von Textilien getestet, in Labors die Möglichkeiten der Belastbarkeit von neuen Materialien und Formen erprobt. All diese Technologien beeinflussen reziprok die Skitechniken und die Leistungen.
Durch die Einbeziehung psychologisch wirksamer Regulationstechniken der Desensibilisierung und des Mentalen Trainings wurden bei den Skifliegern enorme Leistungsfortschritte erzielt.

Durch biomechanische Analysen wurden im Skisprung optimale Wirkverhältnisse beim Abflug ermittelt und unmittelbar in die Trainings- und Wettkampfsituation rückgekoppelt. [1)]

Durch psychotechnische Prüfungen des Tremors, des Abzugverlaufes und der Stabilisierung der Waffe konnten wichtige Erkenntnisse für die Betreuung von Sportschützen gewonnen werden. [1)]

Durch die systematische Analyse des Trainings- und Wettkampfgeschehens und die darauf folgende Modellierung des Trainings (Trainingsplanung) wird eine stärkere Beachtung der persönlichen Eigenarten des Athleten eine kreative Aufgabenfindung notwendig machen. [1)]

Die medizinische und biomechanische Aufklärung verschiedener Stoffwechselfragen verlangen eine Umorientierung in der Trainingspraxis. Bisher übersehene oder wenig genutzte Bereiche können vermehrt zur Leistungsentwicklung beitragen. [1)]

Die wenigen Beispiele einer kreativen Arbeit müssen hier genügen, das Problem aufzuzeigen. Wichtig erscheint, dass erst durch eine optimale Zusammenarbeit aller im Trainings- und Wettkampfprozess Beteiligten noch viele Möglichkeiten kreativer Entwicklung eröffnet, die der Sport benötigt, seine Bedeutung und Wirkung zu behalten.

Literaturverzeichnis:

GUILLON, F./GUILLON, A. Sport et creativite Paris 1975

HAHN, E. Problema creativitatii in sport. in EPURAN (Hrsg) Psihologia si sportul contemporan, Bukarest 1974, 358 - 375

LAWTHER, J.D. Movement individuation, motor pattern learning and crativity. KENYON/GROGG: Contemporary psychology of sport, Chicago 1970, 623 - 632

SHAPIRO, D.C./NEWELL, K.M. Variability of practice and transfer of training LANDERS (Hrsg) Psychology of sport and motor behavior, Pennsylvania State University 1975, 359 - 368

1) Aus laufenden Forschungen des Bundesinstitutes für Sportwissenschaft in der Bundesrepublik Deutschland.

STRESS UND STRESSBEWÄLTIGUNG IM HOCHLEISTUNGSSPORT

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1. Der Begriff "Stress" hat seit der Wissenschaftlichen Diskussion der Problematik nach SEYLE eine starke Differenzierung erfahren. So kann Stress auf der einen Seite als allgemeiner Innervationszustand gesehen werden, der in jeder Konfrontation (CANNON, STAGNER, SHAPIRO) sichtbar wird, der sogar für die Bewältigung der Situation notwendig ist (SCHÖLER, KREBS), um die Entwicklung zu garantieren.

   Hier in diesem Beitrag sollte Stress jedoch in der verengten Sichtweise definiert sein: Stress als zu stark von aussen einwirkende Kräfte und Bedingungen, die das Subjekt belasten (ROGGE), zu Überforderung führen und mit Fehlreaktionen beantwortet werden.

   In einem Bild von UDRIS werden Bedingungs- und Wirkungsfaktoren aufgelistet.

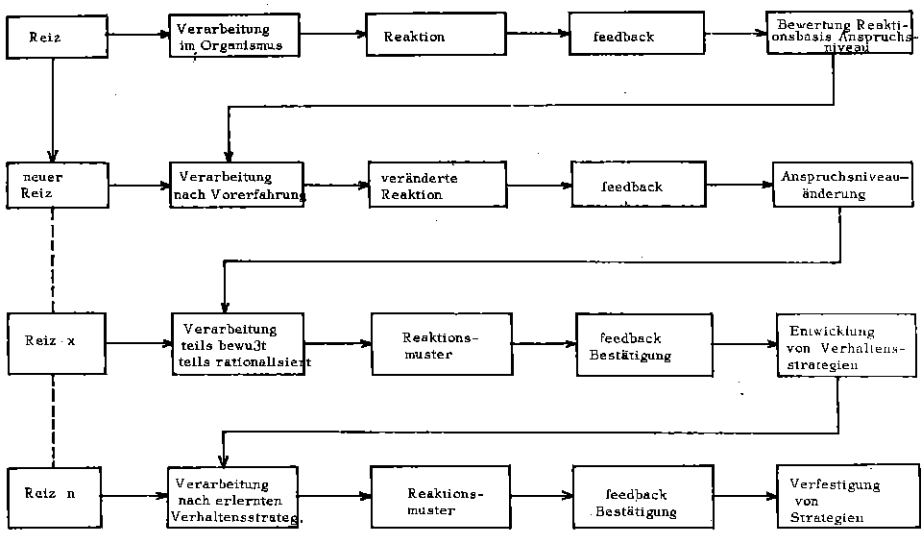


Bild 1

Diese Überbeanspruchung wird nicht nur mit einer physiologischen (messbaren) Veränderung im Organismus beantwortet, sondern auch durch Einstellungsänderung, Motivationsverlust und geringere Reaktionsbereitschaft. Diese Veränderungen im mehr psychologischen Bereich laufen teils unbewusst ab und verdrängen die mehr rationale Aktionsbasis zugunsten einer eher emotionalen.

Erschwerend kommt noch hinzu, dass auf die gleiche Situation unterschiedlich reagiert wird und recht verschiedene Umorientierungen erkennbar werden. Moti-

vation und Einstellung zur Aufgabe werden zum Selektionskriterium für die Richtung des Bewusstseins und zum Induktionsmechanismus für den Grad der psychophysischen Mobilisation.

2. Die Lernpsychologie und die klinische Psychologie zeigen die Entwicklung fehlerhafter Verhaltensmuster und -strategien auf. In der Internalisierung des Verhaltens werden jene emotionalen Handlungskomponenten verstärkt, die zur Absicherung der eigenen Identität führen. Die kognitiven Elemente der differenzierten Wahrnehmung, der Schlussfolgerung und der Planung treten zurück.

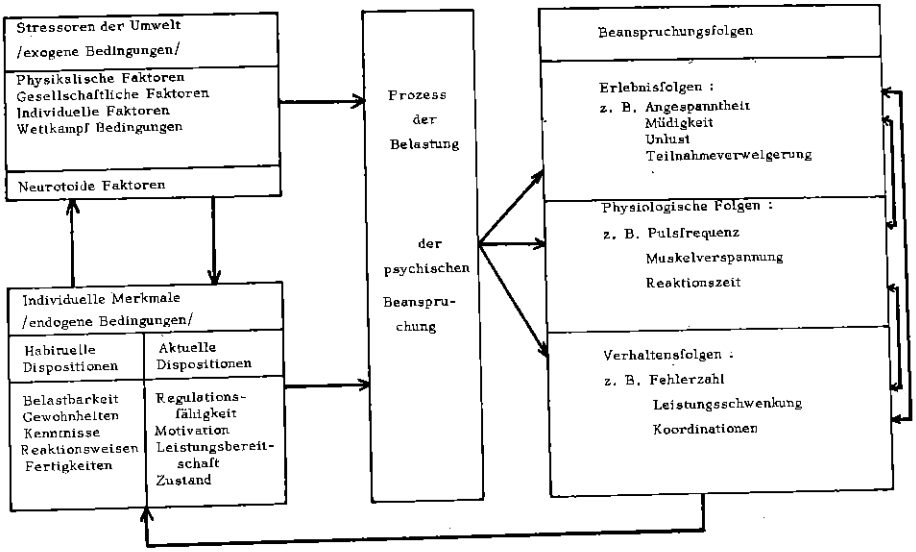


Bild 2 Entwicklung von Verhaltensstrategien

Durch diese ellernten fehlerhaften Handlungsstrategien, die ab einer gewissen Habitualisierung, zwanghaft, oft rituell ablaufen und eine echte rationale Bewältigung der Aufgabenstruktur unterbinden, kann eine völlige Erholung und Rückkehr auf die natürliche Ausgangsbasis nicht stattfinden. Das homöostatische Gleichgewicht wird verschoben, eine nicht mehr regulierbare Spannung bleibt erhalten.

Je weniger in Belastungssituationen die Bewältigung gelingt, desto eher werden neue und ähnliche Stresssituationen inadäquat beantwortet, umso mehr steigt die Tendenz einer fehlerhaften Beantwortungsstrategie bei Überlastungssituationen. Solche Tendenzen, die meist Zwangscharakter tragen, können bis zu neurotischen Verhaltensauffälligkeiten führen. Diese fehlerhaften Handlungsstrategien können auch als Antizipationsmechanismen beschrieben werden, die nicht die Handlung vorwegnehmen, sondern die Konsequenzen von Handlungen und ihre möglichen Auswirkungen bewältigen und eine Verminderung des Druckes bewirken sollen. Athleten mit starken Misserfolgsvermeidungstendenzen neigen häufiger dazu, solche Strategien zu entwickeln.

Aufgrund des veränderten Gleichgewichts sinkt die allgemeine Stressschwelle ab, Fehlverhalten tritt häufiger auf, die Erschöpfungsschwelle wird früher überschritten. Es kommt in den wichtigen Wettkampfsituationen zu verminderten Leistungen.

3. Ein optimale Spannungs- und Erwartungszustand ist gekennzeichnet durch kognitive Züge der hohen Konzentration und der adäquaten Situationseinschätzung, durch emotionale Züge des Kampfgeistes und des Siegeswillen und durch Verhaltenszüge der zielgerichteten Motivation und kanalisierten Einstellung auf die Aufgabe.
   Dadurch wird eine optimale muskuläre Bereitschaft erzeugt, die den bestmöglichen Vorstartzustand entwickelt. Dieser optimale Spannungszustand ist eine erhöhte Reaktionsbereitschaft, ohne Phänomene einer Überbelastung zu induzieren. Die kognitiven Elemente der Antizipation müssen ein Übergewicht vor den emotionalen Erwartungszügen aufweisen.

4. Im normalen Training von Technik und Taktik einer Sportart wird davon ausgegangen. dass durch eine verstärkte Leistungsentwicklung auch eine psychische Stabilisierung entwickelt wird, die einen optimalen Spannungszustand erreichen lässt.
   Schon im Training können durch fehlerhafte Inhalte oder durch falsche Dosierungen die Grundlagen für eine schlechte psycho-physische Mobilisation gelegt werden. Überzogene Leistungserwartungen und fehlerhafte Einstellungen verändern zusätzlich den Vorstartzustand.

5. Systematisches Training allein garantiert noch nicht die richtige Vorbereitung. Nach GERON gibt es die psychische Entfaltung, die im Training beiläufig geschieht, die aber nur zufällig den richtigen Grad und die gewünschte Intensität erreicht, die psychische Entwicklung, die bestimmte Formen vergibt und die psychische Vorbereitung, die als systematischer Lernprozess das psychische Verhalten modelliert, kontrolliert und reguliert.

6. Stressreduktion und Stressbewältigung ist ein Trainingsinhalt dieser psychischen Vorbereitung. Sie können als verhaltenstherapeutische Prozesse im Sinne einer Psychoregulation, aber auch als lernpsychologische Prozesse im Sinne eines Verhaltensaufbaus gesehen werden.
   Da die Mechanismen zur Bewältigung von spezifischen Überlastungssituationen individuelle Reaktionsmuster sind, die erlernt wurden, können durch spezifische gegenkonditionierende Lernprozesse diese Mechanismen abgebaut bzw. verändert werden.
   An erster Stelle steht die psychodiagnostische Beurteilung der Reagibilität des Athleten und der Abschätzung des Vorwettkampf- und Wettkampfverhaltens, um mögliche Reaktionsmuster und fehlerhafte Handlungsstrategien zu erkennen.

   Dies muss zur Basis eines psychologischen Trainingsplanes gemacht werden, der in enger Verbindung zum allgemeinen Trainingsplan zu entwickeln ist.
   In diesem Trainingsplan müssen aufgrund der individuellen Analyse klare Ziele formuliert, bestimmte Vorbereitungsetappen angesetzt und vielfältige Kontrollen eingebaut werden. So nur ist die zielgerichtete psychische Vorbereitung zu realisieren.

7. Folgende Inhalte sind zu konkretisieren, um eine verbesserte Wettkampfeinstellung zu erreichen und Stressreaktionen im Wettkampf abzubauen.

- Kontrolle des neuro-vegetativen Spannungszustandes. In Desensibilisierungstechniken (wie autogenes Training, progressive Relaxation, bio feedback, Yoga, Transzendentale Meditation u. ä.) kann diese Kontrolle erreicht werden. Der Athlet erlernt autoregulative sich zu entspannen, die Spannung je nach Erregungs- oder Erschöpfungsgrad zu regulieren und sich selbständig auf ein Ereignis vorzubereiten. Der Trainer hat die Möglichkeit, den Spannungszustand bei den Athleten zu kontrollieren und individuell und situativ zu dosieren. Dies ist jedoch nur möglich, wenn ein bewusstes, zielgerichtetes Training dieser Desensibilisierungstechnik durchgeführt wird.
- Veränderung des eher emotional gesteuerten Vorstartverhaltens auf eine stärker kognitiv ausgerichtete Wettkampfantizipation. In den Sensibilisierungstechniken (Mentale Vorbereitung, Konzentration, Relaxation - Aktivationsmethode, Aktivtherapie) soll eine zielgerichtete Steuerung der Aktivität über die geistige und gedankliche Zentrierung auf den Wettkampf erreicht werden. Auch dieser Teil der psychischen Vorbereitung geht nur über ein zielgerichtetes Training. Mentales Training ist somit nicht nur ein gedankliches Vorstellen von Bewegungen, sondern das systematische Erlernen der Vorstellungstechnik.
- Die realistische Anpassung der Leistungs- und Verhaltensziele an die konkrete Situation. Diese zielgerichtete Vorbereitung auf den Wettkampf schliesst alle situativen und aktuellen Fragen ein und werden als gezieltes Coacsystem verstärkt auch internale Faktoren der Stressregulierung einbeziehen.
- Die psychotherapeutische Desensibilisierung von manifesten Belastungszuständen (z. B. Angstgegnern) will in einem systematischen Training Verhaltensweisen entwickeln, die eine variable Reaktionsbasis entwickeln hilft, von der aus blockierende Faktoren nicht mehr auftreten.

8. Systematische Stressbewältigung im Hochleistungssport ist nur zu realisieren, wenn aufgrund diagnostischer Analysen ein systematischer Trainingsprozess beginnt, der beim Athleten eine Kontrolle der Spannungszustände ermöglicht und die Möglichkeit eröffnet, regulativ in die Einstellungsstruktur einzugreifen.

Literaturverzeichnis:

CANNON, W.B., Bodily changes in pain, hunger, fear and rage, New York 1929

GERON, E., Methoden und Mittel zur psychischen Vorbereitung des Sportlers, Schorndorf 1975

HAHN, E., Psychische Belastbarkeit und Stress im Sport, in RAUSCH (Hrsg) Orthopädie und Sport, Bruchsal 1977, 95 - 104

KREBS, G.E. Towards a theory of psychological stress, Diss. Abstr. 1970,3373 B

ROGGE, K.E. Steckbrief der Psychologie, Heidelberg 1971

SCHÖLER, H. Über Beziehungen zwischen subjektivem;Stress und Persönlichkeitsmerkmalen. Freiburg 1972

SEYLE, H. The stress of life, New York 1956

SHAPIRO, D./LEIDERMAN, P.H. Psychological approach to social behavior, Stanford 1964

STAGNER, R. Homeostasis as a unifying concept in personality psychology, Psychol. Review, 58/1951, 5 - 17

UDRIS, I. Beanspruchungserlebnis und Persönlichkeit, Zürich 1974

STRESSBARRIEREN IN DER FRÜHEN KINDHEIT UND IHRE PSYCHOMOTORISCHE BEHANDLUNG

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1. Die Bewegungsfähigkeit und die Bewegungsbereitschaft werden durch zwei Faktoren limitiert:
   - die neuro-physiologische Struktur des Bewegungsapparates und
   - die psycho-soziale Bedeutung der Bewegung und des Bewegungsverhaltens.

   Ausgehend von einem Bedürfnis nach Bewegung, von einer psycho-motorischen Triebstruktur und einem unstrukturierten Tätigkeits- und Bewegungsdrang ist die realisierte Bewegung immer eine Handlung, die von der sozialen Gesellschaft ihre Bedeutung erhält und in sie hineinreicht (GRUPE).

   So wie in verschiedenen Kulturen und Weltanschauungen der Wert der Bewegung unterschiedliche Valenz besitzt, so erfährt sie auch im mikrosozialen Sozialisationsfeld unterschiedliche Beurteilung.

   Da Bewegung auch Kommunikations- und Interaktionscharakter besitzt, wird Bewegung zu einem der wesentlichen Weltbewältigungsmuster des Kindes. Mit zunehmender Verselbständigung und Emanzipation des Kindes werden positiv besetzte Bewegungsmotivationen (Expansionsdrang, Risikobereitschaft, Materialerfahrung) verstärkt zur Umwelt- und Situationsstrukturierung benötigt. Negative Bewegungslimitierungen (Angst, Aversion, motorische Einengung, geringe Lernbereitschaft) führen zu einer Konfrontation in der sozialen Gemeinschaft.

2. Motorisches Verhalten wird immer an einer sozialen Norm gemessen und bewertet. Je weiter das Verhalten von der Norm abweicht, um so grösser sind Verhaltensauffälligkeiten (BELSCHNER).

   Im Bereich schwach ausgeprägter Motorik wird man von motorischen Defiziten, motorischen Frustrationen oder motorischen Behinderungen sprechen.

   Abgesehen von den wirklichen neurophysiologischen und biochemischen Behinderungen, die als Krankheiten des Organismus anzusehen sind, sind die meisten motorischen Behinderungen psychosozialer Art. Bei langandauernder Schwierigkeit ist die Konversion in körperliche Defizite wahrscheinlich. Aus Behinderungen werden irreversible Schäden.

   Um motorisches Fehlverhalten im Sinne einer psychosozialen Störung zu therapieren, ist vor allem das internale Verhalten zu kontrollieren.

   Neben den kognitiven Verhaltensweisen (den Prozessen der Wahrnehmung, der Schlussfolgerung, der Antizipation) sind vor allem die emotionalen Faktoren (Angst, Risikoverhalten, Selbstvertrauen, Aggressivität) zu beobachten.

   Gestörtes Bewegungsverhalten ist daher auf mangelnde Ausprägung kognitiver und/oder emotionaler Faktoren zurückzuführen oder auf die Diskrepanzen zwischen beiden Bereichen.

3. Zur Erklärung solcher Störungen können einige sozialpsychologische Modelle herangezogen werden:

   - Beim Imitations-Lernen (Modell-Lernen: BANDURA) werden Verhaltensweisen der

Modelle beobachtet und nachgeahmt, die in enger emotionaler Beziehung zu dem Lernenden stehen. Bei Kindern sind diese Modelle vor allem Personen des Nahraumes.

Die Lerneffekte sind um so grösser, je häufiger eine Verhaltensweise beim Modell auftritt und je stärker diese Verhaltensweise typisch für das Modell ist.

So werden geringe Bewegungsmotivationen von den Bezugspersonen ebenso erlernt wie ein reduziertes Bewegungsrepertoire und wie die Angst vor expansiven und exzessiven Bewegungen.

- In der Beurteilung des Verhaltens des Kindes werden allgemeine Massstäbe , soziale Normen und Vergleiche mit anderen herangezogen. Danach wird dem Kind motorische Ungeschicklichkeit oder motorisches Fehlverhalten zugeschrieben. In diesem Etikettierungsprozess wird das Kind in einer Weise abgestempelt, dass es kaum möglich ist, dieses Etikett loszuwerden. Es wird zum zentralen Merkmal der Person, auf das sich die Umwelt einstellt und immer wieder gleichartig reagiert.

  Besonders Eltern, die die eigenen Unzulänglichkeiten vor den Kindern verbergen wollen, etikettieren häufig das imitierte Verhalten der Kinder mit negativen Vorzeichen.

  Je labiler die Kinder sind, desto stärker wird das Etikett zur Maxime eigenen Handels. Aus etikettiertem Verhalten wird schliesslich ein motorisches Defizit.

- Sehr nachteilig für das Kind wirkt sich das Phänomen der Doppelbindung auf sein Verhalten aus. Kognitive Anweisungen und emotionale Bekräftigung sagen nicht das gleiche aus. Das Kind befindet sich in einer Beziehungefalle (WATZLAWICK). Die Aufforderung "Gib je acht, wenn du spielst" beinhaltet zwar eine Aufforderung zum Spiel, unterbindet es gleichsam. Das Kind wird in eine Zwangssituation gebracht, aus der es nicht herauskommt. Es reagiert mit zwanghaft-ängstlichen, mit linkisch-ungeschicktem oder mit selbstunsicherem-zurückziehendem Verhalten. Es wird mehr Angst vor der Bewegung induziert als echte motorische Anreize gegeben.

4. Eine erschreckend hohe Zahl unserer Kinder kommt heute mit Haltungsschwächen und Bewegungsbehinderungen zur Schule. Mit diesen Defiziten sind sie nicht geboren worden. Durch fehlerhafte Lernvorgänge in der frühen Kindheit wurde kein natürliches, normgerechtes Bewegungsverhalten erlernt. Die Kinder beantworteten dabei nur die Reizsituationen, wie sie von den Eltern und der Umwelt dargeboten werden.

   Im Bewusstsein dieser Kinder hat sich schon sehr frühzeitig eine Interessenvereindeutigung stattgefunden, die für motorisches Verhalten nur wenig Raum bietet.

   Wenn umgekehrt ein motorisch anregendes Milieu motorische, aber auch sportliche Leistungsentwicklungen ermöglicht, so sind beim motorisch frustierten Kind bereits Zeichen einer verminderten Leistungsbereitschaft sichtbar.
   Vor allem in der Anforderung in der sozialen Gruppe (z.B. Sportunterricht der Schule) wird das Bewegungsverhalten erschwert. Durch die von Mitspielern,

Lehrern oder Trainern gesetzte Normen führen zu neuerlichen Etikettierungen des schlechten motorischen Verhaltens. Ermunternde Anweisungen werden als Beziehungsfalle erlebt, das Bewusstsein der Schwäche verstärkt sich weiter.

So erlebt das Kind der Vor- und Grundschule bereits Stressphänomene im Sinne der Überbelastung. Nicht selten beobachten wir Kinder, die vor dem Sportunterricht eine solche Angst besitzen, dass typische Zeichen krankhafter Veränderungen auftreten.

Sekundärsymptome wie soziale Minderwertigkeitsgefühle, Regression oder Aggression, Scheu, Isolation oder Evasion erschweren zusätzlich das normgerechte motorische Verhalten.

5. Haltungsschwäche und verminderte körperliche Leistungsfähigkeit sind somit nicht Ursache, sondern das Ergebnis von psychischen Defiziten, sozialen Behinderungen und sozialisationsbedingten Barrieren.

Haltungsschwäche ist das Ergebnis falscher Lernprozesse, das Resultat einer fehlerhaften Einstellung zu Bewegung, Spiel und Sport.

Da das Kind die motorische Bewegung in der sozialen Gruppe scheut, um nicht seine Schwierigkeit zu offenbaren, muss jede geforderte exzessive Bewegung als Überlastungsphänomen angesehen werden.

Dadurch bedingt erlebt das Kind die Anforderung als nicht zu bewältigende Aufgabe, es versucht, sie zu vermeiden. So wird systematisch die Tendenz verstärkt, Misserfolge zu vermeiden und Anstrengungen zu scheuen. Die Gefahr der Entwicklung einer negativ orientierten Leistungsmotivation ist gegeben.

Ähnlich verhält es sich mit der Machtmotivation. Das Kind muss ständig seine eigene Unterlegenheit im Kontakt mit Gleichaltrigen erkennen. Minderwertigkeitsgefühle werden eher verstärkt.

So wird die Haltungsschwäche zu einem Syndrom, das mit Massenahmen einer nachholenden Erziehung (ein Mehr an Bewegungseinheiten) nicht zu lösen ist.

Schulsonderturnen muss mehr den Charakter einer emanzipatorischen Erziehung erhalten. Hier muss vor allem die Problemlage des Kindes erkannt und in die didaktische Unterrichtskonzeption eingebaut werden.

6. Folgende Formen einer Unterrichtung motorisch Frustierter sind zu realisieren:

- der motivationsorientierte Ansatz:
  Beim Kind müssen Unlust und Angst abgebaut werden, um ein normales Verhalten zu den Bewegungsangeboten zu erreichen. Das Ziel muss eine Erlebnissteigerung und eine Kooperation in der Kleingruppe sein.
  Ausgehend von den vorhandenen Bewegungs- und Leistungsmustern werden solche Angebote in den Mittelpunkt gestellt, die Erfolgserlebnisse den frustierten Kindern verschaffen können. Dabei muss vor Spielformen zu Leistungsformen vorangeschritten werden.
- der kreativitätsorientierte Ansatz:
  Bewegungsangebote sollten als echte Problemlösungsaufgaben gestellt werden. Die Verschiebung des Bewusstseins auf die geistige Bewältigung setzt Kräfte frei und richtet die Gedanken vom motorischen Vollzug weg, hin zu einem mehr

mentalen Erfassen von Situationen. Die Aufgabe reicht nicht in den von der Norm vorgegebenen Raum hinein, der defitiär erlebt wird, sondern es werden eigenschöpferisch und gestaltend Formen entwickelt, die zur Stabilisierung der Persönlichkeit entscheidend sein können. Die Lösung der so gestellten Aufgaben wird über die Erfolgsrückmeldung zu einem entscheidenden Meddum der Veränderung.

- der soziotherapeutische Ansatz:
  Da Behinderungen im motorischen Bereich sozial bedingt sind und soziale Deprivation nach sich ziehen, muss in erster Linie eine sich verstärkende Fähigkeit der Interaktion und Kommunikation geschaffen werden. In Kleingruppen sind in spielerischer Form Bewegungsangebote zu entwickeln, die soziodrematisch, verhaltenstheurapeutisch oder "client centered" die Problemfelder der motorischen Frustration aufdecken und spielerisch abreagieren. In der "Kartharsis" erlebt das Kind ein anderes Verhältnis zur eigenen motorischen Formung und lernt, Bewegungen situationsangepasster und expansiver zu entwickeln.
- der spielerisch-interaktionistische Ansatz:
  die Verminderungen des Bewegungsrepertoires ist durch die Orientierung an die ökonomische Form, durch die Beurteilung nach der allgemeinen Norm und durch die Vergleichbarkeit in der sozialen Gruppe auch dem bewegungsgehemmten Kind deutlich.
  Im Spiel sind solche inhaltlichen Rollen zu finden, die das gehemmte Kind auch mit dem verminderten Bewegungsvermögen erfüllen kann. In der Identifizierung mit und durch die eigene Rolle kann so das Kind über seine eigene Bewegungsmuster hinauswachsen und unbewusst neue Verhaltensmuster gewinnen. Durch die Umorientierung von der Konzentration auf die Bewegung auf die Erfüllung der Rolle wird dem Kind die Defizienz nicht bewusst, da die Interaktion in der Gruppe und in die Gruppe im Vordergrund steht. Duren die Multilateralität des Spiels werden nur bedingt die eigenen Bewegungsstrukturen bewusst, die Interaktion bleibt der zentrale Regler des motorischen Geschehens.

Literaturverzeichnis :

BANDURA, A. /ROSS, D./ ROSS, S.A.: Imitation of film-mediated aggressive models. Journ.abnorm.a.social Psychol.66/1963, 3-11

BELSCHNER, W./HOFFMANN, H./SCHOTT,F./SCHULZE, CH.: Verhaltenstherapie in Erziehung und Unterricht, Stuttgart 1973

GRUPE, O. :Was ist und was bedeutet Bewegung ?
in: HAHN/PRESING (Red.) Die menschliche Bewegung - Human Movement Schorndorf 1976, 3-20

HAHN, E. Bewegungsentwicklung und Bewegungsbarrieren
in: STÜBING/TREESS: Sporterziehung im Vorschulalter -München 1975, 153-175

ULLMAN, L.P./KRASNER, L.: A psychological approach to abnormal behavior Englewood Cliffs, 1969

WATZLAWICK, P.: BEAVIN, J.H./JACKSON, D.D.: Menschliche Kommunikation Bern 1969

ZUR PROBLEMATIK SPORTSPEZIFISCHER MESSMETHODEN DER KINÄSTHESIE

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1. Kinästhesie in der sportwissenschaftlichen Forschung

Die Relevanz der kinästhetischen Wahrnehmung für den Erwerb und Vollzug sensomotorischer Fertigkeiten wird in den sportwissenschaftlichen Publikationen, die diesen Forschungsgegenstand thematisieren, stets betont (z.b. SCOTT, 1955; WIEBE, 1954; SAGE, 1971; SINGER, 1972; CRATTY, 1975; WILLERT, 1977). Es besteht jedoch ein Missverhältnis zwischen theoretisch postulierten Aussagen über die Bedeutung dieses Wahrnehmungsapparates und objektivierten, empirisch abgesicherten Ergebnissen. Wie FETZER/VOLKAMER/BEDENBECKER (1976, S.124) feststellen "....steht man diesem Wahrnehmungsapparat etwas ratlos gegenüber und weiss nicht recht, wie diese grosse Bedeutung denn nun auch mit objektiven Daten nachzuweisen sei. Man beteuert mehr als man konkret aufzeigen kann."

Andererseits kommt WILLERT zu sehr konkreten Ergebnissen in einer Grossuntersuchung (N = 1800) mit 7- bis 16-jährigen Schülern. Er stellt u.a. fest, dass die kinästhetische Wahrnehmung bei über den Schulsport hinaus sporttreibenden Kindern besser ausgeprägt ist als bei nicht zusätzlich sporttreibenden Schülern; des weiteren weisen Kinder mit besseren Sportnoten bessere Kinästhesie-Werte auf als Kinder mit schlechteren Sportnoten. Leider fehlen in der Arbeit WILLERTs Angaben zu statistischen Parametern bezüglich der Signifikanz der Gruppenunterschiede sowie Hinweise auf die Testgütekriterien der zur Messung der Kinästhesie verwendeten Items.

In der Tat liegt das wesentliche Problem von Arbeiten zur Kinästhesie im messtheoretischen bzw. messtechnischen Bereich. Es ist anzunehmen, dass die zahlreichen, sich häufig widersprechenden Ergebnisse vorwiegend aus dem anglo-amerikanischen Sprachraum dadurch zu erklären sind (vgl. CRATTY 1975). Einmal unterscheiden sich die diesen Arbeiten zugrundeliegenden Definitionen der Kinästhesie bezüglich ihres Umfangs beträchtlich und lassen einen Vergleich der Ergebnisse nur bedingt zu, zum anderen entsprechen die zur Messung der kinästhetischen Wahrnehmung verwendeten Bewegungsaufgaben grösstenteils nicht den räumlichen, zeitlichen und dynamischen Charakteristika sportmotorischer Bewegungen (so auch bei WILLERT mit Ausnahme der Sprungaufgabe).

In der Folge sollen notwendige Voraussetzungen einer sportspezifischen Erfassung der Kinästhesie konkretisiert werden. Sie beziehen sich auf

a) die Formulierung einer ausreichend umfassenden Definition der Kinästhesie für sportwissenschaftliche Fragestellungen,
b) die Konzipierung eines Item-Pools mit sportmotorisch adäquaten Bewegungsabläufen.

2. Zur definitorischen Problematik der Kinästhesie

Die Diskussion über Umfang und Inhalt des Begriffes Kinästhesie wurde weniger durch Unklarheiten über seine Funktion als vielmehr durch die Anzahl der ihm zuzurechnenden Wahrnehmungsapparate bestimmt. Seine Funktion ist definiert durch die räumliche, zeitliche und dynamische Differenzierung eines Bewegungsablaufes. Umstritten ist jedoch, welche Rezeptoren dem komplexen kinästhetischen Analysator zuzuordnen sind. So vertritt SMITH (1969) die Auffassung, dass diejenigen Rezeptoren, die keine "direkte" Verbindung zur Cortex aufweisen, nicht als

kinästhetische Rezeptoren zu werten sind, da sie keine "bewussten" Wahrnehmungsprozesse ermöglichen. Hingegen argumentiert DICKINSON (1974, S.10), dass "...the absence of a direct link from receptors to the cortex may not necessarily preclude some indirect participation in perception." Diese Annahme mag in gewissem Masse spekulativ sein, doch ist es als wahrscheinlich anzusehen, dass auch Rezepteren ohne direkte Verbindung zur Grosshirnrinde (insbesondere Muskelspindeln) eine wesentliche Funktion bei der bewussten Kontrolle von Bewegungshandlungen zukommt.

Der sehr engen Definition von SMITH steht eine Reihe wesentlich umfassenderer Definitionen gegenüber, für die paradigmatisch DICKINSONs Version genannt werden soll. Für ihn ist Kinästhesie zu definieren als die Wahrnehmung von Bewegungen und Körperpositionen, die auf anderen als visuellen, akustischen oder taktilen Reizen beruht (DICKINSON, 1974, S.10). Damit umfasst sein Konzept der Kinästhesie zwar immerhin auch den Vestibularanalysator, doch ist zu kritisieren, dass der Ausschluss taktiler Reize keine exakte experimentelle Kontrolle bei Untersuchungen zur Kinästhesie im sportmotorischen Bereich zulässt. Es bleibt ungeklärt, welcher Anteil der Gesamtinformation über einen Bewegungsablauf auf den taktilen Analysator entfällt. Aus experimental-praktischen Gründen wird somit eine Definition vorgeschlagen, die auch taktile Reize mit einbezieht. Kinästhesie wird definiert als die Wahrnehmung räumlicher, zeitlicher und dynamischer Parameter unter visueller und akustischer Reizdeprivation. Diese Definition ermöglicht Untersuchungen, bei denen durch die relativ leicht zu bewerkstelligende Verhinderung visueller und akustischer Rückkopplung ausschliesslich Kinästhesie erfasst wird.

3. Zur Konzipierung eines sportmotorisch adäquaten Item-Pools

GRATTY (1975, S.105) vermutete als Ursache für die bislang noch weitgehend unzureichende Erfassung der Kinästhesie im sportmotorischen Bereich, dass die Items, mit denen man versuchte, die Qualität der Selbstwahrnehmung zu messen, vor allem die Schnelligkeitsanforderungen sportlicher Motorik unberücksichtigt liessen (z.B. Positionierungsaufgaben von Armen oder Beinen). Daraus war die Forderung abzuleiten, dass ein Messen der Kinästhesie durch Items zu versuchen war, deren räumliche, zeitliche und dynamische Parameter sportmotorischen bewegungsabläufen möglichst adäquat sind. Entsprechend dieser Forderung wurde zunächst theoretisch ein Item-Pool erstellt. Die Aufgaben waren so konzipiert, dass sie entweder

a) die motorische Realisierung eines visuell vorgegebenen Zieles nach der akustischen und visuellen Reizdeprivation oder
b) die möglichst genaue Reproduktion des Resultats einer vom Probanden unmittelbar zuvor vollzogenen Bewegung verlangten (ebenfalls unter akustischer und visueller Reizdeprivation).

Ein Beispiel für die erste Gruppe: dem Pbn. wird ein variabler Zielpunkt an der Wand gezeigt, den er nur durch einen Sprung von 30 cm Höhe aus dem Stand erreichen kann. Er erhält die Anweisung, diesen Punkt mit der Hand möglichst genau zu treffen.

Ein Beispiel für die zweite Gruppe: der Pbn. erhält die Anweisung, einen beidbeinigen Standweitsprung so zu reproduzieren, dass er beim zweiten Versuch genau an der Stelle landet wie beim ersten. Augen und Ohren sind bereits beim ersten Versuch verschlossen; visuelles oder verbales Feedback erfolgt nicht.

Gegenwärtig wird eine empirische Überprüfung der Testgütekriterien der Items durchgeführt (Anzahl der Items = 17). Erste Ergebnisse liegen vor, sollen aber wegen der noch zu geringen Stichprobengröse nicht dargestellt werden.

Zusammenfassung: Auf der Basis einer erweiterten Definition des Umfangs des kinästhetischen Analysators wird versucht mittels grosemotorischer Items, die unter akustischer und visueller Reizdeprivation durchzuführen sind, zu einer für sportspezifische Fragestellungen valideren Form der Erfassung der Kinästhesie zu gelangen.

Literaturverzeichnis :

1. CRATTY, B.J., Motorisches Lernen und Bewegungsverhalten. Frankfurt, 1975

2. DICKINSON, J., Proprioceptive Control of Human Movement. London, 1974

3. FETZER, B., VOLKAMER, M., BEDENBECKER, H.-P., "Untersuchungen zur kinästhetischen Wahrnehmung" in H.Rieder, E.Hahn (Hrsg.) Psychomotorik und sportliche Leistung, Schorndorf, 1976.

4. HENRY, F., "Dynamic kinesthetic perception and adjustment" Res. Quart.,24, 1953, 176-187.

5. HOWARD, J.P., TEMPLETON, W.B., Human spatial orientation, New York, 1966.

6. MEINEL, K., Bewegungslehre. Berlin 1976.

7. MERTON, P.A., Human position sense and sense of effort. Cambridge Mass.,1964

8. SCHNABEL, G., "Zur Bewegungskoordination" Wissenschaftl. Zeitschr. d.DHfK Leipzig, 10, 1968, 11-32.

9. SCOTT, M.G., "Measurement of kinesthesis" Res.Quart., 26, 1965, 324-341.

10. SINGER, R.N., Coaching, athletics and psychology New York, 1972.

11. SLATER-HAMMEL, A.T., "Measurement of kinesthetic perception of muscular force with muscle potential changes" Res. Quart. 28,1957, 153-159.

12. SMITH, J.L., "Kinesthesis: A model for movement feedback" in R.C. Brown, B.J.Cratty (Hrsg.) New perspectives of man in action. Englewood Cliffs, N.J., 1969.

13. WIEBE, V.R., "A study of tests of kinesthesis" Res.Quart., 25,1954, 222-230.

14. WILLERT, J., "Zur Vervollkommung des kinästhetisch-motorischen Analysators bei Schulkindern" Theor. Prax.d.Körperkult., 26, 1977, 521-523.

A NEW WAY TO LOOK AT PERSONALITY AND SPORT

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Sport personality research has been directed toward identifying stable personality traits that are shared by the majority of the members of sport groups and certain types of athletes. Comprehensive reviews of this research (Cooper, 1969; Husman, 1969; Kroll, 1970; Martens, 1975; Morgan, 1972; Rushall, 1972, Smith, 1970) failed to report any consistent differences between sports groups. The general pattern of the investigations reviewed followed that of testing the trait theory. That is, the main source of behavioral variance was considered to rest within the individual differences observed in individuals tested. The role of the situational or environmental factors was rarely considered or considered insignificant.

Another problem that has confounded the trait theory approach has been the assumption that males are supposed to be of certain behavioral set while females are to be another. Inherent in most personality instruments developed to test the trait theory are the expected stereotyped behaviors for males and females. The behavioral demands of competitive sports reinforce what is stereotypically masculine and what the male is supposed to emulate. At the same time, the psychological and physical demands of competitive sport are not generally considered compatible with society's stereotyped image of what the female is supposed to represent. As a matter of fact, it represents the antithesis of what she is supposed to be. Most societies feel it is to her detriment to seriously pursue involvement in competitive sports in the same manner that the male does.

As a result of these societal expectancies and biases inherent in the personality instruments, a double standard of behavior has been promoted for males and females. One could assume that a single standard of behavior would be required from those who successfully pursue competitive sport experiences. That is, the behavioral demands of the sports environment are generally the same for those individuals who are participating, regardless of their sex.

Masculinity and femininity, as culturally defined, have been extremely resistant to change. This has been especially true where sports competition has been concerned. If one were to generalize from the personality and sports involvement relationships reported in the literature, one would observe that on the average, the female athlete tends to be less feminine and less nurturant, displays less succorance and abasement and is more anxious. On the other hand, she scores higher than the female norms on such traits as self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, affiliation, exhibition, aggression, change, and so on. At a glance one can begin to see what is happening and what is being perpetuated; the frame of reference for the interpretation of behavior is one which suggests that females have to behave in a certain way to fit the norm.

Male athletes do not have this discrepancy to the same extent as females since the male norm is quite compatible with masculine behaviors needed for competitive sport. When talking to Cattell (1977) about this problem, he suggested that the male norms be used for female athletes. When the same standard of behavioral characteristics is used for both male and female athletes, one does not

observe many differences. This suggests that individuals who find that the behavioral demands of competitive sports are compatible with their own behavioral needs are more alike than different.

In brief, the position that has dominated the writings of social and behavioral scientists is that masculine and feminine attributes are essentially bipolar opposites. The presence of feminine characteristics tends to preclude the appearance of masculine ones. Indeed, the absence of a feminine attribute is by definition, equivalent to masculinity. Conversely, masculine characteristics are assumed to preclude feminine ones and their absence is to define femininity. In most societies, the appropriate goal of socialization is to inculcate sex-appropriate attributes in members of each sex so that they may be capable of executing successfully the sex-roles that society has assigned them by virtue of their biological role. In fact, the link between masculine and feminine characteristics and sex-roles has been assumed to be so strong that these psychological dimensions are frequently discussed under the general sex-role rubric.

I would like to propose that the psychological dimensions of masculinity and femininity should not only be conceptually distinguished from masculine and feminine sex-roles but that masculine and feminine attributes, while they differentiate the sexes to some degree, are not bipolar opposites. Further, in contemporary society, these psychological characteristics have only a weak relationship within each sex to the broad array of sex-role behaviors.

Distinction between the sex-roles is universal among human societies; males are assigned different tasks, rights, and privileges, and are generally subject to different rules of conduct than females. Males and females are typically assumed to possess different temperamental characteristics and abilities whose existence is used to justify the perpetuation of double standards of behavior. Definitive data are lacking about whether there are genetically determined differences in the temperamental make-up of males and females. However, there is abundant evidence to support the fact that human personality is highly malleable. Observed differences in the behaviors of the two sexes in a given society can be shown to be strongly influenced by the sex-specific child-rearing practices and by the nature and severity of the sex-role differentiation promoted by that society.

Psychologists have tended to accept as given the complex set of sex-related phenomena and to focus attention on the processes by which individuals come to correspond in their behaviors and attributes to the expected norm for their sex within their culture. Psychologists have also been interested in the variability among individuals and have attempted to identify the factors that promote or interfere with the development of expected and appropriate patterns of behavior. Psychological inquiries have been based on the notion that the categorical variable of biological gender is intimately associated with masculine and feminine role behaviors and presumed psychological differences between males and females. This bipolar conception of masculinity and femininity has historically been the one that has guided the research efforts of psychologists. The major psychometric instruments designed to measure masculinity and femininity have been set up as unidimensional scales.

While the bipolar approach to the psychological aspects of masculinity and femininity has been the major one, dualistic approaches have also been proposed. In the psychoanalytic tradition, Jung distinguished between masculine animus and feminine anima and proposed that both were significant aspects of the psychological make-up. More recently Bakan (1966) has offered agency and communion as co-existing male and female principles. Agency demonstrates self-awareness and is manifested in self-assertion, self-expansion, and self-protection. Communion implies selflessness and concern for others. Both modalities are essential if society or the individual is to survive. Bakan further associated agency with masculinity and communion with femininity. Thus, according to Bakan, masculinity and femininity, in the sense of agency and communion are two separate dimensions, however, the manifestation of one neither logically or psychologically precludes the possession of the other.

Helmreich and Spence (1977) contend that the relationship among the various components of masculinity and femininity such as biological gender, sex-roles, sexual orientation and especially psychological attributes of masculinity and femininity and the adoption of conventional sex-roles is not as strong as has been traditionally assumed. Their position reflects the more contemporary concept that masculinity and femininity represent two separate dimensions which vary independently. Helmreich and Spence have developed a new instrument, the Personal Attributes Questionnaire (PAQ), to assess masculine-feminine components of behavior. While they have maintained the psychological aspects of masculinity and femininity, they have discarded a strictly bipolar model and structured an essentially dualistic concept.

Table 1

Sex-role Classification: Personal Attributes Questionnaire

FEMININITY	Masculinity: Below Median	Masculinity: Above Median
Below Median	UNDIFFERENTIATED	MASCULINE
Above Median	FEMININE	ANDROGYNOUS

Source: Helmreich, R. & Spence, J.T. Sex-roles and achievement. In R. W. Christina and D. M. Landers (Eds.), Psychology of Motor Behavior and Sport (Vol. 2). Champaign, Ill.: Human Kinetics Publishers, 1977.

The PAQ is composed of a masculinity and a feminity scale. The items which comprise the masculinity scale refer to those attributes which are considered to be socially desirable in both sexes but were found to a greater degree among males during preliminary investigations. Conversely, those attributes considered to be socially desirable for both sexes but observed to a greater extent among females created the femininity scale. Two scores are generated, one for each scale and an individual is classified according to his or her position relative to the scale medians. Helmreich and Spence have devised a simple classification scheme as shown in Table 1. At the lower right quadrant are those individuals who have scored above the median on both masculinity and femininity; these are labeled androgynous. In the upper right quadrant are those individuals who scored high in masculinity and low in femininity. Males who corresponded to the typical male stereotype and females judged as cross-sex fell in this group and were labeled masculine. The lower left quadrant included those individuals who displayed the typical feminine attributes or those males who displayed cross-sex behaviors; these were labeled feminine. Those who did not fall in any of the previous three categories, that is, they fell below the median on both masculinity and femininity were placed in the upper left quadrant and categorized as undifferentiated.

Using several hundred subjects, Helmreich and Spence have studied the relationship between the two scales. They have found a tendency for high masculine scores to be associated with high femininity and low scores on one scale to be associated with low scores on the other scale. A bipolar conception would suggest that the sets of scores should be negatively related. If one has a high masculine score the feminine score would be low. As indicated, this was not the case with those individuals sampled by Helmreich and Spence.

In order to examine the relationship between sex-role identity and self-esteem, Spence, Helmreich, and Stapp (1975) have correlated the PAQ data with scores on the Texas Social Behavior Inventory (Helmreich & Stapp, 1974), a measure of self-esteem. They found that the self-esteem of the undifferentiated was lowest, that of the feminine category next lowest, followed by masculine. The highest self-esteem was observed in the androgynous group. The differences between the means were significantly large and the relationship sex-role classification and self-esteem held true for both males and females. The college population had the same percentage of males and females classified as androgynous, more males as masculine and more females as feminine and approximately the same percent as undifferentiated.

In summary, the Helmreich and Spence data suggested that masculinity and androgyny were related to desirable behaviors and to positive self-esteem in both males and females. These desirable attributes provided the androgynous individual, either male or female, with behavioral advantages over those falling in other categories. In an attempt to validate their findings, Helmreich and Spence studied unique populations of females where the existence or nonexistence of differences in the distribution of masculinity and femininity might support their theoretical proposition. A group of female athletes was included. The data from these women suggested that high achieving women are more likely to possess both masculine and feminine attributes than their male counterparts without suffering any deficit in their femininity. On the contrary, they displayed significantly higher self-esteem than those females who were classified as feminine.

Utilizing the PAQ and the TSBI instruments developed by Helmreich and Spence, an investigation of sex-role classification and self-esteem was conducted in the fall of 1976. The subjects were female distance runners and marathoners (N=66) who had been recognized nationally and internationally for their accomplishments in road running. Selected collegiate female cross-country runners were also tested. In addition to analyzing the responses as a whole, the respondents were subdivided into two groups by age: the scholastic group was composed of all runners 23 years of age or younger ranging from 14-23 years; the club group included those over 26 years of age, ranging from 26-59 years.

The results of the sex-role classification are shown in Table 2. The greatest percentage of scholastic runners was classified as androgynous (37.5%) while the percentage of club runners classified as androgynous and masculine was equal (32.4%). The percentage of scholastic runners classified as undifferentiated, masculine, and feminine were 25, 21.9 and 15.6 respectively. The remainder of the club runners were divided between the undifferentiated category with 23.5% and feminine with 11.8%.

Table 2

PAQ Classification of Runners

Femininity	Masculinity: Below Median		Masculinity: Above Median	
Below Median	UNDIFFERENTIATED		MASCULINE	
		N= / %[a]		N= / %
	Total Sample:	16 / 24.2	Total Sample:	18 / 27.3
	Club:	8 / 23.5	Club:	11 / 32.4
	Scholastic:	8 / 25.0	Scholastic:	7 / 21.9
Above Median	FEMININE		ANDROGYNOUS	
		N= / %		N= / %
	Total Sample:	9 / 13.6	Total Sample:	23 / 34.8
	Club:	4 / 11.8	Club:	11 / 32.4
	Scholastic:	5 / 15.6	Scholastic:	12 / 37.5

Note. Total sample = 80 with 66 valid cases; club = 41 with 34 valid cases; and scholastic = 39 with 32 valid cases.

[a]Percentages are adjusted frequencies

When the relationship of sex-role classification and self-esteem was examined in the scholastic runners, those classified as feminine exhibited the lowest self-esteem. The undifferentiated, masculine and androgynous classifications followed in that order with those whose sex-role orientation was androgynous having the highest self-esteem. A similar pattern was observed among the club runners.

A self-esteem by Sex-role Classification analysis of variance revealed a significant F (3, 61) = 15.81. Tests of the differences between all possible pairs of means were conducted using a modification of the Fisher's Protected t technique to control for unequal sizes of the sex-role categories. The mean self-esteem scores of the female runners classified as masculine and androgynous were significantly higher than the mean self-esteem scores of those runners classified as feminine or undifferentiated.

Helmreich and Spence were interested in other behavioral characteristics that have been associated with masculinity and femininity, specifically achievement motivation. They felt that a unitary construct was not sufficient to account for broad patterns of behavior in real-life settings. Further, they felt that important components of achievement motivation related to masculinity and femininity such as orientation toward work, striving for excellence, and concern with the reactions of others toward achievement might operate independently of one another. In an attempt to test their proposition, they developed an achievement motivation scale appropriate for analyzing data from both sexes. The Work and Family Orientation Scale (WOFO) was a result of their efforts. This scale is composed of four subscales of motivation : work orientation, mastery, competitiveness, and personal unconcern.

Utilizing this motivation scale, a second investigation was conducted. Distance runners, rowers, and female athletes from various individual and team sports were classified according to sex-role orientation. Of these 240 female athletes, 109 of them or 45.4% were classified as androgynous, 58 or 23.2% of them as masculine, 32 or 13.3% as feminine and 41 or 17.15% as undifferentiated. A one by four (achievement motivation component by sex-role orientation) analysis of variance revealed several significant F ratios . Those athletes who perceived themselves as androgynous or masculine scored significantly higher in mastery than the feminine or undifferentiated. The androgynous athletes also scored significantly higher than the undifferentiated or feminine on the work component. The masculine category was significantly more competitive than the feminine or undifferentiated. The androgynous group also differed significantly from the feminine in competitiveness. When examining the personal unconcern component, those female athletes categorized as masculine were significantly more concerned about what others thought than the other three groups.

Table 3

Mean Scores of 240 Female Athletes on Motivational Components By Sex-Role Classification

Sex-role Classification	N	Motivational Components			
		Mastery	Work	Competiveness	Personal Unconcern
Androgynous	109	17.9	18.4	15.7	15.4
Masculine	58	25.7	25.0	23.7	24.2
Feminine	32	13.0	13.7	11.1	12.2
Undifferentiated	41	10.1	10.9	8.9	10.1

From the results of the initial investigations of sex-role classification of female athletes, it appears that the PAQ is a suitable instrument for determining a behavioral frame-of-reference based on a dualistic model as opposed to the traditional bipolar ones. It should be noted here that another investigator (Rumrich, 1977) compared sex-role classification and personal space of females who were generally sedentary with female athletes. She found that a disproportionate number of inactive females were feminine and/or undifferentiated as compared to the disproportionate number of androgynous and masculine classifications among the physically active. This finding reinforces the relationship of sex-role orientation and one's motivation to participate in physical activity and sport.

Unfortunately, only data are available for female athletes, however, they are currently being collected on males. Judging from the data on males reported by Helmreich and Spence, one should find approximately the same percentage of androgynous males as observed among females. The largest proportion of males will most probably be masculine, especially among athletes since this association has been one of long standing.

The results thus far using the PAQ with athletes are promising and suggest that the bipolar model of the traditional personality instruments is no longer an appropriate indicator of behavior. The first motivational assessment scale to be appropriate for both sexes suggests that one's sex-role classification is related to the motivational behavior of female athletes. Further research will have to be conducted before this relationship can be discussed among male athletes.

In summary, Helmreich and Spence have made a significant breakthrough in personality research by devising assessment instruments which support a dualistic conceptualization and appropriate for both males and females. Using their dualistic approach for classification, data should be collected from both sexes using traditional instruments but analyzed according to sex-role classification rather than by male and female categories. In addition to the motivational subcomponents proposed by Helmreich and Spence, all other behavioral components should be examined in this manner. In short, this dualistic approach provides a more meaningful frame-of reference for interpreting and understanding the behavior of athletes.

SELECTED REFERENCES

Bakan, D. The duality of human existence. Chicago: Rand McNally, 1966.

Cattell, R.B. Personal communication, April, 1977.

Cooper, L. Athletics, activity and personality: A review of the literature. Research Quarterly, 1969, 40, 17-22

Harris, D.V. ; Jennings, S.E. Self perceptions of female distance runners. Paper presented to the New York Academy of Sciences Conference on the Marathon: Physiological, Medical, Epidemiological and Psychological Studies. New York City, Oct. 25-28, 1977.

Harris, D.V. ; Jennings, S.E. Relationship between sex-role classification and self-esteem among female distance runners. Paper presented at the North America Society for Psychology of Sport and Physical Activity. Ithaca, New York, May 22-24, 1977.

Helmreich, R., ; Spence, J.T. Sex roles and achievement. In R.W. Christina & D.M. Landers (Eds.), Psychology of Motor Behavior and Sport (Vol. 2). Champaign, IL: Human Kinetics Publishers, 1977.

Helmreich, R., & Stapp, J. Short forms of the Texas Social Behavior Inventory (TSBI), an objective measure of self-esteem. Bulletin of the Psychonomic Society, 1974, 4, 473-475.

Husman, B.F. Sport and personality dynamics. In the Proceedings of the National College Physical Education Association for Men, 1968, 56-70.

Kroll, W. Current strategies and problems in personality assessment of athletes. In L.E. Smith (Ed.), Psychology of Motor Learning, Chicago: Athletic Institute, 1970.

Martens, R. Social psychology and physical activity. New York: Harper & Row, 1975.

Morgan, W.P. Sport Psychology. In R.N. Singer (Ed.), Psychomotor Domain: Movement Behaviors, Philadelphia: Lea & Febiger, 1972.

Rumrich, P.E. The effects of sex-role orientation and level of physical activity on personal space. M.S. Thesis, The Pennsylvania State University, 1977.

Rushall, B.A. The status of personality research and application in sports and physical education. Journal of Sport Medicine and Physical Fitness, 1973, 13, 281-290.

Spence, J.T., Helmreich, R. & Stapp, J. Ratings of self and peers on sex-role attributes and their relation to self-esteem and conceptions of masculinity and femininity. Journal of Personality and Social Psychology, 1975, 32, 29-39.

Smith, L.E. Personality and performance research: new theories and directions required. Quest, Winter issue, January 1970.

ADOLESCENTS, SPORT AND LEISURE: SOME PSYCHOLOGICAL CONSIDERATIONS

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Introduction

Parker (1971) has suggested that leisure serves functions both for individuals and for the society in which they live. The functions most commonly suggested for individuals are relaxation, diversion and personal development (Dumazedier, 1967). Corbin and Tait (1973) stated that "Leisure is an attitude toward life; it reflects our value system as we select activities for our pattern of living ....", while Meyersohn (1972) viewed leisure "in terms of satisfactions, uses and gratifications". Perhaps the most crucial questions for the psychological study of leisure involve what leisure activities the individual pursues and the nature of his subjective experience of those chosen activities. Psychology should be concerned with why an individual chooses particular activities and why he continues with them. Attitudes to leisure have been investigated by Neulinger and Breit (1971). They

argued that attitudes to leisure (and work) are one of the basic values determining a person's style of life. Thus, it can be expected that one of the functions of leisure is to serve as a source of self-identity. As a Sports Council study group (1971) has recently stated '... the social and psychological influences effecting the aspirations and motivations underlying leisure behaviour need to be understood more clearly if effective leisure provision and administration is to be achieved.' Scarlett (1975) commented on the 'non-constructive' aspects of British youngsters' leisure. She argued that working class children were less likely to make 'constructive' use of available leisure opportunities than middle class children, since they have had less encouragement at home to teach them how to use their leisure. It may be, therefore, that when facilities are available locally, adolescents choose leisure activities because of different subcultural values and life-styles based on social class.

Findings of the Study

By examining one community centre in some detail the present study attempts to consider leisure, and draws attention to 'its mode of use' by comparing two groups of adolescents who attend this centre regularly for quite different leisure purposes.

The centre under study was a modern, purpose-built Sports and Community Centre consisting of a large, well-equipped sports hall, and on a separate, upper level, facilities originally designed as a youth and community centre and including a coffee bar with observation windows overlooking the sports hall. The investigation, concerned only with the use made of the facilities by young people aged 12 - 20 years, was carried out by a questionnaire, informal interviews and by observation over a period of three months.

There is no doubt that in this single, purpose-built Sports and Community Centre, two distinct and separate sub-cultures existed. There was little, or no, rapport between the two groups of members. Sports members were content to stay in the Sports area and apparently saw nothing to attract them to the Community area. Although the two groups remained isolated in this way, a middle group of young people did exist which frequented both areas. By the time they reach the age of 14 years, however, most of this dual membership group will have opted for one area or the other. It appears to be a largely one-way movement - to the Community area. This would seem to contradict Scarlett's (1975) suggestion that one of the reasons for non-participation in 'constructive' leisure pursuits is a lack of information, since Community members appear to have ample knowledge about what is available to them in the Sports area and reject it. As the results made clear, the majority of Sports area members came from a wider geographical radius than the Community members, and attended to take part in specific activities for which the centre catered. The dual membership group thus appears to be 'local kids' who enjoy doing anything that is being offered, but when they outgrow this youthful vitality they tend to adopt the predominant values of local adolescents, the majority of whom are largely 'anti-Sports'. Many of the Community members, particularly the boys, complained that there were too many rules in the Sports area, and that it was too strict. The results showed that an overwhelming majority of the sample in the Community area regarded Sports area leaders as being strict and unsympathetic, and a substantial proportion felt they interfered too much. Surprisingly perhaps, they agreed with the necessity of rules and tight

discipline in a sports hall (mainly for the prevention of accidents and damage to equipment) and were not therefore advocating a Sports area without rules. Instead, rather than subject themselves to the discipline and the rules, they preferred not to attend.

The findings by Jephcott (1967) that many youngsters do not attend activities because they are too closely linked with school - either because of the pattern of discipline, or because school buildings are used -- seemed to fit the Sports area under study. In discussion, Community members in general did not seem to accept school values to any great extent; and as results showed most of them leave school early, and few are involved in school activities, so any linkage of the school with the Sports area would tend to make the Sports area a less attractive source of leisure provision for them.

Regular attenders at the Sports area who were 'serious' users of the facilities were easily identifiable by their 'uniforms' of tracksuits, specialised clothing and equipment, and often identical sports bags. In addition, as Emmet (1971) discovered, a sub-culture may exist, which does not accept the values of sport (this may be class orientated, or associated with 'with-itness'), and such attitudes may have prevented many young people from attending the Sports area. Girls, in particular, dressed and generally behaved, in a way obviously meant to attract the male members of the Community area, and many of them, in interview, admitted to attending only with this aim in mind. In such cases, sport did not fit into the picture at all.

Differences

The results showed quite clearly that the two sub-cultures were very different. Differences were such that many members could see them for themselves. Similarly, aspirations were very different. Evidence from studies such as the Sports Council (1971) has suggested that Sports Centres are predominantly middle class havens with few working class users. What the present results showed was that Sports members tended to be middle class aspirants. The majority of them chose non-manual occupations, a considerable proportion of which were professional, most notably teaching. Community members were more likely to choose manual occupations, the boys choosing trades while the girls chose mainly office work of some description. Community members maintained that the young people in the Sports area were snobbish, and though impossible to substantiate, what is important is that they perceived differences between themselves and those in the other group. Sports members saw themselves as clever, and Community members as rough, unruly and "always swearing".

For most Community members the Centre was a place for meeting and talking with their friends - not to meet new friends - but to continue their established friendship patterns in a relaxed, fairly comfortable, cheap and convenient meeting place. The results confirmed that for many of them, especially the girls, the centre was only somewhere to go, since they had nothing else to do. One boy gave as his reason for attending, "I come here to get out of the house". Others unenthusiastically claimed, "It's better than sitting at home". Complaints and criticisms seemed to be part of their 'enjoyment' of the centre and it was observed that every member who was interviewed in the Community area had at least one unfavourable comment to make about the centre. Thus from this study some of the social and psychological influences underlying leisure lifestyles can be noted.

Table 1. Differences Between Adolescent Sports Users and Community Users.

TWO SUB-CULTURES (Differing Life-Styles)		
SPORTS		COMMUNITY
staying on for examinations and qualifications	LEAVING SCHOOL	'early leavers'
professional, non-manual	OCCUPATIONS	manual
activity, enjoyment	REASON FOR ATTENDING CENTRE	friends, few alternative local leisure pursuits
distance	TRAVEL TO CENTRE	local
favourable, uncritical	ATTITUDES TO CENTRE, GROUP LEADERS etc.	critical, bored
intelligent, conformist	PERCEPTIONS OF OWN GROUP AND OTHER GROUP	mischievous, badly behaved, 'out for fun'

Concluding remarks

Sports is only one way a young person can occupy his leisure time and the need for sport does not exist in equal amounts in all young people, and in some, it does not exist at all. The need to meet and form relationships with other young people is a generally felt need, however, and sport is only one (perhaps not very satisfactory) way of fulfilling this need. In effect, the centre provided a meeting place for two separate sub-cultures - a Community area which is patronised by a wider based, sports-loving community. Thus the findings reflect differing leisure life-styles and give some insight into the subjective feelings of adolescents associated with varying patterns of leisure pursuits.

References

BONE, M. (1972) _The Youth Service and Similar Provision for Young People._ HMSO, London.

CORBIN, H.D. & TAIT, W.J. (1973) _Education for Leisure._ Englewood Cliffs, N.J.: Prentice-Hall.

DUMAZEDIER, J. (1967) _Towards a Society of Leisure._ London: Collier-Macmillan.

EMMETT, I. (1971) _Youth and Leisure in an Urban Sprawl._ Manchester University Press.

JEPHCOTT, P. (1967) _Time of One's Own._ Oliver and Boyd, Edinburgh.

MEYERSOHN, R. (1972) Leisure. In A. Campbell & P.E. Converse (eds), _The Human Meaning of Social Change._ New York: Russell Sage Foundation.

NEULINGER, J. & BREIT, M. (1969) Attitude Dimensions of Leisure: A replication. J. Leisure Res. 3, 108-115.

PARKER, S. (1971) The Future of Work and Leisure. London: MacGibbon & Kee.

SCARLETT, C.L. (1975) EuroScot: The New European Generation. The Scottish Standing Conference of Voluntary Youth Organisations, Edinburgh.

SMITH, C.S. (1973) Adolescence, in MA. Smith, S. Parker and C.S. Smith (ed), Leisure and Society in Britain. Allen Lane, London.

SPORTS COUNCIL (1968) Planning for Sport. Central Council of Physical Recreation, London.

SPORTS COUNCIL (1971) Indoor Sports Centres. HMSO, London

SPORTS COUNCIL (1971) Research Priorities for Sports Provision. London: Sports Council.

STANDING CONSULTATIVE COUNCIL ON YOUTH AND COMMUNITY SERVICE (1968) Community of Interests. HMSO, Edinburgh.

EXTRACURRICULAR SCHOOL ACTIVITIES AND LEISURE: A MATCHING OF VALUES?

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Introduction

Colemen's (1961) study of American schools exemined the 'climate of values' of adolescent subcultures, and he found that few leisure activities had any relation to pursuits which go on in school. School may play and even less central role in the life of the British adolescent and there is no dominent, pervesive and elaborate informal social system among pupils. Thus it tends to be the middle class and more academically able pupils who become prefects, members of school clubs and sports teams (e.g. Start, 1966). In turn, Sugarmen (1967) believed that it is pupils who are alienated from school who turn to pop culture - going to discos, coffee bars, records, smoking, dating - as an alternative to the pupil role. Since arguments have raged, and still rage, about the academic and social advantages of comprehensive schools it might be interesting to consider whether the ideology of a classless society is evident in the extracurricular life of comprehensive schools; Reid (1972) has demonstrated that it is the more socially favoured and academically bright children who are highly represented in the 'prestigeful' activities in comprehensive schools. By 'prestigeful' activities Reid meant such interests as the school choir or sports teams. Hence, by using sports as one example of prestigeful activities, the attitudes, values and involvement of adolescents in comprehensive schools' extracurricular activities can be traced, and compared with their leisure interests away from school. In this way it may be possible to study the existence of subcultures within the extracurricular life of schools, and to discover whether these groupings influence the leisure patterns of adolescents.

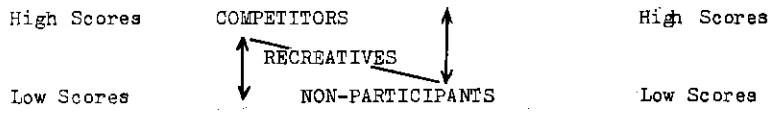
Discussion of the Findings

The study involved just over three thousand secondary school pupils aged fifteen to sixteen years (i.e. as they progressed into their fourth year) in fifteen

comprehensive schools in the industrial West of Scotland, together with their physical education teachers (Hendry, 1975).

More than half the pupils - including almost 70 per cent of girls in the study - did not take part in extracurricular physical activities of any kind despite a wide range of activities offered by schools. Furthermore a general and consistent trend of differences existed with the degree of pupils' involvement in school sports, so that for almost every variable used in the study (Hendry, 1975) there was a relative polarisation of characteristics linked to competitive participation and non-participation with recreative participation occupying a middle position. In case it should be thought that, even in general terms, competitors, recreatives and non-participants could be described as 'types', however, it should be noted that the spread of scores obviated to a great extent a typological approach. Nevertheless, in a way which is analogous to the height or weight differences of men and women (i.e. where a considerable overlap of measures does not blot out the trend of differences between men and women), a pattern of differences among school competitors, recreatives and non-participants was apparent (see Table 1).

Table 1: A General theoretical construct of competitive, recreative and non-participant school pupils' characteristics



From the results of the general descriptive findings, therefore, it was possible to confirm and extend existing evidence about adolescents who participate in school sports activities, and to show that competitive, recreative and non-participant pupils are exemplified (albeit with some overlap of scores) by consistent trends in terms of their personal characteristics. The general description of the physically gifted pupil can be given in terms of extraverted qualities, favourable attitudes to sport, muscular physique, physiological capacity and skills ability.

The strong positive self evaluations which come from identification with the school through sporting events and activities has been demonstrated by Coleman (1969): Coleman noted that recognition of athletic prowess gave the individual positive feelings about himself. In the present study, active pupils - and especially competitors - were well aware of their own ability and enthusiasm; they showed a willingness to attend physical education classes, and had a desire to improve their sports skills. They were also aware of the extra attention given to them by physical education staff which further reinforced their identification with school (see Hendry, 1975).

It is possible to go beyond these overall findings and consider the processes involved by studying in greater detail the responses given by pupils to open-ended questions concerning their dissatisfactions within the subject. Seldom did non-participant pupils suggest a dislike of the activities themselves: rather they commented upon associated experiences. Adolescent girls were particularly

sensitive to changing into sports clothes which did not enhance their appearance (overweight girls reported this frequently). There was a widespread dissatisfaction with sports experiences associated with cold - wet games fields, swimming - full-scale games played in poor weather conditions where several pupils were not directly involved in the action and became soaked and uninterested.

By far the most frequent comments were directed towards P.E. teachers' decisions about the choice of activities, without any real pupil-understanding of the reasons behind these decisions; when groups were formed in the class the teachers appeared to give their attention to skilful players, so that the other pupils felt there was a lack of opportunity to make personal progress. In other words, many felt they were being ignored by the teachers and received little coaching as a result.

Perhaps the current emphasis in school sports is most suited to the outgoing, mesomorphic pupil with a high competitive drive, and strong teacher-identification. This can be linked to suggestions about 'identification' and 'association' of active pupils with school. Competitive school sport represents ultimate identification with the school and its emphasis on individual achievement and success. Indeed, it might be that recreatives reinforced their association with school by being members of the non-sporting clubs (30 per cent) significantly more often than competitors (19 per cent) or non-participants (19.6 per cent). It may be, that lacking the skills or opportunities to represent the school and gain official recognition for this identification, a number of them cement their allegiance by further, more varied, participation in the extracurricular social life of the school. The group which rejects the school's activities or is rejected by the school (i.e. non-participants) seeks out rather passive peer and 'pop'-based pursuits in their leisure time, and these may satisfy their personal and social needs.

Roughly one in ten of the competitive pupils had positions of responsibility in the school, whereas the ratio for recreatives and non-participants was approximately one in twenty. Playing for a team appears to enhance prospects of being given responsibility, which may reinforce identification with the formal system of values in the school. These social roles made available to competitors may give some initial clue as to the processes of differentiation operating in the school, and explain the large number of non-participants seeking other success areas within the peer group in their leisure time.

Perhaps more important is the fact that the pattern established in school sport seemed to repeat itself in leisure sport. Active pupils perceived more encouragement from teachers to engage in community sports and had stronger intentions of pursuing sports in their post-school life. They spent a more active leisure life and it is interesting to note that they were less likely to watch television regularly, but much more likely to watch sports on television than non-participants. So, in the sphere of sport there were strong links between school and community. Relatively few active schoolboys were non-participant out of school, and more than half the active schoolgirls had dual sports involvement, whereas the pattern for school non-participants tended to be towards continued non-involvement in sport out of school.

This evidence supports the idea of pro- and anti-school subcultures - where reinforcement comes from physical education staff who mirror the achievement ideology of their classroom colleagues. But this rejection of sports participation seems to generalise more widely to include leisure participation, and not simply school participation.

Many observers, notably Hargreaves (1967), have commented on the increasing importance for the developing adolescent of activities which allow continued interaction with peers. Most replies given by non-participants about the nature of their leisure pursuits included activities which were designed to cater almost exclusively for adolescents or which were undertaken in groups - discotheques, dances, youth clubs, drinking, dating, going 'on the town', or 'hanging around' with friends. Participation in physical activities may not be sufficiently rewarding to fit into this pattern of corporate leisure for many teenagers.

Of course active adolescents also involve themselves in non-sporting pursuits which enables them to meet their friends and socialise outside the home, perhaps without threat of competition and rivalry. The interesting point, however, was their dual involvement - sports to satisfy their competitive drive, or for fitness, and to ensure association with the world of adults - non-sporting activities aligning them to their peers, and centring round common interests and pop music. So sports participants have 'a foot in both camps' so to speak, and thus perhaps show a greater versatility in their social relations than non-participants, with a greater opportunity to experience a wide range of social roles. It is not without significance that Hargreaves (1972) wrote;

> 'In turning to commercial enterprise for leisure activities, or in creating their own ... adolescents are in a vulnerable position with respect to commercial exploitation and are likely to reduce the amount of informal contact with responsible and caring adults'.

Concluding Remarks

These ideas lead back to the provision made by schools for the education of adolescents:

> 'The influence of thousands of hours in schools given to arts and crafts and to physical education and cultural development was only partially discernible in post-school leisure interests'.
>
> (Simpson, 1973)

So it can be suggested that attempts, within the extracurricular life of comprehensive schools, to educate pupils towards 'worthwhile' leisure pursuits are divisive and reinforce differing pupil groupings. The associations among school sports, social class and academic ability reported by Reid (1972) were therefore reflected in both school and leisure sports by the present findings. Pupils who identified most closely with schools' values were most actively involved in extracurricular activities: these pupils are rewarded in a variety of ways for the identification and association with school, and, in turn, they form a distinct subculture within the school: a larger group are alienated from school and turn to passivity, pop and peers in their leisure time.

References

COLEMAN, J.S. (1961) Adolescent society. Glencoe Free Press.

HARGREAVES, D.H. (1967) Social relations in a secondary school. London, Routledge & Kegan Paul.

HARGREAVES, D.H. (1972) Interpersonal relations and education. London, Routledge & Kegan Paul.

HENDRY, L.B. (1975) School, sport, leisure: A study of personal, social and educational factors. Report to Scottish Education Department, New St. Andrew's House, Edinburgh.

REID, M. (1972) Comprehensive integration outside the classroom. Educ. Res., 14, 2, 128-134.

SIMPSON, J. (1973) Education for leisure. In SMITH, M., PARKER, S. and SMITH, O. (Eds.) Leisure and Society in Britain. London, Allen Lane.

START, K.B. (1966) Substitution of games performance for academic achievement as a means of achieving status among secondary school children. Brit. J. Sociol., 17, 3, 300-305.

SUGARMAN, B. (1967) Involvement in youth culture, academic achievement and conformity in school. Brit. J. Sociol., 18, 151-154.

KONDIČNÍ PROGRAM PRO TVŮRČÍ PRACOVNÍKY

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Kategorie tvůrčích pracovníků, zvláště v oblasti vědy, technického vývoje, řízení byla dosud méně zkoumána z psychosomatického hlediska. Je však známo, že optimální duševní stav a dobrá psychosomatická kondice může značně ovlivnit tvůrčí proces a aktuální i dlohodobou výkonnost tvůrčího pracovníka. Jedním z prostředků dosažení této kondice je i vhodně dimenzovaná pohybová aktivita. Koncipovat její náplň, vhodné formy, intenzitu a návaznost na jiné faktory patří k úkolům aplikované psychologie a fyziologie tvořivosti a psychologie tělesné výchevy. Je třeba vypracovat kondiční pohybové programy zajišťující nejen to, aby tvůrčí pracovník tvořivě, efektivně a s chutí pracoval, ale aby se také rozvíjela jeho osobnost, sociální chování jako základ tvůrčí práce vůbec.

Ve většině oborů je tvůrčí práce činností, která nenamáhá kardiopulmonální systém a dynamický svalový aparát. Na druhé straně zde existuje nadměrná psychická zátěž a řada neurogenních faktorů. Kondiční pohybový program má tedy za cíl kompenzovat zátěž, vyrovnávat rozpory vzniklé v tvůrčím procesu, zvyšovat výkonnost a motivaci, případně zadržovat involuční procesy v organismu. Poslední funkce je významná proto, že zrání tvůrčího pracovníka trvá velmi dlouho a je z objektivního /společenského/ i subjektivního hlediska škoda, jestliže involuce nastupuje brzo a znemožňuje pracovníkovi dokončit celoživotní dílo, předat zkušenosti, udržet kvalitu tvůrčí produkce.

Mezi pohybem a tvorbou je z psychologického hlediska řada souvislostí. Povaha tvůrčí práce klade také na specifičnost kondičního pohybového programu pro tvůrčí pracovníky řadu požadavků. Pohybová aktivita v našem navrhovaném programu je :

- střední intenzity a časově a technicky nenáročná, aby nekumulovala duševní a tělesnou únavu, cvičení netrvalo dlouho a nevyžadovalo speciální trénink

- všestranně zatěžující, stimulující trénovanost kardiopulmonálního systému a zvyšující svalový tonus, aby byla dobrá funkce tohoto systému využita pro duševní aktivitu
- rozmanitá, atraktivní, ale nerozptylující, protože tvůrčí pracovník je koncentrován jako psychická struktura především na tvůrčí proces
- nesoutěživá, uvolněná, závislá napůl na pohybovém apetitu, napůl na disciplinovaném dodržení programu, aby nebyl zbytečně přerušován myšlenkový proud řešení problému, jindy, aby naopak vznikla tvořivá pausa
- uspokojující různé potřeby, vzniklé v tvůrčím procesu /např.potřebu abreakce, změny činnosti, prostředí, potřebu pobytu v přírodě, pobytu mezi lidmi nebo naopak o samotě, potřebu osvěžení, obohacení o nové vjemy a zážitky atd./

Na základě těchto principů začínáme program zkoušet u kategorií výzkumných a pedagogických vědeckotechnických pracovníků v objemové normě rozdělené druhově, svou dobou a částečně i intensitou na dvě části. V první se doporučují sportovní činnosti intensivnější povahy stimulující adaptaci, tedy přibližně na tepové frekvenci nad 130 tepů za minutu. Týdenní dávka je 50 minut. Tak např. jde-li o běh je třeba uběhnout 10 km v různých dávkách do 50 minut. Druhá část již není tak intensivní /stačí 100 tepů za minutu/ a je zaměřena na kompenzaci duševní únavy,reoptimalizaci duševních stavů, získání svěžesti a pohotovosti k tvůrčímu výkonu. Týdenní dávka je také 50 minut a může být rozdělena na více kratších oddílů, které mohou být včleněny do denního programu. Může to být i ranní a večerní gymnastika, přímivá a uvolňovací cvičení a posilování.

Nedoporučujeme zaměňovat tento program s chůzí, turistikou, tělesnou prací. Tyto aktivity mohou být občas včleněny do programu jako obměna, musí však mít buď formu intensivního treninku jako v první části, nebo účinky jako cvičení v druhé části. Jejich význam je patrně jinde a podobně jako otužování, relaxace, různé formy odpočinku a fyziologické procedury by měly na kondiční pohybový program navazovat.

Počítáme s dlouhodobými zkouškami tohoto kondičního programu a to jak u širšího vzorku empirickými metodami, tak u užšího vzorku i pomocí laboratorních zkoušek a ve spojení s celkovým kvalifikačním a osobnostním rozvojem tvůrčího pracovníka.

PROFESIONÁLNÍ ZAMĚŘENOST A UČITELSKÉ TENDENCE

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Vyjdeme-li z množství a různorodosti cílů a úkolů, které plní tělesná výchova jako formativní a vzdělávací proces působící v určitém období na celou dorůstající populaci, dojdeme také k členitosti a mnohotvárnosti působení osobnosti učitele tělesné výchovy. Chápat učitele jako osobnost, znamená poznat učitelské povolání ze širokého hlediska všech dimenzí sociální role, kterou ve své funkci reprezentuje. Zkoumat ho tedy jako činitele celospolečenského dosahu, se všemi jeho právy a povinnostmi.

V tomto pojetí je jakákoliv jednostrannost neúnosná, navozující neadekvátní závěry. Vzhledem ke členitosti realizovaných rolí chápeme osobnost učitele tělesné výchovy ve třech různých rovinách :

a) osobnost sociální (učitel jako suma všech společenských vztahů, ve kterých realizuje svoji činnost),

b) osobnost psychická (učitel jako suma všech psychických předpokladů nutných pro úspěšný výkon profese),

c) osobnost fyzická (učitel jako suma všech pohybových předpokladů nutných pro úspěšný výkon profese).

Přitom každá z těchto rovin má velmi široký záběr a zahrnuje v sobě řadu oblastí např.:

a) ideologie, právo, vztah jednotlivce a skupiny, problém vůdcovství...,

b) intelekt, paměť, temperament, postoje, zájmy...,

c) zdatnost, výkonnost, dovednost, pohybové schopnosti...,

Je pochopitelné, že z hlediska funkcí učitele se všechny tyto roviny navzájem prolínají, tvoří jednotu, osobnost jako celek a vyúsťují do oblasti pedagogické. Z hlediska zkoumání jde tedy potom o oblast sociálně pedagogickou, psychologickou, pedagogickou a motorickou.

Tělesná výchova patří mezi ty činnosti, ve kterých je značné nebezpečí jednostranného působení a přeceňování určité oblasti. Máme především na mysli preferenci dovedností, výkonu, zdatnosti apod., oproti aspektům vzdělávacím a výchovným. Dochází tak pochopitelně k závažným disproporcím, které se ve své konečné podobě projevují v disharmonické osobnosti žáka. Proto je nutné nejen plné pochopení cíle a významu učitelství tělesné výchovy, ale i vyhledávání a formování učitelských osobností v souladu s tímto cílem.

Výzkum: V rámci dlouhodobého výzkumu osobnosti učitele tělesné výchovy, realizovaného nejen na našem pracovišti, ale i na jiných pracovištích v ČSSR a zahraničí byl formulován pojem profesionální zaměřenosti, kterou je možno považovat za jeden ze základních rysů osobnosti učitele tělesné výchovy v oblasti psychologicko pedagogické, ale svými důsledky plně zasahujícím do oblasti sociálně pedagogické a motorické. V souladu s definicí úrovně profesionální zaměřenosti byl zkonstruován a ověřen test profesionální zaměřenosti (obojí bylo publikováno). Výzkumy založené na aplikaci tohoto testu u nás i na AWF ve Varšavě ukázaly, že:

1) z hlediska učitelství tělesné výchovy je přesnější než běžné motivační a zájmové dotazníky,

2) uplatnění profesionální zaměřenosti vylučuje preferenci jednostranně orientovaných sportovců a zvýhodňuje ty, u nichž výběr profese je usměrňován motivy učitelskými,

3) uplatněním profesionální zaměřenosti byly zmírněny, resp. odstraněny disproporce mezi teoretickými a praktickými oblastmi studia,

4) byly odstraněny rozdíly mezi úspěšností studia tělesné výchovy a druhého aprobačního předmětu.

Jako poslední v řadě dílčích výzkumů byl ověřován vztah mezi profesionální zaměřeností a tzv. "učitelskými tendencemi".

Hypotéza : Projevy učitelských tendencí úzce souvisí s úrovní zájmů, motivace i studijních výsledků, jsou jejich přímým důsledkem. Poněvadž předcházející výzkumy dokázaly jednoznačný vztah profesionální zaměřenosti k těmto faktorům, dovolujeme si na základě teoretické úvahy vyslovit hypotézu, že :

Úroveň profesionální zaměřenosti přímo podmiňuje danou úroveň a vývoj učitelských tendencí.

Vyslovenou hypotézu jsme ověřovali šetřením, které bylo provedeno na pedagogické fakultě UP v Olomouci. Jeho zkrácené výsledky předkládáme.

Charakteristika souboru

Šetření bylo provedeno u všech posluchačů učitelství tělesné výchovy (muži i ženy), kteří vykonali přijímací zkoušku a studovali na pedagogické fakultě v letech 1969 -75 (n = 95). Jde o stejnou věkovou populaci, jejímž charakteristickým rysem je výběr stejného studijního oboru (těl.vých.). Je to populace, která se svými zájmy, fyzicky i psychicky odlišuje od populace ostatní.

Metodika

Byly hodnoceny tyto oblasti :

a) úroveň profesionální zaměřenosti,
b) vývoj učitelských tendencí během studia.

ad a) Úroveň profesionální zaměřenosti byla hodnocena zkonstruovaným testem profesionální zaměřenosti, o kterém již bylo referováno.

ad b) Pojem "učitelské tendence" je pracovním pojmem, kterým označujeme sumu faktorů, jež se v učitelství tělesné výchovy výrazně projevují. Jsou to:

I. Rozvíjení profesionálních schopností, vědomostí, dovedností
(hodnotí se: a) projevy snahy, b) uplatňování předpokladů).

a - -3(naprostý nezájem), -1(nezájem), 0 (indiferentní), 1 (zájem), 3(velmi silný zájem)

b - -3(nemá předpoklady), -1(má částečné předpoklady), 0 (má průměrné předpoklady), 1(má velmi dobré předpoklady), 3 (má výborné předpoklady).

II. Rozvíjení organisačních snah a schopností
(hodnotí se : 1a - projevy snahy, 1b - uplatnění schopností, 2a - oblast soutěží, 2b - oblast budování).

Hodnocení shodné s předešlým.

III. Kultura osobního vystupování (ve vztahu k dětem, kolegům, nadřízeným...)
Hodnocení : -3(hrubý), -1(netaktní), 0(společensky nevyhraněný), 1(slušný), 3(společensky taktní).

IV. Projevující se postoj k učitelství
Hodnocení : -3(chápe učitelství jako jeden z nutných prostředků obživy), -1(chápe učitelství z hlediska svých sportovních zájmů), 0(nevyhraněný), 1(začíná chápat učitelské poslání).

Vývoj učitelských tendencí byl hodnocen na základě stanovených kritérií v dlouhodobém přímém pozorování posluchačů během výuky (teoretické i praktické), pedagogické praxe, kursů a různých mimoškolních akcí. Pozorování a hodnocení prováděli průběžně pracovníci katedry a výsledky zaznamenávali do osobních listů posluchačů.

Byly vypočítány tyto hodnoty:

a) významnost rozdílu mezi úrovní učitelských tendencí v jednotlivých ročnících,

b) vzájemné vztahy mezi testem profesionální zaměřenosti a učitelskými tendencemi v jednotlivých ročnících.

Výsledky a diskuse

ad a) Výsledky výzkumu ukazují, že úroveň učitelských tendencí roste s délkou studia.

1. roč. : 2. roč. - t = 1,850 1.roč. : 3. roč. - t = 3,256
1. roč. : 4. roč. - t = 3,482 $t_{0,01} = 2,666$, $t_{0,005} = 1,984$

Při podrobnější analýze však vidíme, že růst úrovně učitelských tendencí je určován tou skupinou studentů, jejich profesionální zaměřenost byla hodnocena výše než průměrně.

ad b) V důsledku předcházejícího výsledku je možno považovat za zcela pochopitelné, že se prokázala jasná závislost mezi úrovní profesionální zaměřenosti a úrovní učitelských tendencí.

1. roč. - r = 0,627, 2 roč. - r = 0,672, 3 roč. - r = 0,781
4. roč. - r = 0,830, $r_{0,01} = 0,267$ $r_{0,05} = 0,205$

Růst úrovně učitelských tendencí i prokázaný vztah k profesionální zaměřenosti nám potvrdil výzkumnou hypotézu, že úroveň učitelských tendencí je závislá na úrovni profesionální zaměřenosti.

Závěr

Dosažené výsledky znovu potvrdily význam profesionální zaměřenosti a opodstatněnost jejího hodnocení. Shrneme-li všechny dosud získané poznatky z oblasti zájmů, motivace, studijních výsledků (v oblasti vědomostí a dovedností) i z předložené oblasti učitelských tendencí, můžeme předpokládat, že význam profesionální zaměřenosti se projeví i v úspěšnosti učitelské činnosti absolventů. Tento problém, jako výsledný ze všech předcházejících šetření, je v současné době řešen.

Citované literatura:

HODAŇ,B.: Pokus o definování pojmu profesionální zaměřenost a její místo v hodnocení uchazeče o studium učitelství tělesné výchovy, In: Sborník ped-fak.UK. Praha 1970, str. 76 - 98

HODAŇ,B.: Konstrukce testu profesionální zaměřenosti k učitelství tělesné výchovy, In: Hodaň,B. a kol.: Osobnost učitele tělesné výchovy, Sborník, UP Olomouc 1972, str. 73 - 92

ZUKOWSKA,Z.: Hodnocení způsobilosti k povolání učitele tělesné výchovy podle testu B. Hodaně, In: Hodaň, B. a kol: Osobnost učitele tělesné výchovy, Sborník, ÚÚV PP Praha 1976, str. 49 - 53

PSYCHICAL RESISTANCE IN FAILURE

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Psychology usually analyzes failure as a psychical state. Failure is as a rule interpreted from the viewpoint of the theory of frustration or the theory of stress. In both cases, emphasis is put on the subjective impact of failure, which is usually assessed in terms of psycho-physiological changes in the organism and on the basis of self-judgement. We have untredictionally attempted to analyze failure in terms of its effects on the performed activity.

We regard failure as quite usual psychical load, typical of sports. A number of sports activities have a successive character. They involve either a succession of operations, or a certain number of repeated attempts. It is always important how a partial unsuccessful operation or attempt will influence further activity. Empirically, it is known that the effect may be both positive and negative. Experimental work does not yield consensual data and does not allow generalization as to when the effects of failure are stimulative and when they are inhibitive. Existing theoretical approaches involve taxonomy of people´s reactions to failure and describe for instance aggression, compensation, regression, resistance, fixation, resignment, exhaustion etc. However, this does not capture an essential objective aspect of man´s resistance which lies in the degree of impairment of the process of activity during and after actual failure. For the purposes of our experiments we defined psychical resistance in failure as an ability to maintain the original standard of activity, in terms of both quality and quantity, in failure.

In the creation of hypotheses we drew upon the general explanation model of sports activity (Hošek, 1977), which was conceptualized as a logical system of object and subject functional elements of activity. Experimental hypotheses assumed the emergence of psychical load in failure and its effects on the functional elements of activity.

The methodological approach was based on the assumption that psychical resistance in failure is conditioned by structure and process. We regard the influence of more permanent personality characteristics on activity after failure as conditioning by structure, and the influence of the actual process of activity, with its great reflection in man´s psychical states and the dynamism of aspirations, as conditioning by process. From the methodological point of view we considered appropriate to verify the experimental hypotheses first on more general models of sports activity. We believe that an effort to find more complex laws in the natural conditions of sports activity entails a risk due to the amount of interfering variables.

The first experimental model of unsuccessful sports activity had a character of strength activity. It was based on dynamometric testing of pairs. In conclusion of a series of alternating attempts at maximum performance with arm extension, one of the pair was successful and the other failed. The situation developed without the knowledge of the subjects through deceptive feedback information from the scale of a dynamometer. The experimental sample consisted of 80 top-performance track-and-field athletes. In the second measurement of the same pair one week later the successful and unsuccessful roles were reversed. The measure of psychical resistance in failure was maintenance of or rise in actual performance. The relationships between the actual and supposed performance of the subjects, aspiration level, expressions of behaviour related to the motivation

of the activity, and expressions of emotions were regarded as conditioning by process. The results of a psycho-diagnostic personality test, especially the examination of the stability of personality, neuroticism and need of performance represented the structural variables.

The second experimental model of unsuccessful activity was based on speed. The activity consisted in the performance of quick and simple graphic movements in intervals. Failure was induced by means of deceptive time relations, which at first increased and then reduced the results of the activity down to the level of failure in the last four experimental intervals. The research sample consisted of 547 subjects of various age, sex and sports performance. The variables we observed were similar to those in the first experiment.

In both experiments the hypotheses were verified by correlation analyses and tests of the significance of differences. The process analyses made use above all of percentage indices.

The working hypotheses were validated in both experiments. Failure in an activity results in psychical load. At the same time it is not essentially important that the failure is imaginary. The experience of failure depends above all on the relationship between the aspiration level and subsequent performance. From the viewpoint of the explanation model of sports activity, this involves subject-object relationships in the system of functional elements of activity. The subjective assessment of the relationship between the referential and the modified object of activity is primary.

It was borne out on both experimental models that failure in an activity, as a psychical load, can inhibit as well as stimulate actual performance. This depends on the intensity of the psychical load which in its turn depends on the degree of motivation of the performed activity. Process analysis led to the conclusion that psychical resistance in failure declines with greater motivation of activity. If an activity is better motivated, the pre-requisite of a decline in performance after partial failure increases. The intermediating element evidently is the intensity of the psychical load, which is greater in failure in strongly motivated activities. Our experiments confirmed with high cogency the paradoxical effect of the intensity of motivation on psychical resistance in failure. The experimental models of sports activity represented two different levels of motivation. The activity involving strength had stronger motivation since every track-and-field athlete intuitively feels the link between strength and performance. The activity involving speed had a relatively lower level of motivation. A relatively much higher and statistically highly conclusive number of psychogenous failures in performance in actual failure occurred in the better motivated strength activity. In this kind of activity, psychical resistance in failure was shown by a mere one-third of the subjects, whereas the performance of the others markedly declined. In the activity involving speed, on the contrary, the proportion was reverse: psychical resistance was noted in 60 per cent of the subjects.

An interesting indicator of conditioning by process - related to psychical resistance - is the aspiration level. Both experiments confirmed the earlier finding that failure in activity reduces the level of aspiration. Using a process analysis of the dynamism of aspirations we came to the conclusion that psychical resistance in failure is connected with a phenomenon which we called aspiration inertia after failure. People who only reluctantly bring down their aspiration level after failure show the same or even higher actual performance in this si-

tuation compared with their performance before failure. The whole experimentation proved the existence of an interesting tendency in the aspiration level of sportsmen, namely to surpass the actual performance. We described this phenomenon as hyperaspiration in sports, which lies in the tendency of sportsmen toward constant improvement in continual activity. Even in case of failure sportsmen showed considerable tendency toward permanence of aspiration, compared with non-sportsmen. The aspiration level of sportsmen rises much faster with success than it declines in analogous failure. Non-sporting population sets its aspiration level somewhat below the last performance, keeping a reserve, and after failure the aspiration curve quickly drops. Psychologically, the decline in aspiration level after failure in activity can be seen as an adaptation mechanism which means prevention of further failures. This is why in sports, too, excessive rigidity of aspirations after failure is unsuitable, irrespective of the fact that it is a symptom of psychical resistance.

Theoretically we explain the mechanism of a decline or rise in performance after failure in activity by means of an increase in the activation level after failure. As a psychical load, failure brings about an arousal effect, and the activation level rises. There is a direct dependence between the activation level and the intensity of motivation. With low motivation, the initial activation level is low, too, and thus it may happen that the arousal effect after failure in activity increases this activation level to the optimum. In its consequences, this is a pre-requisite for a rise in performance. If, however, the activity is well motivated and the initial activation is very close the optimum level, then further arousal effect due to psychical load caused by failure lifts the activation level above the optimum and, according to the Yerkes-Dodson law, the actual performance may thus decline.

Besides the above considerations, a justification of the obtained facts by means of findings about the influence of vegetative balance on performance is compelling. A prevalence of sympathetic influences may result in expressions of psychical resistance in psychical load due to failure. On the contrary, if parasympathetic influences prevail, there occur expressions of passivity, depression, overall dejection, and the result is a decline in the level of performance. We make use of these psycho-physiological findings about stressful response mainly for the reason that they correspond with the phenomena we observed. The behaviour of subjects with decreased performance after failure showed weariness of movements, an immobile, "sagging" posture, overall "downcast" appearance, bowed head, drooping shoulders, arms hanging down as if paralyzed, simplified speech and reluctance to talk, reduced amplitude of movements. Expressions of psychical resistance, on the contrary, included motor restlessness, erect sitting posture, head and shoulders leaning slightly back, fidgets, kicking foot, sonorous voice, animated speech with traces of black humour and aggressive remarks.

Apart from process analysis, we also conducted the traditional structural evaluation of the relationship between permanent personality characteristics and expressions of psychical resistance in failure. This methodological approach , with a rich use of statistical verification of hypotheses, is too static, in our opinion, to capture the dynamic phenomena of psychic resistance. The structural approach is often drowned in a flood of figures, it loses insight into the situation, and all ends in a list marking relationships and differences. We shall confine ourselves to a description of the basic relationships. Both experiments

proved similar structural conditioning of psychical resistance in failure. Psychical resistance in failure is greater in persons with more marked stability of personality in the sense of Eysenck's conception. Neuroticism and questionnaire neurotic tendencies, on the contrary, positively correlated with the measure of negative chenges in actual performance after failure. The relations to extreversion were not significant. The investigated need of performance did not show univocal relationships to psychical resistance in failure. If some correletions were significant, they were mediated by a close positive relationship between the need of performence and aspiration inertia after failure.
The purpose of the described experimental work was to reveal, on models of sports activity, some basic laws of psychical resistence in failure. These findings may serve as a starting point for the formulation and verification of meaningful hypotheses in natural conditions of sports activity.

Bibliography:

1. Appley, M.H. - Trumbell, R.: Psychological Stress, Meredith Publishing Company, New York, 1967
2. Hošek, V.: Obyesnyayushchi model sportivnoy deyatelnosti, In: Proceedings of IV. Congress of ISSP
3. Hošek, V.; Vaněk, M.; Svoboda, B.; Uspekh kak motivatsionnyi faktor sportivnoy deyetelnosti, In: Psikhologiya i sovremennyi sport, FIS, Moscow, 1973, pp. 100 - 121
4. Suvorova, V.V.: Psikhofiziologiya stresse, Pedagogika, Moscow, 1975

ACHIEVEMENT AND AFFILIATION IN SPORT FOR JUNIOR AND SENIOR SECONDARY SCHOOL ATHLETES

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Introduction

The personality characteristics of athletes has been the subject of continuing controversy. Authorities (Martens, 1975; Fisher, 1977) have been concerned that most studies have been purely descriptive of different athletic samples with little reference to more general theories of personality. In addition, problems have been caused because the research tools which have been used were designed for general populations. Finally, the majority of the sport-related tests have not been available for independent analysis.
Perhaps the most significant controversy has revolved around whether behaviour is determined by some stable personality traits or the specific situations in which the individual is located. The former position has led to considerable research which has been unproductive because of conflicting results and the latter has produced studies that have not permitted useful generalizations. Increasingly, researchers have begun to recognize that neither stance is sufficient to ex-

plain behaviour but that an interaction between factors is most likely (Martens, 1975). This assumes that behaviour is the result of some personality predisposition which itself is a combination of hereditary and previous social experiences along with the specific situation in which the individual is found. Sport participation provides both a significant previous experience and present situation and therefore should be a productive area to demonstrate differences in behaviour if interaction of factors does occur. It should not be surprising, therefore, to find different results for divergent groups or for the same groups over time.

The writer accepts the principle of interaction and does not expect to show consistency in results. In addition, he recognizes the fact that the behaviour being demonstrated will not necessarily be reflected in other activities although the experiences will become part of the individual's general background and may contribute to later behaviours.

In the total area of personality research, one of the major concerns has been the study of people's motivation to commence and continue participation. One of the most succinct explanations for the understanding of behaviour is that proposed by Birch and Veroff (1966)[x]. Briefly, these researchers have claimed that behaviour is regulated by four determinants: availability, expectancy, incentive, and motive. This theory is similar to the Social Learning Theory originally proposed by Rotter (1954). However, Birch and Veroff expand this basic premise by outlining seven additional components of an incentive system which influence the selection of, and participation in activity. These can be summarized as follows:

1. Sensory
2. Curiosity
3. Affiliation
4. Agression
5. Achievement
6. Power
7. Independence

In the field of sport psychology it can be assumed that several of these systems will operate in the selection and participation within a sport either independently, or in co-operation, or possibly in conflict with each other. Such a theory helps to explain some of the confusing results in personality research. For individual athletes and groups it should be possible to demonstrate that certain systems have more importance for the athlete. Alderman and Wood (1976) have made an encouraging beginning to isolate these incentive systems and their respective contributions for sport.

For the present study, two incentive systems, Affiliation and Achievement, were chosen for examination based on an arbitrary assumption that these are two of the most important operating in sport participation. In addition, several conflicting claims have been made by different researchers as to their importance. The purpose was to examine differences in male and female Junior and Senior Secondary athletes.

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[x] For a more extensive discussion of this model, readers are referred to Alderson's discussion in The Status of Psychomotor Learning and Sport Psychology, 1974.

Specifically, the null hypotheses to be examined were as follows:

1. That there are no differences in the Affiliation and Achievement Orientation scores of Junior and Senior Secondary athletes.
2. That there are no differences in the affiliation and Achievement Orientation scores of male and female athletes.
3. That Affiliation and Achievement Orientation scores have no influence on the success of the team's represented by the athletes.

Related Literature

Several studies, especially among those researchers who favour the permanence of traits in behaviour, have examined characteristics of athletes. In the field of orientation, Kane (1964) has reported athletes to be extroverted and goal oriented. Ogilvie (1968, 1972) has also reported similar findings for athletes.
There have been fewer studies that have involved women and these have not demonstrated such consistent findings. Dayries and Grim (1970) claimed women rated higher in achievement than a norm group. However, several other studies have not duplicated these results. It has been generally considered that women athletes, while approximating scores of males, are less achievement oriented than males, although few findings are reported to substantiate this claim (Harris, 1974).
In the area of Affiliation, few studies have examined the total field of affiliation. Most work has been published in the area of group cohesiveness. Klein and Christiansen (1969) and Petersen and Mertens (1972) reported that cohesiveness contributed to greater success and satisfaction in participation. However, Lenk (1969) among others, has reported that performance can be detrimentally affected by affiliation. Few studies have examined this topic for women athletes, although, as reported by Harris (1975) writers have tended to claim this to be more a feminine characteristic. Reviewing this position, however, Helmreich and Spence (1977) have placed the findings in question. As discussed above, all these conflicting findings can be interpreted adequately from an interaction stance considering the different incentives for individuals and groups.

Procedure

During the active seasons of several sports, male and female participants in the Greater Victoria High School league were asked to complete the Howe Sport Behaviour Scale. This is a twenty-five question form which examines the Affiliation and Achievement Motivation of Athletes. Twenty questions are used for each variable with a maximum score of 100. Questions are specifically related to sports situations. The development of the form is described in a previous study (Howe, 1975). Originally, it was reported as Group Cohesion and Goal Orientation but with some minor adjustments, is now more correctly to be considered as a self-report form for Achievement and Affiliation. From 523 completed forms, four randomly selected groups of 50 athletes were analyzed.
These groups were: (a) Senior Secondary School boys; (b) Senior Secondary School girls; (c) Junior Secondary School boys; and (d) Junior Secondary School girls. No attempt was made to examine specific sports but those represented in the sample were Basketball, Soccer, Rugby, Volleyball, Track and Field, Cross-Country and Swimming.

In addition, at the conclusion of the season, the athletes were grouped as either: (a) members of successful teams; or (b) unsuccessful teams, based on the criteria of whether the team made the play-offs for their sport. This generally implied that they finished in the top four schools in their respective competitions. Numbers in these groups were as follows; 67 successful males, 33 unsuccessful males, 49 successful females and 51 unsuccessful females.
Two separate ANOVAs were utilized to treat the data. Differences were examined between the four groups of 50 athletes on the two measures by one-way ANOVAs. Subsequently, two-way ANOVAs were independent of school level.

Results

The means of the four groups are presented in Table 1. Significant F ratios were obtained for the one-way ANOVA between the groups. These were at a significant level of .002 for Achievement and .001 for Affiliation.

TABLE 1
GROUP MEANS

	Achievement	Affiliation
1. Senior Secondary Boys	57.20	66.12
2. Senior Secondary Girls	52.64	72.38
3. Junior Secondary Boys	57.16	71.84
4. Junior Secondary Girls	55.26	68.94

When these differences were analyzed for each of the measures the following results were obtained. The probability matrix for Scheffe comparisons are presented in Table 2 for Achievement scores.

TABLE 2
SCHEFFE PROBABILITY MATRIX ACHIEVEMENT ORIENTATION

Group	1	2	3	4
1	1.0000	.0098[x]	1.0000	.5495
2	.0098[x]	1.0000	.0107[x]	.2799
3	1.0000	.0107[x]	1.0000	.5670
4	.5495	.2799	.5670	1.0000

[x] Significant at .01 level

Two differences were significant at the .01 level. Both groups of boys scored significantly higher than the Senior Secondary girls. No other difference was significant, indeed the two boys' groups were statistically identical. When the matrix was examined for the Affiliation scores two differences were significant beyond the .01 level. The Senior Secondary boys scored significantly lower than both the Senior Secondary girls and Junior Secondary boys. No other differences were significant. These results are recorded in Table 3.

TABLE 3

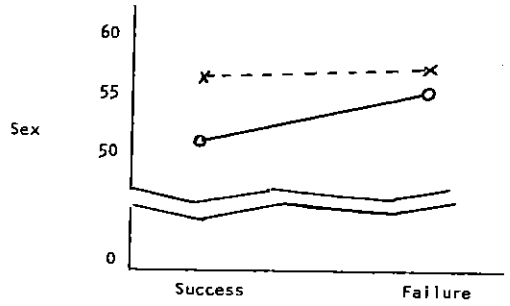
SCHEFFE PROBABILITY MATRIX AFFILIATION

Group

	1	2	3	4
1	1.0000	.0016[X]	.0050[X]	.3260
2	.0016[X]	1.0000	.9896	.1917
3	.0050[X]	.9896	1.0000	.3365
4	.3620	.1917	.3365	1.0000

[X]Significant at .01 level

When the scores were analyzed by a two-way analysis based on sex and success defined at the conclusion of the season, significant results were obtained for Achievement, based on sex at the .01 level and approached it in favour of the unsuccessful. Mean scores were 56.91 for successful males, 51.33 for unsuccessful males, 52.13 for successful females, and 55.12 for unsuccessful females. No significance was obtained for the interaction effect. Figure 1 presents these data for comparison.

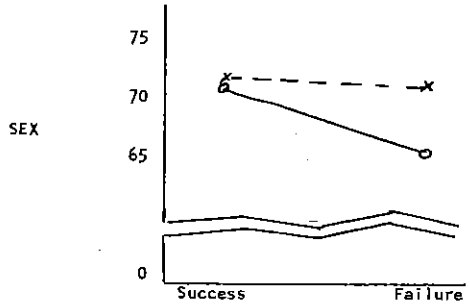


O - Females

X - Males

FIGURE 1

In the Affiliation analysis, for comparisons based on sex and success determined at the conclusion of the season and the interaction between the factors the levels of significance obtained were .06, .08 and .03 respectively. These data are represented below in Figure 2. Mean scores were 70.7 for successful males, 65.48 for unsuccessful males, 70.76 for successful females, and 70.57 for unsuccessful females.



O - Males
X - Females

FIGURE 2

When these results were applied to the hypotheses presented, it can be concluded as follows. Significant differences were obtained between male athletes at the Junior Secondary and Senior Secondary level in Affiliation but not in Achievement Orientation. No significant differences were obtained between the female athletes. Thus the null hypothesis can be rejected for males in the Affiliation area only.

Significant differences were obtained between male and female athletes in Achievement and a level of significance was approached in Affiliation. When separate groups were analyzed on the basis of age and sex, it was shown that the Senior boys were significantly different to both Senior Secondary girls and Junior Secondary boys. Indeed, the Junior Secondary boys showed a very similar result to the girls' groups. Thus, the null hypothesis can be rejected for Achievement but only partially in Affiliation.

Finally, no significance was obtained for Achievement when the groups were formed on the basis of their success or lack of it judged at the conclusion of the season. However, a .03 level was obtained for the Affiliation measure and thus the null hypothesis could be rejected at that level. This was caused almost entirely by the relatively low Affiliation score of the male athletes in the unsuccessful group.

Discussion

The results reinforce the hypothesis that different groups at different ages demonstrate different motivations for their continuing participation in sport. This supports either a pure Social Learning or Interaction Theory. The two areas chosen for examination demonstrate different patterns for the groups. Essentially what has occurred is a consistent pattern for the females in both variables. This would suggest the social reinforcements for girls remain consistent over time largely stressing the Affiliation elements of sport and downplaying, at least in written form, the Achievement incentives. One should be cautioned that other examinations of behaviour might produce different results. Rushall (1975) discusses the problems of single analyses and recommends testing by several means. This concern is reinforced by the fact that the Senior Secondary females scored lower than the Junior Secondary females in the Achievement score. It is likely that the older girls might have responded in a manner which they perceived to be more acceptably feminine.

When the comparisons are made for the males, Achievement scores are consistent across the groups and both demonstrated a significantly higher score than the females. However, the Junior Secondary boys scored significantly higher in Affiliation than Senior Secondary athletes. There are two possible explanations, both of which can be seen as consistent with a Social Learning theory. Firstly, the reinforcement patterns for Junior Secondary include both Achievement and Affiliation aspects whereas these Affiliation goals are withdrawn at the more sophisticated level of Senior High School sport.

Secondly, it is possible that through naturally selective techniques, several athletes who have competed at Junior Secondary level do not continue at Senior High School because of their need for Affiliative producing experiences which are not necessarily found at the Senior levels.

It should also be recognized that the treatment of group data disguises an individual's motivation and incentives. The individual patterns shown in the two variables suggest that people respond individually to these and other incentives. Any generalizations that can be made must always recognize this concern.

References

Aldermen, R.B. and N.L. Wood, "An analysis of incentive motivation in young Canadian skaters", Canadian Journal of Applied Sport Sciences, 1:2, 1976, pp. 169-176.

Birch, D. and J. Veroff, Motivation: A Study of Action, Belmont, California: Brooks/Cole, 1966.

Dayries, J. and R. Grim, "Personality traits of women athletes as measured by the Edwards Personal Preference Scale", Perceptual and Motor Skills, 30: 1970, 229-230.

Fisher, A. Craig, "Sport personality assessment: facts, fallacies and perspectives", The Physical Educator, 34:1, 1977, pp. 28-32.

Harris, Dorothy V., "Towards a better understanding of the female and sport", New Zealand Journal of Health, Physical Education and Recreation, 8:3, 1975, pp. 91-96.

Helmreich, R. and J.T. Spence, "Sex roles and achievement", Psychology of Motor Behaviour and Sport", Vol. II, Daniel Landers and Robert Christina Editors, Champagne, Illinois: Human Kinetic Publishers, 1977.

Kane, J.E., "Psychological correletes of physique and physical abilities", International Research in Sport and Physical Education, E. Jokl and E. Simons Editors, Springfield, Illinois: Charles C. Thomas, 1964.

Klein, M. and G. Christiansen, "Group composition, group structure, and group effectiveness of basketball teems", Sport Culture and Society, A Reader on the Sociology of Sport, J. Loy and G.S. Kenyon Editors, Toronto: McMillan, 1969.

Martens, R.E., "The paradigmatic crises in American sport personology", Sportwissenschaft, 5, 1975, pp. 9-24.

Ogilvie, B.C., "Psychological consistencies within the personality of high level competitors", Journal of American Medical Association, 205:1068, pp. 780-786.

Ogilvie, B.C., "Personality traits of competitors and coaches", Modern Medicine, 1972, pp. 61-68.

Petersen, J.A. and R. Martens, "Success and residential affiliation as determinants of team cohesiveness", Research Quarterly, 43: 1972, pp. 62-76.

Rotter, S.B., Social Learning and Clinical Psychology, Englewood Cliffs: Prentice-Hall, 1954.

Rushall, B.S., "Psychodynamics and personality in sport: status and values", Readings in Sport Psychology 2, H.T.A. Whiting, Editor, London: Lepus Books, 1975.

EIN HIERARCHISCHES MODELL ALS GRUNDLAGE ZUR ERFASSUNG SPORTLICHER AKTIVITÄT

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1. Zur Aktivitätsproblematik

1.1 Der Aktivitätsbegriff

Aktivität soll in dem hier verwendeten Kontext nicht im Sinne einer Grundfunktion der Persönlichkeit (vgl. THOMAE 1960:286), sondern unter dem Aspekt einer Verhaltensaktivität gesehen werden. Diese Verhaltensaktivität soll sich ausdrücken

im Ausprägungsrad der Beteiligung, der Intensität und der Vielfältigkeit zielgerichteter planvoller Tätigkeiten. Damit kann ein Zugang zur Verhaltensaktivität über Verhaltensbeobachtung oder Verhaltensbeschreibung geschaffen werden.

1.2. Aktivität - Einstellung - Interesse

Als Voraussetzungen zu aufgaben- und zielorientiertem Handeln werden insbesondere Einstellung und Interesse als Erklärungskonstrukte herangezogen. Einstellungen sind in erster Linie auf soziale Sachverhalte bezogen, während den Interessen die Wünsche nach Betätigung inhärent erscheinen (vgl. GUILFORD 1964, HILTMANN 1977). Die Differenzierung der Einstellung nach sozialorientierten bzw. situativ bestimmten Gesichtspunkten führt zu zwei divergierenden Betrachtungsweisen. Die eine als relativ konstante Verhaltenstendenz lässt sich nach ALLPORT (1935) mit dem Begriff 'attitude', die andere, als relativ kurzfristige Verhaltensbereitschaft, als 'set' definieren.

Die aktuelle Einstellung im Sinne von 'attitude' kann als sozialisationsbedingte, individualpsychologischen Einflüssen unterliegende Genese von gelernten Normen und Werten aufgefasst werden. Sie wird damit zu einem relativ stabilen Persönlichkeitsmerkmal, das überwiegend im Sinne einer "Reaktionskonsistenz gegenüber sozialen Sachverhalten" beschrieben wird (CAMPBELL 1963, vgl. auch ALLPORT 1935, THOMAE 1960, SÜLLWOLD 1969, TRIANDIS 1975). Dies bedeutet jedoch, dass in bekannten, d.h. kognitiv und emotional bereits verarbeiteten Situationen relativ konstante Verhaltensstereotypen zu erwarten sind, während in instrukturierten Situationen die affektiven Momente im Sinne von 'set' eine bedeutendere Rolle zu spielen scheinen.

Akzeptiert man die Richtigkeit der Definition von 'attitude', die Abgrenzung zum Begriff 'set' und die Komponentenstruktur der Einstellung(vgl. ROSENBERG/HOVLAND 1960), so scheint ein Zugang zur Einstellung nicht nur von einem Einstellungskonzept, sondern auch von einem Verhaltens-Aktivitätskonzept her möglich zu sein. Durch Befragung über einen begrenzten Verhaltensbereich unter Annahme der Stabilität der Einstellung, und damit eines auf Aktivität gerichteten Interesses sollte es möglich sein, Einstellung über Verhaltensbeschreibung zu erschliessen.

2. Sportliche Aktivität

Unter sportlicher Aktivität kann alles Verhalten verstanden werden, das im Zusammenhang mit dem Gegenstandsbereich Sport zu sehen ist. Unserer Meinung nach sollte sportliche Aktivität mit einer Interessenzuwendung verknüpft sein, wobei unter Interesse der Wunsch nach Betätigung verstanden werden soll. Eine Strukturierung des Sportbereichs bezüglich der Richtung der Aktivität ist durch die Abgrenzung der Begriffe Spitzensport, Hochleistungssport, Leistungssport, Breiten- und Freizeitsport geleistet. Für eine operationale Erfassung bietet sich aus theoretischen und ökonomischen Gründen eine Reduzierung auf einen, auch aus gesellschaftpolitischen Gründen bedeutsamen Bereich an - den der sportbezogenen Freizeitaktivität.

Die möglichen Verhaltensweisen können dabei aktiven oder passiven Charakter aufweisen, wobei unter der aktiven Zuwendung eigenes Sporttreiben, unter der passiven der Besuch von bzw.das Zuschauen bei sportlichen Tätigkeiten verstanden wird. Letztere lässt sich wiederum in Besuch von Sportveranstaltungen und Sportfernsehen aufgliedern. Die Nichterfassung anderer passiver, sportbezogener Verhaltensweisen wie z.B. Lesen von Sportzeitungen oder Hören von Sportsendungen im Radio

lässt sich durch die Bedeutung des Mediums Fernsehen und vor allem durch deren Wirklichkeitsnähe begründen.

3. Formalisierung des Ansatzes

Unter Berücksichtigung der bisher dargestellten Voraussetzungen und theoretischen Vorannahmen wurde versucht, den Bereich der sportbezogenen Freizeitsaktivitäten hierarchisch zu strukturieren. Dabei gehen wir von der Annahme aus, dass die Freizeitgestaltung massgeblich von der individuellen Interessenlage bestimmt wird, wobei sich hohes Sportinteresse auch in gesteigerter Aktivität niederschlagen müsste. Dabei implizieren wir nun weiter, dass sich die Freizeitaktivitäten 'Sehen von Sportfernsehen' (SFS), 'Besuch von Sportveranstaltungen' (SV) und 'sportliche Betätigung' (SB) hierarchisch bezüglich der sportlichen Aktivität auf einer 'Sportaktivitätsskala' reihen lassen.

Die Gültigkeit einer absoluten hierarchischen Struktur würde bedeuten, dass aus 'sportlicher Betätigung' geschlossen werden kann, dass die befragte Versuchsperson auch Sportveranstaltungen besucht und Sport im Fernsehen konsumiert. Versuchspersonen auf einer niedrigen Aktivitätsstufe fallen dagegen nur in die Bereiche 'Besuch von Sportveranstaltungen' und 'Sehen von Sportfernsehen' bzw. allein in den letzten Bereich.

In jedem Fall kompatibel mit den Modellvorstellungen sind diejenigen Versuchspersonen, die in keinem der Bereiche aktiv sind. Sie lassen sich auf einer fiktiven Aktivitätsskala von der anderen Versuchspersonen durch den niederen Ausprägungsgrad ihrer Aktivität unterscheiden.

Als 'nicht modellverträglich' werden Personen bezeichnet, deren Aktivitätsverhalten nicht der zugrunde liegenden Hierarchie entspricht.

Durch die Forderung nach Ordenbarkeit der Bereiche wird nichts ausgesagt über die Grössenrelation dieser Bereiche zueinander, sondern nur über die Determinierung des Verhaltens in eine Richtung. So kann von aktivem auf passives Sportfreizeitverhalten geschlossen werden aber nicht umgekehrt.

Es wird postuliert, dass das dargestellte hierarchische Modell für die überwiegende Mehrheit der Untersuchungsstichprobe Gültigkeit besitzt. Graduelle Unterschiede treten auf in der Repräsentation der beschriebenen Aktivitätscluster in Abhängigkeit von Geschlecht, Alter und Schulbildung.

4. Empirische Untersuchung

Zur Überprüfung der Gültigkeit des formalisierten Ansatzes wurde eine empirische Untersuchung durchgeführt, deren wesentliche Ergebnisse im folgenden dargestellt werden.

4.1 Stichprobe

Die Datenerhebung wurde an einer Stichprobe von n = 483 erwachsenen Versuchspersonen im Grossraum Heidelberg/Mannheim vorgenommen. Die Aufgliederung der Stichprobe nach untersuchungsrelevanten Faktoren geht aus Tab.1 hervor.

4.2 Methoden

Die Daten wurden mit Hilfe eines Fragebogens erhoben, in dem neben quantitativen Aspekten (Häufigkeiten) auch qualitative Erklärungsvariablen und soziodemographische Determinanten berücksichtigt wurden.

Tab.1 Aufgliederung der Stichprobe nach untersuchungsrelevanten Faktoren

	18 bis 32 Jahre		33 bis 50 Jahre		
	höhere Schulbildung	Hauptschul-abschluss	höhere Schulbildung	Hauptschul-abschluss	
Männer	105	63	65	54	287
Frauen	83	42	39	32	196
	188	105	104	86	483
	293		190		

4.3 Arbeitshypothesen

1. Die Versuchspersonen der Untersuchungsstichprobe lassen sich durch ein hierarchisches Modell bezüglich ihrer Sport-Freizeitaktivitäten beschreiben.

2. Die quantitative Ausprägung der Bereiche des Modells unterscheidet sich bei Berücksichtigung der Faktoren Geschlecht, Alter und Schulbildung.

4.4 Untersuchungsergebnisse

Die Antwortreaktionen auf die Fragen nach sportlicher Betätigung, Besuch von Sportveranstaltungen und das Sehen von Sportfernsehen wurden an einem vorgegebenen Schwellenwert dichotomisiert. Die Permutation der Antwortmöglichkeiten führt zu 8 in Abb.1 beschriebenen Personenclustern, von denen die ersten 4 modellverträglich im Sinne der hierarchischen Struktur sind.

	Cluster SB	SV	SFS	f	f %	cum f %
MODELL-VERTRÄGLICH	+	+	+	173	35,7	35,7
	+	+	-	122	25,2	60,8
	+	-	-	90	18,6	79,4
	-	-	-	31	6,4	85,8
NICHT MODELL-VERTRÄGLICH	-	+	+	4	0,8	86,6
	+	-	+	48	9,9	96,5
	-	-	+	7	1,4	97,9
	-	+	-	10	2,1	100,0

Abb. 1: Anteile der einzelnen Aktivitätscluster an der Gesamtstichprobe

Die Betrachtung der Cluster zeigt, dass mehr als 85 % der Gesamtstichprobe den explizierten Modellvorstellungen entsprechen.

Drei der vier nicht modellverträglichen Cluster sind mit 2,1 % oder weniger als gänzlich unbedeutend zu erachten. Als relevant ist lediglich die Gruppe der Personen anzusehen, die nur positive Ausprägungen in den Bereichen 'sportliche Betätigung' und 'Sportfernsehen' besitzen, jedoch keine Sportveranstaltungen besuchen. Eine

nähere Betrachtung dieses Personenclusters zeigt, dass es sich dabei überwiegend um jüngere Ehepaare handelt (72 %), deren Interessenschwerpunkte am Wochenende, an denen primär die Sportveranstaltungen stattfinden, anders gelagert sind.

Neben der globalen Betrachtung der Gesamtstichprobe erscheint eine differenzierte Analyse der modellverträglichen Cluster unter Berücksichtigung soziodemographischer Determinanten zur Gültigkeitsüberprüfung des Modells unbedingt erforderlich. Aus Abb.2 geht hervor, dass lediglich bei jüngeren Frauen der Anteil nicht modellverträglicher Versuchspersonen mehr als 20 % beträgt.

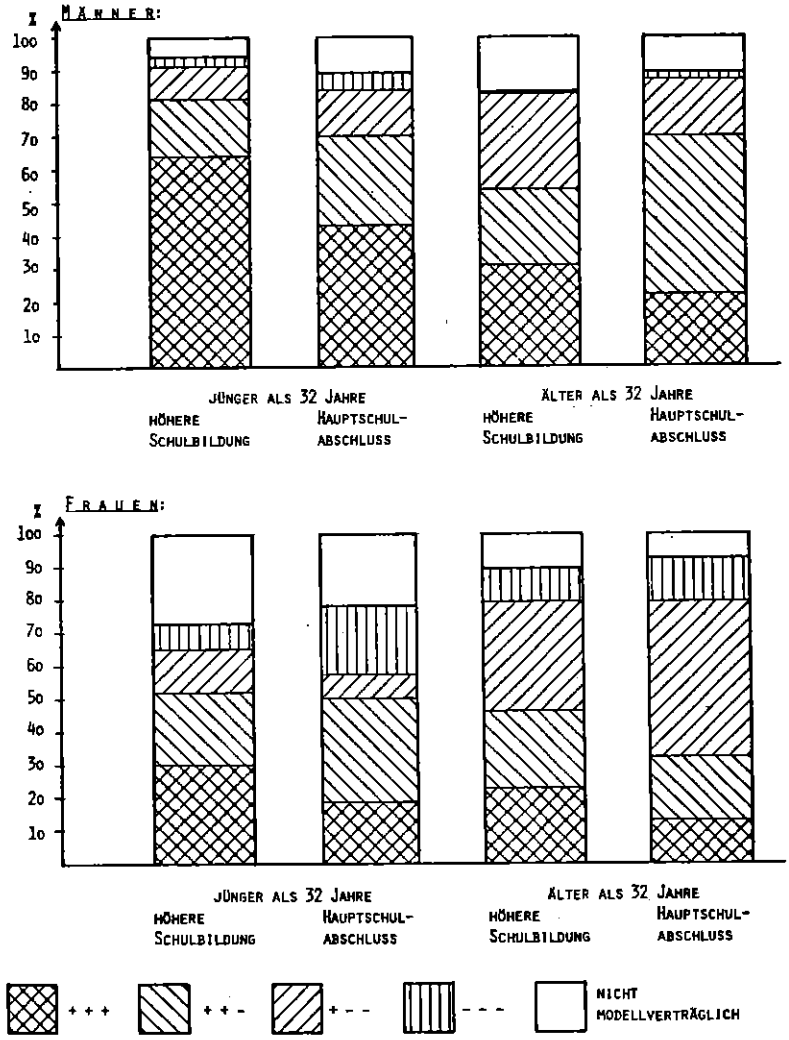


ABB. 2: PROZENTUALE ANTEILE DER EINZELNEN AKTIVITÄTSCLUSTER BEI VERSCHIEDENEN PERSONENGRUPPEN

In der Graphik wird auch die unterschiedliche Repräsentanz der Aktivitätscluster bei den verschiedenen Personengruppen deutlich. Der Anteil der höchsten Aktivitätsstufe (Cluster + + +) ist bei den Männern erwartungsgemäss stärker vertreten

als bei den Frauen. Charakteristisch ist auch der Abfall der Aktivität in Abhängigkeit von Alter und Schulbildung, der bei den Männern besonders stark zum Ausdruck kommt. Komplementär dazu steigt der Anteil des Clusters + + - an, was auf eine altersbedingte Interessenverlagerung zurückzuführen sein dürfte. Der Cluster ohne jegliche positive Aktivitätsausprägung (Cluster - - -) spielt bei den Männern nahezu keine Rolle, d.h. Männer sind in hohem Masse sportinteressiert, sie unterscheiden sich lediglich in der graduellen Ausprägung ihrer sportbezogenen Aktivitäten.

Der Anteil der "Nicht- Sportinteressierten" (Cluster - - -) ist bei den Frauen wesentlich höher. Er ist am höchsten bei der Gruppe der jüngeren Frauen mit Hauptschulabschluss. Es ist weiterhin festzustellen, dass Frauen über 32 Jahren mehr Verhaltensaktivitäten zeigen, die mit dem Modell verträglich sind als jüngere. Allerdings zeichnet sich eine Verlagerung von aktiver sportlicher Betätigung (Cluster + + +) auf die eher passiven sportbezogenen Tätigkeiten ab (Cluster + + - und + - -). Besonders deutlich wird dies bei älteren Frauen mit Hauptschulabschluss, die in hohem Masse Sport im Fernsehen konsumieren (Cluster + - -). Die Tendenz zu mehr passiv orientierten Tätigkeiten, innerhalb des Erklärungszusammenhangs von Alter und Schulbildung wird dadurch bestätigt. Die Interessenverschiebung bei diesen Gruppen ist am ehesten durch sozialbedingte Variablen zu erklären.

Die abfallende Modellverträglichkeit der Gruppe der Frauen unter 32 Jahren ist weniger durch zu geringe sportliche Betätigung bestimmt, als durch die Tendenz der Ablehnung des passiven Konsumierens.

5. Schluss

Die hohe Modellverträglichkeit (85,8%)der Gesamtstichprobe darf als eine Bestätigung des zugrundeliegenden hierarchischen Modells betrachtet werden. Die zusätzliche Reproduzierbarkeit der Aktivitätscluster und der hierarchischen Struktur bei den durch Geschlecht, Alter und Schulbildung definierten Gruppen, lassen den Schluss zu, dass sich auf der Basis der angenommenen hierarchischen Struktur ein relativ konstantes Verhaltensmerkmal erfassen lässt. Auf der Grundlage dieser Ergebnisse soll versucht werden, eine eindimensionale Skala im Sinne des eindimensionalen logistischen Messmodells von RASCH (1960) zu erstellen.

Literaturliste :

ALLPORT, G.W. Attitudes in: MURCHISON, C. (edt) Handbook of Social Psychology - Worcester 1935; 798 - 844

BECKER, P. Veränderungen von Einstellungen als Ziel des Schulsports SPORTWISSENSCHAFT 1, 1976 (6); 35 - 54

BROWNE, J. The Measurements of Attitudes The Austr. Journ.Phys.Educ. and Recr. 3, 1973; 8 - 10

CAMPBELL, D.T, Social Attitudes and other acquired behavioral dispositions in : Koch, S. Psychology: A study of Science New York 1963; 94 - 172

GUILFORD, J.P. Persönlichkeit Weinheim 1969

HOMEWILL, D. Attitude Change Brit.Journ.Phys.Educ. 7, 1976 (4); 166 ff.

ILG, H. Psychologische Aspekte des Persönlichkeitsbegriffs PhPraxKK 26, 1977 (6); 432 - 440

RASCH, G. Probabilistic Models for some Intelligence and Attainment Tests Copenhagen 1960

ROSENBERG, M.J./ HOVLAND, C.J. Cognitive, affective and behavioral components of attitudes in: ROSENBERG, M.J. et al. Attitude organisation and change New Haven 1960; 1 - 14

SÜLLWOLD, F. Theorie und Methodik der Einstellungsmessung in: Handbuch der Psychologie Bd.7, 1 Halb Bd. Sozialpsychologie Göttingen 1969; 475 - 514

THOMAE, H. Das Problem der Konstanz und Variabilität der Eigenschaften in: Handbuch der Psychologie Bd.4, Persönlichkeitsforschung und Persönlichkeitstheorie Göttingen 1960; 281 - 353

TRIANDIS, H.C. Einstellungen und Einstellungsveränderungen Weinheim/Basel 1975

SÚČASNÉ TENDENCIE PRI VÝBERE A OBĽUBE TELOVÝCHOVNÝCH AKTIVIT Z HĽADISKA MOTIVÁCIE

HRČKA, J., Bratislava, Československo

U rekreačne športujúcich občanov začínajú sa intenzívnejšie skúmať motivačné faktory najmä v posledných 5. - 10. rokoch. Ukázalo sa však, že u rôznych autorov vystupujú v motivačnej škále do popredia rôzne motívy. Je tomu tak preto, že každý autor si vytvoril vlastnú škálu motívov, alebo že vznikla syntézou odpovedí respondentov v dotazníkoch. Aj popri tejto nejednotnosti možno pri podrobnejšom štúdiu uvádzaných motívov konštatovať, že sú veľmi príbuzné, alebo dokonca i totožné - avšak uvádzané pod rôznymi názvami /upevnenie zdravia - byť zdatný a zdravý - snaha zachovať si zdravie - zlepšenie zdravotného stavu, ap./.

V príspevku by som chcel zhrnúť výsledky viacerých výskumných prác týkajúcich sa motivácie u rekreačne športujúcich občanov ako i načrtnúť vlastnú škálu motivačných faktorov pre ďalšie výskumy v danej tematike.

Podľa výskytu na prvom mieste, alebo na jednom z prvých miest v motivačnej škále, ukazuje sa ako najfrekventovanejší motív snaha udržať a upevniť si zdravie. HOLZWEBER /1977/ uvádza percento respondentov s motívom "Byť zdatný a zdravý" - 45%, "Mať radosť a dobrú náladu" - 35%. ŠČERBAKOV, MAKSIMENKO /1976/ skúmali motiváciu v súvislosti s charakterom práce a získali tieto výsledky :

	Motívy			
Charakter práce	Upevnenie zdravia a zlepšenie postavy	Kultúrno-zábavný cieľ	Dosiahnutie športových výkonov	Nieodpovedali
telesný	71,5 %	14,3 %	13,0 %	1,2 %
duševný	71,9 %	14,0 %	11,3 %	2,8 %
miešaný	70,6 %	16,4 %	9,1 %	3,9 %

PROTASOVOVÁ /1974/ skúmala motiváciu v skupinách všestrannej telesnej prípravy žien rôzneho veku a zamestnania v základni Ústredného štadióna V.I.Lenina v Lužnikách a dostala v rôznych vekovych skupinách tieto odpovede :

M o t í v	V e k	%
Láska k telesnej výchove	26 - 35	41
túžba po pohybovej činnosti	36 - 45	43
	46 - 55	49
	56 a viac	41
snaha zachovať si zdravie	26 - 35	26
rýchla únava v zamestnaní	36 - 45	27
	46 - 55	15
	56 a viac	22

ĎJAČENKO /1972/ zistil na prvom mieste motív záujmu "upevnenie zdravia /40 %/ a na druhom mieste "všestranný rozvoj osobnosti" /33 %/. SCHIFFNEROVÁ, WALTHEROVÁ /1976/ skúmali motiváciu účasti zamestnaných žien v cvičebných skupinách. Vo všetkých troch skúmaných oblastiach bolo hlavným motívom upeňovanie zdravia.

STRÁŇAI a KOL. /1972/ získal pri skúmaní pohnútok vedúcich ku cvičeniu a športovaniu následovné poradie v % :

P o h n ú t k y	muži	ženy	umiestenie celkove
Upevňovanie zdravia, ochrana a obava pred chorobami	62	67	1
Radosť z pohybu a hry v kolektíve, nové priateľstvá	58	67	2
Zvyšovanie výkonu, sily, obratnosti, rýchlosti, vytrvalosti	69	50	3

HRČKA J., UHER J. až v r. 1965 uvádzajú tiež zdravotné motívy na prvých miestach /n=720/ :

1. Pre upevnenie zdravia /35 %/
2. Pre zdravie a zábavu /29 %/
3. Pre rozptýlenie /17 %/
4. Pre zdravie a peknú líniu /8 %/
5. Pre materiálne a iné výhody /7,5 %/
6. Pre vhodnú náplň voľného času /1,5 %/

Vo výskume, ktorý uskutočnila ČSAV /Tělovýchova II., 1969/ dominuje v motivácii takisto želanie upevniť si zdravie / dospelí n=1500, mládež n=500/.

Dokonca aj rodičia motivujú často výchovu svojich detí ku športovaniu zdravotnými dôvodmi. BORISOV /1972/ napr. zistil, že 60 % rodičov si uvedomuje, že telesná výchova a šport upevňujú zdravie detí. HRČKA, UHER /1965/ zistili u rodičov na prvých miestach tieto motívy odporučovania cvičenia deťom :

1. Pre upevneni zdravia.
2. Pre duševný a telesný rast.
3. Pre otužovanie organizmu.
4. Pre správny telesny vývin.
5. Pre udržanie kondície.

KREIPL /1974/ uvádza, že najfrekventovanejší motív je "mať v telovýchovnej činnosti záľubu, pociťovať potrebu pohybovať sa, mať z tejto činnosti radosť" /77 %/, ďalej nasleduje osvieženie /53 %/, zlepšenie telesnej zdatnosti /34 %/, zlepšenie postavy /28 %/, zlepšenie zdravotného stavu /23 %/. Radosť z pohybu je na poprednom mieste aj vo výskume STRÁŇAI a KOL. /1973/; Tělovýchova II. /1969/; PALM /1977/; HOLZWEBER /1977/ ai. DIECKERT /1974/ porovnáva motiváciu u vrcholových športovcov a u rekreačne športujúcich. Vyzdvihuje faktor rozptýlenia a uvádza, že najčastejšou motiváciou v rekreačnom športe je /bez poradia dôležitosti/: hľadanie radosti, veselosti, zábavy, družnosti, komunikácie, uvoľnenie, vyrovnania, odpočinku, zdravia.

U západných autorov sú ako motívy často na popredných miestach aj sociálne pohnútky ku cvičeniu. BRATT /1977/ dáva sociálne pohnútky na prvé miesto. Za nimi nasleduje zdravie a telesná zdatnosť, súťaživosť, estetika, relaxácia. JERNERYD /1975/ uvádza spoločenské styky pri voľbe telovýchovných aktivít na poprednom mieste. KENYON /1968/ pri zisťovaní motivácie k telesnej aktivite uvádza na prvom mieste " sociálnu skúsenosť ", na druhom zdravie a zdatnosť, na treťom napätie a vzrušenie, na štvrtom estetické uplatnenie a na piatom možnosť súťaženia a prekonávania vlastnej slabosti. ENGSTRÖM -1974/ uvádza spoločenské kontakty ako motív na štvrtom mieste. PALM /1973/ skúmal motiváciu účasti na troch významných športovo-rekreačných akciách. Účastníci akcie TRIMM SPASS uvádzali z motivácie najmä : radosť, aktivitu, príjemné zážitky, dobrodružstvo, napätie. V akcii TRIM FREUNDE : kontakty, družnosť, priateľstvo, rodinu, susedov, kolegov. V akcii TRIMM FORM : uznanie, byť vzorom, vitalita, zachovanie mladosti, byť štíhlym.

Pozoruhodné sú výsledky prieskumu týkajuceho sa motivácie "mladších" a "starších" osôb. ENGSTRÖM /1974/ a BRATT /1977/ skúmali mestskú populáciu vo veku 18 - 65 rokov a zistili, že motívy telovýchovnej aktivity mladých a starších sa diametrálne rozchádzajú.

Podľa výskytu a frekvencie dá sa zostaviť následovná škála motivačných faktorov, pôsobiacich na rekreačne športujúcich občanov /bez poradia dôležitosti/:

Upevnenie zdravia	Rozptýlenie, zábava
Telesná zdatnosť	Ukľudnenie
Krása postavy	Vzrušenie
Sociálne kontakty	Súťaživosť
Láska k telesnej výchove	Snaha schudnúť
Túžba po pohybe	Módnosť /móda/
Atraktívnosť cvičenia	Radosť a dobrá nálada
Dlhovekosť	Estetické zážitky
Seberealizácia	Možnosť cvičiť s rodinou

Jedným z najfrekventovanejších motívov u rekreačne športujúcich a možno vôbec najfrekventovanejším/ je upevnenie zdravia. Treba tento poznatok využiť v propagačných a metodických materiáloch ČSZTV, v masových komunikačných prostriedkoch, ai. Osobitne významnú úlohu tu môžu zohrať lekári, ktorí by mohli v advekátnych prípadoch, častejšie ako doteraz, doporučovať účasť na telovýchovných aktívách rôzneho druhu. Pre organizácie, ktoré sa starajú o masovú telesnú výchovu, by mala vyplynúť požiadavka, aby v programoch preferovali také telovýchovné aktivity, ktoré majú apriorný zdravotný význam.

Aby sme bližšie poznali hierarchiu obľúbenosti telovýchovných aktivít v masovej a rekreačnej telesnej výchove u nás, vykonali sme prieskum počas spartakiádnych dní. Pre prieskum sme vybrali dospelých mužov i ženy, cvičiacich na hromadných

vystúpeniach CSS'75 v Prahe. Súbor tvorili respondenti zo všetkých krajov ČSSR, avšak ich zastúpenie nebolo rovnomerné. Počty respondentov : muži - 2882, ženy - 3057, spolu - 5879.

Respondenti mali uviesť dva najčastejšie konané pohybové aktivity vo voľnom čase. Je potešitelné, že u mužov, ako i u žien, prevláda telesná výchova, šport a turistika /tab. 1/.

U mužov prevládajú telovýchovné aktivity v 75,5 % odpovedí, na druhom mieste sú domáce práce /31,1 %/ a na treťom mieste práce na záhrade /22,7 %/.

Ženy uvádzajú najčastejšie v rámci pohybových aktivít vo voľnom čase domáce práce /64,2 %/, na druhom mieste telesnú výchovu, šport a turistiku /61 %/ a na treťom takmer rovnako prechádzky a práce na záhrade /28 %/.

Predpokladáme, že vysoké percento telovýchovných aktivít v skladbe pohybových aktivít vo voľnom čase ovplyvnila skutočnosť, že väčšina respondentov sú členovia ČSZTV a veľká časť z nich pravdepodobne aj aktívnymi cvičencami.

V obľube telovýchovných aktivít podľa pohlavia niet veľkých rozdielov medzi mužmi a ženami. U mužov sa tešia najväčšej obľube športové hry /69,7 %/, potom nasleduje plávanie /53,2 %/, a rekreačné lyžovanie /34,6 %/. U žien je najobľúbenejšie plávanie /62,2 %/, prechádzky /51,4 %/ a športové hry /40,7 %/.

Do popredia sa teda dostáva plávanie a športové hry, avšak prekvapujúco vysoko sa umiestnilo i rekreačné lyžovanie.

Nie je potešiteľné, že prechádzky sú značne uprednostňované pred rekreačným behom /ktorý má na funkčnú zdatnosť organizmu oveľa intenzívnejší vplyv/ a inými účinnými aktivitami. Zarážajúce je až 5. - 6. miesto gymnastiky, čo môže byť pravdepodobne dôsledkom preferovania tradičných foriem a obsahu pri spoločnom cvičení, lebo nové cvičebné formy sa tešia obľube u žien ako i mužov /tab. 2/.

Čo sa týká záujmu podľa rodinného stavu, tak slobodní muži viac obľubujú športové hry /72,8 %/ ako ženatí /65,2 %/. Niet značných rozdielov v obľube rekreačného lyžovania, plávania. Ženatí viac obľubujú prechádzky.

U žien niet prakticky rozdielu medzi záujmom slobodných a vydatých. Najväčšej obľube sa těší plávanie. O športové hry majú väčší záujem slobodné /47,2 %/ ako vydaté /35,1 %/. U ďalších aktivít sú rozdiely v záujme vydatých a slobodných minimálne.

Najväčší záujem o športové hry projavili u mužov respondenti do 40 rokov. Najnižší záujem o prechádzky prejavili muži do 20 rokov, potom postupne s vekom záujem o prechádzky stúpá. Plávanie je vo všetkých vekových kategóriách na druhom mieste obľúbenosti. Významnejší záujem o gymnastiku sa prejavil v kategóriách na 40 rokov. Záujem o rekreačnú cykloistiku sa prejavil len v kategórii mužov do 20 rokov.

U žien je vo všetkých kategóriách najobľúbenejšie plávanie a to až do 50 rokov bez značných rozdielov. Najväčší záujem o športové hry prejavili respondentky do 20 rokov, najmenší záujem bol v kategórii 31 -40-ročných a 41 - 50-ročných. Prekvapuje značný záujem o športové hry v kategórii žien nad 50 rokov /43,4 %/. Obľuba gymnastiky vzrastá s vekom. Najväčšia sa prejavila v kategórii nad 50 rokov. Záujem o turistiku je vo všetkých kategóriách v rozpätí 34,6 - 41,8 % /tab. 3/.

Aj keď záujem o druh aktivity nie je jediným kritériom, podľa ktorého by sa mal konať výber aktivít do cvičebných hodín, predsa by sa mal do značnej miery rešpektovať. V cvičebných hodinách mužov by sa teda mali uprednostňovať športové hry /resp. prvky zo športových hier a pohybové hry/ a častejšie organizovať hodiny plávania, turistiky a rekreačného lyžovania. U žien je to plávanie a gymnastika, potom turistika a športové hry, ktoré by mali byť uprednostnené.

TAB. 1

Pohybové aktivity vo voľnom čase

Pohyb. činnosť	Muži n	Muži %	Ženy n	Ženy %
telesná výchova, šport, turistika	2132	75,5	1865	61,0
prechádzky	607	21,5	883	28,9
práce na záhrade	640	22,7	867	28,4
práce v okolí bydliska	298	10,6	116	3,8
stavba domu - chaty	305	10,8	108	3,5
opravárenská činnosť	452	16,0	9	0,3
domáce práce	878	31,1	1962	64,2
tvorivá a umelecká činnosť	239	8,5	255	8,3
neuviedli	4	0,1	8	0,3

TAB. 2

Obľuba telovýchovných aktivít podľa pohlavia

	Muži	n	%		Ženy	n	%
1.	športové hry	1968	69,7	1.	plávanie	1902	62,2
2.	plávanie	1502	53,2	2.	prechádzky	1572	51,4
3.	rekr. lyžovanie	976	34,6	3.	športové hry	1243	40,7
4.	turistika	833	29,5	4.	turistika	1171	38,3
5.	prechádzky	810	28,7	5.	gymnastika	1141	37,3
6.	gymnastika	660	23,4	6.	rekr.lyžovanie	896	29,3
7.	rekr. cyklistika	504	17,9	7.	rekr. cyklistika	444	14,5
8.	branné športy	416	14,7	8.	rekreačný beh	245	8,0
9.	rekreačný beh	393	13,9	9.	branné športy	188	6,1
10.	kulturizmus	204	7,2	10.	kulturizmus	51	1,7

TAB. 3 Obľúbenosť cvičebnej činnosti podľa vekových kategórií

Obľúbenosť cvičebnej činnosti	vekové kategórie									
	do 20		21 - 30		31 - 40		41 - 50		nad 50	
	n	%	n	%	n	%	n	%	n	%
gymnastika	172	14,1	137	21,2	117	27,0	129	43,0	105	47,9
rekr. beh	164	13,4	113	17,5	59	13,6	38	12,7	19	8,7
pešie prechádzky	257	21,0	185	28,6	154	35,6	123	41,0	91	41,6
plávanie	688	56,3	341	52,7	212	49,0	150	50,0	111	50,7
šport.hry	893	73,0	481	74,3	310	71,6	169	56,3	115	52,5
turistika	328	26,8	186	28,7	148	34,2	95	31,7	76	34,7
rekreač.lyžovanie	424	34,7	219	33,8	152	35,1	115	38,3	66	30,1
rekreačná cyklistika	318	26,0	86	13,3	46	10,6	25	8,3	29	13,2
branné športy	238	19,5	96	14,8	40	9,2	26	8,7	16	7,3
kulturistika	139	11,4	37	5,7	18	4,2	7	2,3	3	1,4
neuviedli	3	0,2	3	0,5	3	0,7	-	-	-	-
gymnastika	274	37,3	405	36,3	273	35,9	119	38,4	70	51,5
rekreač.beh	72	9,8	76	6,8	64	8,4	18	5,8	15	11,0
pešie prechádzky	334	45,4	578	51,8	416	54,7	180	58,1	64	47,1
plávanie	457	62,2	719	64,5	450	59,1	202	65,2	74	54,4
šport. hry	410	55,8	456	40,9	230	30,2	88	28,4	59	43,4
turistika	258	35,1	466	41,8	286	37,6	114	36,8	47	34,6
rekreač.lyžovanie	190	25,9	347	31,1	251	33,0	74	23,9	34	25,0
rekreačná cyklistika	119	16,2	155	13,9	114	15,0	42	13,5	14	10,3
branné športy	65	8,8	61	5,5	45	5,9	11	3,5	6	4,4
kulturistika	10	1,4	11	1,0	20	2,6	6	1,9	4	2,9
neuviedli	5	0,7	17	1,5	12	1,6	4	1,3	1	0,7

L I T E R A T Ú R A

1. BORISOV, J.V.: Otnošenie k fizičeskoj kuľture i sportu na sele. Teor. Prakt. fiz. Kuľt. 1972, 7, s. 66 - 67

2. BRATT. L.: Referát na konferencii "Sport pour tous". Paris, 2. - 6.5.1977

3. DIECKERT, J.: Eingenart und Eigenständigkeit des Freizeitsport. In: Dieckert, J. : Freizeitsport. Bertelsmann Universitätsvertag, Düsseldorf 1974.

4. ĎJAČENKO, A.V.: Fizičeskaja kuľtura i sport v režime truda i otdycha morjakov rybolovnogo flota. Teor. Prakt. fiz. Kuľt., 1972, 10, s. 51-53.

5. EVGSTRÖM, L.M.: Physical activities during leisure time. Int. Rev. sport Sociol. T.9., č. 2,1974 , s. 83 - 102.

6. HOLZWEBER, F.: Fit mach mit - Gedanken zum Fitnessport. Referát na konferencii "Sport pour tous". Paris 2. - 6.5.1977.

7. HRČKA, J.; KVAPILÍK, J.: Aktuálne problémy telovýchovnej aktivity a životosprávy dospelých cvičencov ČSS 75. Rezortná výskumná úloha, VR ÚV ČSZTV, 1970. 170 s.

8. HRČKA, J.; UHER.J.: Telesná výchova ako súčasť výchovy dospelých. Teor. Praxe těl.vých., 13, 1965, 6, s. 250 -253.

9. JERNERYD, R.: Sport - und Freizeitanlagen in Wohngebeiten. In: VI. Internationales Seminar Sport und Freizeit, 2. - 6.9.1975, Stockholm.

10. KENYON. G.: Six scales for assessing attitude toward physical acitivity. The Research Anarterly, 39:3, October, 1968.

11. KREIPL,J.: Tělocvičná aktivita obyvateľstva ČSSR. Lékař a tělesná výchova 1, 1974, s. 31 - 34.

12. MACÁK, I.: Psychológia športu. SPN, Bratislava 1971.

13. PALM, J.: Trimm dich durch Sport 1973. In: Trim and Fitness International. DSB, Frankfurt am Main 1973, s. 114 - 119.

14. PROTASOVOVÁ, M.V.: K problematike motivácie činnosti v skupinách všestrannej telesnej prípravy žien rôzneho veku a zamestnania. In: Metodické informácie, Bratislava, Metodické oddelenie ÚV STO, Bratislava, 1, 1974, s. 1 - 4.

15. SCHIFFNER, U.; WALTHER, M.: Untersuchungen zur Teilnahme berufstätiger Frauen am Gemeinsamen Sportprogramm von FDGB, FDJ und DTSB der DDR. Theor. Prax. Körperkult. 25, 1976, 12, s. 893 - 898.

16. STRÁŇAI, K. a KOL. : Stav úrovne niektorých telovýchovných stránok telovýchovnej činnosti členov STO v roku 1972. Bratislava, ŠPORT 1973.

17. SVOBODA, B.: Sport a výchova. OLYMPIA, Praha 1971.

18. ŠČERBAKOV, I.I.; MAKSIMENKO, A.M.: Charakter i truda fizičeskaja kuľtura v bytu trudjaščichsja. Teor. Prakt. fiz. kuľt. 1976, 7, s. 42 - 45.

19. Tělovýchova II. Zpráva o výskumu č. 69-4. Praha, ČSAV 1969.

EFFECT OF CHRONIC EXERCISE ON THE MULTIVARIATE RELATIONSHIPS BETWEEN SELECTED BIOCHEMICAL AND PERSONALITY VARIABLES

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Recent evidence pertaining to the physiological, biochemical and psychological status of "normal" middle-aged men indicated that distinct personality differences existed between trained and untrained individuals. Further, the data suggested that participation in a four month physical conditioning program influenced not only physiological parameters but also personality characteristics, particularly

those dealing with emotional stability (Ismail & Trachtman, 1973; Ismail & Young, 1973; Ismail & Young, 1975; Young & Ismail, 1975). These findings were based on univariate and multivariate analyses of personality data collected using the Cattell 16 PF Questionnaire and the Eysenck Personality Inventory.
Most studies designed to demonstrate the relationship of these compounds to human personality characteristics have used as subjects mental patients with extreme manifestations of psychosis; depression; schizophrenia; and anxiety. Surprisingly, the nature of these relationships in the "normal" population has hitherto been relatively unexamined. Thus , an attempt was made to investigate, in a multivariate fashion, the relationships between selected biochemical compounds and personality characteristics before and after a long-term exercise program. Specifically, the purpose of the study was to determine the effect of an exercise program on the relationships identified.

METHOD

Subjects

The subjects were selected from 90 Purdue University faculty and staff members and local businessmen, 21 to 61 years of age, who volunteered to participate in a four month physical fitness program. Passing a physical examination by their family physician was considered a prerequisite for acceptance into the program. Complete data were obtained on 58 men who had at least 60 percent attendance in the program.

Physical Fitness Program

The physical fitness program consisted of three ninety minute sessions each week for four months. At each session subjects took part in: jogging for warm-up (10 minutes maximum); and self-selected recreational activities (30 minutes maximum). Attendance was recorded at each meeting and the running and calisthenics were progressively intensified during the four month period. While the distance run varied according to the ability of the individual it was between one-half and five miles. The recreational activities provided were basketball, volleyball, squash, handball and swimming.

Physical Fitness Assessment

To provide evidence as to the difference between pre- and post-physical fitness program data relevant physiological data were collected and physical fitness scores, based on the regression equation of Ismail et al (1965), were obtained for each subject before and after the program.

Variables

Pre- and post-program data were collected on the following variables: Biochemical: Four biochemical variables were selected because of their previously documented relationship to certain personality characteristics.

A. Serum Glucose
B. Serum Cholesterol
C. Serum Testosterone
D. Free Catecholamines (epinephrine and norepinephrine)

Personality: Data were collected on the following personality variables:
A. Cattell 16 PF Questionnaire (16 PF) - Form A (1970).
B. Eysenck Personality Inventory (EPI) - Form A (1963).

Statistical Analysis

As a preliminary step factor analysis was used to reduce the psychometrical data from 20 personality variables to 10. Then the canonical correlation technique was used to determine the relationships between psychometric assessments of certain personality characteristics and selected biochemical compounds.

RESULTS

The means and standard errors of the selected physiological variables illustrate the improvement in the physical condition of the subjects. The increase in physical fitness score and the decrease in maximal heart rate from pre- to post-program tests were significant at the .01 level.

Pre-Program Results

The canonical correlations, the percent of total possible variance and the weights associated with each correlation between the biochemical (p) and the personality (q) sets of variables were computed. The relationship between the p and q sets was significant at the .01 level using the largest root and the summation of roots criteria.

The relative weights associated with the first canonical correlation indicated that the majority of the variance between the biochemical and personality sets was due to the relationships between testosterone and glucose and the personality variables: neuroticism, E (submissive vs. aggressive) and C (emotional instability vs. emotional stability). Examination of the univariate correlation matrix to ascertain the direction of relationships revealed that the pattern in this correlation indicates that individuals with high serum testosterone and glucose concentrations tend to be neurotic and aggressive.

The second canonical correlation indicated that the majority of the variance between the two sets was due to the relationships between glucose and cholesterol and G (expedient vs. conscientious), Q_4 (composed vs. tense) and the conformity and neuroticism scales of the EPI. The pattern in this case suggests that high serum levels of glucose and cholesterol are related to low superego strength, tension, nonconformity and emotional instability. The data suggest that individuals with hyperglycemia and hypercholesterolemia are likely to be fickle, self-indulgent, disregarding of rules, undependable and to lack a drive to do one's best.

The third canonical correlation is similar to the second canonical and the weithts indicated that the majority of the variance between the two sets was due to the relationships between serum cholesterol and glucose and the conformity scale of the EPI, C (emotional instability vs. emotional stability) and Q_4 (composed vs. tense). This pattern indicated that hypercholesterolemia and hyperglycemia are related to nonconformity, emotional instability and tension. Individuals therefore who are high on cholesterol and glucose are likely to be emotionally unstable and non-conformist. This canonical differs from the second canonical in terms of superego strength.

The fourth canonical correlation indicated that the majority of the variance between the two sets was due to the relationships between urinary catecholamine excretion and Q_4 (composed vs. tense), neuroticism and G (expedient vs. conscientious). This canonical showed that a high catecholamine excretion rate is related to neuroticism and tension.

Post-Program Results

The canonical correlations, the percent of possible variance and the weights associated with each correlation between the biochemical (p) and the personality (q) sets of variables were computed. The relationships between the sets were found to be significant at the .01 level using the largest root and the summation of roots criteria.
The canonical correlations found at the post-test were slightly different from those found at the pre-program test. Initially, glucose was the compound implicated most frequently in the four canonicals. During the final testing period glucose was replaced by catecholamine excretion in this respect.

CONCLUSION

The canonical correlation results confirmed that the selected biochemical compounds were, in fact, related to personality characteristics which support Eysenck's proposition (Eysenck, 1964). Comparison of the initial with the final result show that subtle changes occurred in these relationships - possibly as a result of the exercise program.

ANALYSIS OF REGULATING PROCESSES OF SPORT GAME ACTIVITY

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Human activity and its stimuli have been in the focus of investigation of several psychological trends.
Our analysis of sport game activity is built upon the attitude of modern Soviet psychology (VIGOTSKIJ, L.SZ., LEONTYEV, A.SZ., BERNSTEIN, NY.A.), according to which in activity, interrelationship of the object and the subject is realised. Accordingly, activity is always in connection with actual, objective environment. Different systems of classification of sport-activity from different aspects (FARFELJ, A.C., PUNI, A.C., KODYM, M., POULTON, E.C., KNAPP, B.,) lay down, that different environmental conditions make different psychological demands on competitors. On the basis of relationship between the sportsman and his environment, as well as of characteristics of regulating processes directing activity POULTON (1957), KNAPP (1964) and WHITING, H.T.A. (1969) make a distinction between opened and closed skills.
The term "closed skill" refers to those kinds of movement skills, that in application are NOT significantly influenced by environmental factors. E.g.: gymnastics, track and field jumping and throwing events, ice-skating.

Primary aim of movement learning is the development of a determined number of neuro-muscular connections (S-R connections), that produce ONE or perhaps SEVERAL movement programs. With other words development of perfect technics (T), which is one of the most essential determining factor of performance. Even a small deviation from the correctly fixed movement program may cause significant decrease of achievement. That is why in sports where closed skills are dominant in course of application the aim should be reproduction of well-acquired, previously successful technics.
Fig. 1 demonstrates the relationship between learning and application of closed skills.



Fig. 1

The competitor learning movement may be interpreted as a self-regulating system, that becomes perfect by continuous feed-back. In regulation of closed skills the internal regulation processes (proprioception) are dominant.
Fig. 2 shows the model of this regulation.

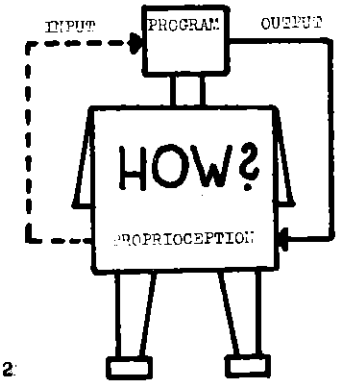


Fig. 2

The term "opened skill" means, that application of movement skills is determined by actual environmental factors. E.g.: team-mates, ball, opponents. This kind of movement skills is in first place characteristic in game and combat sports. In course of learning the aim is to practice in a great number of game-situations ($\sum_{1}^{x}S$) and to connect as many solutions ($\sum_{1}^{x}R$) as possible. Usually, several solutions may be connected with a single game situation, that is why the number of solutions is larger, than the number of game situations. In course of application of acquired movement skills we may meet an infinite number of game situations ($\sum_{1}^{n}S$) to which in principle we may connect an infinite number of solution ($\sum_{1}^{N}R$). Fig. 3 refers to the relationship of learning and application of opened skills.



Fig. 3

Regulation of opened movement skills is first of all realised with the help of the external regulating circle (exteroception). According to our opinion beside other abilities performance of the player is essentially determined by his capacity of decision making in alternative situations, by how can he regulate his behaviour with the help of his existing movement programs in accordance with environmental factors. Fig. 4 shows the model of this regulating process.

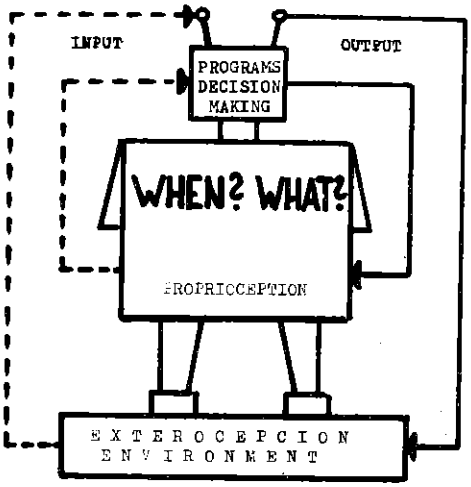


Fig. 4

Summary: In the course of teaching sport games we actually teach opened skills. During practice we connect game situations with motoric solution programs. In a finite number of situations the players learn a finite number of solutions, but they apply them in an infinite number of game situations. Consequently that type of player is considered talented who is able to select adequately among aquired and stored motoric programs, whose decision-making is correct, thus he may be called an intelligent player; further those players who from the acquired movement skills - from their S-R connections - can build up many new solutions, consequently they may be called creative players.

References:

1. Leontyev, A.NY.: Problems of Activity in the Psychology. In: Psychism and Activity in the Up to Date Soviet Psychology (in Hungarian). Published by "Gondolat Könyvkiadó" Budapest, 1974. pp. 33-60.
2. Bernstein, Ny.A.: Ontogenesis of movement function. In: Psychism and Activity in the Up to Date Soviet Psychology (In Hungarian), Published by "Gondolat Könyvkiadó" Budapest, 1974. pp. 97-138.
3. Knapp, B.: Skill in Sport. Rutlege and Kegan Paul, London 1964, pp. 3-5.
4. Filipovic, V.J.: Zur Entwicklung der Psychomotorik bei Kindern. Theorie und Praxis der Körperkultur, Beiheft 1974/1. pp. 90-93.
5. Fitts, P.M.: Factors in complex skill training. In: Glaser, R.: Training Research and Education. Science Editions. John Whiley and Sons. Inc. 1965. New York, pp. 137-177.
6. Marteniuk, R.G.: Information Processing, Channel Capacity, Learning Stages and the Acquisition of Motor Skill. In: Whiting, H.T.A.: Readings in Human Performance, Lepus Books, London, 1975. pp. 5-32.
7. Whiting, H.T.A.: Acquiring Ball Skill, London: G. Bell and Sons. Ltd. pp. 9-10, 1973.

METHODOLOGICAL ENDEAVOURS FOR MEASUREMENT OF DECISION-MAKING IN GAME SPORTS

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While measurable branches of sport are replete with objective experimental data giving help to the theory, game sports build their theory upon comparatively poor objective investigation material. We have especially few data in connection with the process of decision-making, which according to our opinion plays a central role in sport game activity. Our endeavour has been to create possibilities for measurement of two significant parameters of decision-making - time and content - then we have revealed the relationship between these parameters and the level of tactical action estimated by 3 experts independently from each other. According to possibilities of solution we have put 5 two-choice and 5 three-choice basketball game situations on the screen. The film was projected in the laboratory for the subjects of experiment - ten first class male and ten first class female basketball players - , and at the critical situations demanding decision-making we stopped the film. At the same time an electronic chronometer was started. The subject of the experiment had to give the correct solution on a precoded, 5-keyed instrument by pushing the appropriate key. The subjects of experiment had the following alternatives of choice: ball-dribbling to left, pass to left, shot at basket, pass to right, ball-dribbling to right. In this way we could measure the time and content of decision-making.

Results:

1. Comparing decision values of males and females we have obtained the following results:

Table 1

DECISION	MALES	FEMALES
TIME	$\bar{x}$= 1.52 sec s= 0.61	$\bar{x}$= 1.73 sec s= 0.56
CONTENT	$\bar{x}$= 83.0 % s= 10.2	$\bar{x}$= 83.6 % s= 6.5

2. Comparing time and content values of decisions made in two and three choice game situations we have obtained the following results:

Table 2

D E C I S I O N		MALES	FEMALES
TIME	2 alternative	1.02 sec	1.50 sec
	3 alternative	2.00 sec	1.96 sec
CONTENT	2 alternative	86.8 %	90.4 %
	3 alternative	79.2 %	77.2 %

3. Correlation between estimated values of tactical action and decision values measured in modelled situation in film:

Table 3.

DECISION	MALES	FEMALES
TIME	$r_s = 0.660$ $p < 0.10$	$r_s = 0.927$ $p < 0.01$
CONTENT	$r_s = 0.622$ $p < 0.10$	$r_s = 0.200$ $p > 0.05$

Conclusions:

1. Compering decision results of femeles end meles we have not found eny significent difference.
2. As the meesured time end content of decision velues were better in the two-choice geme situetions, then in the three-choice geme situetions both in femeles end meles, we have come to the conclusion, thet elong with the increese of the number of elternetives decision time becomes longer, end its content velue decreeses.
3. On the basis of correletion between subjectively estimeted velues of tectical action end the TIME of decision meesured in the leboretory we mey eccept our method es velid for judgement of tectical ection of pleyers.

References:

1. Nagy, Gy.: Exemination Releted to Game-intelligence in Femele Hend-ball Pleyers. Psychological Studies (In Hungerien) Published by "Akedémiei Kiedó" 1967. Budepest pp. 519-533.
2. Nádori, L.: Theory end Methodology of Coeching. Sport Budepest p. 111
3. Rokusfelvy, P.: Performence-Motivetion end Decision-Meking. Psychological Studies (In Hungerien) Budepest, 1968/2 p. 321.
4. Whiting, H.T.A.: Acquiring Ball Skill. London: G. Bell end Sons, Ltd. 1973. pp. 36-48.

INVESTIGATION OF SOME SENSORY-MOTOR PARAMETERS OF TACTICAL ACTION IN BASKETBALL PLAYERS

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It is an experienced fact, that in sport-games beside physical abilities and technical skills achievement of competitors is significantly influenced by the level of their tactical action. In our study, by the term "tactical action" we mean those forms of activity, that are preceded by decision making.
In order to establish sensory-motor factors influencing the level of tactical action, we performed an investigation at the first class female and male basketball players (20 subjects) of the College of Physical Education. With the help

of subjective expert estimation (3 experts) built upon a questionnaire we have established the level of tactical action of the players, and classified them accordingly. We measured the extent of attention (tachistoscope), peripheric vision and peripheric colour-identification (Carl-Zeiss-Jena spherical perimeter), simple reaction time (electronic, digital instrument serial 2 x 50 stimuli), and movement time (5 velve reaction-screen). We have calculated values of rank-correlation between measured sensory and sensory-motor parameters and the estimated values of tactical action (Spearman).
We have found positive relationship between reaction time and tactical action (20 subjects, $r_s = 0.532$. $p < 0.02$).

Partial results:

Experimental subjects	$\bar{x}$	s	r_s	p
Females (N=10	0.231 sec	0.020	0.872	$p < 0.01$
Males (N=10)	0.235 sec	0.031	0.375	$p > 0.05$
Females and males together (N=20)	0.233 sec	0.026	0.532	$p < 0.02$

Discussion:

In the course of our investigation we have found, that good players have short reaction time. BUNN, J.W. (1961)-an American basketball coach and expert who had examined this problem for a long time-has arrived at similar result. He says the following: "In all my years of coaching I have never had a player make first-team position who was not rated, on reaction time, among the first twenty candidates reporting for the team. On many occasions the freshmen candidates, from 60 to 100 in number, have been rated in order of their reactions."
We feel, that our opinion is supported by POULTON, E.C. (1965), who makes the following statement: "The man, who is good at fast ball games is not necessarly the men, whose reaction time is the shortest, when measured. The only certain generelization is, that the man with long reaction time will not be good at fast ball games."

Conclusions:

1. In the course of our investigation we have found positive correlation between estimated values of tactical activity and the measured values of simple reaction time. The proof of this correletion would demand further examinations.
2. Short reaction time is not a reliable parameter of suitability, on the other hand long reaction time must be considered as a factor of contraindication.
3. In relation with the other examined psychic factors and tactical activity we have not found significant positive correlation.

References:

1. Bunn, J.W.: The Basketball Coach Prentice-Hall. Inc. Englewood Cliffs, N.J., 1961. p. 102.
2. Csinedy, J.: Significance of Serial Reaction Time Measurement from the Point of View of Loadability of Humen Organism. (In Hungarian). Sport Science 1955/3, pp. 12-33.

3. Nagykáldi, Cs.: Principles of Research-methodology of Psycho-Motor Examination in Sportpsychology (In Hungarian). Scientific Publications of College of Hungarian Physical Education. 1971/5, p. 252.
4. Oplevin, Sz.M.: Improvement in Reaction Time and the Effect of Practice in Sport Games. (In Hungarian). Center of Documentation of the College of Hungarian Physical Education, Budapest, 1953, 5-9 pp.
5. Pilvein, M.: The Significance of Peripheric Vision and Peripheric Colour Identification in Soccer Players (In Hungarian), Scientific Publications of College of Hungarian Physical Education 1970/3, Budapest, pp. 289-295.
6. Poulton, E.C.: Skill in Fast Ball Games, In: Whiting H.T.A.: Acquiring Ball Skill, London: G. Bell and Sons, Ltd. 1973, p. 41.

IDENTIFICATION OF TALENTS IN ICE-HOCKEY

JAKABHÁZY, L., Hungary

If an ice-hockey coach does not want to be "short-lived" in his club, he must achieve results, success. In order to be successful, good performance of his team is necessary. Performance in sport is determined by two factors. One factor is constituted by physical abilities, where condition, and within it speed, skill, strength, endurence, technics and tactics belong.
Many- mainly practical experts- are of the opinion that, by development of condition, technique and tactics the task is solved, the player is prepared for combat. However, the side of physical skills is only one side of performance. The side of productivity is of equal importance, where personality traits of the player belong, such as will-power, will to win, capacity for fighting, courage, self-discipline, self-confidence, love for his club, for his country. Who has ever seen a good ice-hockey player without these personality traits? Nobody, for it is not possible. The side of physical abilities provides energy for the player- this is why it is called energetic basis- the side of psychic skills mobilizes energy, in sport-psychology it is known by the term of motivation-basis. A good player gives best performance when it is most needed. This timing can be assured by psychic preparedness that is developed in coaching. One cannot develop condition, technique, or tactics on Mondays, Wednesdays and Fridays on the ice- rink, and do "spiritual exercises" with the players of Tuesdays, Thursdays and Saturdays in the changing-room. Both sides of performance must be developed tohether, ice-hockey players must be exposed to such combating and coaching loads, that will-power, self-discipline etc. should be developed together with endurance. Physical preparation must be the basis that cannot do without psychic preparation, nor can it be substituted by it.
Extent of success always depends on prevailing circumstances, therefore we generally put our requirements into the following words: "our trainees, our competitors must win". The more talented the players of a coach, the greater the probability that this will come true.

The real risk of education of a future generation of top players lies in the selection of talents.
How is it possible to determine that out of several thousands of pre-school children liking to skate who will, in 8-10 years become a Holeček, a Pospíšil, a Holík or Danda, a Bubník or Bartoň. Even the most up-to-date physiological, or anthropological tests often let talent-scouts down.
At this age physical fitness is also very difficult to asess, volitional and moral characteristics are even more "a pig in a poke". Selection today, depends mainly on the "flair" of the expert. For example, in swimming, in gymnastics build of the child is very important, and so it is in ice- hockey, but we have not, so far, given any consideration to it. However, this is only one of the many hundreds of characteristics of talent. The role of home selection increasses, where the natural basis of first-class sport, mass-sport is lacking.
Talent in ice-hockey - as well as in other branches of sport- is dependent on congenital endowments and zeal. By endowment I mean inherited characteristics (anatomical structure, nervous system, cortical composition, muscular-, articular-, osseous- system, etc.) that either we are born with, or we are not. Generally, we are not. However, existence of endowments is only a precondition, a possibility of achievement, and no gusrantee. Industrious work is needed, by which I transform conditions into reality. Many ice- hockey players, who had been declared great talents, achieved nothing, because they could not transform their natural endowments, advantages into values. Motivation basis for achievement was lacking, and so were such essentially important personality- traits as will-power, "ability to suffer" psychic hardiness, courage, patriotism.
Unfortunately my experience of 12 years as expert -leader of the ice-hockey section of the Central Sport School, and as leading coach of the Hungarian national team - has proved that, in practice, the two fundamental components endowment and zeal do not go hand in hand. Where inherited traits are present, love of work is missing, where there is zeal and strong will to become a good ice-hockey player, endowment is lacking. The very few players, who are in possession of both these "treasures" have reached the top, the national team.
It is Hungarian tradition that we consider ball-jugglers, blade-jugglers, disc-jugglers in general-with regard to requirements of sport- technique born virtuosos as being talented. However, branches of sport, just as any profession, cannot be brought into direct connection with biological, psychic endowments of human organism. Thus, it is hard to believe that, from different measurements performed at a given time unambiguous conclusions could be drawn as to aptitude and talent. For this reason stress should be laid upon proper preparation of young people, and not upon talent- scouting. Selection is realized in the process of preparation. In 1964, when the ice-hockey section of the Central Sport School was established, in the first stage we selected 863 applicants, out of whom only seventeen teams, altogether 180 players remained. This corresponds roughly to a selection - rate of 20 %, a very poor result. International expert opinion considers 40 - 50 % as an acceptable rate. Since then many small ice-hockey players have been brought up at our school, but our present rate also ranges only between 30 - 35 %.
Anyway, we have gained considerable experience in respect of how to identify talent in ice-hockey. According to our views minimum one year is needed to identify following traits with great probability, but in two years a sharp-eyed expert can select on a percentage basis.

This is an important fact to be realized, for we have no time, no money, no equipment, etc. to wait 6 - 7 years for the "lion's claws" to grow, if the person possesses only the qualities of a "tom-cat".

How can talent be recognized at an early age?

First of all: "By the term talent a complex of the characteristics of a person, pre-conditions of development of outstanding skills must be meant" (Definition by Rudik). Psychology emphasizes that talent - as a congenital anatomical-physiological characteristic of the organism expresses necessary conditions for development. Essentially, talent cannot be seen, cannot be measured, consequently, in untrained persons, in beginners very small footing can be found for the determination of a possibly existing special talent.

In our experiment we have examined 50 players from the point of view of aptitude for ice-hockey. A talented player may be distinguished from a less talented one by following characteristics:

1. His training is more successful, upon the effect of coaching stimuli of equal load and extent his achievement will be higher.
2. He is able to elaborate several coaching-stimuli successfully.
3. He learns movement-processes, tactical knowledge more quickly and is able to apply them in a creative way; these are the occasions, when the coach exclaims, surprised: "Where have you learned this? I haven't teught you to do it".
4. In game-situations he generally behaves suitably, according to his level of training. This is the expression of good understanding of the game, and of great adaptability.
5. He quickly recognizes essence of game-situations, and is able, according to actual circumstances, to find proper, successful solutions, unexpected by the adversary.

   In order to solve a game-situation he is able to choose from his acquired technical repertoire the right element.

6. He is able to recognize incorrect actions and correct them independently. He can apply acquired game experience towards increase of performance in a creative way.
7. He is able, by good anticipation to use his own, and other players's movements to his own advantage.
8. He is animated, his reactions are quick, and clever. His capacity of calculating optic-motoric game-activity is well-developed.
9. He works devotedly to overcome difficulties, he is industrious, ambitious, zealous, he trains regularly and systematically.
10. He possesses such volitional and moral characteristics as pleasure about effort, fighting-spirit, determination, collectivity.

Neither in sports disposing of exact possibilities of measurement, nor on the basis of one, or several tests may we assess talent with absolute certainty. Namely, performance is influenced by several other factors as well, such as extent and intensity of previous effects upon development, special knowledge and skills, volitional and moral traits, or attitude towards tests. The level of development of physical characteristics above the average may serve as an essential point of departure, but revelation of personality traits needs a longer period of time.

We may safely conclude that, at present, a well-qualified, experienced coach is

able to determine talent with net efficiency - especially in case he has the opportunity of continuous control. Well then, are different psychological tests, personality tests not necessary? Not at all. Only, at present, these tests are not sufficiently elaborated - and mainly not from the point of view of different relations to sport - that on the basis of diagnosis obtained by them reliable prognostics could be established.
These have naturally been initial statements, but they may be called encouraging. However, to be able to define the nature and essence of talent, further research-work and analytical observations are needed, mainly to investigate at what age different personality factors necessary for outstanding performance present themselves and what methods must be applied to identify them with strong probability. Till then we should consider carefully before declaring anybody talented, thus protecting others and ourselves from disappointment.

PSYCHOLOGICAL ASPECTS OF SELECTION IN ICE-HOCKEY

JAKABHÁZI, L., Hungary

It is with great pleasure that I am taking the opportunity of giving an account of the results of my examinations, mainly, because talking about ice-hockey in Czechoslovakia, in the European centre of this sport, is a great privilege.
My studies at the Bratislava Training College for Ice-Hockey Masters have given me a possibility to get acquainted with the problems of selection.
In 1963, in Budapest, a Central Sport School was established where champions of the future are trained in more than 10 branches of sport; and methods experimented here as well as scientifically proved procedures are introduced in the other sport schools. In 1964, the ice-hockey section was established by the National Office of Physical Education and Sport, and I have been assigned the task of the leader of the section. Work was started on the basis of my studies in Czechoslovakia, and of Hungarian possibilities. Now, I should like to give an account of experiences of the past 12 years.
The first stage of our practical work was to select those of the applicants for sport, in whom we detected fitness and possibility of development. This is not an important factor only because the coach is expected to produce results, and it is well-known that, for this purpose talented pupils are needed, but also- and perhaps primarily- because high-level requirements of coaching and competition put such a load on the applicants, that only the really fit can bear without any psychic damage.
In this sense good selection means protection of man, as well. Methods of selection in ice-hockey have developed together with the sport itself.
Initial accidental applications have been replaced by planned recruitment.
This was followed by a one-sided selection that had the purpose of determining physical aptitude of the applicant.
At present many-sided examination, based upon different tests, appear to be most up-to-date, where not only factors of morphological, physiological and

physical aptitude are considered, but psychic components as well.
This complicates matters significantly; nowadays a child "is put to school" when it is quite young and immature. Age of selection is being set more and more forwar . Thus, establishment of the development of the child's physical status becomes more and more difficult, for, on account of his young age it may be influenced by many factors. Yet, based upon my practical experience it seems, that this problem may, on the whole, be considered as solved. Examination of expected development of psychic factors is essentially more complicated. The question may rightfully arise, whether the child can, at all, be examined from this aspect, and if so, what should be examined, and how? When should selection in ice-hockey take place? There had been a period, when selection was made too late, at the age of 14, this was followed by a period of early specialization - similarly to other branches of sport - when selection took place at the age of 6-8.
According to my opinion, playful teaching of skating should begin at the age of 6-8, and a basic training will have a very good effect in after years.
On account of insufficient development of the centres of the cerebral cortex, differentiated movements cannot be demanded before a certain age.
Differentiation of neurocytes is finished around the 8th year of age. Excitation and inhibition processes are balanced. Temporary links are not yet permanent, for the cerebral cortex is not able yet to direct subcortical centres in every case.
According to present conception of theory of coaching and of sport-psychology skating, together with swimming and gymnastics belong to sports of easy coordination, in the mastery of which mainly movement - coordination plays a great part, and among physical abilities mainly skill and speed dominate that can already be improved at this age.
It is not accidental that figure-skating can be classed among technical sports, where coaching may be started at the age of 5-7, and coaching of the advanced may be put at the age of 10-15. Competitors become protagonists at the age of 16, averagely, the following 5-6 years are the period of participating in the international forefront. At the age of 13-15 physical-psychic conditions in figure-skating, necessary for high-level performance and coaching work may be established. Ice-hockey belongs to the family of sport games, and is closely related to speed-strength sports, combat sports. The period of beginning may be put at the age of 8-10, the period of beginning specialized training follows at the age of 10-12, then, gradually, between the age of 12-14 loading is increased, and by the age of 14-18 tasks prescribed for advanced players have to be accomplished. The period of first-line begins at the age of 18-23, but here we must already consider a large extent of differentiation. At the past ten world-championships I assessed data of all the participants, and as a result of an elaboration I may report that, the mean age of the players of teams participating in Group A is 23,6-26,3 years, which means that the optimal period of top - accomplishment can be put at the age of 23-26. The following 4-5 years is the period of maintenance where increase of productive capacity is no more characteristic - disregarding some expectional cases - what is more, even maintaining the level requires hard work.
In ice-hockey, the period of learning, reaching the level of skill takes about 4-6 years. This phase is also called the period of education of replacement, this is when foundations are laid down. Up-to-dateness of preparation determines how long and at which level the player will play as a protagonist.
In ice-hockey, the period of first-class sport is 12-15 years - these data are

proved by assessments - this is the period of performance, where large deviations can already be experienced on account of aptitude and zeal, and they may be attributed to difference following from preperation.

The process of selection: it is impossible to determine infallibly in the course of one morning, or one afternoon, who is fit, or unfit for becoming an ice-hockey player. Naturally, there are extreme, striking cases, but, in general, a considerable length of time is necessary to express a final opinion. We have admitted applicants for a period of probation, and after they had been busy for minimum one year, maximum two years, expert coaches gave their final opinion, and only after that could the problem decided upon with great probability. Supposing there are 100 young applicants desiring to play ice-hockey, and because of several objective reasons (lack of coaches, lack of ice-rinks, equipment, changing-rooms, etc.) we can only admit 20 of them, even for a period of probation. The question arises, on which basis have we selected the most-suitable looking 20, and on which basis have we turned down the other 80 persons?

1. Medical examination, being competent to determine physiological aptitude, anatomical structure of the applicant is a factor we have, so far, not given enough consideration, however, we have to take it seriously. Consideration of anatomical measurements though not so decisive as e.g. in basketball, is an important point in ice-hockey, too. Due to inherited endowments, and faculties developed upon the effect of environment, a child of 8-10 years may be advanced, normal, or backward in development. Concerning the level of development we have basic biological standards at our disposal, that contain data of development and growth corresponding to age (age, body-weight, body-height, breadth of chest, pulse-rate, vital capacity, etc.) According to official reports, players of Group A of the past ten years have a body-weight of 83,5 kg, within them backs weight 89,9 kg, forwards only 81,1 kg. From these data many conclusions can be drawn as a lesson. Their average body-height is 177,7 cm, that of backs 177,7 cm, and that of forwards 176,3 cm. Measurements of body-height show that, for example, at the age of 14, our players had a body weight of 52-54 kg, body-height of 165-166 cm, their mean pulse-rate was about 68.

2. Assessment of ability, requirements
For this purpose we have an elaborated test-system at our disposal.

3. Personality-tests
The time at our disposal for a personality test is averagely 30 minutes. What can be examined during this time?

a. Personal interviews, individually. Motivation-test. Question patterns:
   a. why did you started this sport?
   b. what is the reason of your having chosen ice-hockey?
   c. according to your opinion, how long would it take you to become a top-player?
   d. if, in ice-hockey, you did not achieve expected success, do you feel like choosing some other sport?
   e. if you had to give up playing for some reason (illness, injury, moving house, family-problems, studies) what would you do?

f. what is your aim in sport, what would you like to achieve, etc.)

b. Drawing-test: paper-pencil test, where the applicant had to draw a sketch about the chosen branch of sport.

c. PFT (Picture Frustration Test). From illustrated drawings adapted to ice-hockey answers are sought about frustration tolerence, agression-level; for example: in the picture there are two players, fighting. The referee, by error, orders a third, innocent player off the field, thinking he had been the initiator of the fight. What would you do in this situation? Answers given to the questions reveal a great deal.

d. Information about the child as a pupil are very important, for, between intellectual capacity and faculties in sport, correlation can be demonstrated.
1. weak intellectual capacity - good faculties in sport
2. medium " " " " " "
3. excellent " " medium " " "

These categories have been produced by a large number of examinations.
Beside these teams I have met with extremes as well, where we found absolutely unfit children with markedly weak intellectual capacity and weak faculties in sport, or children of very good intellectual capacity with a very good sense of movement.
According to my experience Group 1 was unreliable, they were lacking in psychic endurance, in will-power, and in intelligence. Sooner or later they dropped out.
Group 2 showed a much more favourable image. These children had zeal, will-power, by steadfast, hard work they soon worked their disadvantage off, and soon left members of the previous group behind.
Group 3 consists of children with excellent intellectual capacities, strong will-power, and firmness of purpose. If their faculties in sport are good too, we can produce a great deal with them.
In spite of weaker faculties in sport good competitors can be made of this type of players.
Admission and assessment is performed by a psychologist. In practice, it has proved that 30 minutes are necessary for a psychological assessment of each applicant.
From data collected during many years we have established standards and with their help we have elaborated a point-system.

TRANSFER EFFECT IN MOTOR-LEARNING

JAKABHÁZI, L., Hungary

I feel deeply honoured that, in the European centre of ice-hockey, I have the possibility of giving an account of a series of longitudinal experiments investigating psychological regularities of motor-learning. These experiments were performed in ice-hockey, and lasted during ten years.
I should like to express my heartiest thanks to the leaders and lecturers of the

Training College of Ice-Hockey Masters in Bratislava for the help rendered to me as their student, and as the coach of the Hungarian national (selected) team.
Up to this day, the general opinion in sport-education is that a beginner can only attain favourable development by improving his own, chosen sport; in other words, the gymnast should only do gymnastics, the football-player should only be concerned with football, and the ice-hockey player should improve his necessary physical skills by playing only ice-hockey.
According to our opinion, physical skills necessary for successful performance of different sports can be acquired in the period of learning, by comprehensive training. To demonstrate this statement of ours we launched a series of longitudinal experiments in 1964 and ended it in 1973, thus it lasted ten years.
As you know, ice-hockey in Hungary does by far not enjoy such an illustrious place, as it does in Czechoslovakia. We should like to line up, but this endeavour of ours has many objective obstacles (we have no indoor ice-rinks, we do not possess enough teams, nor players, we are lacking in theoretical fundamentals of modern training, etc.)
In order to render our closing up possible, in 1964 the National Office for Physical Education and Sport established the ice-hockey section of the Central Sport School, and I have been assigned the task of expert leader.
Out of nearly 1 000 applicants we selected 50, and constituted an experimental and a control team of 25 persons each. Initially both teams had been of homogenous composition.
Training was started at the school, where the number of trainings took the following shape:
In the first year there were 3 trainings weekly, in the second year four trainings, in the third and fourth year 5 trainings, in the fifth and sixth year 6 trainings, weekly. Having finished school in the sixth year the players became members of teams of first league. The experimental team constituted the second line of Ferencváros, Ujpesti Dózsa, Budapest Railways sport clubs, the control team remained together and formed a new ice-hockey section, the Volán Sport Club.
From the following, that is the seventh year the players participated in 11 trainings weekly, in their respective clubs, all 50 players alike. The total number of trainings during the ten years amounted to 3816. Assessments were continually made, and myself , as expert leader of the national team assessed the players four times a yers.
We measured the development of physical skills of the players, according to Czechoslovakian standards, examining 18 factors. In 1964 our experimentees were 12 years old, and by the end of the experimental they became 22 years old, adult players.
The experimental team (N = 25) received comprehensive education for ten years. They applied movement material of more than 10 branches of sport in order to improve physical skills necessary for ice-hockey. (Track and Field Athletics, Gymnastics, Soccer, Handball, Basketball, Tennis, Rugby, Swimming, Water-Polo, Springboard Diving, Boxing, Wrestling, Judo and Weight-Lifting.)
The control team chose the traditional, according to our opinion out of date-way, they were only preparing for reaching a high level in ice-hockey, by practicing only ice-hockey.
We performed 4 assessments every year, and, by the 18 factors already mentioned, we measured development of speed, skill, strength and endurance. We established our standards with the help of Dr. V. Kostka, Dr. Ladislav Horský, Dr. Jan Starší, Vladimír Komínek.

Speed was measured by 30 metre skating and distance-running
60 metre skating and distance-running
5x30 metre skating and distance-running
(speed - endurence)

Strength was assessed by electric measurement of shots, photo-electric procedure, standing jumps, whith Surgent-test (elasticity)

Endurance was assessed by 400 metre skating and distance-running, bursts, skill was assessed by puck-dribbling in time on slalom-rink, by ice-hockey playing and soccer.

Assessments of the experimental and control team were made by 5 experts, ice-hockey and soccer subjectively from 1 to 10 scores, the rest objectively.

Results, conclusions:

Elaboration of the results of the first six years was done by rank correlation of Spearmen.

After the tenth year an opportunity presented itself for a more subtle mathematical elaboration by factor-analysis.

1./ After ten years' observations we may draw the conclusion - proved on several occasions from other aspects - that in beginners general development of skills is most advantageous, but the higher the level they have reached in special skills of the branch of sport, the larger the scope that must be offered for improvement of special skills.

2./ Picking out a physical skill at random - let us take speed-compared to the identical level of 1964, development between the two teams is as follows:
In 1964, in 60 metre skating average result of both, the experimental and the control team was 10.4 sec.
In 1973, in 60 metre skating average result of the experimental team was 7.2 sec.
In 1973, in 60 metre skating average result of the control team was 8.3 sec.

Deviation of 1.1 sec. in 60 metre skating is very great, for in this sport 20-30 metre explosion-like starts, accelerations are most decisive. Adapting this situation to combat setting means that the comprehensively prepared player will be victorious against a player of the control team. **In ice-hockey, in a great percentage of cases speed in decisive.**

3./ The ten years' work of coaching, containing general and special development of skills - judged on the basis of performance - demonstrates that speed cannot be developed to an absolute degree, only relatively, that is compared to initial level.

4./ Performance in speed of distance-running and skating in 1964, respectively in 1973, as well as correlation **between strength, endurance and skill** measured by different tests have proved to be significant following six years work of coaching. In other words this means, that strength, as well as endurance and skill contribute to a lesser or larger extent to the development of the level of speed.

5./ As an ultimate fact I should like to inform you that out of the 25 members of the experimental team 4 ice-hockey players are members of the pool of world-contestants and they have represented the Hungarian colours at several world-championships.
On the other hand, among the members of the control team there is only one player to be found being member of the pool, and he, too, is a goal-keeper.
I consider this fact to be a sufficiently conclusive proof in favour of comprehensive training.

RISK TAKING AS A PERSONALITY TRAIT OF DOWNHILL RACERS

JANÁK, Vl., Prague, Czechoslovakia

The principal idea of this experiment is the problem of risk taking as a generally or situationally specific realization of the personality trait of downhill skiers. The problem is whether risk taking is characteristic enough for Alpine discipline skiers to be reflected as a general intersituationally consistent trait, whether this trait can be measured and predicted by means of Kogan and Wallach type tests, or whether it is rather related to various types of situations, modelled in the experiment.
The second problem to which the experiment was intended to contribute is the existence of relation between performance and risking, whether general or specific.
The relations between risk taking in individual types of situations and the age of the tested, as well as between the amount of risk taken and its degree of successfulness were investigated as subsidiary.
The experimental set consisted of two groups of 14 skiers of different performance grade. The first included the ČSSR representatives and 5 racers of 1st division level. The second was formed by a selection of 2nd division downhill skiers of average Czechoslovakian standard. Their age varied between 18 and 31 years.
Their level of risk taking was one-shot determined in six types of measurement, or situations:

1. A hypothetical situation with a sports context (an adapted Kogan and Wallach test).

2. A hypothetical situation with a non-sportive context (the Kogan and Wallach questionnaire).

3. A real situation with a real winning, and, where success depends on chance (dice).

4. Real situation with real winning and loss, where success depends on skill (shove ha'penny).

5. Self-evaluation (self-rating) of the risk taken by the skier in the race.

6. Evaluation of the risk, by the coach.

The other variables included in the experiment were age, performance according to FIS points and success in risk taking.

The probability of winning, prizes and losses were announced in advance. The effect of varying skill in the appropriate type of situation was also eliminated (shove ha´penny from different distances), so that the tested could be ranged in the order of displayed degree of risk taking in each of measurement.
The results were processed in the traditional manner and expressed in terms of a correlation matrix of ordinal coefficients and a bilateral U - test for comparing independent selections.
They can be briefly summarized as follows:

1. No significant relations between risk taking in various types of situations were found in either group. This means that no intersituational consistence in risk taking was displayed by the peak-performance or average skiers. An exception is the significant relation between self-rating scale of risk taken during a race and coach´s evaluation of the same in both groups. The correlation can be explained quite well by the mutual influence and interactions within the groups.

2. The experiment did not bring any evidence in support of hypothesis of the connection between risking and performance for any of the model situations.

3. The relations between age and risk taking proved insignificant, apparently because of the small age difference between the skiers. The latter, however, can hardly be expected to be larger in sportive practice than in our sample. This would indicate that the practical effect of the age factor on risk taking can be neglected with active competition downhill racers.

4. A highly significant relation was proved with both groups tested between subjective and "objective" evaluation of the successfulness of risking in a race and performance. In this connection an interesting phenomenon was observed in that all the coaches recorded this relation as positive on the rating scale, i.e. the more the sportsmen is successful in taking risks in a race, the higher his performance, whereas as the competitors in their self-rating expressed the opposite opinion, as if they wanted to show that their performance was "good" even if the risks they took were not successful.

Conclusions

1. Prediction of risk taking using the present questionnaire techniques is very problematic. Kogan and Wallach type questionnaires did not bear out the experimental connection with other types of risk situations, or with the rating scales.

2. The downhill racers in the ČSSR didn´t display similarity in risk taking in different types of situations. This leads one to assume that the character of sport did not mold their personality to the extent that it would be reflected in some general trend of selecting a certain degree of risk, or that this sport is not patronized by individuals for whom a certain degree of risking is characteristic as a personality trait.

3. No connection was proved between performance and risk taking, not even with this sport so rich in risk situations, inspite of all hypotheses. A certain connection with performance was only observed in the case of successfulness of risking on the rating scales where, however, it is not quite clear whether this is a subjective thought of the coaches, or the attitude of the racers motivated by prestige.
All this is indicative of the multi-dimensionality of risking in this population and of the necessity to concentrate prediction only to certain personalities in

certain situations. We were not successful in modelling these in this experiment, so that we are also faced with the problem of adequate methodological procedures, a static approach and routine statistical methods being no longer sufficient.
Inspite of this, I am of the opinion that the stage of seeking general personality traits, appearing in all situational contexts of risk taking, is slowly coming to an end. It is no longer adequate to discover peculiarities of the personality, but also the situations in which they may be reflected.
To risk does not mean to gain, at least not in every situation and for every personality.

ИССЛЕДОВАНИЕ ИНТЕЛЛЕКТУАЛЬНЫХ ОСОБЕННОСТЕЙ СПОРТСМЕНОВ ПРИ РАСКРЫТИИ ПРОБЛЕМНОЙ СИТУАЦИИ

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Интеллектуальные возможности спортсменов были всегда предметом внимания и интереса со стороны специалистов в области физической культуры и спорта. Этот вопрос особенно актуален для развития большого спорта, поскольку спортсмен с минимальными или посредственными интеллектуальными возможностями трудно может достигнуть значительного или продолжительного успеха. Поэтому для тренера очень важно хорошо ознакомиться с особенностями интеллектуальных возможностей своих спортсменов для того, чтобы он мог с конкретной рациональностью строить не только свои тренировочные программы, но и успешно решать как глобальные, так и оперативные вопросы целостной тренировочно-соревновательной деятельности. В настоящем докладе мы делимся некоторыми аспектами результатов проведенных нами экспериментов, которые имеют предварительный характер с учетом развития в будущем дифференцированной модели оптимальной для различных видов спорта интеллектуальной деятельности, которую можно было бы использовать при разработке психологических критериев спортивного подбора.
Учитывая некоторые теоретические положения современного личностного и информационного подходов при исследовании интеллектуальной деятельности человека, мы руководствовались прежде всего принятым в советской психологии положением об единстве механизмов интеллектуальной деятельности человека в различных формах и на различных уровнях ее осуществления.
Целью исследования было установление относительно устойчивых процессуальных характеристик интеллектуальной деятельности спортсменов различных видов спорта в лабораторно вызванной проблемной ситуации, требующей:

1. Способность успешно реагировать на относительно новую ситуацию путем подходящей коррекции поведения.
2. Способность понимать взаимосвязь между фактами действительности раскрывая ход событий и предугадывая самое вероятное изменение созданной ситуации с учетом выработки действий для достижения цели.

Мы исходили из гипотезы, что эти особенности более или менее характеризуют тактико-игровые возможности участников соревнований по ряду видов спорта. У нас нет сведений о других авторах, использовавших при исследовании спортсменов постановки, методы и аппарат аналогичные нашим и о получении сходных с нашими результатов

МЕТОДИКА ИССЛЕДОВАНИЯ

Исследованы студенты Института физической культуры в возрасте 20-28 лет со спортивной квалификацией от II разряда до мастера спорта, всего 307 человек, представителей следующих видов спорта: а) спортивные игры (баскетбол, волейбол, футбол, гандбол, теннис) - 174 чел); б) единоборства (борьба, бокс, дзюдо, фехтование) - 94 чел.) в) авто- и мотоспорт - 48. Использован специально сконструированный аппарат, предоставляющий возможность испытуемым раскрывать путем действий на бутонно-ламповую систему одну из 4-х электронно заложенных в нем программ при помощи визуально обеспеченной непрерывной оперативной информации, респ. обратной связи. Программы различались по степени трудности, сложности и числа элементов. Число ходов для открытия данной программы отчитывалось специальным механизмом, а время решения проблемы хронометрировалось. Экспериментатор наблюдал и фиксировал индивидуальный подход и стиль поиска решения испытуемым. Такое фиксирование качественной стороны исследованной деятельности осуществлялось на основе наблюдения и анализа а)траектории (пространственного расположения последовательных ходов на пульте аппарата), б) ритма (временная организация поисковых действий около отысканных опорных пунктов) и темпа (количество поисковых действий за единицу времени). Раскрытие проблемной ситуации при нашей постановке происходит в процессе самой деятельности, т.е. в динамике действий. Испытуемый пробует, мыслит, следит результаты своих попыток на пульте, комбинирует и т.д.,до тех пор, пока ему удается доловить закономерность совдающихся ситуаций. Такая постановка близка до спортивной деятельности. Интеллектуальная интуиция, в которой достигается решение конструированной нами проблемной ситуации, осуществляется в: а) абстрактно-комбинаторном, б) зрительно-наглядном и в) психомоторном, т.е. предметно-деятельном плане. Это обеспечивает разномодальность опорных пунктов и возможность для разновариантной реализации экспериментированного, респективно спортивного интеллекта.

АНАЛИЗ И ОБСУЖДЕНИЕ РЕЗУЛЬТАТОВ

На таблице № 1 видно, что лучшие результаты по времени и по количеству (меньше) ходов (поисковых действий) за первую и вторую программы получены единоборцами (17.2 и 14). Эти программы более элементарны по сравнению с третьей, и четвертой, в них сопоставлены только 1-3 фактора, и в этом отношении близки к спортивной деятельности в единоборстве, в котором ситуации связаны с одним противником, который представляет основной фактор (фактор "соперник"), и который спортсмен должен одолеть наряду с другими влияющими факторами.

Лучшие показатели для времени и количества ходов за III и 1У программы получены представителями спортивных игр (61.5 и 24), для которых специфическая проблемно-игровая ситуация зависит как от действий непосредственного соперника, так и от игроков собственной команды и команды противника.

Хуже результаты по третьей программе, показанные представителями технических видов спорта, при которых обычно есть сравнительно достаточное количество времени для решения возникнувших ситуаций. В четвертой программе, однако, время и число ходов автомобилистов почти выравняется с временем игровиков. Предполагаем, что поскольку принцип 1У программы сходится с принципом III программы, представители авто и мотоспорта быстрее ориентировались. Сама их спортивная деятельность заставляет их непрерывно запоминать дорогу, которую проехали и при сходных признаках у них есть уже умение пользоваться приобретенным опытом более для быстрой ориентации, принятия решения и его быстрого выполнения. Подобное снижение времени и числа ходов наблюдается и внутри группы единоборцев, среди которых боксеры и фехто-

вальщики, быстрее и с меньшим количеством ходов чем борцы, раскрывают ту же программу. При сопоставлении данных молодых баскетболистов с их игровыми данными (по экспертной оценке) оказывается, что существует положительная корреляция 0.75 при $P \leq 0.05$ между быстрым и верным раскрытием III и IУ программ и тактической эффективностью, выраженной в результативных подачах.

При анализе индивидуальных показателей отдельных исследованных спортсменов было установлено, что те, кто в тактическом отношении лучше выступают в своей спортивной деятельности, показывают лучшие индивидуальные результаты и в нашем эксперименте по сравнению с полученными средними данными в их группе. Это ярко выявилось при бывшем мировом чемпионе, фехтовальщике Монтано, при таких выдающихся спортсменах, как Мафей, Ригали и Михайлов из национальных команд Италии и Болгарии. То же самое наблюдалось при мировых студенческих чемпионов Универсиады "77 Томаш Шмидт, Крошина и идущих за ними финалистах Тароци, Борисов, Томанова и др. В национальных юношеских баскетбольных командах СССР, Югославии, Польши, ФРГ и Болгарии игроки, которые осуществляют тактическую деятельность в команде, имеют лучшие показатели по нашему эксперименту.

Таблица № 1 РЕЗУЛЬТАТЫ СПОРТСМЕНОВ ПРИ РАСКРЫТИИ ПРОБЛЕМНЫХ СИТУАЦИЙ

	Спортивные игры 174 ч.	Единоборства 95 ч.	Технические виды спорта - 48 ч.
Программы	Баскетбол Волейбол Футбол Гандбол Тенис	Борьба Бокс Дзюдо Фехтование	Автомобилизм Мотоспорт
Время 1 программа (10)	20,5 сек.	16,2 сек.	22,3 сек.
ходы	14	12	17
Время 2 программа (7)	17,2 сек.	15,7 сек.	19,7 сек.
ходы	12	11	15
Время 3 программа (10)	61,5 сек.	70,3 сек.	74,7 сек.
ходы	24	31	33
Время 4 программа (5)	26,9 сек.	31,4 сек.	25,1 сек.
ходы	13	17	14

2. По отношению к индивидуальным подходам выявлены следующие группы:

А. Системно-последовательно-логический тип - создает гипотетическую модель до начала деятельности и проверяет ее системно, от начала кнопочного ряда пульта. Если модель оказывается неверной, начинает проверку нового варианта, опять сначала и т.д. до достижения верного решения.

Б. Интуитивно-логически-ситуативный тип - создает и корригирует гипотетическую модель по ходу поисковой деятельности для раскрытия программы.

В. Ситуативно-действенно-хаотический тип - случайный, хаотический поиск, действие предшествует анализу, трудно отыскивают опорные пункты программы, не переносят приобретенный в предшествующих программах опыт.

Г. Неориентирующийся, хаотический тип - действует без конкретной стратегии и целенаправленного анализа; достигает решения проблемы только в 1 и II программах.

По стилю поисковой деятельности для решения проблемной ситуации выявлены следующие группы:

1. Медленные, обдуманные последовательные действия - в основном представители подхода типа А (системно-последовательно-логический тип).
2. Энергичные, быстрые, стабильные по характеру действия - представители подхода Б (интуитивно-ситуативный тип).
3. Колеблющиеся, прерывистые действия - главным образом представители топа В (ситуативно-действенно-хаотические).
4. Заторможенные - главным образом лица типа Г, которые могут преустановить поиски решения или не заметить, что практически на пульте уже получено наглядное изображение решения.

Таким образом выявленная типология основывается преимущественно на наблюдениях экспериментатора. К дифференцированному рассмотрению взаимосвязей внутри нее, а также ее отношений к спортивной квалификации следует приступить только тогда, когда будем в состоянии выразить ее количественным образом. Это возможно если к нашему аппарату будут монтированы дополнительные устройства для регистрации траектории, ритма и темпа деятельности испытуемых во время поиска решения экспериментальной проблемной ситуации. Пока мы хотели бы только поделиться одним пробным сопоставлением, которое показывает, что элитные теннисисты (системно-последовательно-логического типа находятся в корреляционной зависимости 0.8 при $P < 0.01$ с показателями завершающего удара с глубины корта; у теннисистов интуитивно-ситуативно-логического типа получена корреляция 0.67 при $P < 0.05$ с показателями завершающего удара у сети.

ЗАКЛЮЧЕНИЕ

Вышеизложенная самая общая интерпретация полученных в настоящем исследовании результатов можно с основанием использовать для конструирования гипотезы о том, что: Уровень специфических интеллектуальных возможностей для решения динамичной проблемной ситуации оперативного логико-наглядного и психомоторного характера находится в определенной положительной зависимости к системному, квалифицированному участию в одном или другом виде спорта.

Существуют типы интеллектуальной деятельности для решения ситуации, близкой к спортивной, которые положительно или отрицательно связаны с

а) уровнем достижений в одном или другом виде спорта

б) с успешностью тех или иных технико-тактических действий в отдельных видах спорта.

Исследование показывает, что необходима и возможна дальнейшая разработка предложенной аппаратурной методики с учетом количественного выражения качественных характеристик (подхода и стиля) экспериментальной интеллектуальной деятельности. Необходимо установление стандартных параметров "спортивного образа" исследованных лиц по видам спорта с учетом определения результативности их спортивной деятельности вообще и по отдельным технико-тактическим элементам. Это обеспечит надежность выявленных зависимостей.

PRACTICAL USE OF PSYCHOLOGICAL METHODS IN TRACK AND FIELD ATHLETICS

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The paper is based on several years´ work with the representative team of women athletes in discus throw and sprint events. The problem athletes were selected on the basis of results obtained by means of a test battery (Cattell´s 16PF, Raven, EPI A, Taylor). The most frequent problems found were insufficient ability of the athletes to concentrate during load, this not because of low motivation; on the contrary the level of motivation was very high but there was a great apprehension of failure before the public.

The pre-requisite of any good collaboration is a desirable social climate which requires a considerably long time and which is quite important. The training of psychic autoregulation by Macheč was applied in 8 athletes. Thus insomnia was removed and the concentration in load situations improved, under the same external disturbing conditions. Because it is impossible to change the atmosphere of the load which is charecterized by a certain tension, thrill, presence of journalists, pressure of public, etc. it was necessary to adapt the athlets to these situations, i.e., to keep them from the reach of the whole atmosphere (arrival right before the start, setting-up exercises outside the field, etc.) didn´t prove effective. The solution wasn´t in the change of the external conditions but adaptation thereto.

The psychologists of sports teams are frequently asked for advice and consultation. This refers also to the age of athletes - in our case the average age was 18.5 years. At that age athletes are subject to various important life situations which they are not able to solve objectively.

For immediate ascertainment and eventual influencing of the psychic states the SUPOS method by Mikšík was used. The administration and interpretation of this test is very simple and easy. On the basis of the long-term use of this technique it is possible to ascertain the relation of optimal psychic states to performence which helps to influence the dynamics of these states. This method yields information about the general level and structure of the inner athletes dynamic states and feelings in the relation to the dynamics of situational variables. The test of subjective feelings and states (SUPOS) has the following items: 1/ inner psychic balance

2/ psychic tension

3/ enthusiasm for action

4/ impulsive exertion

5/ states of depression and psychic exhaustion

The dynamics of these relations with regard to situational variables are more important than the absolute value of each of the said items.

A good relationship to the coach, in the sense of mutual respect, forms an important component of the psychological collaboration with the team. Approximately one in every 3 coaches has the ability to enter into such a relationship.

Apart from all these aspects the sports psychologist must observe ethical principles, he must not be involved in the stresses that affect the athletes for the sake of maximum performance. He must respect the personality of the athlete as a whole, the system of values which he observes although the Greek kalokagathos ideals have been surpassed.

ОСОБЕННОСТИ ЛИЧНОСТИ КАК ФАКТОРЫ ВОЗНИКНОВЕНИЯ ПСИХИЧЕСКОГО СТРЕССА У СПОРТСМЕНОВ

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При анализе причин психического стресса в спорте имеется стремление связать его с какими-то внешними ситуациями или особенностями деятельности, поскольку при наглядных, нескомпенсированных проявлениях стресса подобные причинно-следственные зависимости кажутся вполне логичными. При этом выделяют также внешне-ситуационные стрессоры, как неудачи, посторонние помехи, физическая или социальная опасность, неопределенность исхода деятельности, лимит времени, избыток или недостаток информации.

Однако, внешне ситуационный подход к генезу психического стресса односторонен, поскольку он осуществляется без учета индивидуального опыта спортсмена к адаптации к стрессорам и игнорирует действие фактора избирательной чувствительности к ним. Многочисленными исследованиями показано, что основной причиной возникновения психического стресса является расхождение между требованиями среды и адаптивными возможностями спортсмена, его способностью выполнить эти требования. Чтобы требования среды действительно выступали для спортсмена как стрессоры, то есть воспринимались и оценивались им как значимые и угрожающие, он должен быть определенным образом "ориентирован". Такая ориентация в значительной мере определяется социальными мотивами, установками и другими особенностями личности спортсмена.

В настоящее время исследования психологов спорта в области стресса преимущественно направлены на изучение влияния отдельных свойств личности, что снижает прогностическую ценность получаемых данных. Поэтому целесообразным становится изучение воздействий целого комплекса личностных особенностей в их различных соотношениях и сочетаниях.

В данном случае вполне оправдано применение стандартизованных количественных методов исследования личности, позволяющих выявить наиболее значимые в образовании стресса соотношения личностных свойств.

В нашем исследовании с этой целью была использована унифицированная психодиагностическая методика, включающая анкетный, психомоторный и проективный тесты. На основании проведенного исследования эффектов психического стресса у высококвалифицированных спортсменов представляется возможным выделить следующие значимые соотношения личностных особенностей:

1) преобладание эмоциональной возбудимости над выраженностью волевого самоконтроля;
2) преобладание потребности избежать неуспеха над потребностью достичь успеха в соревновательной деятельности;
3) преобладание тенденции к тревожности над тенденцией к агрессивности.

Все эти соотношения оказывают существенное влияние на формирование соревновательного стресса у спортсменов, обусловливая его физиологические, психологические и моторно-поведенческие проявления. Анализ взаимовлияния соотношений личностных свойств на эффективность соревновательной деятельности показал, что наиболее неблагоприятным признаком является слабый волевой самоконтроль при сильно выраженной эмотивности. Это соотношение может приводить к отрицательным стрессовым эффектам даже в случае сильно выраженной у спортсмена тенденции к агрессивности и потребности в достижении успеха. Напротив, наиболее благоприятным в этом отношении признаком служит сильно выраженный волевой самоконтроль при малой эмоциональной возбудимости. В данном случае толерантность к соревновательному стрессу у спортсмена может быть достаточно высокой даже при значительной тревожности и потребности избежать неуспеха.

Кроме того, была предпринята попытка связать особенности предсоревновательных стрессовых состояний спортсменов с проявлением ряда их социальных мотивов и установок, обуславливающих структуру межличностных отношений в команде и характер внутригрупповой активности каждого ее члена.

Стрессовые состояния спортсменов изучались с помощью анкетных методов, позволяющих диагносцировать уровень беспокойства, тревоги и фрустрации. Проявления социальных мотивов и установок выявлялись методом изучения межличностных восприятий (МЛВ), разработанным нами на базе методического подхода Р.Бейлза. Этот метод позволяет шкалировать три вида активности спортсмена в команде, каждый из которых детерминирован определенными социальными потребностями:

1) активность в сфере удовлетворения чисто личных (статусных) потребностей (от доминирования и превосходства над другими до обесценивания собственного "я");
2) активность в сфере эмоциональных отношений (от выраженного проявления дружественности до нескрываемой враждебности и эмоционального изоляционизма);
3) активность в сфере достижения высокого спортивного результата (от значительного вклада в решение групповой задачи до его отрицания).

С помощью корреляционного анализа была установлена тесная взаимосвязь показателей внутригрупповой активности спортсменов с характеристиками их предсоревновательных состояний. Наибольший уровень беспокойства и тревоги отмечался у спортсменов, проявляющих низкую активность в удовлетворении статусных потребностей, недооценивающих свои возможности. Высокую степень тревоги испытывали также спортсмены с низкой активностью в сфере поддержания благоприятных эмоциональных взаимоотношений в команде, эмоционально-изолированные. Несколько иное стрессовое состояние - состояние фрустрации - переживали спортсмены с выраженной направленностью на высокие спортивные достижения команды и на удовлетворение статусных потребностей. Напротив, менее всего подверженными соревновательному стрессу оказались спортсмены, проявляющие низкую активность в сфере достижения спортивного результата и повышенную активность в сфере поддержания дружественных взаимоотношений в команде.

Полученные данные позволяют заключить, что исследование соотношений личностных свойств как факторов психического стресса в спорте является важным аспектом комплексного изучения проблемы в целом.

UNTERSUCHUNGEN DER KONZENTRATION DER AUFMERKSAMKEIT IN HINSICHT AUF DIE REKREATIVE WIRKUNG DER KÖRPERERZIEHUNGSTUNDEN

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Mit unseren Untersuchungen möchten wir beweisen, dass die körperliche Aktivität der passiven Erholung gegenüber eine positive Wirkung auf die Konzentration der Aufmerksamkeit ausübt. Auf Grund der Beobachtungen in der Praxis können wir annehmen, dass die körperliche Aktivität die Ermüdung durch geistige Arbeit vorteilhaft beeinflusst. Aus theoretischem wie auch aus praktischem Gesichtspunkt ist die experimentelle Kontrolle wichtig.

Zur Untersuchung des Problemenkreises haben wir ein Gerät zur Messung der Reaktionszeit und der Konzentration der Aufmerksamkeit /GMRK) gebaut, das den Rechenmaschinen ähnlich aus integrierten Stromkreisen besteht. Die Reize sind automatisch und randomisiert gegeben, die Messergebnisse werden auf Lochband gebracht, so können die Angaben auf einer digitalen Rechenmaschinen ausgewertet werden. Die Teilergebnisse können auch unmittelbar vom Gerät abgelesen werden.

Methode

An der Untersuchung haben 25 Studenten der Polytechnischen Universität teilgenommen. Die Gruppe kann dem Alter /21 Jahre/, dem Geschlecht /Männer/ und dem Beruf nach als homogen betrachtet werden.

Das speziale Programm der Konzentration der Aufmerksamkeit war: Dem auf Lochban gebrachten Programm entsprechend bekam die Vp Zahlen als Reize, in automatisierten Random-Serien, worauf er mit Abdrücken des Tasters antwortete. Er musste auf eine Zahlenreihe reagieren, die mit 3 begann und in der die weiteren Glieder je um 3 erhöhte Zahlen waren: 6, 9, 12 usw. Die hochgehende Reihe war auch durch andere, in zufälliger Reihenfolge exponierte Zahlen gestört, auf welche man nicht antworten durfte. Die Vp gab also disjunktive Reaktionszeiten während einer dauernden mentalen Arbeit. So haben wir quantitative Ergebnisse erhalten, mit einer Genauigkeit auf ms. Mit den Fehlantworten wurde zu gleicher Zeit die qualitative Leistung registriert. Die totale Serie bestand aus loo "guten" und 100 "störenden" Zahlenreihen.

Die Universitätsstudenten wurden vor und nach einer 50 Minuten lang dauernden Körpererziehungstunde, wie auch vor und nach einer passiven Erholung gleicher Dauer untersucht.

Ergebnisse

Die Auswertung erfolgte in zwei Parametern.

1. Bei den quantitativen Reaktionszeiten wurden die Fehler nicht in Betracht genommen /Durchschnitt 1).
2. Bei den korrigierten Reaktionszeiten, wo die Fehler so gerechnet waren, dass wir der Fehlerzahl entsprechend, je um 1000 ms die Totalzeit erhöht haben, wie auch die Reiz-zahl "n", und daraus das Durchschnitt errechnet haben /Durchschnitt 2/.

Die Zuverlässigkeit des Programms wurde mit der Methode der Testwiederholung kontrolliert. Diese Angaben stammen von den Messungen vor und nach der passiven Erholung.

Tabelle 1. - Zuverlässigkeit

Reaktionszeit	Vor der passiven Erholung	Nach der passiven Erholung	Ro Werte
Durchschnitt 1	321 ms	319 ms	.89
Durchschnitt 2	325 ms	323 ms	.89

Den Angaben nach ergab die Wiederholung der Messungen praktisch gleiche Werte. Die Korrelationskoeffizienten sind bis auf eine Promille signifikant. /$p < 0{,}001$/. Es kann auch eindeutig festgestellt werden, dass die passive Erholung keine Wirkung auf die genannte Aufgabe der Konzentration der Aufmerksamkeit ausübt.

Die Wirkung der körperlichen Belastung haben wir mit statistischer "t"-Probe berechnet.

Tabelle 2. - Wirkung der Aktivität

	Vor der körperlichen Aktivität	Nach der körperlichen Aktivität	Signifikanz
Durchschnitt 1	321 ms	305 ms	$p < 0{,}01$
Durchschnitt 2	326 ms	306 ms	$p < 0{,}001$

Die Analyse hat bewiesen, dass die körperliche Aktivität eine positive Wirkung auf die gemessene spezielle Konzentration der Aufmerksamkeit ausübt. Die Versuchspersonen haben nach der körperlichen Belastung wenigere Fehler begangen, d.h. die Aufmerksamkeit wurde stärker auf die Aufgabe konzentriert, und sie haben auch die Antworten schneller gegeben.

Es wurde also mit einer objektiven und zuverlässigen Methode festgestellt, dass die Körpererziehungsstunden eine gute Wirkung auf die spezifische Konzentration der Aufmerksamkeit ausüben. Das bedeutet auch, dass die Körpererziehungsstunden vom Gesichtspunkt der Mentalhygiene aus psychische Rekreation der Universitätsstudenten positiv beeinflussen.

PERSONALITY RESEARCH - THE CURRENT CONTROVERSY AND IMPLICATIONS FOR SPORTS STUDIES

KANE, J.E., London, England

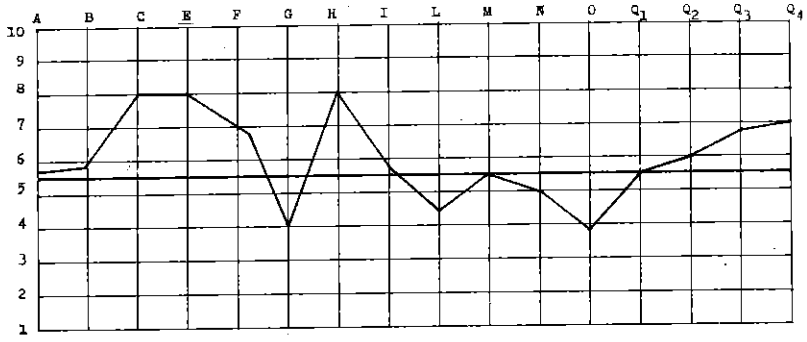
The research underteken (mostly by physical educetionists) to investigate the relationship between personality end physical ability has not been inconsiderable since about 1960, but on the whole it has not produced coherent and unequivocal findings on which to rely for predictive purposes. It has, however, produced a great deal of useful descriptive information about the nature and extent of the relationship between personality and physical (athletics) ability and performance on which more sophisticated research may be based. The main criticisms levelled

et much of this body of research have focussed attention on methodological inadequacies (eg Cooper 1969 and Rushall 1973), and more recently on the virtual absence of any sound theoretical reference base (eg Kroll 1970 and Kane 1976). However, the real cause of the slow progress since 1960 or thereabouts from descriptive to analytical and experimental approaches lies in the conflict and confusion which has characterised the mainstream of research and theory in personality psychology. As a result the research aimed at accounting for the personality variables in motor and sports performance has had to rely on inappropriate and insensitive tools and models and it is therefore not surprising that the search for enlightenment has been slow. In the last few years, however, a new urgent awakening in the field of personality psychology is apparent, focussing to a great extent on the search for alternatives or extensions of trait theory. Trait 'theory' is under attack not so much because it is an unsound theory but because ipso facto personality traits emphasise only the personal dispositions in explaining behaviour and minimise the role of situational factors. The result is that a number of alternative models and approaches have been proposed in an effort to explain a more vital and dynamic concept of personality sensitive to situational factors in behaviour. In these recent developments there appear to be the kinds of explanations, theories and models that may be particularly attractive and opposite for research in physical education and sport. In particular the current efforts to develop an interactional model of personality emphasising the cognitive interpretations of the person in a given situation deserve special attention, if only to make clearer the nature of the current objections to the traditional trait model. It is not quite clear, incidentally, what writers mean by the 'traditional trait model' nor precisely what there is about traits that make them unsuitable or defective (Alston 1976). It depends to a large extent what you mean by 'traits' and certainly the current psychological literature is anything but clear on this point. What is reasonably clear from the present controversy is a serious questioning of the emphasis of person factors as the main determinants of human behaviour.

My first task must, therefore, be to give a brief and admittedly personalised account of the present state of knowledge to which the trait approach has brought us in the personality/performance area. I shall then consider the theoretical possibilities of the interaction approach before adding a final suggestion about alternative perspectives.

1. THE TRAIT APPROACH

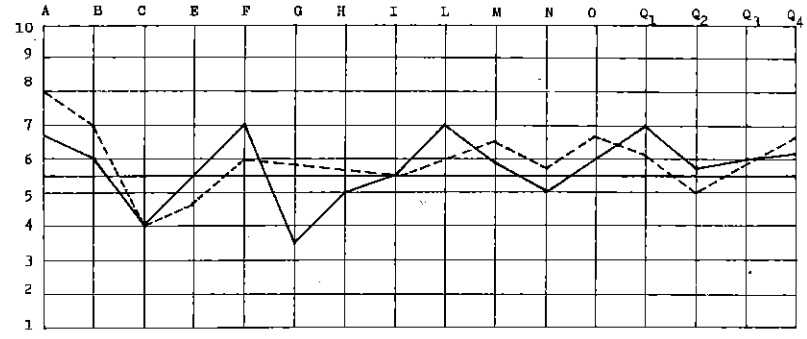
The studies included in the reviews tend to fall into two categories; those attempting a relatively simple personality (via Cattell or Eysenck) description and/or comparison of selected groups of athletes and a few correlational studies demonstrating the relationship between personality and physical ability variables. While reviewers have found difficulty in coming to unequivocal or generalised conclusions there is a tendency for the male athlete to be described in terms of extraverted and stable dispositions (such as high dominance, social aggression, leadership, tough-mindedness and emotional control) and for women athletes to be shown as relatively anxious extraverts. A few illustrations and examples may serve best to summarise the kinds of analyses that have been undertaken.



A Sociability; B General Ability; C Ego Strength; E Dominance; F Surgency; G Conscientiousness; H Adventurousness; I Sensitiveness; L Protension; M Bohemianism; N Shrewdness; O Insecurity; Q_1 Radicalism; Q_2 Self-Sufficiency; Q_3 Will Power and Q_4 Tenseness.

Fig. 1 Champion athletes.

Figure 1 typifies the profile description. This early and classic account by Heusner describes champion athletes as stable (C, L, O traits) and extraverted /A,E,F traits). It is worth noting that subsequent studies have never demonstrated such a definite description of champion athletes. Although this kind of profile analysis has been used mainly to establish fundamental descriptive data of a variety of athletes and activity groups a number of researchers have found that when the activity and level of participation are held constant interesting similarities of personality type have been recorded for groups of, for example, racing drivers (Ogilvie 1968), wrestlers (Kroll 1967), soccer players and (see figure 2) women athletes (Kane 1966).



A Sociability; B General Ability; C Ego Strength; E Dominance; F Surgency; G Conscientiousness; H Adventurousness; I Sensitiveness; L Protension; M Bohemianism; N Shrewdness; O Insecurity; Q_1 Radicalism; Q_2 Self-Sufficiency; Q_3 Will Power and Q_4 Tenseness.

Fig. 2 Women swimmers and track.

Comparison of profile data has often been reduced to focus on similarities and differences based on the two major Eysenckian dimensions of Extraversion and Neuroticism. In most of these studies, even when significant differences (from the population norms or from other criterion groups) have been established, the problem has been to interpret the real meaning of such group differences. This may well have resulted from researchers being more concerned with the personality tests and their popular descriptive meaning than with the theoretical framework which underpins the whole personality assessment procedure being used. Eysenck (1972) has constantly referred to this point and in particular to the way in which careful attention to the niceties of both personality theory and parameter values are needed in order to interpret experimental findings. As an illustration he refers to the proposed link between extraversion and conditionability and explains the contradictory findings of researches in this area as being a direct reflection of the parameter values used; eg weak unconditioned stimulus values favouring quick conditioning of introverts relative to extraverts, while strong unconditioned stimulus values have the opposite effect. Lack of reference to a sound theoretical framework has, moreover, caused confusion in trying to explain apparent inconsistencies in findings by different investigators. Nevertheless the better ones of these descriptive studies based on the measurement of traits have been useful in opening up the possibilities for further advanced study. Practically none of them pretended to offer a predictive platform for sports performance.

Correlational Analyses

Surprisingly few correlational studies have been reported attempting to tease out the nature of the personality/physical performance relationship. If and where a relationship exists it would seem that appropriate correlational procedures could best demonstrate the circumstances under which it is maximised and this in turn could give rise to a better understanding of the nature of the relationship. Some attempts to consider the values of correlational strategies have been reported (Kane 1970, 1972, 1976) and these have included intercorrelation to factor analysis, higher order factoring , multiple regression and canonical analysis.

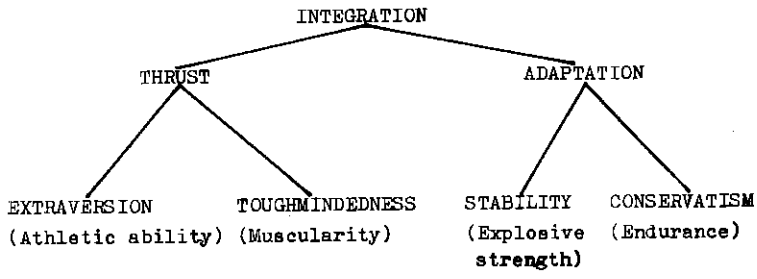


Fig. 3 Personality - athletic ability - hierarchical factor structure

Figure 3 summarises the higher order general factor structure and emphasises that the largest second order factor links extraversion with general athletic ability (i.e. speed, strength and power). A series of multivariate analyses demonstrated as expected the increasing value of the correlation coefficients from simple bivariate techniques (i.e. one personality variable with one physical

performance variable) through multiple correlation to canonical correlation. A number of these analyses with multivariate vectors have produced significant coefficients averaging about 0.7 and in many cases permitting a clear interpretation of tough-minded, stable extraversion going with general athletic ability. Notwithstanding the known instability of factor and vector structure these correlational studies have clearly taken the study of the personality/physical performance relationship to a serious and useful level. Here again, however, the purpose of the studies using trait measures was not to seek predictive indices of sports performance but rather to search for an understanding of the relationship between the two domains.

Theoretical Considerations

Descriptive and correlational studies of the kind so far described are highly valuable if designed and interpreted within the context of a sound theoretical framework and if well standardised measures (with or without trait theory implications) and reasonably sophisticated analyses are used. Few studies so far reported would seem to satisfy these criteria.

2. THE INTERACTIONAL APPROACH

It is not clear in the recent and generalised attack on the trait approach to personality what precisely is being attacked. Trait theory and trait theorists are referred to regularly though neither is defined or identified. Mischel (1973), who is one of the leading contemporary opponents of traits refers to 'traditional trait approaches' and to what he assumes to be the implicit assumption in such approaches that "personality comprises broad underlying dispositions which pervasively influence the individual's behaviour across many situations and lead to consistency of behaviour". But even Mischel does not refer specifically to a trait theory nor does he name those who are supposed to uphold such a theory. Firstly then, in trying to understand the focus of current concern about traits, it is difficult to see how the concern can be centred on trait theory since it is difficult to identify such a theory in the history of personality psychology. Indeed reliance on traits were probably anti-theory originally in the sense that researchers unconvinced about contemporary theoretical postulates decided to content themselves with simply describing behaviour according to derived categories of traits, dispositions, types, etc. Secondly, the attack cannot surely be directed against individual researchers like Cattell, Eysenck and others for having assiduously developed to a thoroughly rigorous level the measurement of meaningful personality traits. Mischel at least seems to be objecting to traits as implying broad dispositions predicating behaviour in different situations but nowhere does he appear to deny the existence of traits but only their usefulness in explaining particular behaviour. Again it is not clear what or who is the focus of the attack. Neither Cattell nor Eysenck, for instance, would deny the impossibility of fully and accurately predicting an individual's behaviour in all circumstances on the basis of measurement on broad personality characteristics, such as extraversion and anxiety, or on simpler ones like those incorporated in the 16 PF. Indeed reference has already been made in the earlier part of this chapter to Eysenck's constant insistence on the need for researchers to be sensitive to changes in situational parameter values when interpreting their findings in behavioural experiment. Moreover, Cattell (1950, 1957, 1965) whose research and development in the area of personality traits is unmatched has distinguished clearly between 'source traits' (the relatively stable underlying causal

entities that determine behaviour) and 'surface traits' (the relatively varying and superficial elements that reflect behaviour in special circumstances), and has suggested the use of 'specifications equations' such as -

$$R^{(esponse)} = S_1T_1 + S_2T_2 + \text{------} Sn\ Tn$$

where T_1 T_2 etc. are traits and S_1 S_2 etc the weights relevant to each trait for a given situation.

The notion of personality traits does not require a commitment to completely explaining behaviour in widely differing situations on the basis of broad dispositions.

An interactionist model of behaviour appears to be very much a matter of re-emphasis rather than one incorporating a new mode of thinking. As such one wonders at the crisis proportions given to the current debate. Indeed the laymen might be forgiven for assuming that to consider both the person and the situation in attempting to explain behaviour was common-sense. Moreover, interactionist explanations of behaviour go back quite a way in the psychology literature. Lewin (1935) it will be remembered suggested the formula -

$$B = f(P,S)$$

There has been a consistent flow of research since Lewin following his general interaction theory of behaviour, emphasising from time to time different aspects of it. Present day interactionists like Mischel (1976) and Endler and Magnusson (1976) apparently wish to attribute overriding importance in behaviour to the P x S interaction and support their case in two ways - by theoretical postulates concerning the way a person construes a situation and by demonstrating the relatively large size of the P x S variance in selected studies. The analysis of variance is the favoured tool to support the interactionist viewpoint and on the face of it the review of chosen studies by, for example, Bowers (1973) and Argyle (1976) are reasonably convincing demonstrating that person variance tends to fall into the 15 - 30 per cent range, situation variance into the 20 - 45 per cent range and P x S variance into the 30 - 50 per cent range. However, there are a number of unresolved design problems in these studies and Cartwright (1975) has suggested that many of them have been biased against discovering appreciable person variance, while Golding (1975) throws doubt on the appropriateness of variance analysis for seeking out person consistency across situations commending instead the use of Cronbach's coefficient of generalizability!

Nevertheless the interactionist approach is of undoubted significance to sports psychologists. There had admittedly been a strong campaign over recent years by researchers in this field for the development of sport specific measures of behaviour and there has been a long standing recognition of the variable effects on performance of different sporting situations, particularly where competitiveness and stress are involved. Increasingly researchers have also referred to the importance of the athlete's perception and interpretation of the situation and the way in which such perceptions may be idiosyncratic interactions of relatively stable personal dispositions with experimental factors such as previous experience of such situations, conditioning, and expectation. The attractiveness of interactionist explanations of behaviour seems therefore reasonably assured if only to compliment trait descriptions. Some attempts to follow this line of thinking in sports research are in fact becoming increasingly evident, though Langer (1966) had earlier planned a model design for investigating behaviour and performance in different situations of sporting stress. The study

monitored anxiety, as measured by the IPAT scale, of varsity footballers during the off-season (no stress), during the pre-game period (high stress) and immediately after the games (reduced stress) throughout a season and in concluding that anxiety level was a most important determinant of football performance Langer demonstrated the sensitivity of the IPAT anxiety scale for recording changes linked with levels of sporting stress and performance.
Another and more recent attempt to assess a person (trait) x situation model for anxiety in a realistic competitive athletic environment has been reported by Flood and Endler (1976). The measurement of anxiety was based on Speilberger's (1972) state-trait procedures adapted by Endler and Okada (1975) to account for their version of the multidimensional nature of trait anxiety. Although some significant interactions between anxiety state and trait in the anticipation of competition were reported the results in general were equivocal leaving some doubt as to whether or not the interaction model of anxiety was supportable. In general one is left with some concern in this kind of 'interactionist' study about the methods used for the assessment of personality dimensions. It is almost as if those seeking support for the interaction model too easily and prejudicially discard well-standardised and reliable measures of personal dispositions in favour of superficial and less rigorously developed tests in their reaction against the former trait emphasis. This is a danger that those in sport psychology must avoid in calling for the development of sports specific measures of personality. The futility of employing hastily assembled adjective and observational check lists, questionnaires, self reports and the like should be all too obvious. It is gratifying to note in this connection a few examples of sports specific measures which are being developed systematically with sensitivity to the niceties and scientific rigours of test construction, (e.g. Martens 1976).
The problems in allocating the correct amount of importance to the Person, the Situation and the Interaction in sports performance will not be resolved easily or quickly, and certainly not by substituting sound and well-standardised measures of well-rooted personality dimensions for others less carefully developed and more superficial. Neither will fuller understanding of behaviour in sport be achieved by the facile shifting of theoretical perspectives to accomodate all the contemporary moods and 'mini-theories' in psychology.
There is no doubt that behaviour in competitive sport may be properly viewed as a continuous process of multidirectional interaction between the athlete and the situational conditions which prevail and that in this process cognitive factors are critically involved. To this extent the interactionist model is in accord with what must be a commonsense interpretation of the competitive environment and is, therefore, attractive. But to establish the superordinate importance of the interaction as opposed to the person or the situation in sport will need a great deal more subtle and supportive evidence than that which is currently available. The current emphasis on interactionism has nevertheless already had undoubtedly beneficial effects on research directions, not least of which has been an orientation to the actual behaviour in situ, a move, as it were, from the laboratory to the field. In the search for the behavioural antecedents of sports performance such a move is essential.

3. ALTERNATIVE PERSPECTIVES

The study of involvement of the person in the sporting situations has recently become the focus of another psychological approach, one that is much less concerned with the prediction of successful performance than with personal satis-

faction, meaning, fulfilment, levels of consciousness, self-actualisation, and, above, all, joy. This approach owes much to both cognitive and humanistic schools of psychology where man is seen to be in control of his behavioural choices and decisions, and derives personal meaning and interpretation from his experience. The roots of these kind of psychological speculations are in existential philosophy and phenomenology and in such notions as, for example, 'personal knowledge' (Polanyi 1958) and 'needs of the mind' (Maddi 1970), which lay emphasis on unique knowledge derived by the individual from his perceptions in the course of satisfying his needs to understand himself, to symbolise, to imagine and to judge. Maslow (1970) perhaps goes nearest to setting out a comprehensive, if speculative, theory to encompass the main elements of this psychological thrust which has sometimes been referred to as third-force psychology. You will remember his reference to the need for self-actualisation brought about by what he called peak experiences.

For the psychologist the measurement and assessment of such 'peak experiences' touching on the imagination, the transcendental and the intrinsic states of being, constitute an almost insuperable problem. Joy, delight, fulfilment and ecstacy are indeed hard to record, but their existence is undoubted. They are part of the complex but important system of intrinsic motivation and deserve the serious attention of psychologists. For those involved in physical activities and sports at all levels the intrinsic rewards and personal satisfactions are clear and unmistakably the product of sensitised body experience.

REFERENCES

ALSTON, W. Traits, Consistency and Conceptual Alternatives for Personality Theory in R Harré (ed) Personality. Oxford; Blackwell, 1976.

ARGYLE, M. Personality and Social Behaviour in Personality (ed. R Harré). Oxford: Blackwell, 1976.

BOWERS, K. Situationism in Psychology: an analysis and critique. Psychological Review 1973, 30.

CARTWRIGHT, D. Trait and other sources of variance in the S-R inventory of anxiousness. J. Pers. Soc. Psychol, 1975, 32.

CATTELL, R.B. Personality: A Systematic, Theoretical and Factual Study. New York: McGraw-Hill, 1950.

CATTELL, R.B. Personality and Motivation Structure and Measurement. Yonkers: World Books, 1957.

CATTELL, R.B. Some Psychological Correlates of Physical Fitness and Physique in Cureton J (ed) Exercise and Fitness. University of Illinois, 1960.

CATTELL, R.B. The Scientific Analysis of Behaviour. Baltimore: Penguin, 1965.

CLARIDGE, G. Personality and Arousal. London: Pergammon, 1967.

COFER, C. and JOHNSON, W. Personality Dynamics in Relation to Exercise and Sport in (ed. Johnson, W) Science and Medicine of Exercise and Sport. New York: Harper, 1960.

COOPER, L. Athletics, Activity and Personality: A review of the literature. Research Quarterly 1969, 40.

CORCORAN, D.W.J. Studies of Individual Differences at the Applied Psychology Unit in Nebylitsyn and Gray (eds) Biological Bases of Individual Behaviour. London: Academic Press, 1972.

CZIKSZENTMIHALY, M. Beyond Boredom and Anxiety. San Francisco: Jossy-Bass, 1975.

DECI, E.L. Intrinsic Motivation. New York: Plenum, 1975.

DUFFY, E. Activation and Behavior. New York: Wiley, 1962.

ENDLER, N.S. and MAGNUSSON, D. Personality and person by situation interactions in Endler and Magnusson (eds) Interactional Psychology and Personality. Washington: Wiley, 1976.

ENDLER, N.S. and OKADA, M. A multidimensional measure of trait anxiety: The S-R Inventory of General Trait Anxiety. Journ. of Consult. and Clinical Psychol., 1975.

EYSENCK, R.J. Human Typology, Higher Nervous Activity and Factor Analysis in Nebylitsyn and Gray (eds) Biological Bases of Individual Behaviour. London: Academic Press, 1972.

FISHER, S. Body Consciousness. New Jersey: Prentice-Hall, 1973.

FLEISHMAN, E. The Structure and Measurement of Physical Fitness. New Jersey: Prentice-Hall, 1964.

FLOOD, M. and ENDLER, N.S. The Interaction Model of Anxiety: An empirical test in an athletic competition situation. York University Dept. of Psychology Report No. 28, 1976

GOLDING, S.L. Flies in the Ointment: Methodological problems in the analysis of the percentage of variance due to person and situation. Psychol. Bull. 1975, 82.

GRAY, J.A. The Psychophysiological nature of Introversion-Extraversion: a modification of Eysenck's theory in Nebylitsyn and Gray (eds) Biological Bases of Individual Behaviour. London: Academic Press, 1972.

GROVES, R. Assessing the Characteristics of Top-Level and Recreational Players. Proceedings of BSSP Conference, Exeter, 1976.

HARDMAN, K. A dual approach to the study of personality and performance in sport in Whiting et al (eds) Personality and Performance in Physical Education and Sport. London: Kimpton, 1973.

HARRIS, D.V. Involvement in Sport. Philadelphia: Lea and Febiger, 1973.

HENDRY, L. Assessment of personality traits in the coach - swimmer relationship, Research Quarterly 39, 1968.

HENDRY, L. Some notions on personality and sporting ability: certain comparisons with scholastic achievement. Quest 13, 1970

HEUSNER, W. Personality traits of champion and former champion athletes. MA thesis. Illinois, 1952.

JOURARD, S. and SECORD, P. Body size and body cathexis. Journ. Consult Psychol. 18, 1954.

KANE, J.E. Personality Description of Soccer Ability. Res. in Phys. Educ. No.1, 1966.

KANE, J.E. Personality and Physical Abilities in Kenyon (ed) Contemporary Psychology in Sports. Chicago: Athletic Institute, 1970.

KANE, J.E. Psychological Aspects of Physical Education and Sport. London: Routledge and Kegan Paul, 1972.

KANE, J. E. Personality and Performance in Sport in Williams J. and Sperryn P. (eds) Sports Medicine. London: Arnold, 1976.

KLEINMAN, S. The significance of human movement: a phenomenological approach in Gerber E. (ed) Sport and the Body. Philadelphia: Lea and Febiger, 1972.

KROLL, W. Sixteen Personality Factor Profiles of Collegiate Wrestlers. Research Quarterly, 38, 1967

KROLL, W. Current strategies and problems in personality assessment of athletes in Smith L (ed) Proceedings of the Symposium on Motor Learning. Chicago: Athletic Institute, 1970.

KROLL, W. Athletic Stress Inventory. University of Massachusetts. (in press) 1977.

LACEY, J.I. Psychophysiological approaches to the evaluation of psychotherapeutic process and outcome in Rubenstein (ed) Research in Psychotherapy. Washington: Nat. Pub. Co., 1959.

LANGER, P. Versity Football Performance. Perceptual and Motor Skills, 23, 1966.

LEONARD, G. The Ultimate Athlete. New York. Viking, 1975.

LEWIN, K. A Dynamic Theory of Personality. New York: McGraw-Hill, 1935.

MADDI, S.R. The search for meaning. Nebraska Symposium on Motivation, 18,1970.

MARTENS, R. The sport competition anxiety test. Waterloo: Human Kinetic Pub. 1976.

MASLOW, A.H. Motivation and Personality. New York: Harper and Row, 1970.

MISCHEL, W. Towards a cognitive social learning reconceptualisation of personality. Psychol. Rev. 80, 1973.

MISCHEL, W. Introduction to Personality. New York: Holt, Rinehart, 1976.

OGILVIE, B. Psychological consistencies within the personalities of high level competitors. Journ. Am. Med. Assoc. 28, 1968.

OGILVIE, B. and TUTKO T. Problem Athletes and How to Handle Them. London: Pelham, 1966.

OGILVIE, B. and TUTKO T. The Athletic Motivation Inventory. San Jose: Instit. for Study of Athletic Motivation, 1969.

PETRIE, A. Some psychological Aspects of Pain and Relief of Suffering. Ann. of N.Y. Acad. of Science, 87, 1960.

PHARES, E. and LAMIELL, J. Personality in Ann. Review of Psych. 1977, Vol. 28.

POLANYI, M. Personal Knowledge. Chicago: University of Chicago Press, 1958.

POMCOMBY, D. and YAFFE, M. Psychology takes the soccer field. FIFA News, July 1976.

POULTON, E. On prediction in skilled movement. Psychol. Bull., 54, 1957.

RUSHALL, B. The status of personality research and application in sports and physical education . Journ. Sports Med. and Physical Fitness, 13, 1973.

RUSHALL, B. and SIEDENTROP, D. The Development and Control of Behaviour in Sport and Physical Education. Philadelphia: Lea and Febiger, 1972.

SINCLAIR, E. Personality of rugby football players. Thesis Univ. of Leeds, 1968.

SPEILBERGER, C.D. Theory and Research on Anxiety. New York: Academic Press, 1969.

SPEILBERGER, C. D. Anxiety as an emotional state in Speilberger (ed) Anxiety: Current trends in theory and research (Vol. 1). New York: Academic Press, 1972.

VANEK, M. and CRATTY, B.J. Psychology and the Superior Athlete. London: Macmillan, 1970.

VINCENT, W. and DORSEY, D. Body image phenomena and measures of physiological performance. Research Quarterly, 39, 1968.

WHITE, R.W. Motivation reconsidered: the concept of competence. Psychol. Rev. 66, 1959.

WHITING, H.T.A. and HUTT, J. The effects of personality and ability on speed of decision regarding the directional aspects of ball flight. Journal of Motor Behaviour, 4, 1972.

WILLIAMS, J. Personality traits of Champion Female Fencers. Research Quarterly, 37, 1970.

WITKIN, H.A. Psychological Differentiation. New York: Wiley, 1962.

WITKIN, H.A. Development of the Body Concept and Psychological Differentiation in Werner, H. and Wapner, S. (eds) The Body Percept. New York: Random House, 1965.

BIOMECHANICKÝ A PSYCHOLOGICKÝ ASPEKT VE VÝZKUMU ANTICIPACE POHYBOVÉHO ZÁMĚRU SOUPEŘE

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Komplexnost výzkumu pohybového chování člověka je důležitá zejména při řešení těchto otázek, kdy pohled pouze jednoho vědního odvětví může poskytnout jen dílčí výsledky. Anticipace pohybového záměru soupeře je příkladem jednoho z důležitých výzkumných problémů, kde se může užitečně setkat aspekt psychologický a biochemický.

Z nesčetných experimentálních nálezů vyplývá, že provedení jakéhokoliv záměrného pohybu vždy předchází představa tohoto pohybu, při níž se preaktivuje v mozku příslušná funkční struktura, nazývaná v teorii sebeobrany funkční informační matrice (FIM; NOVÁK-ŠPIČKA, 1966, 1973). Zvýšená aktivita příslušné FIM se projevuje řadou ideomotorických reakcí. Existence těchto reakcí, objevená v polovině minulého století, byla později doložena řadou experimentů založených na sledování změny elektrické aktivity mozku, svalů, srdeční frekvence apod. (viz např. WOODWORTH-SCHLOSBERG, 1960; PUNI, 1969; aj.). Všechny experimenty jasně ukázaly, že vědomí je úzce spjato se svalovou aktivitou. Z biomechanického hlediska představuje lidské tělo pohyblivou soustavu těles, vzájemně spojených kinematickými dvojicemi a ovládaných řízenými generátory síly - svaly. Příprava a provedení cíleného pohybu je proto doprovázeno různě rozsáhlými soupohyby.

Vznik jakéhokoliv, tedy i cíleného pohybu vždy předpokládá před vlastní aktualizací příslušné FIM její preaktivaci, a tedy také řadu přípravných, více či méně patrných pohybových rekcí, jež předznamenávají na různých členem kinematického řetězce zahájení vlastního pohybu. Zkušenost dále ukazuje, že zamýšlený pohyb je často ještě doprovázen a rovněž předznamenán motorickými reakcemi, jež přímo nesouvisí s vlastním mechanickým zajištěním cíleného pohybu (např. změna mimiky), nebo které zajišťují správný výběr a směr cíleného pohybu (např. pomocí zraku). Včasné zaznamenání těchto skutečností, jejichž zdrojem je soupeř, může pomoci při odhadu jeho pravděpodobného příštího pohybového záměru. Tento způsob chování subjektu je nazýván v teorii sebeobrany multisignální. Pravděpodobnost úspěchu obránce je ovšem menší než jedna, neboť z multisignální analýzy předvídané chování útočníka může, avšak nutně nastat nemusí. Obecně lze formulovat podmínku úspěšného reagování obránce takto:

$$\Delta t_r + \Delta t_d < t_a \qquad (1)$$

(Δt_r - trvání aktuální reakční doby obránce; Δt_d - trvání jeho akce; Δt_a - trvání akce útočníka).

Uvedená nerovnost má v teorii sebeobrany základní význam. Povšimněme si dále některých možností ovlivnění trvání Δt_r a Δt_d v nerovnosti (1).

a) Trvání reakční doby obránce (Δt_r) : Z experimentální psychologie je známo, že reakční část závisí na druhu podnětu (světlo, zvuk, dotyk aj.), intenzitě podnětu, mimořádnosti motivace, stupni nácviku reakce apod., ale rovněž na míře disjunktivnosti reakce. (Disjunktivní reakce, nebo-li reakce diskriminační či reakce volby, nutně vzniká ve všech multisignálních situacích). Doba disjunktivní reakce roste s počtem alternativ, jak vyplývá z dnes již klasických

pokusů, jež provedli MERKEL (1885) a WIRTH (1927), a dále s podobností podnětů. Zkrácení reakční doby Δt_r je pak možné specializovaným nácvikem, v němž je kladen důraz na poznání struktury znakové řady předcházející útok soupeře, a na její zpracování na psychologicky a biomechanicky podstatné ideomotorické signály, umožňující anticipaci, výběr a urychlené spuštění optimální obranné reakce. K tomuto poznamenejme, že druh akce útočníka (či kategorie jeho možných útoků) je vždy více či méně zjevně signalizován jistými vnějšími adekvátními ideomotorickými fenomeny (změna mimiky a tonusu různých svalových skupin, orientace zrakem, úprava pozice těla jako celku a vzájemné polohy segmentů těla apod.), jejichž skladba redukuje možnost jiných akcí. Je zřejmé, že toto snížení počtu alternativ může vést ke zkrácení času disjunktivní reakce obránce (Δt_r).

b) Trvání akce útočníka (Δt_a): Hodnotu Δt_a lze v zásadě prodloužit. Jestliže bude obránce např. udržovat od útočníka takovou vzdálenost, aby se útočník musel před svou útočnou akcí přiblížit např. výpadem nebo vykročením, bude doba Δt_a dána nejen vlastní útočnou akcí, nýbrž i přemístěním útočníka. Navíc obránce může získat výhodu lepšího přehledu při registraci některých vnějších ideomotorických fenomenů.

Další řešení otázky anticipace pohybového záměru soupeře z psychologického aspektu mělo by se týkat, dle názoru autorů, především složité problematiky disjunktivních reakcí na psychologicky nestandartní ale situačně závažné podněty. Zejména je to otázka vlivu počtu alternativ na reakční čas; dále vlivu jednotlivých a zejména ne diferencicaci nenáročných (podobných) podnětů na reakční čas, a v neposlední řadě možnosti zkrácení disjunktivních reakčních časů vhodným nácvikem.

Biochemický aspekt by měl potom, ve spolupráci s psychologem, poskytnout zejména tyto výchozí informace : podstatné znaky vnější ideomotorické signalizace útočníka vzhledem k základním způsobům následujícího útoku (tj. vnější, obvyklý a signifikantní mechanický důsledek preaktivace různých FIM na pohyblivou soustavu segmentů těla a její generátory cíleného pohybu - svaly) a dále trvání jednotlivých útočných akcí (Δt_a) a trvání vhodných protiakcí obránce (Δt_d).

LITERATURA

MERKEL,J.: Die zeitlichen Verhältnisse der Willenstätigkeit. Philos.St.2, 73 - 127 1885.

NOVÁK, J. - ŠPIČKA, I.: a) Karate. STN. Praha, 1966
b) Úvod to taktiky sebeobrany MS-I., Olympia, Praha, 1973.

PUNI, A.C.: Trenirujuščeje dejstvije predstavlenija dviženij. Teor. Prakt. fiz. kult. /MOSKVA/. 32, 11 - 14, 1969.

WIRTH, W.: Die Reaktionszeiten : Beitrag zur psychphy-sischen Systematik, Handbh. norm. pathol. Phys. 10, 525 - 599, 1927, Berlin, Springer.

WOODWORTH, R.S. - SCHLOSBERG, H. : Experimentálna psychologie. Slovenská akadémia cied. Bratislava, 1960.

DIE GESTALTUNG DER TESTPARAMETER DER EMOZIONELLEN STABILITÄT AUF GRUND VERSCHIEDENER PERSÖNLICHKEITSTESTE BEI SPITZEN-SPORTLERN

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In unserem Forschungsinstitut werden seit 1970 Persönlichkeitsuntersuchungen von Spitzensportlern durchgeführt. Die untersuchten Sportarten sind: Leichtathletik, Schwimmen, Fussball, Gewichtheben, Turnen, Sportschiessen, Bogenschiessen, Rudern, Kanusport, und Ballspiele je 40 bis 80 Personen, Frauen und Männer.

Die Untersuchungsmittel sind folgende: Rorschach, PFT von Rosenzweig, Farbpyramidentest, Szondi, Cattell und Leary Teste.

Nach Überblick der Interpretationsmodelle obiger Teste können wir feststellen, dass in einem Jeden auf emotionale Stabilität oder Labilität hinweisende Zeichen findbar sind, aber diese, aus verschiedenen Tester aushebbare Parameter sind nicht einheitlich. Sie interpretieren nämlich den Begriff der Stabilität nicht in demselben Sinne.

Auf Grund meiner eigenen Untersuchungen möchte ich auf folgende Begriffe hinweisen: emotionale Reaktivität, oder Sensitivität - Angst oder Neuretizität - Spannung oder Agressivität, Impulsivität, niedrige Frustrationstoleranz - emotionale Stabilität im Sinne der Objektverbindung und mentale Regulation oder mentales Bremsensystem.

Aus persönlichkeitspsychologischen Aspekten können wir die emotionale Reaktivität herausheben, die die Persönlichkeit konsistent bezeichnet und hängt von der Schnelligkeit der Nervenprozesse ab, welche teilweise genetisch determiniert und teilweise von ganz frühjährigen Lebenszuständen. Über diesen hohen Reaktivitäten berichtet das Test PFT, wo in den Dimesionen O-D die Durchschnittwerte erreicht werden oder in allen Sportarten den kritischen 60% übertreten. Im Gewichtheben, Turnen und Schwimmen sind die E´Werte auch sehr hoch.

Extroversion befindet sich in allen Testen. Wer viele Reize "zulässt", dem wird die Spannung mehr gesteigert. Die Art der Verarbeitung der Spannung wurde von Szondi /e=o hy = -/, von Rorschach, und das Generalniveau der Spannung von fast allen Persönlichkeitstesten gezeigt. /Cattell : Q_4 +, CPT Stimulation, Szondi p +/.

Deshalb spricht man so oft über die Agressivität und paranoid-sensitive Züge der Sportler. /Leary AP+ DE+, Cattell L+, Szondi sch o+ und -+/.

Es ist klar, dass diese Zeichen die erfolgreiche Sportlaufbahn fördern. Es ist aber auch verständlich, dass je betonter diese Zeichen sind, umso mehr können sich pädegogische und Adaptationsprobleme erheben. Allein diese Zeichen sichern also noch keine erfolgreiche Sportlaufbahn. Sie sind positiv aus dem Gesichtspunkt der Stärke und Erhaltung der Motivation, der Ertragung der Belastung des Siegenwillens, der schnellem Entscheifungen usw.

Neben der emotionellen Reaktivität und dem hohen Spannungsniveau ist auch das optimale Funktionieren des mentalen Bremsensystems von entscheidender

Wichtigkeit. Darüber kann uns das Rorschach Test informieren, und die Elaborationszeichen im Szondi. Eine grosse Spannung kann man durch ein gesteigert funktionierendes Bremsensystem geregelt und in Gleichgewicht halten. Deshalb sehen wir, dass die Angstparameter in den Projektiventesten höher sind. /Rorschach Formprozenten nahe zu 90%, hell-dunkel Antworten, anatomische und Röntgen-Antworten, Sex, Feuer und Blut/.

Über Fragebogen-Untersuchungen soll abgesondert ganz gesprochen werden. Diese gebrauchen die Begriffe der emotionalen Stabilität bzw. Labilität in einem anderen Sinne, in dem sie die Neurotizität messen.

Es wurde experimental bewiesen, dass die dem GSR nach über eine grössere Reaktivität verfügenden Personen in der Fragebogen-Untersuchung über geringere Angst berichten. So ist es verständlich, dass die Angst der Spitzensportler /die Fussballspieler ausgenommen/ in projektiven Testen gesteigerter, und in Fragebogen-Untersuchungen geringer erweist. Es ist eben die gesteigerte Arbeit des mentalen Bremsensystems, die die bewusste Signalgebung über Angst verhindert.

Trotzdem haben wir z.B. im Cattell beim Faktor C hohe und niedrige Punktwerte in gleicher Zahl erhalten /den Ergebnissen von Vaněk und Hošek /1974/ entsprechende Daten/. Es ist so fast in allen Sportarten mit Ausnahme der Sportschützen, wo die Werte etwas höher, und bei den Gewichthebern und Kajak-Sportlern, wo die Werte etwas niedriger sind. Die Wichtigkeit der Arbeit des mentalen Bremsensystems ist auch durch die allgemein erhöhten G /Superego/ und Q_3 / Integration/ - Werte, gleichfalls im Cattell-Test gekennzeichnet. Dass die Angst /und die damit zusammenhängende Agressivität/ der Spitzensportler zur Adaptation dienen, das merkt man auch am allgemein niedrigen "O"-Faktor. Wo die mentalen Bremsen lockerer sind, dort ist auch die Erhöhung des "O"-Faktors und niedrige "G"-Punkte zu beobachten.

Eine weitere für den Sport ebenso wichtige Interpretation des Begriffes der emotionalen Stabilität ist die Objektverbindung, die Ausdauer, die Treue und die infolge davon erstandende Konzentrationsfähigkeit, worauf das Szondi Test und Rorschach hinweisen. In dieser Beziehung stehen unseren bisherigen Untersuchungen nach die Gewichtheber an der Spitze, was in Kenntnis der sportartlichen Forderungen auch verständlich ist.

Aus obigem geht vor, dass zum Spitzensport eine nach Sportarten unterschiedliche, manchmal sogar entgegensetzte Konstellation der Persönlichkeitszeichen nötig ist.

Die verschiedenen Persönlichkeitteste gehen an die emotionale Labilität und Stabilität auf verschiedener Weise heran. Auf Grund unserer Erfahrungen sichert keine durch irgendwelches Test gemessene Stabilität, bzw. schliesst keine Labilität die Möglichkeit einer erfolgreichen Sportlaufbahn aus. Wir müssen die Gesamtheit der Persönlichszeichenuntersuchung, aus denen die zur Praxis der gegebenen Sportart nötigen Zeichen hervorheben, und die Auswertung der Stabilität bzw. Labilität nur in Folge dieser Ergebnisse individuell feststellen.

БЕСПОКОЙСТВО ПЕРЕД СТАРТОМ КАК ПОКАЗАТЕЛЬ ВОСПРИЯТИЯ ЗАДАЧИ

КАРОЛЬЧАК-БЕРНАЦКА,В., Варшава, Польша

Приступление спортсмена к старту, характеризуя этот факт в более общих категориях, свидетельствует о том, что он принял на себя задачу. Задача, которую человек принимает на себя, всегда связана с оценкой ее целесообразности или ее полезности и возможности выполнения. Одним словом, решению о выборе и приступлению к выполнению действия сопутствует процесс его оценки и интерпретации, процесс, характерный для наблюдательности.

Для спортивной деятельности характерно наблюдение разных элементов ситуации старта с точки зрения препятствий, которыми они могут являться, нарушая тем самым ход правильных действий с целью получить самый хороший результат среди участников соревнования или самый хороший результат, который может получить определенный спортсмен. К важным объектам, на которых спортсмены сосредотачивают свое внимание и мышление, принадлежат: партнер, соперник, результат спортивной борьбы, собственный организм и общественное мнение (или мнение важных лиц).

Самым общим образом можно сказать, что запланированная ситуация оценки, характерная для спорта, которой является старт в соревнованиях, наблюдается обычно как потенциально угрожающее положение. Его можно представить в одинаковых категориях и определить те же самые зависимости, которые выступают между каждой ситуацией обучения и проверки умений или знаний и о п а с е н и е м н е у д а ч и . Эта зависимость это связь между мотивировкой достижений, т.е. стремлением достигнуть самого хорошего результата и выигрыша и опасением неудачи.

Подход к спортивной задаче в таких категориях, которые являются основой выступления опасности, что не будет достигнут результат, который предусматривается[1], вызывает у спортсменов беспокойство.Таким образом б е с п о к о й с т в о принимается как п о к а з а т е л ь в о с п р и я т и я з а д а ч и .

В проводимых до сих пор исследованиях беспокойство у спортсменов рассматривалось более с точки зрения сферы эмоциональности и в связи с интенсивностью переживаний перед стартом, а также в связи с невротизмом, т.е., в каком-то смысле, как компонент личности. Опыт в этой области довольно большой. Серьезные исследования были проведены Вацлавом Гошеком[2]. Такой подход к проблеме был предметом и моих рассуждений[3].

Обнаруженный в результате исследований факт колебания напряжения переживаемого беспокойства внушает, что его объяснение возможно и в других категориях. Такую попытку мы делаем именно здесь. Беспокойство мы будем рассматривать как результат значений, которые спортсмен придает отдельным элементам ситуации старта. Таким образом беспокойство рассматривалось бы с точки зрения познавательных и аксиологических аспектов.

Старт в соревнованиях может рассматриваться с разных точек зрения. Здесь мы ограничиваем тему к трем вопросам: 1) наблюдение эмоционального напряжения или чувство объективной трудности, 2) источники угроз, 3) восприятие шансов на достижение хо-

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1) или для сохранения чувства безопасности

2) В.Гошек, Anxiozita špičkových sportovců a možnosti jejího zvládnutí "Teorie a praxe tělesné výchovy, 1968,7

3) Б.Карольчак-Бернацка, Э. Скшипек-Савиньска: Pomiar leku specyficznego u zawodnikow wysoko kwalifikowanych,"Wych.Fiz.iSport" 1969,4
Б.Карольчак-Бернацка: Lek specyficzny u zawodnikow wysoko kwalifikowanych, "Kultura Fizyczna", 1968, 8

рошего результата, победу и лучшее-худшее места других участников соревнования. Представленные ниже результаты были получены во время исследований, проведенных во время соревнований чемпионата Польши по плаванию. Исследованиями было охвачено 90 передовых спортсменов.

Восприятие стресса (чувство субъективной трудности)

Усиление чувства трудности у спортсменов, проверялось при помощи диагнозов на 7-степенной шкале. Каждый диагноз обосновывался. Таким способом был получен материал о факторах, наблюдаемых как эмоциональное напряжение (стресс).

Свойство, которым является наблюдение стресса, получает величины, близки по своему размещению нормальной кривой, с передвижением в сторону низких величин шкалы (эмпирическая кривая "e").

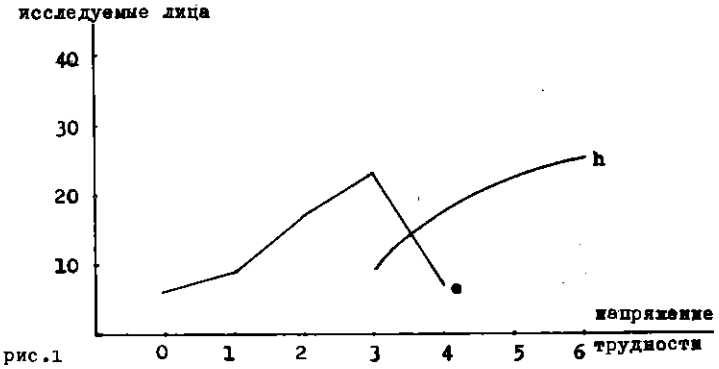


рис.1

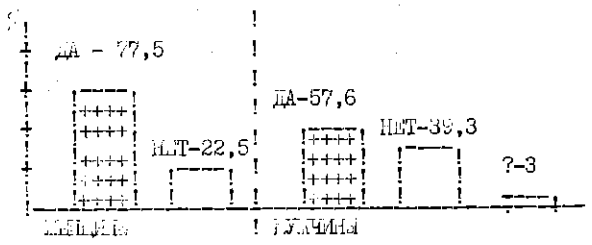


рис.2

В общем были получены дифференцированные ответы женщин и мужчин. 77,5 % спортсменок воспринимало старт в категориях производимого стресса. В таком же восприятии признавалось 57,6 % спортсменов.

Из анализа обоснований, о которых было сказано выше, вытекает, что большинство элементов ситуации старта наблюдается как препятствия, мешающие получить или сохранить высокую величину. Анализ этих обоснований указывает на:

1) объяснение наблюдаемого стресса переживаниями, похожими на беспокойство,
2) чувство стресса в связи с тем, что ситуация является угровой для высоких величин,
3) объяснение наблюдаемого стресса механизмами мотивировки.

Факторы восприятия как источник угрозы

Ставление диагноза об уровне беспокойства спортсменов на основе того, что они признаются в его переживании ("я очень боюсь", "я переживаю сильное беспокойство")

является недостаточным с методологической точки зрения. В исследованиях беспокойства - страха мы встречаемся довольно часто с равносильным подходом к беспокойствам необоснованным непосредственным сигналом и беспокойствам, вызванным конкретной причиной.

Зависимости восприятия задачи от спортивных квалификаций

В проводимых до сих пор исследованиях по уровню беспокойства лучших и худших спортсменов получались противоречивые результаты. Некоторые из них показывают, что спортсмены с высшей спортивной подготовкой переживают большее беспокойство, другие - что большее беспокойство характеризует худших спортсменов. Выше говорилось о том, что очень разнообразные элементы ситуации старта могут восприниматься как источник угроз. Ограничивая объем рассуждений к категориям, связанным с уровнем результата и успехом, можно определить, что в восприятии спортсменов с лучшей подготовкой этим элементам реже приписываются свойства угроз.

Категория спортсменов	n	Прогнозы касающиеся+)			Воспринимаемые+)		ss ++)
		результата	победы	места	беспокойство	волнение	
медалисты	17	4,2	3,7	4,0	1,8	1,9	5
последние места	26	3,2	2,6	3,4	2,6	2,4	6

+) Результаты собирались, применяя шкалы; они отражены арифметическими средними

++) ss - собственной конструкции тест беспокойства; результаты в стандартных единицах. Тест в большой степени соотносится к шкале невротизма MPI.

Статистическому анализу подвергались отдельные результаты, полученные женщинами и мужчинами.

Полученные результаты позволяют сформулировать следующие предложения:

1) Выступающие взаимозависимости между восприятием спортивной борьбы в категориях достижений (предусматриваемые хорошие результаты, победа, место среди других спортсменов) и восприятием задачи в категориях угроз. В чем большей степени предусматриваются низкие результаты и невозможность успеха, в тем большей степени придаются ситуации (задаче) качества угрозы.
2) Наблюдение угрозы значительно заметнее у спортсменок, чем у спортсменов. Кажется, что дифференцирование в этой области между отдельными спортсменками (лучшими и худшими) больше, чем между отдельными (лучшими и худшими) спортсменами.
3) В чем большей степени спортсменки считали, что шансы на хороший результат, победу и хорошее место небольшие, тем в большей степени они чувствовали угрозу, беспокойство, волнение.
4) Для группы исследуемых спортсменов существенная статистическая зависимость была обнаружена по отношению к убеждению в получении лучшего среди других спортсменов места. По отношению к остальным переменным, хотя не были получены статистические зависимости, но тенденции были решительно подобного характера, как результаты женщин.

Обобщая, обнаруженное в результате эмпирических исследований, изменение уровня беспокойства у того же самого спортсмена, в зависимости от элементов ситуации старта (напр., значение соревнований, партнеры, зрители), обосновывает анализирование беспокойства как показателя восприятия задачи или с точки зрения других показателей, пользующихся признанием отдельных лиц. О важности роли механизма восприятия-предвосхощения в формировании беспокойства свидетельствует также факт, что спортсмены придают разным объектам ситуации старта необычные свойства и чрезвычайные качества.

RELATIONSHIPS BETWEEN PERSONALITY TRAITS AND GROUP STATUS OF JUNIOR BASKETBALL PLAYERS

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Forming of the interpersonal relationships structure within the group belongs to the factors that influence collective success in sport activity. The intergroup relations among sportsmen are characterized by a great number of bonds deriving from common sport and extrasport activities, individual interests, different aspiration levels, motivation, structure of personality traits etc.
According to Nawrocká (1975) a study of the mechanisms and dynamics of development of real and intimate bonds originating in sport activity, enables the coach effectively to guide the collective, give it a solid all-round trainings and prepare it competently for sport competitions.
Social structure of groups is the most frequently studied by means of the sociometric method. Although the latter provides basic orientation as regards relationships, it does not do justice to the real position of the individual member within the group. Limitations of sociometric method are also underlined by Kolominskij (1976) and Nawrocká (1975).
In present study an attempt has been made at a combined socially-structural and personal analysis of a sport basketball team. We assumed that social acceptability or unacceptability of the individual players depends not only on social relationships, but also on personality structure. Social perception of interpersonal behaviour among individual group members in particular may be significantly determined by some personal specificities. According to Battegay (1968), the social distance depends on group qualities as well as on personality traits.

METHOD

Our research has been made with 18 17-year old basketball players, who were the members of a team taking part in the "junior league" competition at the highest level.
The social position of every player in the group was verificated by means of Hoďek's sociometric questionnaire. The questionnaire consisted of seven items, five of which investigated social acceptability and the remaining two social unacceptability. At the same time, two items were orientated to follow collaboration on the playground, and five that in extrasport activities. Scores were given for answers to the individual items and the total social acceptability and unacceptability; acceptability and unacceptability in sport and extrasport activity were investigated. According to the scores for total social acceptability, the players were divided into two subgroups: viz. those socially accepted and those socially refused. Acceptance or refusal, in our case, influences also the experiencing of success and failure; the majority of the accepted Ss formed starting line-up . Besides that intelligence tests Cattell's C.F. 2A, Amthauer's TSI and personal inventories such as Cattell's 16 PF, Mikšík's DOZ, Brengelmann-Böttcher's INR-70, Kondáš's KSAT and Stroop's test of interference were also administered.

DISCUSSION

It was possible to determine the personal traits characterizing the group as a whole according to the administered psychodiagnostic tests.

On the basis of our results we can emphasize especially a relatively high emotional stability of Ss (C+, O-, Q_4-), enthusiasm (F+), adventurousness (H+), realism (I-), i.e. qualities desirable for carrying out sport activity at the highest level. (Fig. 1). Similarly, Hausner (1952) comparing British and American Olympic athletes against the national norms found them to be significantly more stable emotionally, more dominant, venturesome, bolder, placid, more self-confident and self-assured.

DOZ (a questionnaire on resistance to load, Mikšík, 1973) signalizes primarily an effective personal integratedness and a tendency to risk taking (Fig. 2). Intellectual abilities in verbal and nonverbal components are of an average level, while anxiety and neuroticism are within the normal range. At the same time an analysis of personal variables was made in Ss of both groups - divided into subgroups of socially accepted (n=9) and refused Ss (n=9). Differences between the two groups were verified by the t-test.

Knolland and Peterson (1966) compared winning and losing sportsmen and were able to find significant differences in favour of the former. Winning sportsmen were described as more venturesome and bold, more self-assured, more self-confident and placid, more self-controlled and possessed more abstract mental ability.

In our group of Ss we found especially a higher emotional stability in the subgroup of accepted Ss - higher value of C+ factor ($P < 0,05$) and O and Q_4 factors (trends). These findings are also underlined by the results of the KSAT scale. Accepted Ss showed lower classical, socially-situational and total anxiety scores ($P < 0,05$) (Fig. 3, 4). We assume, that psychic lability is accompanied by such forms of behaviour as make forming of a desirable social status in the group considerably more difficult. Higher values of the intellectual abilities level were found in the subgroup of accepted Ss, although the differences were nonsignificant. Langer (1966) also found significant relationships between anxiety and successful performance. Kislovskaya (1971) concludes that anxiety is, to a considerable degree, a function of social relationships. She noted a negative relationship between the level of anxiety and a sociometric status of personality.

A more detailed analysis of the subgroup of our accepted Ss showed, that one part of them had been selected only according to extrasport situations, while in sport situations these were refused. A point of interest is that the opposite tendency was not found, i.e. Ss socially accepted in sport activities were at the same time selected in extrasport activities. This indicates that a successful assertion in sport team is conditioned to a considerable degree by social status, but total positive relationships need not significantly influenced willingness to collaborate on the playground.

C O N C L U S I O N

The social status was investigated in young basketball players in dependence on personality structure. Lower emotional stability and higher anxiety were found in players socially unaccepted in the team. The obtained results made it possible to draw several conclusions concerning the social climate prevailingly in the team as well as to make recommendations for an individual approach to each particular players.

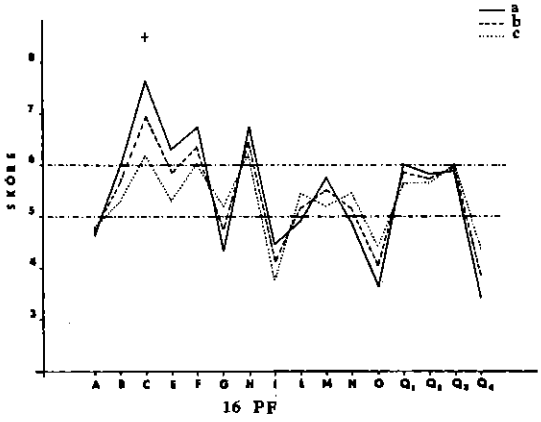


Fig. 1 Personality profile of junior basketball players according to 16 PF (A - accepted subgroup
B - total group
C - unaccepted subgroup)

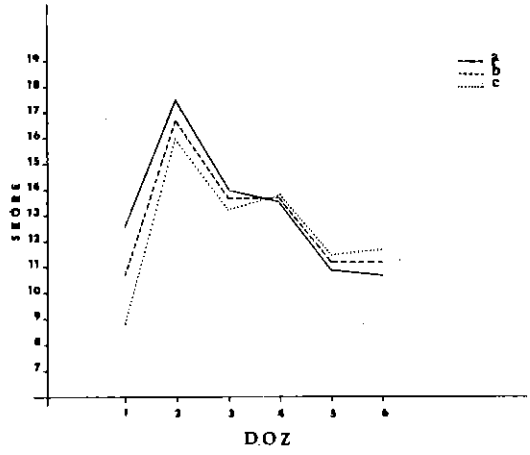


Fig. 2 Personality profile of junior basketball players according to DOZ (A - accepted subgroup
B - total group
C - unaccepted subgroup)

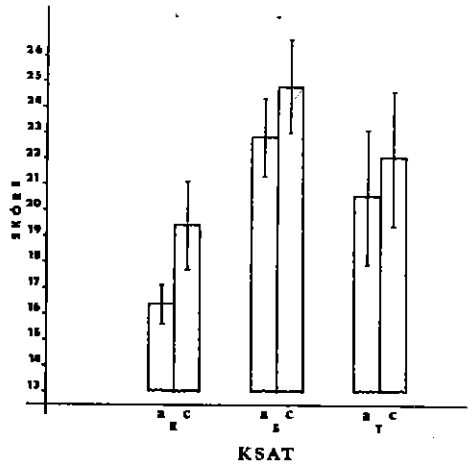


Fig. 3 Anxiety level in junior basketball players according to KSAT in classical (K), socially-situational (S) anxiety and stage fright (T) (A - accepted subgroup
C - unaccepted subgroup)

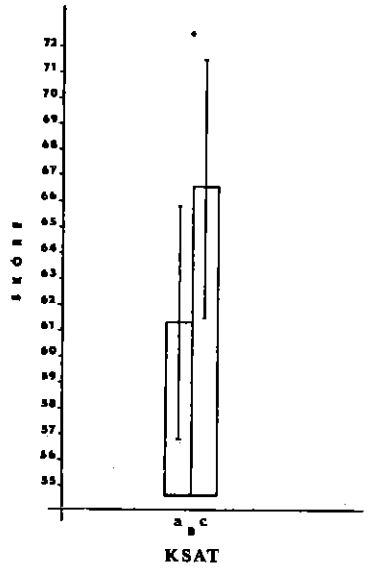


Fig. 4 Total anxiety level in junior basketball players according to KSAT (A - accepted subgroup
C - unaccepted subgroup)

REFERENCES

BATTEGAY, R., Der Mensch in der Gruppe, Bern 1968

HAUSNER, L., Personality traits of champion and former champion athletes, Res. Study, U. of Ill., 1952

HOŠEK, V., Zjišťovací techniky v psychologii pohybové aktivity, SPN, Praha 1970

KISLOVSKAJA, V.R., Položenije v kollektive i trevožnosť ličnosti, Materialy IV. vsesojuznogo sjezda obščestva psichologov, Tbilisi 1973

KOLOMINSKIJ, Ja.L., Psichologija vzaimootnošenij v malych gruppach, Izd. BGU, Minsk 1976

MIKŠÍK, O., Metodologie, koncipování a vývoj testů ke zjišťování subjektivních předpokladů odolnosti vůči zátěži, Zprávy VÚP, č. 25, 1973

NAWROCKÁ, W., Analýza a formování struktury meziosobních vztahů ve sportovním kolektivu, In: P.A. Rudik (Ed), Psychologie a sport, Olympia, Praha 1975.

MODELING VERSUS SANCTIONING IN THE SPORT SOCIALIZATION PROCESS

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It is generally acknowledged that the process of socialization is complex; one depending upon a variety of genetic and environmental factors. The purpose of this paper is to consider the relative contribution of only two elements in that process, namely, role modeling and sanctioning, and more particularly, their significance in sport role socialization.

Although there have been a variety of psychological and sociological approaches to the study of socialization, those reflecting various learning theories, and in particular, the social learning orientations, have become the most popular and most productive in both theory and empirical findings. One of these models, a "social role-social system" approach proposed by **Sewell**, is suggested as a useful frame of reference for the study of socialization into sport roles. By using such a paradigm, role learning is accounted for by exposure of the role aspirant - who is already characterized by a set of physical and psychological traits - to a variety of stimuli and reinforcements provided by significant others, but who act within one or more norm-encumbered social systems. With regard to the process within a given social system, social psychologists have shown that important elements include imitation and social reinforcement, or, from a more sociological perspective, role modeling and sanctioning.

If the social system is made central in characterizing the socialization process, it is suggested that a general model can be constructed consisting of a simple causal chain (**Figure 1**). Thus, given a degree of role aptitude (cognitive and motoric) the role aspirant is variously influenced within each of the social situations in which he inevitably finds himself, with the net effect being the acquisition of a propensity for learning the role in question. Furthermore, this motivates him to rehearse the role, which in turn leads to learning of the role. A number of more elaborate models can be derived from the depicted general model. For example, **Figure** 2 shows the degree of socialization to be a consequence of factors within four institutionalized systems at two stages of the life course.

The next **Figure** 3 displays an even more detached model; one that we have used in the project upon.

Central to the basic model, obviously, are the socializing or mechanisms which occur within each relevant system. While modeling and social reinforcement are acknowledged to be components of the social learning process, agreement has not been reached on how the process occurs. However, unless one subscribes to a purely reductionist view, what is important in a sociologically oriented social psychology is not so much how the process occurs on the individual level, but rather, what elements of the social system are involved, and to what extent.

Moreover, since the relative impact of modeling and sanctioning will likely change from situation to situation, it is the purpose of this paper to determine differential **influences** of the two when controlling for social system, sex, and forms of sport involvement.

The data for this paper were taken from the adult sub-project of a 12-country cross-natural project on sport role socialization. Three simple models were used to evaluate the relation effect of modeling and sanctioning upon degree of socialization into sport roles. For example, **Figure 4** shows the impact of family role models and sanction upon involvement at adolescence; **Figure 5** illustrates the effects of teacher sanctions upon involvement when controlled for other school factors; **and Figure 6** shows the effect of peer role models and peer sanctions upon involvement at adolescence. For this paper data were obtained by **interviewing** members of equal probability samples of 500 male and female young adults between the ages of 26 and 35, who were living in seven urban centres in six countries. The dependent variables were weighted composites indicating the degree of involvement in both primary and secondary sport roles, when primary roles are those represented by the contestants sense; and where secondary roles are those representing the consumption of sport, either directly, or indirectly. The independent variable Modeling, is a weighted composite made up of the degree to which members of the respondent's family (including father, mother, brothers, sisters and other relatives), or peer group (same sex and opposite sex) engaged in sport. Measures were obtained for both primary and secondary involvement.

Sanctions. Sanctioning was taken as degree of encouragement (or discouragement), provided by members of the social system in question; for this paper, the family, the school and the peer group. Information was obtained about both present life styles, and also, retrospectively, experience at the time the respondents were adolescents (15-16 years old).

Data were available for each of three systems (family, school, and peers), separately by sex, life-stage, mode of involvement, and country. Thus, it was possible to carry out replicated path analyses permitting the determination of the relative contribution of each of the independent variables to the product of socialization. For the purposes of this paper the path analyses are equivalent to multiple regression analyses since all paths are considered direct.

With regard to the findings - before summarizing these - I would like to present 3 tables illustrating some specific results:

First - with respect to primary involvement during adolescence - the next table (1) shows the relative influence of models and sanctions within the family.

As can be seen, sanctions appear to have greater impact then role models, though, as expected, the amount of variance accounted for remains relatively small.

Second - still considering primary involvement during adolescence, the next table (2) illustrates that the peer group had an impact upon males, both as role models and as providers of sanctions. For females, the major influence was through role

modeling, although substantial national differences seem to exist. The amount of variance accounted for tends to be larger in the peer analyses, which is obviously consistent with the literature on peer influence in general during the adolescent years.

Third - regarding secondary involvement, that is, sport consumption - this time during early adulthood - the next table suggests little differentiation between modeling and sanctioning, though in males, sanctioning tends to be somewhat more prominent than role modeling, again with some national differences.

In summary both role models and sanctioning appear to play a part in socialization into both primary and secondary sport roles. The relative contribution of the two varies from one social system to another, and from one stage in the life course to another.

Such findings reinforce the proposition that the socialization process is situationally dependent, a result deserving greater attention - whether approaching socialization from a theoretical, or an applied perspective.

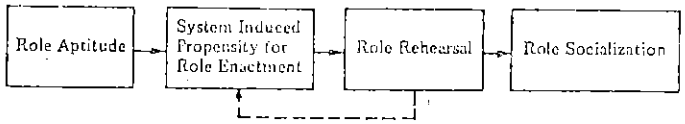


Fig. 1. Postulated social role-social system model of socialization process.

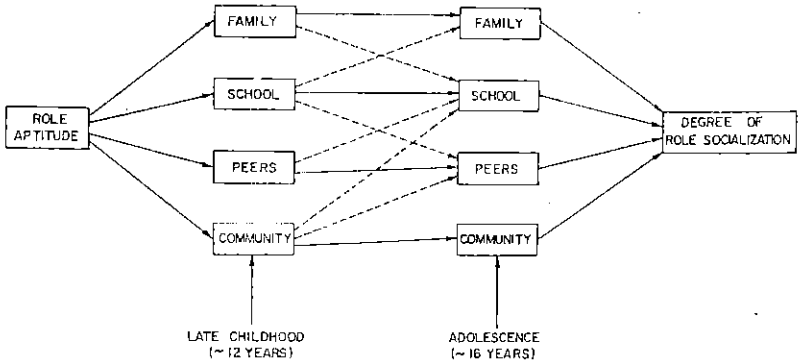


Figure 2. Postulated social role-social system two-stage block-recursive model for sport socialization

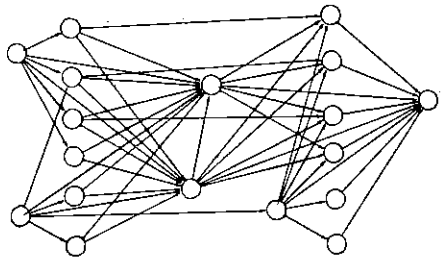


Figure 3

PATH MODEL REPRESENTING INFLUENCE OF ADOLESCENT AND POST-ADOLESCENT INVOLVEMENT, TOGETHER WITH PRESENT AND PRIOR SYSTEM AND CONTEXT FACTORS UPON DEGREE OF INVOLVEMENT AT EARLY ADULTHOOD

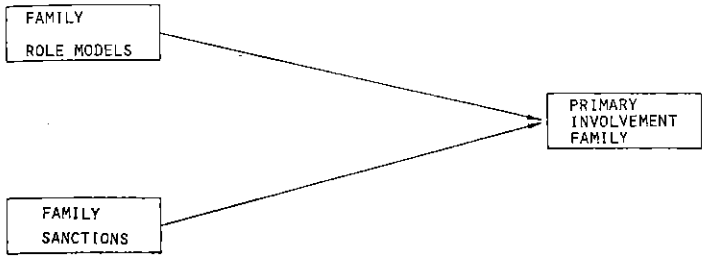


Figure 4

PATH MODEL REPRESENTING INFLUENCE OF FAMILY ROLE MODELS AND FAMILY SANCTIONS UPON DEGREE OF INVOLVEMENT AT ADOLESCENCE

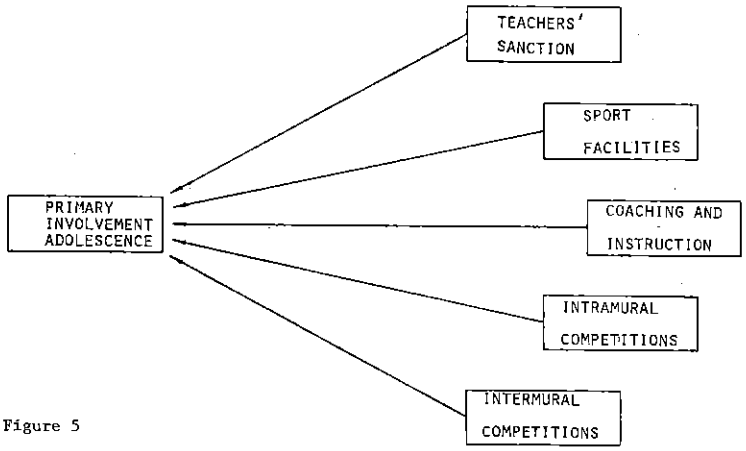


Figure 5

PATH MODEL REPRESENTING INFLUENCE OF THE SCHOOL SYSTEM UPON DEGREE OF INVOLVEMENT AT ADOLESCENCE

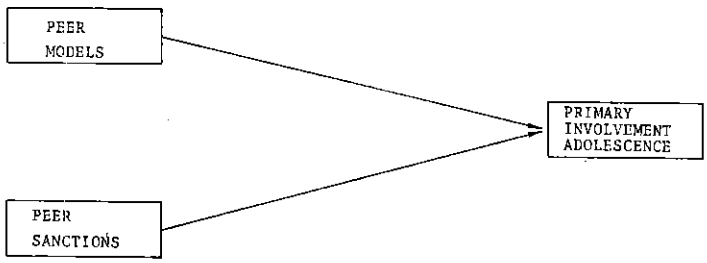


Figure 6

PATH MODEL REPRESENTING INFLUENCE OF PEER ROLE MODELS AND PEER SANCTIONS UPON DEGREE OF INVOLVEMENT AT ADOLESCENCE

TABLE ONE

PATH COEFFICIENTS FROM REGRESSION OF PRIMARY INVOLVEMENT IN PREFERRED SPORT AT ADOLESCENCE UPON INFLUENCE OF FAMILY ROLE MODELS AND FAMILY SANCTIONS

(SIY-FAM)	Budapest	Antwerp	Cologne	Montreal	Perth	Tokyo	Toronto
Primary Role Models							
Males	.130	.040	.250^{x}	-.094	-.128	.166^{x}	.090
Females	.078	.048	.148	.044	.110	.060	.050
Primary Sanctions							
Males	.149	.400^{x}	.203^{x}	.356^{x}	.437^{x}	.319^{x}	.241^{x}
Females	.413^{x}	.354^{x}	.158	.122	.252^{x}	.234^{x}	.290^{x}
R^2							
Males	.06	.18	.13	.11	.19	.17	.08
Females	.20	.18	.06	.02	.08	.07	.10

^{x} $p < .01$

TABLE TWO

PATH COEFFICIENTS FROM REGRESSION OF PRIMARY INVOLVEMENT IN PREFERRED SPORT AT ADOLESCENCE UPON SCHOOL INFLUENCE

	Budapest	Antwerp	Cologne	Montreal	Perth	Tokyo	Toronto
Teacher Sanctions							
Males	.151	.182^{x}	.248^{x}	.278^{x}	.379^{x}	.466^{x}	.400^{x}
Females	.404	.563^{x}	.288^{x}	.196^{x}	.159	.471^{x}	.313^{x}
Facilities							
Males	.060	-.034	.177	.112	.036	-.032	-.090
Females	.010	.129	-.100	-.076	.020	.088	-.149
Coaching and Instruction							
Males	-.006	-.169	-.129	.010	-.034	.048	.188
Females	.158	-.054	.162	.195	.160	.117	.121
Intermural Competitions							
Males	.044	.079	(a)	.135	.233^{x}	(a)	.011
Females	.143	.737^{x}	(a)	.060	-.076	(a)	.141
Intramural Competitions							
Males	.090	.056	(a)	.076	.090	(a)	.025
Females	-.179	-.810	(a)	.136	-.026	(a)	.078
R^2							
Males	.04	.05	.06	.20	.26	.23	.20
Females	.21	.31	.11	.17	.06	.28	.18

(a) variable not available

^{x} $p < .01$

TABLE THREE
PATH COEFFICIENTS FROM REGRESSION OF PRIMARY INVOLVEMENT IN PREFERRED SPORT AT ADOLESCENCE UPON INFLUENCE OF PEERS OR ROLE MODELS AND PEER SANCTIONS

(SIY-PER)	Budapest	Antwerp	Cologne	Montreal	Perth	Tokyo	Toronto
Peer Role Models							
Males	.345^{x}	.187^{x}	.049	.229^{x}	.256^{x}	.189^{x}	.266^{x}
Females	.412^{x}	.287^{x}	.343^{x}	.292^{x}	.174^{x}	.237^{x}	.231^{x}
Peer Sanctions							
Males	.153	.266^{x}	.407^{x}	.179^{x}	.331^{x}	.382^{x}	.264^{x}
Females	.158	.346^{x}	.102	.054	.164	.331^{x}	.308^{x}
R^2							
Males	.19	.15	.18	.12	.20	.22	.18
Females	.27	.30	.15	.10	.07	.23	.20

^{x} $p < .01$

SPORTOVNÍ ÚSPĚŠNOST, OSOBNOST SPORTOVCE A POVAHA SOCIÁLNÍ SITUACE

KLAPAČ, M., Praha, Československo

Ačkoliv nás v praxi vrcholového sportu zajímá především sportovní úspěšnost (je měřítkem aktivity) musíme přijmout to, že je vlastně koncem (i když opakujícím se) celého řetězce práce se sportovcem, či sportovci.

Tento řetěz lze velmi schematicky rozčleňovat takto - a/ výběr, b/ trénink, c/ soutěž, přičemž fáze b/ a c/ má cyklický charakter. Z hlediska psychologické praxe v každé této fázi vyvstávají zcela rozdílné problémy - základní problém zní asi takto - vybrat /resp. predikovat/ takové sportovce, kteří zvládnou náročný trénink a posléze i náročnou soutěž ve smyslu dosažení vrcholného pracovního tj. sportovního výkonu.

Zde se ukazuje, že úvaha při výběru pouze o osobnosti samotného sportovce absolutně nedostačuje (i když uvažujeme jak o statických, tak i dynamických vlastnostech osobnosti). Nutně musíme brát do vztahového rámce i další proměnné :

- povahu sportovní činnosti a její nároky
- povahu sociální (resp. širší životní situace) a to včetně průběhu dosavadní úspěšnosti .

Zatímco první oblast lze zpracovat snad poměrně jednoznačně v rámci profesiografické studie; s druhou je to poněkud obtížnější. Kromě jiných aspektů je nutno v této souvislosti uvažovat i o osobnosti příslušného trenéra a to nikoliv izolovaně, nýbrž o míře komplementarity (kompaktibility) osobnosti sportovce a trenéra (ve smyslu psychologické teorie - připomeňme zde snad pouze Schutzovu teorii interpersonální orientace nebo v případě vícečlenných skupin Heiderovu teorii interpersonální rovnováhy). Jiným důležitým faktorem je celková charakteristika sportovní skupiny.

Zastavme se nyní u problematiky sportovní úspěšnosti z hlediska vztahu sportovce a trenéra. V těchto souvislostech se jeví dvě roviny úspěšnosti - úspěšnost v tréninku a úspěšnost v soutěži, přičemž obě tyto roviny jsou v obapolné souvislosti příčiny a následku - i když (a to podtrhněme) sportovnímu výkonu v soutěži předchází (snad až na výjimky) práce v tréninku. Úspěšností v tréninku rozumíme pokračující rozvoj sportovních schopností, resp. dovedností či výkonu pod vedením trenéra;

úspěšností v soutěži pak rozumíme schopnost sportovce odvést takový výkon, na který má , resp. takový výkon, který si osvojil v tréninku.

Vzhledem k tomu, že v celém tomto procesu působí obvykle trenér a sportovec dohromady, bude nesmírnou důležitost mít jejich vzájemný vztah (např. účinnost zpětné vazby v průběhu učebního procesu je tímto jejich vztahem do značné míry určován). V rámci tohoto bezprostředního rozvíjení sportovní dokonalosti stojí i širší vedení sportovce trenérem,které je dáno (podle našeho názoru) zejména těmito navzájem se prolínajícími aspekty:

a) komplementaritou statických (strukturálních) vlastností osobnosti trenéra a sportovce
b) úrovní jejich motivace
c) návazností jejich hodnotových (postojových) systémů zejména těch, které jsou v relaci ke sportovním aktivitám, jakož i návazností jejich sociálně-psychologických orientací.

Dokumentujme si nyní krátce tato konstatování :

ad a) Např. na základě míry autoritářství trenéra (pro autoritářskou osobnost je mnohdy charakteristická primární snaha ovládnout - prosadit svoji vůli a sekundární teprve snaha dosáhnout objektivně žádoucího) můžeme už dopředu predikovat ty sportovce, se kterými bude mít trenér konflikty, které se projeví negativně v psychickém stavu sportovce i trenéra, ale také v úrovni dosahovaného resp. odváděného výkonu. A tak můžeme říci, že někteří trenéři preferují sportovce spíše labilnější - úzkostnější se sníženou sebedůvěrou a obvykle tudíž také odpovědnější vůči vnějším požadavkům, pro jejich lepší zvládnutelnost v průběhu tréninku, před sportovci stabilními (málo úzkostnými) s dobrou sebedůvěrou a mj. i s dostatkem psychické energie, kteří jsou v tréninku hůře zvládnutelní a také méně odpovědní, ale kteří (a to podtrhněme) jsou v mnohém směru lépe připraveni odvést v soutěži to, na co mají.

ad b) Rozdílná motivace k dobrému sportovnímu výkonu je na závadu jednak proto, neboť z tohoto rozdílu pramení různý náhled na daný problém a tudíž i různé konflikty, jednak proto, neboť v případě větší diference, tuto jedna strana (ta méně motivovaná) může využívat ve svůj prospěch (toto platí např. v těch případech, kdy trenér, na rozdíl od sportovců, je na daném výkonu existenčně závislý).

ad c) V oblasti hodnotových orientací vztahujících se ke sportovní činnosti (postoje k tréninku, soutěži, trenérovi, spoluhráčům, protihráčům apod.) se jeví opětovně možnost predikce konfliktů na základě rozdílů např. mezi sportovcem a trenérem. Zde ještě připoznamenejme, že v této souvislosti nesmíme ale opomíjet formativní vliv sportovní skupiny, do které daný sportovec přichází a dále to,že rozdílnost hodnotových orientací k mimosportovním aktivitám (např. i odpočinku) má také svoji důležitost. K této problematice jsme do sportovní praxe převedli hierarchizující hodnotovou metodu vyvinutou dr. Bakalářem, která se nám zatím velmi osvědčuje na poli přímého poradenství trenérům, ale i sportovcům samotným. V aktuální soutěži se pak vzájemný vztah mezi trenérem a sportovcem, který se formoval v jejich předcházejících interakcích, dále intenzifikuje - zde kromě jiného vystupuje do popředí důležitost důvěry sportovce ve schopnosti trenéra či na druhé straně schopnost trenéra poskytnout psychickou oporu svému svěřenci a pod.

Proč toto vše konstatujeme (závěry) :

a) Zdá se, že existují 3 skupiny relativně úspěšných vrcholových sportovců, které se mezi sebou vzájemně liší -

1/ úspěšný v tréninku a přesto častěji selhávající v soutěži (selháním zde rozumíme, že sportovec neodvedl z psychických důvodů to, na co technicky a fyzicky má); o náznaku jejich osobnostního profilu byla řeč již dříve;

2/ sportovci, se kterými jsou problémy v tréninku (přesněji řečeno problémy výchovné), ale kteří v soutěžích neselhávají, tzn., že odvádějí ve značné míře to, na co mají; rovněž o náznaku jejich osobnostního profilu byla již řeč;

3/ sportovci úspěšní v tréninku i v soutěži - čili ideál každého trenéra; takovýchto sportovců je relativně málo a dosud se nám nepodařilo pro jejich značné osobnostní variability stanovit alespoň náznak nějakého jednotného profilu (snad bývají častěji ambicióznější, stabilnější, introvertovanější, odpovědnější zejména vzhledem k sobě - možná tedy egocentričtější a jen s průměrnou sebedůvěrou).

To, co zde v této quasi-typologii bylo uvedeno platí jen rámcově - i jednotlivé parametry jsou v různé míře a v různých souvislostech různě kompensovatelné.

b) Zdá se ,že mnoho sportovců se k vrcholnému výkonu ani nedostane, právě pro chybějící komplementaritu mezi nimi a trenéry - mnoho psychické energie je odčerpáváno neuspokojivou sociální situací (bez ohledu na to, kde stojí její příčina), což se může projevit v relativní stagnaci růstu sportovní výkonnosti resp. v tom, že sportovec na tuto výkonnost vůbec rezignuje. Je samozřejmé, že budeme-li analyzovat např. úspěšné olympioniky či reprezentanty, tak tam toto takovou roli nehraje - otázka však zní - nebyli také takoví, kteří na tuto výkonnost měli a kteří právě z těchto důvodů je nerealizovali.

Závěrem snad k tomu, na co jsme chtěli tímto mini-příspěvkem (mini z hlediska problémů, se kterými se v praxi setkáváme) poukázat :

1) Je nutná zpětná analýza nejenom úspěšných, ale také neúspěšných sportovců (kde jsou příčiny této jejich neúspěšnosti).

2) Vypracovávání statistických profilů může být maximálně vodítkem. V této statistice se nám mnohdy rozpouštějí nejenom vyjímky, ale také konkrétní člověk a jeho konkrétní životní situace. Jednotný profil úspěšného sportovce (třeba i v rámci jen jedné sportovní disciplíny) zřejmě neexistuje. Z tohoto důvodu má v koncovce asi největší význam direktivní individualisované poradenství, ale není.

3) Vzrůstající důležitost teorie interpersonálních vztahů se musí nutně projevit i v psychologii sportu.

4) Tato problematika má zřejmě o něco menší aktuálnost v individuálních sportech (např. lehké atletice) - zde je mimo jiné větší možnost vzájemného přizpůsobení v dyádě; u kolektivních sportů je to poněkud komplikovanější (vyšší interpersonální dynamika, možnost vytváření aliancí apod.; mimo jiné zcela odpadá možnost, že by družstvo trénovalo bez trenéra, tak jak tomu bývá např. někdy v individuálních sportech).

5) Podobně jako se zamýšlíme nad problematikou vztahů trenér - sportovec, bychom se měli jednou také zamyslet nad problematikou vztahů psycholog - trenér, psycholog - sportovec. Asi tak, jak už dříve se v psychoterapii zamýšleli nad problematikou vztahu psychoterapeut-klient.

EFFECTS OF AGGRESSIVE AND NON-AGGRESSIVE SPORTS ON PRE-COMPETITIVE ANXIETY OF ATHLETES

KLAVORA, P., Toronto, Canada

Thomas Tutko, the well-known clinical sports psychologist from San Jose, California, has, on the basis of clinical research in athletics, made a number of speculations concerning anxiety and emotional arousal levels of athletes when in competition. One of Tutko's speculations predicts that violent physical contact in playing aggressive sports profoundly affects the anxiety of competing athletes. The overexcitement then in turn negatively affects the athlete's performance. An anxious athlete, Tutko states, tends to perform below expectations and/or below his true ability level. Other authors of texts in sport psychology, notably Cratty and Singer, have also accepted these relationships as a common phenomena in athletics although this relationship between competitive anxiety and motor performance according to Martens has not as yet been firmly established in research.

Purpose

The purpose of this study was to investigate the validity of Tutko's proposition concerning the effect of aggressive sports where physical contact is imminent on pre-competitive anxiety of athletes playing these sports. Effects of other, less aggressive and non-aggressive sports on participants' pre-competitive anxiety was included in this investigation for the necessary comparisons.

Methods and Procedure

Subjects

Subjects of this study were 79 university athletes who participated in the following versity sports: Hockey, American football, wrestling, basketball, fencing, volleyball, gymnastics, and cross-country skiing. All teams played in their respective university leagues and/or tournaments.
For the purposes of this study, all sports were divided into three main categories based on the aggression level generated and tolerated by the rules in these sports. Hockey, American football and wrestling were considered among the most aggressive sports or non-controlled aggressive sports; basketball and fencing were considered as controlled aggressive sports; volleyball, gymnastics and cross-country skiing were considered as non-aggressive sports.

Instruments

The pre-competitive anxiety of all subjects was measured by the Spielberger STAI State Anxiety Scale that asks the individual how they feel at a particular moment in time, i.e., just prior to an athletic contest.
Trait anxiety of all subjects was evaluated by the Spielberger STAI Trait Anxiety Scale. The Trait Anxiety Inventory asks people to describe how they feel generally.

Procedure

In all sports, the design called for one administration of the Trait Anxiety Scale to all subjects. State Anxiety Inventory, on the other hand, was administered repeatedly to all subjects just prior to (i.e., half hour or less) the game or contest throughout the respective competition seasons.

Results and Discussion

When the pre-competitive anxiety scores between the three aggression categories for all sports were compared with analysis of variance, no statistically significant differences were found.

Two separate analyses of variance were then carried out for individual sports only and team sports only for location of possible differences in pre-competitive anxiety of participants playing these sports. Again, no significant differences were found between pre-competitive anxiety of athletes playing in three different aggression levels as defined in this study. The pre-competitive anxiety levels of all athletes were similar across all three aggressive categories for individual and team sports.

Clearly then, the results of this study do not support Tutko's proposition. For the subjects of this study, aggression and physical contact in highly aggressive sports did not elicit greater pre-competitive anxiety in athletes playing these sports than did less aggressive or even non-aggressive sports on their participants. Aggression and physical contact in aggressive sports may not, after all, be a factor in causing pre-competitive anxiety in the competing athletes. Athletes, it seems, are not afraid of violent physical contact, possibility of an injury, and possibility of hurting an opponent. This has also been indicated by the Spielberger's Theory of Trait and State Anxiety.

However, other variables such as trait anxiety and psychological pressure of losing are the factors that elicit differential levels of pre-competitive anxiety in athletes.

In this study, the only significant F value was found for the Trait main effect in team sports indicating that high trait athletes experienced significantly higher elevations in pre-competitive anxiety than did the low trait athletes.

PRE-COMPETITIVE ANXIETY OF STARTERS AND NON-STARTERS IN BASKETBALL

KLAVORA, P., Toronto, Canada

The burden of winning or losing in an athletic contest is often hypothesized to be greater to the starters than to their substitutes, the non-starters, on the respective teams. Therefore, some coaches particularly in basketball and American football, feel that generally, starters experience a higher emotional arousal going into the game than do non-starters. Thus, it is believed by these coaches that if on one hand, starters experience an optimal arousal just prior to the contest, non-starters are often found to be underaroused on the other hand. Underarousal then in turn generates lesser-than-expected performance when suddenly asked to substitute a first stringer who suffers an injury or is fouled out. The substitute's poor performance weakens the performance of the entire team and may ultimately cause the loss of the contest.

In an earlier study by Steward (1971) who also used AMI to study college male basketball teams, it was found that starters scored significantly higher on the drive, self-confidence, and leadership.

In summary, this limited research shows definite personality differences between starters and non-starters on a number of personality traits as measured by AMI. These differences may have a profound effect on these athletes' emotional arousal levels just prior to an athletic contest. In turn, the arousal level determines a player's performance.

Purpose

The purpose of this study was to examine the differences in emotional arousal level of starters and their substitutes, non-starters, in non-stressful or practice environment and stressful or competitive environment.

Subjects

The subjects of the study were the members of 14 high school and one university all male basketball teams. All teams on both levels of competition participated in their respective leagues.

Test Instrument

The pre-competitive emotional arousal of all subjects was measured by the Spielberger STAI State anxiety inventory. This scale asks the subject to indicate how he feels at a particular moment in time, for example, immediately prior to the practice or the game.

Procedure

The inventory was administered to all subjects in non-stressful and stressful athletic environments. In stressful environment, the design of the study called for repeated administration of State anxiety inventory to all subjects during the Regular Season and the Playoff competition. The inventory was administered approximately one half-hour or less before the game in the locker room where the subjects were changing. The test was administered for the most part within minutes of actual competition.
The emotional arousal of all subjects in non-stressful practice situation was on the other hand evaluated only once.

Results and Discussion

In this study, the starters were expected to show higher pre-competitive emotional arousal level than non-starters, immediately prior to competition. Namely, it was pointed out earlier that the responsibility of winning or losing lies predominantly on starters of a team. Thus it was hypothesized that the psychological threat of losing is greater to starters than to non-starters.
The results of the analyses of variance indicate, however, contrary to expectations, no significant differences in pre-competitive emotional arousal of starters and non-starters on both levels, the high school and the university level of competition.
On both levels of competition, however, conditions (or stressful versus non-stressful environments) main effect demonstrated high significance.
Furthermore, in high school level since there occurred a significant skill by conditions interaction.

For high school subjects there was only a slight difference in emotional arousal between starters and non-starters during a Practice session. However, the difference in emotional arousal between the two groups of subjects in competition (Regular Season and Playoff games) was greater although it was not significant. On the average, the starters experienced higher elevations in pre-competitive emotional arousal than did the substitutes.
Again, at Playoffs there was a significant interaction between the two variables, the Skill and the Experimental Conditions. What happened is that in Playoff competition, the starters experienced a slight increase whereas the non-starters experienced a slight decrease in pre-competitive emotional arousal from the levels that were customary for both groups during the Regular Season.
The explanation for this interaction may be the following: Playoff competition may be regarded as more crucial a contest than Regular Season competition because it decides the eventual winner. Every contest is especially important because losing means elimination. In addition to this, only the best teams remain and, consequently, winning becomes progressively more difficult. Therefore, the longer a team stays in Playoff competition the greater, it would appear, is the psychological threat involved in such competition to the starting players of the team.
On the other hand, because of the importance of each contest, the substitutes are well aware that the coach will most likely use only the best players, the starters, throughout the game and that there will be only a remote chance for most substitutes to get into the action. Thus, a substitute's chance to see action during Playoffs is smaller than during the Regular Season competition. This, then, may be one important cause for the substitutes to feel less aroused than customary before Playoff games. This may negatively affect their performance if suddenly called upon to substitute a regular player.
These results have great implications in practical coaching when preparing a team for crucial Playoff contests. The coach must do everything to optimally arouse not only the regulars but also the substitutes. When called upon to substitute a starter, an optimally aroused substitute will perform at his best, thus contributing to his maximum abilities to his team's success. On the other hand, an underaroused substitute is likely to perform worse than expected which is the least desirable in a close contest. Coaches must recognize that winning or losing is often determined by the ability of substitutes to perform at their best.

FÖRDERUNG DER LEISTUNGSMOTIVATION[1] IM SPORTUNTERRICHT DER GRUNDSCHULE

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I. Theorieabriss: Die im folgenden dargestellten Ergebnisse zur LM-Förderung stehen in direktem Zusammenhang mit den theoretischen Konzepten von ATKINSON (1975), McCLELLAND/WINTER (1969) und HECKHAUSEN (1973). Die genannten Autoren

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1) Leistungsmotivation = LM

sehen die LM durch fünf Determinanten strukturiert: Erwartungsausrichtung, Anspruchsniveau, Kausalattribuierung, Fähigkeitskonzepte, Extensität. Im Rahmen einer LM-Förderung sollen eine oder mehrere, im günstigen Fall alle Determinanten derart beeinflusst werden, dass das individuelle Erleben von Leistungssituationen von Erfolgshoffnung[2], nicht aber von Misserfolgsangst[3] geprägt wird.

II. Begründung einer LM-Förderung im Sportunterricht: Lernziele wie die folgenden, sein eigenes Können erfahren, Freude an dosierter Leistung gewinnen, überdauernd für Sport motivieren, Entwicklung einer angemessenen Lernmotivation scheinen für misserfolgsmotivierte Schüler nicht oder nur in eingeschränktem Umfang realisierbar. Stellt, in kritischer Sicht der leistungsintensiven Institution Schule, der Abbau von Leistungsängsten ein weiteres Ziel des Sportunterrichts dar, so bietet sich die Methode der LM-Förderung als Realisierungsmöglichkeit an.

Folgende Gegebenheiten des Sportunterrichts scheinen für eine LM-Förderung besondere gute Bedingungen zu bieten: eindeutige, gut erfassbare Sach- und Aufgabenstrukturen, kurzfristige Erfolgs- und Misserfolgsrückmeldungen und Korrekturmöglichkeiten, günstige organisatorische und inhaltliche Voraussetzungen für Wahlversuchssituationen.

III. Befunde: In die verschiedenen Untersuchungen (HECKER 1971; KLEINE 1976; BEIER 1976; WESSLING-LÜNNEMANN 1977) wurden als Versuchs- und Kontrollschüler Kinder der 1.bis 4. Grundschulklasse einbezogen. Zur Kontrolle der motivationalen Entwicklung kam für das 3. und 4. Schuljahr das LM-Gitter nach SCHMALT (1976), für das 1. und 2. eine angepasste Fassung nach BEIER (1976) und für die Kontrolle der motorischen Entwicklung der Komplexe Test nach HECKER (1971) zur Anwendung. Die Verfahren genügten den messtheoretischen Ansprüchen einer Gruppenanalyse.

Die LM-Förderung sah zwei Formen vor. Die Komplexe Einheit bezog sowohl motivationsfördernde Inhalte (HECKER 1974) als auch motivationsfördernde Unterrichtsmassnahmen von Versuchslehrern ein, die von der Versuchsleitung in speziellen Lehrgängen theoretisch wie praktisch vorbereitet worden waren (KLEINE 1976). Die zweite Form ergab sich durch Übungseinheiten in unterschiedlichen Zeitabständen in einer speziellen Wahlversuchssituation völlig ohne Einflussnahme von Lehrern.

III. 1. Komplexe Einheit:

Die motivationale Entwicklung wurde anhand von fünf Testserien über zwei Versuchsjahre und zweieinhalb Jahre der Stabilitätskontrolle verfolgt. Bis auf eine Gruppe sind die Entwicklungsverläufe unregelmässig. Sowohl für die hocherfolgsmotivierte Versuchs- als auch Kontrollgruppe nimmt HE ab; es bleibt jedoch eine deutlich erfolgsorientierte Struktur erhalten. Die hochmisserfolgsmotivierte Kontrollgruppe weist starke Mittelwertschwankungen auf, die jedoch ebenfalls zu keiner grundlegenden LM-Änderung führen. Einzig für die hochmisserfolgsmotivierte Versuchsgruppe ist ein hochsignifikanter HE-Anstieg festzustellen, der auch in der Kontrollphase stabil bleibt.

Die Entwicklungsverläufe der FM-Werte sind ebenfalls unregelmässig. Beide hoch-

2) Hoffnung auf Erfolg = HE
3) Furcht vor Misserfolg = FM

misserfolgsmotivierten Gruppen weisen signifikante FM-Sekungen auf, die Kontrollschüler in der Nachphase jedoch stärker. Die hocherfolgsmotivierten Gruppen weisen signifikante FM-Ansteige auf, die Kontrollschüler hauptsächlich während der Versuchsphase, die Versuchsschüler während der Kontrollphase.

Wir werten die Befunde, besonders die der misserfolgsmotivierten Versuchsgruppe, als LM-Förderungseffekt. Es ist jedoch nicht auszuschliessen, dass auch sozio-kulturelle Faktoren zu einer positiven LM-Beeinflussung geführt haben, wie die Befunde der Kontrollgruppen nahelegen. Die signifikante Zunahme von FM, besonders im ersten Jahr der Nachphase beider Kontrollgruppen, interpretieren wir wie folgt. In der Versuchsphase wurde ein motivationaler Schonraum aufgebaut, der nach Abschluss des Versuchs die Gefahr herauf beschwört, dass die Schüler in ihre alte LM-Struktur verfallen oder zumindest eine deutliche Verschlechterung eintritt.

III, 2. Übungseinheiten:

Auch Übungseinheiten im Sinne von Wahlversuchsanordnungen, die in unregelmässigen Abständen in den Versuchsklassen praktiziert wurden, führen für die hochmisserfolgsmotivierte Versuchsgruppe zu einer deutlichen Steigerung der Erfolgsorientierung, während die restlichen Gruppen Stabilisierungen oder Abnahmen aufweisen. Der festgestellte Förderungseffekt ist jedoch nicht so intensiv wie bei der komplexen Einheit. Stabilitätskontrollen laufen an.

III, 3. Motorik-Daten: Bei der Kontrolle der motorischen Entwicklung ergaben sich widersprechende Befunde. Bei HECKER (1971) und BEIER (1976) ging der motivationale Fördereffekt mit einem Anstieg der Motorikleistungen einher, der in der Untersuchung von KLEINE (1976) fehlt. Auch in der LM-Theorie sind die Befunde zu den Beziehungen zwischen LM und kognitiven wie Motorikleistungen widersprüchlich. Bezogen auf eine LM-Förderung im Bereich Schulsport sollte daher nicht der Aspekt Leistungssteigerung, sondern der Aspekt Abbau von Leistungsangst primär sein (KLEINE/HECKER 1977; BEIER/HECKER 1977).

III, 4. Weitere Planung: Um gleich gute Fördereffekte für alle Schüler zu erzielen, jedoch die Gefahren des angenommenen motivationalen Schonraums der komplexen Einheit zu vermeiden, soll in Zukunft für misserfolgsmotivierte Schüler nur noch eine kurze komplexe Einheit gewählt werden, die dann in unregelmässige Übungsphasen übergeht, im Sinne einer Wahlversuchssituation. Den erfolgsmotivierten Schülern sollten von Anfang an nur unregelmässige Übungseinheiten angeboten werden, um eine Stabilisierung ihrer LM-Struktur zu erreichen.

IV. Stabilitätskontrolle:

Die Abbildungen zeigen die Mittelwertdifferenzen für die vier Schülergruppen zwischen den fortlaufenden Testserien getrennt für HE und FM. Man sieht, dass bis in die Nachphase und bis zu einem Alter von 14 Jahren tendenzielle und signifikante Niveauverschiebungen auftreten. Die allgemeine Annahme, dass sich bis zu zehn Jahren eine Strukturverfestigung einstellt und so dann eine relative Strukturstabilität vorherrscht, bestätigt sich für unsere Data nicht. Dieser Befund kann eventuell als ein Herausschieben des Verfestigungszeitpunktes verstanden werden oder die Annahme einer relativen Stabilität völlig widerlegen, so dass genauso gut von einer "relativen Strukturlabilität" gesprochen werden könnte.

Somit kann der Annahme, der optimalste Zeitpunkt einer LM-Förderung sei die Vor- und/oder die Grundschulzeit (HECKHAUSEN 1969; HECKER 1969), entgegengehalten werden, dass nach unseren Befunden die Haupt- und Realschule, wie auch das Gymnasium gleich gute Einflussnahmen zu bieten scheinen, wenn aus dem familiären und sozio-kulturellen Milieu keine massiven Gegeneinflüsse wirksam werden.

V. Ausblick : Aus den dargestellten Untersuchungen lässt sich entnehmen, dass Wahlversuchsanordungen (Anspruchsniveausetzungen) einen effektiven Rahmen für eine LM-Förderung abgeben, da sie in einer Leistungssequenz als Ausgangspunkt eine Schlüsselstellung einnehmen. Weitere kognitive wie affektive Verarbeitungsmechanismen wie Kausalattribuierung, Anstrengungskalkulation, Anspruchsniveauänderung usw. stehen in ihrem Gefolge, so dass eine Einflussnahme eventuell zu einer Übertragung und damit zu einer generellen Umstrukturierung der LM-Struktur führt. Gegen die Annahme von HECKHAUSEN (1973), dass ein LM-Gefüge ein Selbstbekräftigungssystem von hoher Stabilität darstellt, dass nur durch massive Einflussnahme von aussen durchbrochen werden kann, sprechen die Befunde von KLEINE (1976) und WESSLING-LÜNNEMANN (1977). Einmal ergab sich über Wahlversuchsanordnungen ohne Einfluss von aussen durch einen Lehrer interessanterweise nur für die hochmisserfolgsmotivierten Schüler ein Förderungseffekt. Zum anderen weist die bereits beschriebene Labilität der LM-Struktur daraufhin, dass eine Revidierung der LM-Theorie in diesem Punkt nötig sein könnte. Die Untersuchungen werden fortgesetzt.

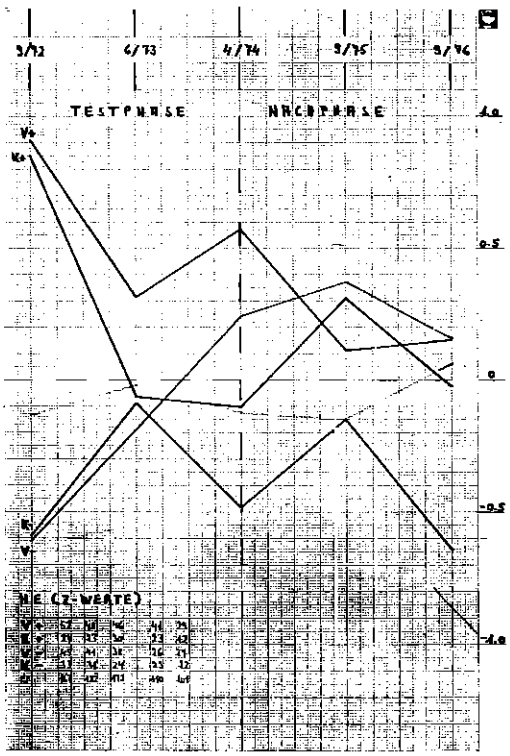


Abb. 1

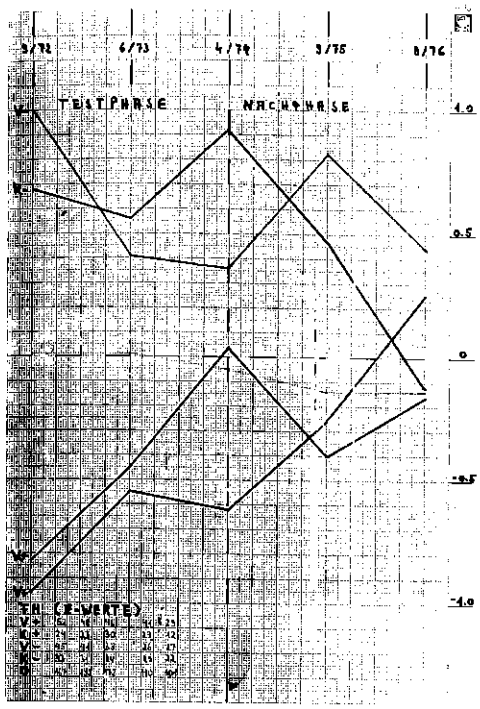


Abb. 2

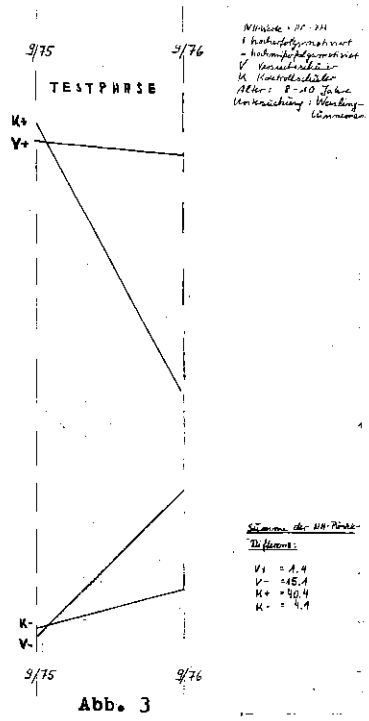


Abb. 3

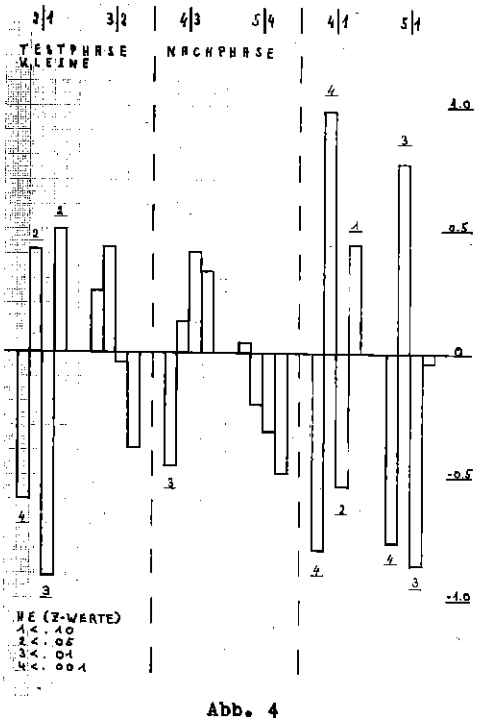


Abb. 4

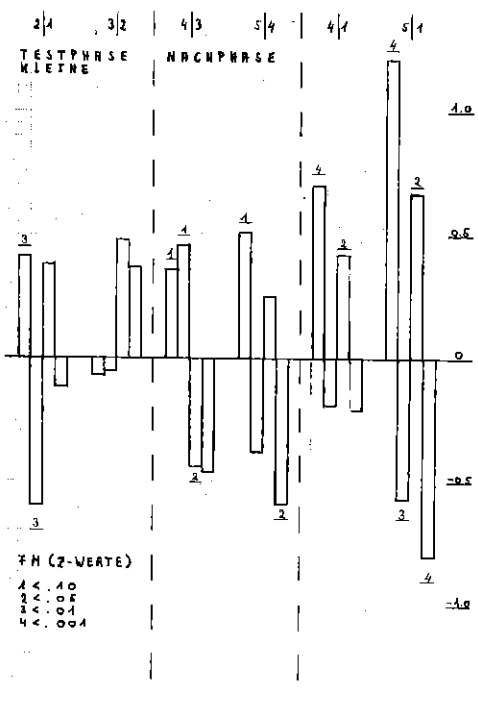


Abb. 5

Literaturnachweis:

ATKINSON, J.W.: Einführung in die Motivationsforschung. Stuttgart 1975.

BEIER, A.: Der Einfluss verschiedener Unterrichtsvariablen auf die sportmotorische, motivationale und kognitive Entwicklung der Schüler in den ersten Grundschuljahren. Unveröff.Diss., Gesamthochschule Siegen 1976.

BEIER A./HECKER, G.: Untersuchung zur Förderung der Sportmotorik im 1. und 2. Schuljahr unter Berücksichtigung der Leistungsmotivationsgenese. Sportwissenschaft 1977, 3.

HECKER, G.: Die Leistungsentwicklung im Sportunterricht. Weinheim 1971

HECKER, G.: Die Entwicklung der Leistungsmotivation im Sportunterricht. Die Leibeserziehung 1969, 4, 114-116.

HECKER, G. u.a.: Aufgabenkanon für 100 Sportstunden im 1.und 2. Schuljahr. Schriftenreihe zur Praxis der Leibeserziehung und des Sports, Bd.82 Schorndorf 1974-

HECKHAUSEN, H.: Förderung der Lernmotivierung und der intellektuellen Tüchtigkeiten. In: H.Roth (Hrsg.). Begabung und Lernen. Stuttgart 1969, 193-228.

HECKHAUSEN, H.: Intervening cognitions in motivation. In: Berlyne, D.E. Madsen, K.B. (Hrsg.). Pleasure, reward, perference, New York 1973, 217-242.

KLEINE, W. : Förderung der Leistungsmotivation im Sportunterricht der Grundschule. Ein Beitrag zur Sportdidaktik und Motivationspsychologie. Unveröff. Diss., PH Rheinland 1976.

KLEINE, W./HECKER, G.: Zur Förderung der Leistungsmotivation und der Sportmotorik im Sportunterricht der Grundschule. Sportwissenschaft 1977, 1, 63-69.

McCLELLAND, D.C./WINTER, D.C.: Motivating economic achievement, New York, 1969.

SCHMALT, H.-D.: Die Messung des Leistungsmotivs, Göttingen /Toronto/ Zürich 1976.

WESSLING-LÜNNEMANN, G.: Durchführung einer Wahlversuchsanordnung im Sportunterricht in der Grundschule und ihre Auswirkungen auf die Entwicklung des Leistungsmotivs. Unveröff. Diplomarbeit, PH Rheinland, 1977.

СТРУКТУРА МОТОРНОГО УЧЕНИЯ И ЕГО ОСОБЕННОСТИ У ШКОЛЬНИКОВ

КЛИМЕНКО,В.В., Киев, СССР

В психологических и тензограмметрических исследованиях локомоций и баллистических движений школьников и спортсменов найдены факты, не укладывающиеся в рамки существующих теорий. Структурно-функциональный анализ этих факторов позволил разработать информационную теорию моторного учения. Процессы моторного учения составляют систему блоков:"подражание (П) - образ (О) - действие (Д) - "свежий" след памяти (СП) - последовательный образ (ПО) - реминисценция (Р) - интерференция (И), - участвующих в переработке смысловой и сенсорной информации. Каждый из блоков имеет ряд функций, оказывающих различное влияние на успешность учения. Наиболее активно отбирают от чужих движений информацию и создают программу регуляции собственных движений только дети младшего возраста. Но механическое заимствование у старших детей и взрослых приводит к дезорганизации движений. Больше того путем подражания можно получить лишь информацию о пространстве движений и ритме, кинетическую же мелодию движений - их чувственную сторону - нельзя увидеть ни на ком постороннем - она не доступна для наблюдения извне.

Образ действия -включает в себя четыре вида сил:

1. Силы инерции или "даровые силы", которые усваиваются постепенно и на высоком уровне мастерства составляют большую часть специализированных восприятий или чувств движений: чувство снаряда, чувство бега, чувство планки и т.п.
2. Силы гравитации постоянно и неизменно оказывают влияние на регуляцию движений. Это ориентировка по вектору гравитационного поля Земли, сохранение равновесия при перемещении в пространстве и регуляция позы в опорных и безопорных фазах действий.
3. Реактивные силы или силы упругой отдачи. Они являются силовыми откликами и сил инерции, и действия сил гравитации, и активных мышечных усилий. Это своего рода рессорное свойство мышечной системы; в начале движения происходит накопление количества движения путем напряжения мышц - они аккумулируют энергию напряжения, - а затем они отдают ее "взрывом" массе тела, увеличивая скорость его перемещения. В этом то и состоит баллистика движений, которые выигрывают в мощности и скорости у движений, которые регулируются непосредственно волей, желанием, хотением. Простая двигательная реакция имеет скорость 0,10-0,18 с у спортсменов, а баллистическое движение, его реактивная сила разворачивается в интервалах сотых долей секунды - 0,03-0,08 с.
4. Активная мышечная сила может быть уподоблена маршевому двигателю ракеты, который на фоне перемещения инертной массы тела только подталкивает его, сохраняя скорость его перемещения или создавая ускорение. Новичок строит свои движения, в основном, на активной мышечной силе, инерцию гасит, с трудом сохраняет равновесие в движениях, а реактивные силы не может использовать. Он просто не знает как и что с ними делать. Мастер-виртуоз при экономии активных сил использует их в интересах движений их мощности и реаультативности.

Образ включает в себя два вида пространства:

1. Пространство схемы тела. Это информация от всего тела, его образ в движениях. Звенья тела разворачиваясь веером в пространстве образуют объем движений, в котором необходимо в учении найти самые экономичные траектории их перемещения. Найденные формы движений и составляют главное умение регулировать его в пространстве схемы тела.
2. Пространство действия более сложное синтетическое образование. В нем разворачиваются веера движений схемы тела, которое необходимо приспособить к более об-

ширному пространству перемещения. Например, прыжок в длину требует точного освоения пространства разбега - минимальные ошибки длины шага в 1 см накапливаются от шага к шагу и в результате потеря длины прыжка или нарушение правил соревнований. Освоение пространства действия одна из задач моторного учения.

Образ включает в себя информацию о времени действия. Оно пронизывает все его структуры, разделяя его на прошлое, настоящее и будущее. Ритмы движений выливаются в стойкие узоры чередования во времени фаз движений и составляет кинетическую мелодию их.

На пути к мастерству школьник вынужден научиться понимать содержание рецепции, переводить язык мышечной динамики в язык осмысленного сообщения каждого момента текущего во времени движения. Возможности контроля движений определяются совершенством умения достижения высокой точности сличения и оценки движений ; при их микрорегуляции разворачивающийся в интервалах сотых долей секунды; выполненного действия с предварительным намерением - образом потребных движений; и выполненного действия с его идеалом - моделью, которую предстоит освоить в будущем. Например, в конце четырехлетнего цикла тренировки. Полученная информация и последующая оценка ее дает основания для коррекции процесса, если сбивает с намеченного пути.

В процессе выполнения действия найдено несколько видов интерференции. Интерференции дисфункции, выражаются закрепощением и "трением" в движениях, стопорят их, осаживают, часто заклинивают и не дают ходу, вынуждая их "хромать" и "заикаться". Биомеханически рациональная форма движений при дисфункциях искажается, баллистическая волна импульса силы (ее механический аналог - хлопок кнутом), протекает в них не как ламинарный, несмешивающийся и неразбрызгивающийся поток, а как поток с паразитными отклонениями главной волны от вектора силы. Паразитные векторы, сталкиваясь с главной волной, буквально ломают движения огромными перегрузками те звенья тела, где они встречаются; у копьеметателей места перегрузок и травм - мышцы локтевого, плечевого суставов и в области поясницы. Это результат турбулентного потока волны с разбрызгивающимися по сторонам, ломающимися векторами, созданными по неумению собственными мышечными усилиями!

Дисфункции наблюдаются при отрицательном взаимодействии следовых процессов от предшествующих действий с установившейся программой регуляции и управления действием. Следовые процессы, возникающие после использования в тренировке отягощений проксимальной локализации с целью развития мышечной силы, на длительное время вносят функциональные искажения в систему движений прыгуна. Подчеркнем - интерференции не исчерпываются явлениями ассоциативного и репродуктивного торможения в начале выработки навыка. Они существуют в движениях и на самом высоком уровне мастерства. В закономерно наступающих интерференциях нет ничего фатального. Они легко преодолеваются, если проводятся соответствующие мероприятия для упорядоченности структур образа движений.

Рядом исследований В.В.Клименко, А.Г.Рыбковского (1973) обнаружено, что посредством подсобных аналоговых действий на заданную точность, действия с заданным размером, создаются условия для улучшения воспроизведения (реминисценции) основного действия в течение учебного занятия. Реминисценция является результатом увеличивающейся "контрастности" следа памяти. Концентрация и самовозрастание контрастности следа памяти достигается не только с течением времени, но и активными мышечными действиями в том случае, когда они выполняются на заданную точность. Повышение активности процессов сличения и оценок (это является результатом внесения движения размерности и метричности), способствует не только увеличение производительности действия, но приводит к положительным изменениям системы движений.

феномен реминисценции, следовательно, составляет важнейшее свойство функции памяти и существенную сторону процесса усвоения двигательных действий. Блоки свежего следа памяти и последовательного образа особенно механизмы реминисценции производят отбор и создают новые программы регуляции движений. Самоорганизация информации и активность реминисценции убывают к концу возрастного развития.
Итак, структура моторного учения выделяет главные точки для приложения педагогических воздействий, обучения и воспитания. Все блоки являются единонераздельной целостью движений и образа. В этой целостности существуют и развиваются процессы психического отражения, проектирования деятельности и ее порождения.
Правильно поставленное учение исключает интерференции и диссонансы в движениях. В образе содержатся информации структур памяти и энграмм, символа действия и символизации цели активности. Идеальное, совершенное мастерство спортсмена требует, чтобы он знал и точно выполнял все правила, законы и принципы, в соответствии с которыми производятся действия.
Это содержание смыслового образа конструирует и порождает модель биомеханически-рационального действия без каких-либо интерференций. Дети способные усваивать моторные акты изоморфные предельным системам движений баллистического типа и локомоций. Движения детей по мягкости, пластичности и быстроте превосходят движения взрослых; мальчики 10-12 лет камушки весом 10-20г. метают дальше взрослых.

THE ROLE OF TEMPERAMENT TRAITS IN SPORTING ACTIVITIES

KLODECKA, J., Warsaw, Poland

Problem

The role of temperament traits in human activities has been first explored by Soviet investigators, notably by Teplov and Merlin. Basing themselves on Pavlov's idea of types of nervous system, they have shown that strength, mobility, and equilibrium of nervous processes are important factors in human behaviour, their influence depending on kind of activity and on the particular conditions in which it is carried on.
For the sport psychologist the crucial thing would be to examine the effect of temperament traits on (1) the development of what has come to be known as the person's "style of activity", (2) the sportsmen's preferences for activities offering a particular amount of stimulation, and (3) the furtherance of tolerance to stress.
Tolerance to stress, by which is meant the ability to function normally in conditions of emotional tension, is to a great extent a function of temperament. Accepting Strelau's view that temperament is a regulator of behaviour in the sense that it co-determines behaviour in its temporal as well as energy aspects, one is tempted to look for effects of temperament traits in motor behaviour. Valuable evidence along these lines can be gained by studying the behaviour of participants in sport contests. The effect of temperament on behaviour is particularly pronounced when the usual equilibrium between the organism and the environment has been disturbed. A person's susceptibility to such a disturbance depends on the type of his nervous system.

The competitive character of a sport contest induces considerable emotional tension in the participants, bringing all their individual traits into play. Consequently, the present study was based on the following assumptions: (1) Temperement traits come into evidence in the intellectual, emotional, and motor spheres alike. The common framework of men's somatic development gives rise to distinct interrelations between temperament traits and motor skills.
(2) In the kind of emergency which prevails during sport contests the person's performance is most clearly effected by his temperament traits.
(3) Being responsible for the individual demand for stimulation, the temperament of the competitor crucially affects his mental endurance and tolerance to stress.
(4) Temperament is a relatively stable feature of the person. This ontogenetic stability of temperament enables us to identify a person's temperament traits at an early age, designating also the optimal type and amount of outward stimulation required by the competitor to ensure him maximum success, and designating his particular capabilities in sport.
The aim of the present study was to examine the interrelations between temperament traits and performance on a motor test in conditions of stress and without stress.
The design of the experiment was based on the following working hypotheses:
(1) Significant differences in motor performance come into evidence in conditions of stress, in the sense of both individual differences and a person's performance during the neutral phase of the experiment and under stress.
(2) Persons tolerant to stress possess a different temperament from persons without such tolerance.
(3) The structure of temperament in the stress-tolerant group differs from that in the non-tolerant group.
(4) The correlations to be found between the 24 temperament traits measured on the five inventories provide a sufficient basis for estimating the factorial structure of temperament in the studied sample.
The subjects were 240 boys at the age of 16-18. They were tested in groups.
Their temperament traits were measured with five standard tools: the Guilford-Zimmerman Temperament Survey (GZTS), Strelau's Temperament Inventory, Thurstone's Temperament Schedule, the Taylor Manifest Anxiety Scale (MAS) and Eysenck's Maudsley Personality Inventory (MPI).
The motor performance of subjects was tested in a natural experiment on the following dimensions: strength, energy power, speed, anqility, and stamina endurance.
All the tasks were taken from Denisiuk's motor skill test battery which has been standardized and verified on a large population.
Two estimates of motor skills were made with this tool: in a neutral (training) situation and under stress (during a contest).
The purpose of the experiment was to discover individual differences in motor performance during training and during the contest.

Results and Conclusion

The raw data were subjected to statistical analysis. In effect, all our hypotheses have been borne out (in part, at least) by the results of the experiment.
Being aware of the cursory nature of the present account, which does not permit to discuss the wider implications of the findings, we cannot fail to stress, however, that the psychological study of temperament is of considerable practical

significance for sports, notably in (1) recruitment, (2) prediction of success, (3) and training as far as the furtherance of the optimal style of activity and the moderation of pre-contest tension is concerned.
The specific nature of sporting activities enables the investigator to conduct tests over a considerable time span and to cover diverse functions of the organism, which satisfies some essential methodological postulates of the study of temperament and may also yield evidence of interest to theory.

PASSIVE INTEREST IN SPORT AND PERSONALITY STRUCTURE

KNOTEK, P., Prague, Czechoslovakia

A passive interest in sport and physical exercises, especially among people who themselves do not participate in sport, represents a number of theoretically interesting and practically important problems: the problem of substitution the need for motor activity and the need for one's own dramatic experience by identification with top level sportsmen and other specific problems of sport onlookers; the problem of utilizing a positive attitude toward sport to increase one's own movement activity; the problem of transfer the achievement motivation and value's orientation connected with sport into other areas of life, and other problems. We also assume that a study at the personality with a passive interest in physical exercises and sport can contribute to more precisely determining those personality traits which are directly connected with active participation in sport and physical exercises as opposed to those which are only loosely connected with these activities.
The most frequently encountered approach to a passive interest in physical exercises and sport is a very broad and vague one. For this reason we shall limit ourselves to examining persons who specifically say they have an interest in physical exercises and sport but who for various reasons do not participate in sport or physical exercises. Other aspects of a passive interest will not be taken into consideration.
Our sample, composed of 183 female students of Pedagogical Faculties, aged 19-20 years, was divided into three groups:
A: Persons who in their leisure time do not participate in physical exercises and sport and who said they are not interested in physical exercises and sport ("not interested"; n = 35).
B: Persons who do not participate in physical exercises and sport, but who said that they are interested in, but do not have the possibility of actively participating ("with passive interest"; n=66).
C: Persons who participate in physical exercises or sport 4 or more hours weekly; n=83.
We suppose the existence of such personality traits which are connected with:
1. active participation in physical exercises and sport and which are typical for group C;
2. an interest in physical exercises and sport which are held in common by group B

(i.e. a passive, but not implemented interest) and for group C (an active, implemented interest);
3. we assume that the group with a passive interest (B), has traits common for both persons without any interest (A) and those who actively participate in physical exercises and sport (C).
The whole sample was investigated with the aid of the following questionnaire battery:
PEN (scales: P - psychoticism, E - extraversion, N - neuroticism)
HODOR (AK - activity - contemplation, AH - asceticism - hedonism, BR - struggle to overcome obstacles - passive resignation and PF - order-flexibility) and PIL, which provides a score to designate the extent to which a person lives life in a satisfying and purposeful manner.
Group means were compared by the analysis of variance (F test) and the complete set of pairs of means was compared by a two-tailed t-test. Next we combined the groups B + C. The group means thus gained were compared with group A by the t-test.

Results

1. The group without interest (A), with a passive interest (B) and those who actively participate in physical exercises and sport (C) differ in the E score of the PEN questionnaire ($P < .001$), in the AK ($P < .001$), BR ($P < .05$) and the PF score ($P < .05$) of the HODOR questionnaire (F test).
2. Comparisons of pairs of groups:

a/ A vs. B (without interest vs. passive interest): the two groups significantly differed only in the HODOR questionnaire scores. Those with a passive interest have a greater preference for activity (AK: $P < .01$), for a struggle with obstacles (BR: $P < .05$) and for order (PF: $P < .05$).
b/ A vs. C (without interest vs. active participation in physical exercises and sport): Those actively participating are more extroverted (E: $P < .01$) prefere activity (AK: $P < .001$), are more ascetic (AH: $P < .05$) and prefere a struggle with obstacles (BR: $P < .01$).

3. A comparison of the group without interest with the combined group of persons with a passive interest and those who actively participate in physical exercises and sports (A vs. B + C) shows a higher preference for activity (AK: $P < .001$), for asceticism (AH: $P < .05$) and for a struggle with obstacles (BR: $P < .05$) in the combined group.
An interest in physical exercises and sport both in an active (C) and passive (B) form was combined with value's orientation expressed by the HODOR questionnaire and active participation in the sample investigated was significantly combined with extraversion. (And on the basis of our other findings, also with low neuroticism (KNOTEK 1977).

Discussion

Our most interesting results concern the connection between physical exercises and sport and extraversion and between an interest in physical exercises and sport (whether actually implemented or not) and value's orientation characterised by a preference for activity, ascetic ism and a struggle with obstacles. In our sample, active participation in physical exercises and sport was closely related to a probably biologically more determined extraversion, while both

forms of interest (B and C) were connected with typical "sport values". In our opinion these can be expected to exist not only among sportsmen, but also among persons who in our project said that "they would like to actively participate, if they had the oportunity", among sport onlookers, the readers of sports pages, among persons who consider the educational value of active participation in physical exercises and sport to be beneficial, etc. However, as is well known, verbally expressed value preferences have a very complicated relation to actual behaviour.

On the basis of our findings we should like to express the hypothesis that various forms of a passive interest in sport and physical exercises influence the value's orientation of a personality.

Conclusions

An investigation of 183 female students of Pedagogical Faculties, divided into three groups according to their interest in physical exercises and sport indicates that:

1/ there exists a significant relation between active participation in sport and physical exercises and extraversion,

2/ there exists a significant relation between a passive and active interest in physical exercises and recreational sport and value's orientation characterised by a preference for activity, asceticism and a struggle with obstacles.

On this basis the hypothesis has been formulated that also other forms of a passive interest in sport, which have not been the subject of the present investigation, influence, in the above mentioned sense, the value's orientation of a personality.

Bibliography

ALLPORT, G.W.: Pattern and Growth in Personality. Holt, Reinhart and Winston 1961

COOPER, B.A: Athletics Activity and Personality. A Review of the Literature. Res. Quart., 40, 1971, 1: 17-21

EYSENCK, H.J.: The Structure of Humen Personality. Methuen, 1960.

KNOTEK, P.: Pasivní zájem o tělesnou výchovu jako pedagogický a psychologický problém /A passive interest in sports as an educational and psychological problem), Theor. Praxe těl. vých. 20, 1972, 8: 452-460

KNOTEK, P.: Některé souvislosti mezi vlastnostmi osobnosti a zájmem o tělesnou výchovu /Some relationships between personality traits and an interest in physical education), Čs. psychologie, 16, 1972, 6: 517-528

KNOTEK, P.: Spokojenost ze cvičení a vlastnosti osobnosti (Satisfaction from physical exercises and personality traits). Teor. Praxe těl. Vých., 21, 1973, 3: 145-154

KNOTEK, P.: Osobnost, motorická aktivita a zájem o tělovýchovu (The personality, motor activity and interest in physical education). Teor. Praxe těl. Vých. (1977, to be published)

STAVĚL, J.: Předivo zájmů (The tissue of interests). Česká mysl 38, 1944, 3-4: 69-121

VANĚK, M.; HOŠEK, V.; SVOBODA, B.: Studie osobnosti ve sportu (A study of the personality in sports). UK Praha, 1974.

PERSONALITY STRUCTURE AND MOTOR ACTIVITY

KNOTEK, P., Prague, Czechoslovakia

Investigation of the relations between motor activity and the structure of the personality is connected with fundamental problems of the psychology of physical education and sport. Sport psychology has produced numerous, but by no means equivocal findings concerning this aspect of psycho-somatic relations. The possibility of a more precise determination of personality traits which are related to more extensive motor activity of the organism and also traits which are specific only for sportsmen, exists in a comparative investigation of persons with a high degree of motor activity. A basic supposition of such an investigation is to compare samples of persons who are physically active in psychologically varied types of life activities. In this paper we compare the extent of motor activity and personality traits within the framework of recreational sports, work and study.
Our study is based on the following assumptions:
1/ There exist personality traits which correlate with a higher degree of motor activity regardless of the type of life activity to which this motor activity is connected. Since motor activity is a direct manifestation of biological functions, we expect it to be related to personality traits which are more biologically dependend.

2/ There exist personality traits which correlate with sport and physical exercise and which are not found in other persons with a high degree of motor activity. In our opinion these traits are related to the specific characteristics of sports and physical exercise activities, especially to their socio-psychological, sociological and cultural framework.

Sample

Our project is based on an investigation of 530 persons (223 men and 307 women) from two different populations:
a/ Employees of the light engineering industry (n=175, including 123 men and 52 women) which we have divided on the basis of the judgements of experts into two sub-groups, according to the amount of physical exertion expended in their work.
b/ Students of Pedagogical Faculties (n=335; 100 men and 225 women). They are further classified according to the following criteria: 1/ According to their statements concerning the number of leisure hours devoted to sports and physical exercises. According to this criterion the students were classified twice: Once as a whole and once with the exclusion of students of physical education. 2/ According to the specialization the students were divided into students of physical education and students of other specializations. (A more detailed description of our samples can be found in KNOTEK 1972a, 1972b, 1972c, 1974, KNOTEK, KUBIČKA 1951).

Methods

Our investigation was based on an application of the PEN, HODOR and PIL questionnaire. H.J. Eysenck's PEN questionnaire measures relatively independent bipolar personality traits: psychotism-normality (P), extraversion - introversion (E) and neuroticism - stability (N). Here we suppose a strong hereditary factor,

which is supported especially for E and N (SHIELDS 1962, EYSENCK, PRELL 1951, EYSENCK 1955, etc.)

HODOR by L. Kubička provides indicators of values orientation in the dimensions activity - contemplation (AK), asceticism- hedonism (AH) struggle with obstacles-peaceful resignation (BR) and order-flexibility (PF). The measured variables are roughly in accordance with MORRIS' (1956) category of "conceived values". We assume that the questionnaire measures what is in accordance with accepted standards and that it predominantly reflects the influence of the social and cultural environment of later stages in life.

PIL (Purpose in Life Test) by Crumbaugh and Mahlick express the degree to which a person lives his life as a purposeful and satisfactory one.

Statistical analyses were carried out on the basis of various models of analysis of variance (F test), on the basis of t-test for independent variables and on the linear correlations. The quoted publications contain a precise description.

Results

1/ The degree of motor activity significantly correlate with extraversion in all analysed cases. A higher degree of E was found in persons with physically hard work ($P < .01$). Supplementary statistical analysis which excluded women from the sample confirmed this finding. Also students with a larger amount of sport activities during leisure time were found to have a higher degree of E ($P < .05$ for men, $P < .01$ for women). This finding is also supported by analysis of the sample when students of physical education were excluded ($P < .01$ for men, $P < .05$ for women). Also students of physical education were found to be more extraverted in comparison with other students ($P < .01$ for men, $P < .05$ for women).

2/ The degree of motor activity significantly correlate with mental stability (negatively correlate with N) in two of the three examined types of activities. People who work physically are less neurotic ($P < .01$), as are students who devote more leisure time to sport and physical exercises ($P < .01$ for men, $P < .05$ for women). Supplementary analysis concerning the same sample, with the exclusion of physical education students confirms this finding by $P < .01$ for men. Among women, as well as physical education students, we found relation in the same direction, which is not, however, statistically significant.

3) Differences between physically active persons and persons with a relatively lower degree of physical activity, investigated by the HODOR questionnaire, are specific within the framework of activities examined and do not have a common trend. The same is true for the degree of satisfaction in life expressed by the PIL questionnaire. The HODOR questionnaire did not find differences between men who participate in physical exercises and those who do not, while women who participate have a greater activity preference ($P < .01$). HODOR also did not find significant differences between physical education students and other students. A positive dependency between the extent of motor activity and satisfaction in life was found among men participating in sports and physical exercises ($P < .05$), while on the contrary, women participating in sports were found to have less satisfaction in life ($P < .05$ for the sample with the exclusion of female physical education students.

Discussion

Most interesting among our findings is the connection between motor activity and extraversion and between motor activity and physical stability. EYSENCK (1966) supports the connection between neuroticism and the excitability of the autonomous nervous system, and introversion cited in connection with a higher "arousability" of the cerebral cortex. In spite of the fact that these neuro-physiological assumptions are not generally accepted, the genetic basis of both traits is supported by a number of studies concerning twins (SHIELDS 1962, EYSENCK, PRELL 1951, EYSENCK 1955): Thus the hypothesis can be formulated, that the genetic and biological basis of E and N is to a certain extent in a precedence relation to the extent of motor activity in the life of an individual. On the basis of our assumption the type of life activity in which this intensive motor activity is realised is determined by social, cultural, historical and ecological factors. Because basic personality traits, among which E and N belong, are significantly formed during the first years of a person's life, our present findings lead us to conclude that the influence of the first years of a person's life have a significant influence upon the extent of motor activity in his life. The results we have presented might also contribute to a confrontation of the image of a sociable, stable and physically active personality with that of an introversive, sensitive personality which has more modest external manifestations. Such a classification can be quoted both in the context of older concepts (C.G. Jung, E. Kretschmer, R. Rorschach, E.R. Jaensch), as well as in more recent theories (R.B. Cattell, H.J. Eysenck, etc.).

Conclusion

A significant connection has been found to exist between motor activity on the one hand and extraversion and mental stability on the other. This is supported by the assumption that the extent of motor activity is bound to the above mentioned traits, regardless of the area of life to which the motor activity is related. Since the analyses we have carried out have not provided satisfactory information concerning the specific personality traits connected with physical exercise activities, further investigations have been undertaken, which are the subject of our following paper.

Bibliography

EYSENCK, H.J.: The Inheritance of Extraversion-Introversion. Acta Psychol. Vol. 12, 1955: 95-110

EYSENCK, H.J.: PRELL, D.S.: The Inheritance of Neuroticism: An Experimental Study. J. ment. Sci, 1951, vol. 97: 441-465

KNOTEK, P.: Závislost mezi tělovýchovnou aktivitou a některými vlastnostmi posluchačů pedagogických fakult. (Dependencies between physical activity and some personality traits of students at Pedagogical Faculties) Theor. Prexe těl. Vých., 20, 1972, 3: 129-138 (a)

KNOTEK, P.: Některé souvislosti mezi vlastnostmi osobnosti a zájmem o tělovýchovu (Some relationships between personality traits and interest in physical education) Čs. psychologie 16, 1972, 6: 517-528 (b)

KNOTEK, P.: K psychologické charakteristice posluchačů tělesné výchovy: Pokus o přesnější diferenciaci (Psychological characteristic of physical education students: An attempt for a more precise differentiation). Teor. Prexe těl. Vých., 20, 1972, 9, 541-553 (c)

KNOTEK, P.: Práce, kvalifikace a příjmy v kontextu vlastností osobnosti (Work, qualification and income in the context of personality traits (in: L. Malická et el.: Tendence ve mzdové a příjmové diferenciaci (Trends in wage and income differentiation) Zpr. k úk. stát. plánu VIII-1-5/2, Čs. VÚPSV, Praha 1972

KNOTEK, P.; KUBIČKA, L.: Příspěvek k psychologické charakteristice posluchečů tělesné výchovy pedagogických fakult (A contribution to the psychological characteristic of physical education students). Teor. Praxe těl. Vých., 19, 1971, 1: 8-15

MORRIS, C.: Varieties of Human Values. Univ. of Chicago Press. 1956

SHIELDS, J.: Monozygotic Twins, Oxford Univ. Press 1962

VANĚK, M.; HOŠEK, V.; SVOBODA, B: Studie osobnosti ve sportu (A study of the personality in sport) Universita Karlova, Praha 1974

ANALYSE DER MOTIVIERUNG BEI DEN AUSGEWÄHLTEN SPORTLERN DER KRAFTDAUERDISZIPLINEN

KOBYLKA, J., Prag, Tschechoslowakei

Die ursprüngliche Absicht der Forschung war, ein optimales Profil oder Profile der Persönlichkeit bei den Kraftdauer- und Dauerdisziplinen zu finden. Wir haben eine Forschung der Profile durchgeführt, die mit Cattells 16 PF Fragebogen und Mikšík´s IHAVEZ erlangt worden sind /es handelt sich um einen Fragebogen zur Feststellung der individuellen Widerstandsfähigkeit gegenüber Belastung/ und gewisse allgemeine Trends gesucht. Die erreichten Ergebnisse liessen jedoch viel zu wünschen übrig, und zwar aus folgenden Gründen: 1/ Die wirklichen Champions und Spitzensportler unterscheiden sich immer gewissermassen von den anderen Sportlern der selben Disziplin - und darüber hinaus jeder in einer anderen Weise, die immer noch unerfassbar ist. 2/ Die Variabilität von einzelnen Faktoren in der untersuchten Gruppe ist zu gross und bei der statistischen Bearbeitung verschwinden die individuellen Unterschiede und Qualitäten. 3/ Die erreichten Ergebnisse können dann in der Praxis nur wenig ausgenutzt werden - oft sind sie nämlich schwer zu interpretieren an einer Seite und an der anderen sind sie zu allgemein u.vereinfachend.

Selbstverständlich gilt es auch hier, besser wenigstens etwas als überhaupt nichts. In den weiteren Betrachtungen kamen wir zu den folgenden methodologischen und sachlichen Schlussfolgerungen: 1/ Wir versuchen eigentlich, das Benehmen und das Vorkommen der Ausnahme zu erkennen, was nur statistisch durchgeführt fast unmöglich ist - die ausgewählten Gruppen sind zu klein und die qualitative Information verschwindet zugunsten der quantitativen. 2/ Die üblich benutzten Modelle oder besser gesagt Pseudomodelle der Persönlichkeit sind nicht adäquat und sind viel zu vereinfachend, man weisst nichts zum Beispiel über die Orientierung der Kausalität, weiter was wir in den Testen für eine positive Eigenschaft halten, das kann in den kritischen Situationen negativ wirken, usw. 3/ Je die jeweilige Sportdisziplin einfacher ist, je weniger sie spezielle Fähigkeiten verlangt und je das Training physisch und zeitlich anspruchsvoller

ist, desto grössere Rolle wird wahrscheinlich spielen die /von uns so oft unterlassene/ dauerhafte Innenmotivierung.

Die Einschätzung von allen diesen Faktoren führt uns zur Vermutung, und der Autor kann sich natürlich irren, dass das folgende Verfahren adäquater sein könnte: 1/ Die statistischen quantitativen Analysen mit den gründlichen individuellen Analysen ergänzen. 2/ Um ein mehr adäquates Abbild des Problems zu bekommen, muss gleichzeitig durchgeführt werden: a/ eine Detailanalyse der Tätigkeit und der Ansprüche der gegebenen Disziplin mittels Professiographie - die kritischen und Belastungsprobleme feststellen, b/ bei jeder Persönlichkeitsforschung nicht nur die statischen Eigenschaften und die Motivierung untersuchen, sondern auch ihre gegenseitigen Beziehungen, sowie die Möglichkeiten der Kompensation von Innen und Aussen. 3/ Auf Grund von diesen gründlichen individuellen Studien verallgemeinern. /Das Verfahren von Piaget war nicht anders und wie hat er die Psychologie bereichert/.

In der weiteren Forschung orientierten wir uns auf die Professiographie, weiter auf die erwähnten individuellen Analysen und auf die Forschung der oft unterlassenen Motivierung. Über diese möchten wir etwas mehr sagen.

Es wurden neben anderen Sportlern 27 Schnelligkeitskanufahrer Olympioniker untersucht. Als Ausgangspunkt benutzten wir eine breite Untersuchungsskala einschliesslich Lüschers Farbtest und grundsätzliches geführtes Gespräch. Eine der Vermutungen, die sich logischer Weise aus der vorherigen methodologischen Überlegung ergab, war: Persönlichkeiten mit unterschiedlicher Motivierung können vergleichbare Spitzenleistungen erreichen. Weisen wir es an 2 Fällen nach. Es handelt sich um zwei Spitzenkanufahrer, die beiden an der 4.Stelle sind, was die absoluten Leistungen betrifft sowie die Stabilität der Leistung. Für die selbe Stelle und gleichzeitig die absolute Unterschiedlichkeit beider Fälle, wurden aus den didaktischen Gründen gerade sie gewählt.

A.B. - 26 Jahre alt, verheiratet, ausgelernt. Psychisch ausgeglichen, ohne grössere innere Probleme. Er hat viel Lebensenergie und Elan - er verlangt viel äusserliche Stimulation und sucht sie auch, er will völlig leben. Er ist viel spontan und hat einen starken Willen, so dass er imstande ist, das eventuelle Gefühl der Übersättigung zu überwinden. Er will eine Position mit Autorität erreichen und erhalten - in der Gruppe ist er ein natürlicher Leiter. Er will so viel wie möglich unabhängig und frei sein - es besteht hier eine kleine Befürchtung, dass das Erreichen seiner Ziele ihm verhindert sein wird.

C.D. - 19 Jahre alt, Student, ledig. Es besteht bei ihm eine riesige Innentension, physisch ist er sehr aktiv, die physische Ruhe verträgt er gar nicht. Der Wille ist bei ihm, im Bezug zur physischen Belastung sehr stark, auf dem Gebiet des Studiums oder beim Verzichten auf gewisse Sachen versagt er aber oft. Es besteht hier eine ausdrücklich unbefriedigte Emotionalität, die sich aus den gestörten Beziehungen in der ursprünglichen Familie ergibt - hauptsächlich gab es hier eine ungenügende Bindung an die Mutter. Er fühlt sich nicht eingewurzelt, er braucht die Ergebenheit, er möchte zu jemandem angehören. Er sehnt sich nach Aufmerksamkeit und Anerkennung, die ihm so viel fehlten - das sind die Hauptgründe, warum er den Erfolg haben will.

An diesen zwei Beispielen sehen wir, dass die Hauptquellen der Motivierung für die selbe Leistung völlig unterschiedlich sein können. Damit möchten

wir aber hauptsächlich auf etwas anderes hinweisen. Nehmen wir in Betracht die möglichen Varianten der Motivierung, dann rechnen wir dazu die verschiedensten möglichen Kombinationen und Verhältnisse der statischen Eigenschaften, schliesslich fügen wir die Einflüsse der gegebenen Situationen zu, z.B. in einem schweren Wettbewerb oder eine Konfliktbeziehung zum Trainer usw., und erst dann bekommen wir wenigstens ein bisschen annehmbares Abbild eines lebenden Sportlers und nicht nur ein Scheme, das wir seit Jahren suchen und das, ungefähr so wie der Stein der Weisen, überhaupt nicht existiert. Es ist interessant, dass es sehr wenig solcher komplex aufgefassten Forschungen gibt, wo n sogar nur eins gleichen kann. Der Buchstabe n in den Experimenten bezeichnet die Zahl der Versuchspersonen.

Verbleiben wir aber nicht skeptisch, seien wir etwas traditionell und nennen wir die Hauptmotivierungskreisen an unserem Beispiel der Kanufahrer Olympioniker. Laut der Vorkommenshäufigkeit sind es: Überschuss an physischer und psychischer Energie - grosse innere Tension /Sport ist hier eine Form spontaner Therapie/ - unbefriedigte Emotionalität und Beziehungssättigung mit Suchen nach neuen Beziehungen - Bedarf, sich selbst oder den anderen eigene Wert nachzuweisen /verbunden mit Selbstunterschätzung oder Minderwertigkeitsgefühl/ - grosser Bedarf an Stimulation - Sehnen nach Würdigung, Bewunderung und Anerkennung - Sehnen nach öffentlich geäussertem Erfolg - Sehnen nach Dominieren und viele andere. /Aus den Platzgründen ist es nicht möglich, den Prozentensatz und andere Details anzuführen/.

Soweit wir den Mut haben alles zu vereinfachen, handelt es sich bei den konfliktlosen Einzelpersönlichkeiten hauptsächlich um einen Energieüberschuss, um das Sehnen nach einem vollwertigen Leben und nach vollwertigen Beziehungen, um den Bedarf zu dominieren und Erfolg zu haben. Bei den innerlich konfliktten Persönlichkeiten geht es hauptsächlich darum, die untragbare innere Tension zu dämpfen, Ersatzbeziehungen und den persönlichen Wert zu finden.

Das gerade gesagte ist ein Beispiel einer unakzeptierbaren Vereinfachung der sonst sehr reichen Realität. Halten wir es für das Opfer auf dem Alter des unstillbaren Bedürfnisses, alles klar, einfach und erklärbar zu haben. Es ist zwar möglich, den Menschen in dieser Weise zu schachteln, wenn wir aber in die Schachteln schauen, sind sie vollkommen leer. Es wird also einen grösseren Mut verlangen, die Sportler als volle Menschen zu betrachten und nicht nur als abstrakte Faktoren oder Schemas, die die Spitzenleistungen bedingen.

PŘÍSPĚVEK K ANALÝZE REGULACE POHYBOVÉ ČINNOSTI KANOISTŮ V LABORATORNÍCH PODMÍNKÁCH

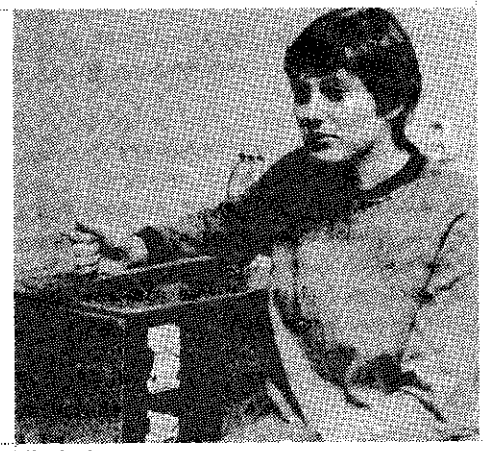
KOCIÁN, M. - BRICHCÍN, M., Olomouc, Praha, Československo

Sportovní výkon chápeme jako projev specializované sportovní výkonnosti jedince. Jeho základem je cílevědomé řešení úkolu, který je vymezen soutěžními pravidly v dané sportovní disciplíně. Ve sportech koordinačně náročných mají zvláště významnou funkci psychické faktory řízení a regulace pohybové činnosti.

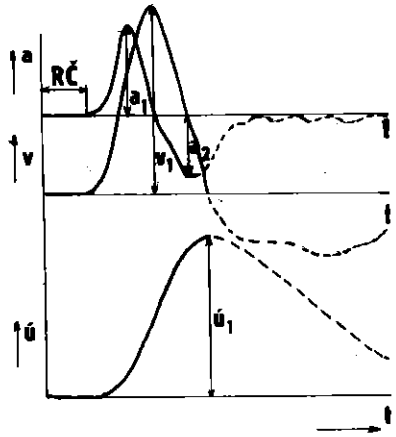
Sportovní činnost kanoistů, specializace vodní slalom, vyžaduje zejména přesnou senzorickou diferenciaci, soustředění pozornosti, anticipaci a rychlé rozhodování při řízení lodi za proměnlivých vnějších podmínek - vodní tok a systém branek. Důležitým požadavkem pro správné provádění tréninkového procesu je proto hlubší poznání úrovně některých předpokladů, které podmiňují sportovní výkon této sportovní specializace. I když jsme si vědomi toho, že při sportovní činnosti jde o uplatnění celého souboru propojených vlastností a schopností za určitého aktuálního psychického stavu závodníka, přesto se domníváme, že i laboratorní vyšetření může poskytnout dílčí informace o úrovni některých předpokladů pro sportovní výkonnost.

V našem výzkumu jsme použili laboratorní kinesiografickou metodu, umožňující získat bezprostřední údaje o časových, silových a rychlostních parametrech jednoduchého pohybu a zprostředkovaně informace o individuálním způsobu regulace motoriky v určité situaci. V tomto sdělení navazujeme na naši stať, která je uveřejněna v časopise Teorie a praxe tělesné výchovy, 2.5.1977, 7,434-442.

Stručně ještě uvádíme, že kinesiografická metoda poskytuje podrobné a zároveň komplexní údaje o dráze (úhlovém rozsahu), rychlosti a zrychlení registrovaných pohybů a je možno ji aplikovat podle záměru výzkumu v různých variantách. Zařízení pro snímání a registraci pohybů umožňuje provádět extenzi nebo flexi předloktím pravé, příp. levé paže v horizontální rovině a neklade žádný vnímatelný odpor. Na smyčkovém oscilografu jsou světelnými papraky registrovány kromě časových značek (0,1 s = 10 mm) tři křivky : křivka úhlové výchylky (dráhy), křivka časového průběhu rychlosti a křivka zrychlení. Kinesiograf s pokusnou osobou a reprodukce oscilografického záznamu jednoduchého pohybu jsou znázorněny na obr. 1 a 2.



Obr.1.Kinesiograf s pokusnou osobou



Obr.2.Reprodukce oscilografického záznamu jednoho pohybu

Vyšetření bylo provedeno dne 22.2.1977 a zúčastnilo se jej 22 závodníků - mužů, čs. reprezentační družstvo ve vodním slalomu. Byli v něm i všichni účastníci mistrovství světa v roce 1977 ve Spittalu, kde získali sedm medailí (dvě zlaté, dvě stříbrné a tři bronzové). Předmětem nyní předložené práce bylo zjištění rozdílů v parametrech jednoduchého pohybu a tří skupin závodníků specializace vodní slalom, tj. závodní kategorie K 1 (kajak singl), C 1 (kanoe singl) a C 2

(kanoe debl). Vyšetřovaní závodníci měli za úkol provést na světelný signál předloktím pravé paže co největší rychlostní extenzi dvacetkrát za sebou. Mezi jednotlivými signály byly nepravidelné časové intervaly od 4 do 6 s. Z registračních záznamů jsme pro jednotlivé testované závodníky měřili tyto parametry průběhu pohybu : reakční čas (tj. čas od světelného signálu k okamžiku zahájení pohybu), maximální zrychlení, čas od začátku pohybu k maximálnímu zrychlení, maximální rychlost, čas od začátku pohybu k maximální rychlosti, maximální rozsah pohybu a čas od začátku pohybu k maximálnímu rozsahu pohybu.

Z 20 naměřených hodnot kinesiografickou metodou jsme pro každého závodníka vypočítali průměrné hodnoty jednotlivých parametrů. Dále jsme vypočítali průměrné hodnoty těchto parametrů pro každou závodní kategorii.

Vzhledem k malému počtu závodníků a vzhledem ke studijnímu charakteru výzkumu jsme pro vzájemné srovnání dosažených výsledků použili procentuálního vyjádření průměrných hodnot. za 100% základ jsme vzali hodnoty závodní kategorie C 2 (kanoe debl). Na základě srovnání vypočtených hodnot jsme zjistili, že nejsou podstatné rozdíly mezi kategoriemi v hodnotách reakčního času (RČ) - K 1 má reakční čas kratší o 1,5 % a C 1 o 1,8 % než C 2. Rovněž nejsou rozdíly v hodnotách rozsahu pohybu (ú) - K 1 má rozsah větší o 0,4 % a C 1 menší o 3,0 % než C 2. Naopak jsou značné rozdíly v maximálním zrychlení (a) - K1 má větší zrychlení o 38,4 % a C 1 o 21,2 % než C 2, dále maximální rychlosti (v) - K 1 má větší rychlost o 14,9 % a C 1 o 9,0 % než V 2. Také v časových parametrech jsou značné rozdíly. V čase od začátku pohybu k maximálnímu zrychlení (ta) - čas K 1 je o 15,5 % a C 1 o 8,9 % kratší než čas C 2, dále v čase od začátku pohybu k maximální rychlosti pohybu (tv) - čas K 1 je kratší o 21,2 % a C 1 o 13,7 % než C 2. Menší rozdíl je také v čase od začátku pohybu k maximálnímu rozsahu pohybu (tú) - čas K 1 je kratší o 5,9 %, čas C 1 o 5,3 % než čas C 2.

Výsledky laboratorního vyšetření jsme srovnali s výsledky motorických testů, jimiž byla zjišťována úroveň dynamické a výbušné síly. Při těchto testech prováděli závodníci tyto činnosti : shyby, opakované přednožování, tlak v lehu (bench press) a hod plným míčem. Z výsledků motorických testů byl pomocí bodového hodnocení stanoven pro každého závodníka souhrnný index rozvoje síly.

Na základě výsledků motorických testů jsme podle souhrnného indexu zjistili, že závodníci kategorie K 1 jsou o 6,6 % lepší a závodníci kategorie C 1 o 1,0 % lepší než závodníci kategorie C 2.

Toto základní zjištění o rozdílech ve výkonnosti závodníků srovnávaných tří kategorií potvrzují tedy shodně výsledky získané při provádění laboratorní činnosti i při motorických sportovních testech. Kategorie K 1 se jeví jako nejlepší a C 2 jako relativně nejslabší shodně podle všech ukazatelů kromě RČ a ú. Dá se proto soudit, že kategorie K 1 disponuje nejen většími silovými předpoklady než kategorie C 1 a C 2, ale že dovede tyto předpoklady v kratším čase lépe uplatnit. Domníváme se, že menší rozdíly mezi kategoriemi C 1 a C 2 jsou způsobeny především tím, že singlisté při vlastním sportovním výkonu rozhodují za každé situace zcela samostatně, zatímco deblisté musí svá rozhodnutí stále uvádět v soulad se svým partnerem na lodi. Uvedená tvrzení by vyžadovala další ověření, a to jak opakovaným měřením téhož souboru, tak i testováním početnějších souborů.

Na základě našich dvou studií jsme došli k názoru, že při dalším testování souboru kanoistů - specializace vodní slalom - pomocí kinesiografické metody bude účelné modelovat situace, které my umožnily poznání dalších psychických faktorů této vysoce koordinačně náročné činnosti (zvláště se bude jednat o rychlost rozhodování, přesnost koordinace aj.).

Tab. 1. Průměrné hodnoty kinesiografických parametrů a souhrnného indexu síly

záv. kategorie	RČ	ta	tv	tú	a	v	ú	Souhrnný index síly body (%)
	s (%)	s (%)	s (%)	s (%)	d (%)	d (%)	d (%)	
K 1	0,1073 (98,5)	0,0725 (84,5)	0,1217 (78,8)	0,2880 (94,1)	21,23 (138,4)	39,60 (114,9)	36,62 (99.6)	65,8 (106,6)
C 1	0,1069 (98,2)	0,0782 (91,1)	0,1332 (86,3)	0,2899 (94,7)	18,60 (121,2)	37,56 (109,0)	35,36 (97,0)	62,3 (101,0)
C 2	0,1089 (100)	0,0858 (100)	0,1544 (100)	0,3062 (100)	15,34 (100)	34,46 (100)	36,46 (100)	61,7 (100)

Pozn.: RČ, ta,tv,tú jsou v sekundách, a,v,ú jsou v dílcích (d) oscilografického záznamu.

Literatura :

1. BRICHCÍN, M.: Teoretické a metodologické problémy výzkumů průběhu volních pohybů. Praha, ÚK 1966, s.166.

2. BRICHCÍN, M.: Problematika modelování pracovní činnosti pro účely diagnostické a výzkumné. Psychol. v ekonom.praxi, 1974 ,č.9, s.202 - 206.

3. KOCIÁN, M.: Význam psychomotorických zkoušek pro zajišťování úrovně speciální sportovní výkonnosti. Acta Universitatis Palackianae Olomucensis. Tom. 48, Gymnica V., 1974, s. 5-20.

4. KOCIÁN,. - BRICHCÍN,M. : Kvantitativní analýza pohybové aktivity sportovců pomocí kinesiografické metody.Teor. Praxe těl.vých., 25,1977, s.434-442.

5. POLÁK, O. - BRICHCÍN, M. : Quantitative Analyse der psychomotorischen Neuro-Psychopharmakologie, 1969, č.2, s. 251-269.

GENESIS OF TALENTS

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The great significance of sport and the growing demands which it places on sportsmen leads PE teachers and other educators to take greater interest in the results of the scientific research of talent. Science has come out to meet social demands and is trying to take a comprehensive approach to the subjective and objective conditions of the building up and development of motor talents.

Many basic premises are more or less hypothetical and are gradually being tested by different scientific procedures which will be complementary in solving one and the same task thereby increasing the effectiveness of solution.

In the experimental research of the pre-requisites of motor talent we used the post-diction method which has for some time been in general use and which is based on the retrospect analysis of the life and sport career of successful sportsmen. The group under study included 200 outstanding sportsmen of the ČSSR (155 men and 45 women) some of whom had already retired others were still active.

The basic concept of the work is that of the sports talent which is studied with regard to its essence, structure and the pre-requisites and conditions of its genesis.

The concept of the talent may be studied from many aspects, e.g., from the biosocial aspect it is conceived as the bearer of certain qualities, from the psychological aspect it is conceived in the narrower and broader sense.

T a l e n t i n t h e n a r r o w e r sense is conceived as the specific structure of the currently manifested abilities in form of concrete knowledge and high level activities.

T a l e n t i n t h e b r o a d e r sense is conceived as the specific structure of currently manifested abilities and other personal qualities, including motivation.

Talent is endogenically conditioned, in its development it does, however, also include exogenic factors. The talent is a certain state, i.e., the phenotype. Talent always has a certain structure which makes possible a high performance in a certain activity.

S p o r t t a l e n t comprises a structure of factors having different significance and different levels (major, supporting, auxiliary) in dependence on the nature of the respective sports activity.

Very significant and as yet considerably controversial is the question of the share of different determinants, namely hereditary and environmental, in the development of the functional structure of talent.

The fact that theoretical research of this significant problem has not yet been completed is unfavourably reflected in theory itself and mainly in a number of practical problems. Thus, for instance, in the selection of talents theoretically justified methods are not available allowing reliable resolution of what part of the studied ability is hereditary or innate and what has been acquired by learning, i.e., what could help give a reliable answer to the question of whether in the concrete case we are concerned with genuine talent or with the result of learning. Specialists' views on the possibilities experimentally separating the effects of heredity and of environment tend to be sceptical. This is because hereditary and environmental factors are partly linked already in the entenatal period and because satisfactory methods are not available. The attempts to discern the influence of hereditary and environmental factors are not very successful and re-

mind of attempts to analyse the water flowing in the Vltava river by its tributaries. The separation of these influences is, however, a very urgent one for psychology and the related sciences. For educational science the correct answer to this question will be very important, namely because it has strong effect, be it positive or negative, on views and approaches to the possibilities of education.
The development of the sport talent is a specific manifestation of the general development of the personality which is complexly determined. It is one of the principal tasks of science to carry out an analysis of the personality, to depict all developmental factors and their inter-relations, to derive the general and specific laws of development.
Current Marxist psychology based on the latest knowledge of scientific research believes that the development of the personality is basically determined by two very complex factors, namely the internal and external factors.
The relationship of the internal and external factors is expressed by the law on the dialectical unity of the organism and the environment. In the development of the organism the external environment and the internal environment overlap and identify in their effects.
It is our task to depict the complex dialectic of the development of the motor talent by studying the individual developmental factors and their concrete manifestations in sports activity and to consider their complex inter-relations.
Our research was based on the premise that contributing to the development of motor talent are beyond any doubt the hereditary factors. If motor talent is determined partly by hereditary factors then these factors must to a certain extent also be manifested in the ancestors of the motor talented individual, namely in the parents who are the main factors in the transmission of heredity. These talents must therefore be manifest in the children, i.e., in individuals with motor talent and in their siblings especially in early age when the individual is as yet little affected by external influence.
Motor talented individuals mostly come from families of extremely fit and physically competent individuals. Only a negligible number of these children have a less fit or physically competent father or mother. Also the health condition of the parents and siblings was mostly good, only 2 % of the fathers and 8 % of the mothers (a statistically insignificant number) suffered from more frequently recurring diseases. In many cases the parents and siblings engaged in sports activities, some of them held posts in diverse sports organizations.
The health condition of motor talented individuals was, similarly as that of their parents very good, the sickness rate was extremely low, especially in the male population. Injuries were more frequent.
Another premise underlying our study was the premise of the positive effects of the m i l i e u and of e d u c a t i o n on the development of sports talent. The study of the factors of mileu and education was based on the history of these children which showed the external stimulation and social conditions which they had for sports activity.
The favourable milieu and education enables the building up and development of the sports talent. Most leading sportsmen had for their sports development a reliable background in good social conditions, i.e., consolidated and economically secured families, in sports organizations staffed by qualified personnel and materially safeguarded. The social milieu in most cases favourably stimulated the development of the sports talent.

Sports talents naturally developed and achieved top performance also in less favourable social conditions, some in unfavourable conditions, without special materiel security and significant stimulation. In their assertion other factors were active which negated the unfavourable effects of the milieu and the much smaller understanding of the previous society for sports activity.
The said factors are mainly the p e r s o n a l i t y f a c t o r . The effects of heredity and of milieu, including education, on the development of the personality, i.e., also on the development of motor talent, cannot be conceived mechanically. Personality factors, developed gradually under the influence of external factors, enter the process of development and partake in it. In the dialectical relationship of the individual and the milieu the personality factors continuously come into conflict with the requirements of this milieu which the individual solves by activity in which the personality factors are not only manifested but adequately developed. All personality traits, be they positive or negative, develop and strengthen by functioning, by being active.
The individual with his qualities is thus not a passive object of the process of development which would in way be mechanically formed by the milieu but is an active subject of this process, capable of self-formation, c a p a b l e of s e l f - e d u c a t i o n.
The personality factors are not only significant factors in the sports talent but also actively affect the development of its entire structure. The talent is a talent because it is able to develop optimally its structure through the personality traits of the respective individual.
The research which we conducted enabled us to prove the share of hereditary factors, the factors of the milieu and of education in forming the structure of the motor talent and in attaining peak performance in motor activity. It also showed that achievements in this field cannot only be attributed to the said factors but also to the personality factors, namely to motivation factors, which are the source of the high activity of the individual, self-control and possibly also self-sacrifice in service to society.
We believe that the obtained results are important for the successful control of the process of sports training which starts with the selection of the talented individual and continues with his purposeful, systematic education.

EXPERIMENTELL-PSYCHOLOGISCHE UND PHÄNOMENOLOGISCHE UNTERSUCHUNGEN ÜBER DEN 11 m - STRAFSTOSS IM FUSSBALLSPIEL

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1. Problemlage

Eigene Beobachtungen, kritische Fernsehberichte und Pressenotizen führen immer wieder zu der Feststellung, dass die Schiedsrichter im Fussballspiel oftmals folgenschwere Fehlentscheidungen treffen.

Sehr problematisch und umstritten sind die zahlreichen zweifelhaften Elfmeterentscheidungen, die in vielen Fussballspielen das Endergebnis mehr oder

weniger stark beeinflussen. Das Eingreifen des Schiedsrichters ist dabei von einer Reihe von Faktoren abhängig, die bei der Problematik des 11 m - Strafstosses beachtet werden müssen. Dazu gehören u.a.:

- die individuelle Regelauslegung,
- die fehlende Übersicht,
- die ungünstige Position,
- das Zuschauerverhalten,
- das Verhalten der Spieler.

Bei der Auslegung der Strafstossregel müssen zwei Komponenten getrennt berücksichtigt werden:

1) die Verstösse, die zur Verhängung des 11 m - Strafstosses führen
2) die Verstösse, die bei der Ausführung des Strafstosses begangen werden.

Obwohl der Unparteiische bei der Strafstossausführung die für ihn optimale Stellung einnimmt, indem er sich seitwärts vom Ball in den Strafraum in die Mitte zwischen Tor und Elfmeterpunkt stellt, ist es für ihn kaum möglich, auf alle für die Strafstossausführung wichtigen Faktoren gleichzeitig zu achten. Diese Faktoren sind:

- der Schütze und der Flug des Balles,
- die Stellung der übrigen Feldspieler,
- die Stellung des Torwarts,
- das Tor (ob der Ball die Torlinie überschreitet),
- der Linienrichter (den er im Blickfeld haben soll).

In der Regel 14, Absatz 2 heisst es, dass der gegnerische Torwart auf seiner Torlinie zwischen den Torpfosten stehen muss, ohne seine Füsse zu bewegen, bis der Ball gestossen ist. Da in der Praxis dieser Regelverstoss von den Schiedsrichtern selten geahndet wird, sollte dieser Sachverhalt einmal näher untersucht werden. 1) Die aufgeführten Tatsachen gaben Veranlassung, dieses spezielle Problem der 11 m - Situation näher zu studieren. Es könnte doch sein, dass die Trefferquote (Torerfolg) nicht wesentlich höher liegt, wenn sich der Torwart - -ähnlich wie im Hallenhandballspiel - frei bewegen darf, bevor der Ball vom Schützen in Bewegung gesetzt worden ist. Wenn dem so wäre, denn böte sich eine Veränderung der Spielregel an. Dies würde dem Schiedsrichter sein Amt erleichtern, ohne dass die Chancen der beteiligten Mannschaften wesentlich beeinflusst würden.

Folgender Fragestellung sollte nachgegangen werden: " Wie gross ist der Unterschied der Trefferquoten, wenn der Torwart 1) die derzeit gültige Regel einhält, sich also nicht vorzeitig von der Torlinie löst, und 2) die derzeit gültige Regel nicht beachtet, sich also früher von der Torlinie bewegt?"

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1) Auf die Problematik der Ermittlung des Siegers eines Spiels durch Elfmeterschiessen soll hier nicht eingegangen werden. Es gibt gewichtige Gründe zu der Annahme, dass ein solches Elfmeterschiessen dem Gedanken des Fussballspiels als Gruppenspiel widerspricht, weil sich, um den Sieger zu ermitteln, isolierte Einzelaktionen zu einem Gesamtergebnis summieren.

Ausserdem sollten Befragungen über den 11 m - Strafstoss mit aktiven Spielern, Trainern und Schiedsrichtern durchgeführt werden.

Die phänomenologische [2] Analyse der Situation beim 11 m - Strafstoss ergibt, dass es sich hierbei um ein komplexes Interaktionsgeschehen - basierend auf dem dynamischen Zusammenspiel sensumotorischer Verläufe bei beiden Kontrahenten - handelt. Dabei spielen die Antizipation (Vorwegnahme) und die tatsächliche Reaktion eine wichtige Rolle (vgl. WILLIAMS/MACFARLANE 1975, KOHL 1977). Die Antizipationen (die "nur gedachten" Veränderungen des Anschauungsfeldes beider Spieler) beziehen sich dabei gleichzeitig auf die eigenen Bewegungen und auf die Bewegungen des Gegenspielers. Jeder Spieler versucht, nicht nur die objektive Lage zu erfassen (Situationsanalyse), sondern auch die Überlegungen des Gegners. Es fällt schwer, sich diese Beziehungen vorzustellen, wenn sie den Grad der iterativen (wiederholenden) Schachtelung von Bildern (von Gedanken) erlangen; vom Typ: Y denkt, dass X denkt, dass Y denkt...usw. Der eine denkt die Denkprozesse des anderen nach (vgl. dazu LAING/PHILLIPSON/LEE 1971, LEFEVR/SMOLJAN, 1971). Natürlich denken nicht alle 11 m - Schützen und alle Torwächter so weit. Aber: eine Regeländerung könnte gegebenenfalls solche Denkverläufe provozieren und damit diese Situation für manche Spieler attraktiver machen.

2. Durchführung der Untersuchung und Ergebnisse

An der Untersuchung waren 165 Feldspieler, Torwächter, Trainer und Schiedsrichter aus 16 Vereinsmannschaften unterschiedlichen Leistungsniveaus (2. Bundesliga bis 3. Kreisklasse) beteiligt. Es galt, während des regulären Trainingsabends einen spielnahen, schnell durchführbaren und effektiven Versuchsverlauf zu finden. Die beteiligten Feldspieler (oft die Elfmeter-Spezialisten) schossen je zehn Strafstösse. Laut Instruktion bewegte sich der Torwächter dabei fünfmal vorzeitig und fünfmal handelte er regelkonform.

Die mit Feldspielern, Torhütern, Trainern und Schiedsrichtern durchgeführten Explorationen- sie sollten die zu ermittelnden Zahlenwerte ergänzen - richteten sich auf das Erleben der Spieler (Blickrichtung, Vorwegnahme, Täuschungsabsicht, bestimmte Konzept, innerer Zustand, psychische Belastung u.a.) und darauf, wie die Akteure über eine veränderte Strafstossregel denken.

Aufgrund der Fragestellung besagt die Nullhypothese: "Der Unterschied zwischen der Anzahl der erzielten 11 m - Treffer bei derzeit gültiger und bei veränderter Regel ist rein zufällig." Für den Vergleich der empirischen Verteilung mit der erwarteten Verteilung bietet sich der χ^2 - Test als Rechnungsverfahren an. Von insgesamt 1510 Schussversuchen betrug die Anzahl der erzielten Treffer bei Anwendung der derzeit gültigen Regel 542, bei veränderter Regel (vorzeitiges Bewegen des Torwarts) 492. Der Vergleich χ^2 und $\chi^2_{krit.}$ lautet demnach: $2{,}41778 < 3{,}84146$ (Signifikanzniveau 5%). Damit kann die Nullhypothese als gesichert angesehen werden.

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2) Zur Verwendung der Begriffe "Phänomenolgie" und "phänomenales Ich" in der gestaltpsychologischen Theorie vgl. u.a. METZGER 1954, KOHL 1956, RAUSCH 1966, GALLI 1975.

Die Ergebnisse der als Ergänzungsstudie vorgenommenen Befragungen machen die Problematik der Strafstossregel deutlich, denn ein Grossteil der Sportler hält sie für nicht kontrollierbar und daher für unberechtigt.

Die Ergebnisse unserer Pilotstudie könnten dazu führen, die Diskussion um eine Regeländerung aufleben zu lassen. Sie stützen folgende - sicherlich mehr aus Erfahrung und Intuition erwachsene - Aussage des deutschen Fussball-Bundestrainers Helmut Schön (nach einer Pressenotiz): "Ich würde aber eine Regel ändern, nämlich die, die es dem Torwart beim Elfmeter verbietet, sich auf der Torlinie zu bewegen. Diese Regel ist wirklich überholungsbedürftig. Das Duell zwischen Torwart und Schütze würde durch die Aufhebung der Regel interessanter werden, ohne das Prinzip sportlicher Balance zu gefährden. Denn ein Torwart, der sich bewegen darf, hat nicht nur Vorteile. Er kann vom Schützen viel leichter in die falsche Ecke gelenkt werden. Es stimmt also nicht, dass von der Aufhebung dieser Regel nur der Torwart profitieren würde."

Literatur

GALLI, G.: Struktur und Dynamik des phänomenalen Ich, in S.ERTEL u.a. (Hrsg.): Gestalttheorie in der modernen Psychologie, Darmstadt 1975

KOHL, K.: Zum Problem der Sensumotorik, Psychologische Analysen zielgerichteter Handlungen aus dem Gebiet des Sports, Frankfurt a.M. 1956

KOHL, K.: Gestalttheorie bei der Behandlung des motorischen Lernens im Gebiet des Sports, in. K.GUSS (Hrsg.): Gestalttheorie und Fachdidaktik, Darmstadt 1977

LAING, R.D./PHILLIPSON, H./LEE, A.R.: Interpersonelle Wahrnehmung, Frankfurt a.M. 1971

LEFEVR, V.A./SMOLJAN, G.L.: Spieltheoretische Beschreibung des Urteilens in Konfliktsituationen (1969), in T. KUSSMANN (Hrsg.) Bewusstsein und Handlung, Bern 1971

MEINEL, K.: Bewegungslehre, Berlin 1976

METZGER, W.: Psychologie, 2. Auflage, Darmstadt 1954

METZGER, W.: Das Experiment in der Psychologie, in: Studium Generale 5 (1952) 3

RAUSCH, E.: Das Eigenschaftsproblem in der Gestalttheorie der Wahrnehmung, in W.METZGER/H.ERKE (Hrsg.): Handbuch der Psychologie I/1, Halbband: Wahrnehmung und Bewusstsein, Göttigen 1966

WILLIAMS, L.R.T./MACFARLANE, D.J.: Reaction time and movement speed in a high-velocity ball-catching task, in: International Journal of Sport Psychology 6 (1975) 2

DIE BEDEUTUNG DER FRÜHEN BEWEGUNGSSTIMULATION FÜR DIE WEITERE ENTWICKLUNG DES KINDES

KOCH, J., Prag, Tschechoslowakei

Die neuere Entwicklungsbiologie und Psychologie befasst sich in den letzten Jahren sehr intensiv mit der Frage der Bedeutung der frühen Entwicklungsphasen und der frühen Stimulation für die weitere Entwicklung des Kindes. Man spricht z.B. von der Einprägung /Imprinting/, von den kritischen Entwicklungsphasen, vom frühen Lernen, von den frühen Erfahrungen usw. Es wird sogar bewiesen, dass die Tierjunge in den frühesten Lebensphasen nicht nur einfach lernen, sondern dass sie auch lernen zu lernen und bei ungünstigen Bedingungen können sie auch lernen nicht zu lernen.

Bis heute herrschen alte Ansichten, dass das Kind sich spontan entwickelt, dass seine Entwicklung in den ersten Lebensjahren ganz von seinen Erbanlagen abhängt, dass äussere Eingriffe in die Entwicklung diesen natürlichen Prozess beschädigen, dass in jeder normalen Frau Instinkte verborgen sind, die sie zur richtigen Behandlung des Säuglings führen usw. Neuere Versuchsergebnisse beweisen, dass diese Ansichten unrichtig sind.

Damit wollen wir nicht die Existenz der vererbten Entwicklungsmöglichkeiten negieren. Im Gegenteil, wir sind überzeugt, dass im Neugeborenen viel mehr vererbte Entwicklungsmöglichkeiten verborgen sind, als wir heute kennen. Sie realisieren sich aber nicht spontan von selbst, sondern sie müssen von den Umweltsreizen zur Realisation stimuliert werden.

In dieser Einleitung wollten wir zeigen, dass das Kind schon in seinen ersten Lebenstagen eine systematische und zielbewusste Erziehung braucht. Wir wollten in Experimenten mit den kleinsten Kindern die Richtigkeit dieser Ansicht beweisen. Die meisten Forschungsergebnisse dieser Art wurden in Experimenten an Tieren gewonnen. Ähnliche Experimente mit Kindern sind technisch und ethisch sehr anspruchsvoll. Deshalb gibt es nur wenige Experimente dieser Art mit Kindern und ausserdem sind diese Experimente mit methodischen Mängeln oft belastet. Wir stellten uns die Frage, wie sich das Kind entwickeln wird, wenn wir es vom frühesten Alter intensiver und systematischer stimulieren, als es in den heutigen traditionellen Bedingungen stimuliert wird. In der ersten Etappe entschlossen wir uns für die motorische Stimulation, denn die Erziehung durch Bewegung hat in der ersten Lebensphase auf die Entwicklung des Kindes den grössten Einfluss.

Die Stimulationsmethodik, die wir für unser Experiment ausarbeiteten, unterscheidet sich prinzipiell von den bekannten Säuglingsgymnastiken: mit der Stimulation wird sehr früh begonnen, die Kinder werden nur zu aktiven Bewegungen stimuliert, das dynamische Moment wird gegenüber dem statischen betont /das Kind lernt sich aufzusetzen aber nicht zu sitzen/, das Kind wird zu Bewegungen gelockt und bekommt Bewegungsmöglichkeiten, aber wird nicht gezwungen usw.

Wir arbeiteten mit 3 Säuglingsgruppen. Die I.Gruppe bestand aus 20 Kindern, die von ihrer Geburt bis zum 6.-7. Monat im Institut für Mutter und Kind in Prag aufwuchsen. Diese Kinder verbrachten täglich 30-90 Minuten in unserem Laboratorium, wo sie systematisch und individuell von Fachleuten zu Spielen und Bewegungen stimuliert wurden. Die II.Gruppe bildeten 30 Säuglinge

aus Familien, die uns 1-2 mal im Monate besuchten, die Mütter wurden instruiert, wie sie den Säugling täglich zuhause stimulieren sollen. Die III.Gruppe bildeten 100 Kontrollkinder, die nicht speziell stimuliert wurden und die in traditionellen Verhältnissen aufwuchsen.

Der statistische Vergleich der Entwicklungdaten der 3 Gruppen zeigt, dass der Unterschied in der Entwicklung der Kinder, die im Institut und zu Hause systematisch stimuliert wurden, relativ klein ist und mit dem Alter der Kinder immer kleiner wird. Der Unterschied zwischen den Kindern, die zu Hause stimuliert wurden, und den Kindern, die zu Hause speziell nicht stimuliert wurden, ist statistisch signifikant und vergrösserte sich mit dem steigendem Alter der Kinder. Dies ist ein klarer Beweis, dass eine intensivere, zielbewusste,Stimulation des Kindes im frühen Alter berechtigt, begründet und für die Entwicklung des Kindes nützlich ist. Es zeigten sich ausserdem signifikante Unterschiede nicht nur in der Entwicklung der Motorik, sondern auch in der Gesamtentwicklung der Kinder: die stimulierte Gruppe war zB. besser in der Entwicklung des Spieles und der Sprache.

Die Erziehung des Säuglings durch Bewegung darf man nicht übertreiben. Eltern, die diese Erziehung überschätzten, stärkten dadurch zu sehr den Exzitationsprozess: das Kind war sehr beweglich und körperlich tüchtig, aber manchmal war es zu lebhaft und war nicht imstande ruhig und konzentriert sich mit Manipulationsspielen zu beschäftigen.

Die Erziehung des Säuglings durch Bewegung ist deshalb nur ein Teil der Gesamterziehung. Die Hauptaufgabe dieser Erziehung ist nicht die Vorbereitung von Sportlern mit Spitzenleistungen, sondern die Erziehung von tüchtigen Menschen, die sich in den verschiedensten Arbeitsgebieten erfolgreich bewähren. Wir wollen die Kinder zur Liebe zum Sport führen, der ihnen hilft in der Schule besser zu lernen und später zu arbeiten; wir wollen aber nicht, dass in ihnen die Tendenz entsteht, nicht zu lernen und nicht zu arbeiten, um besser und mehr Sport betreiben zu können.

K OTÁZCE MOTIVACE SPORTOVNÍ ČINNOSTI VYSOKOŠKOLSKÝCH STUDENTŮ

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Z výsledků dosavadních výzkumů, týkajících se otázky existence takové struktury vlastností sportovce, o které by se dalo předpokládat, že je pro jeho osobnost typická, je patrné, že současná psychologie sportu dosud nezná konečnou odpověď. Podobně problém eventuálního vztahu závodní sportovní činnosti k obecnějším motivačním rysům sportovců zůstává zatím otevřený. V tomto směru se zdá být vhodné pokoušet se o studie, které by u sledovaných souborů osob zachytily tyto motivační dispozice v co nejširším spektru. Při opakování podobných studií na vzorcích z různě definovaných populací by pak bylo možné získat dostatečně obecné závěry. Tato práce má být příspěvkem k řešení uvedené problematiky.

Práce si kladla následující otázku : "Liší se struktura obecnějších motivačních dispozic závodně sportujících studentů od motivační struktury studentů ostatních ?" Hypotéza, která byla výzkumem ověřována byla z metodologických důvodů formulována pozitivně : "Struktura obecnějších motivačních dispozic závodně sportujících studentů se liší od motivační struktury studentů ostatních ".

Základní soubor pro výzkum tvořili studenti Pedagogické fakulty v Ústí nad Labem. Do zkoumaných vzorků byli vybráni 103 závodně sportující studenti (48 mužů a 55 žen) a 118 nesportujících (52 mužů a 66 žen). Věkové rozmezí zkoumaných osob bylo 18 - 24 let. Ve skupinách sportujících bylo zastoupeno celkem 18 sportovních odvětví.

Zkoumané výběry byly vyšetřeny těmito metodami :

1. Edwardsovým seznamem osobních preferencí (Edwards Personal Preference Schedule). Tento dotazník umožňuje určit skóry patnácti obecnějších motivačních proměnných, například potřeby dosahování úspěšného výkonu (Achievement), potřeby respektu k druhým (Deference), potřeby pořádku (Order), potřeby předvádět se (Exhibition), potřeby autonomie (Autonomy), potřeby afiliace (Affiliation) a dalších.

2. Škálou feminity z Goughova Výběru osobních hodnot (Personal Values Abstract). Dimenze femininity je zde souhrným názvem pro soubor typicky ženských vlastností (zájmů, preferencí, dispozic k reagování), které sebou většinou nese role ženy v kulturách civilizovaných zemí. Dotazník zjišťuje především personální charakteristiky, důležité pro sociální vztahy a sociální interakci.

3. Dotazníkem, zjišťujícím míru kladného postoje ke sportu. Dotazník byl sestaven speciálně pro tento výzkum a byl zde použit poprvé.

Výše uvedené metody byly aplikovány v rámci jedné homogenní populace. Výsledky výzkumu se tudíž, striktně vzato, vztahují jen k populaci, z níž byly vybrány testované skupiny. Zpracovávaly se pouze hrubé skóry, které byly považovány pro účel práce za plně postačující.

Statistickým zpracováním zjištěných dat byly získány následující výsledky:

1. Bartlettovým testem byla u každé proměnné prokázána homogenita skupinových a populačních rozptylů.

2. Analýza rozptylu neprokázala při sloučení obou pohlaví do skupiny sportujících a skupiny nesportujících rozdíly průměrů jednotlivých obecnějších motivačních dispozic mezi těmito skupinami. Velmi významný rozdíl se ukázal jen v míře specifičtějšího motivačního faktoru - postoje ke sportu.

3. Hodnota t, udávající významnost rozdílů průměrů jednotlivých proměnných mezi skupinami sportujících a nesportujících mužů je významná opět pouze u postoje ke sportu, při srovnávání průměrů žen kromě toho ještě ve stupni feminity.

4. Při zjištění významnosti rozdílů průměrů proměnných nesportujících žen a nesportujících mužů se hodnoty t ukázaly u deviti proměnných významně vyšší než u stejných proměnných při porovnávání průměrů skupin sportujících.

5. Podobnost pořadí průměrů proměnných, zjištěná Spearmanovým koeficientem pořadové korelace je u skupin sportujících mužů a žen vyšší ($r = 0,64$) než u skupin nesportujících ($r = 0,49$).

6. Bodově biseriální korelační koeficient mezi dotazníkovými skóry postoje ke sportu a alternativním znakem sportuje - nesportuje je u žen vyšší ($r_{bis} = 0,717$) než u mužů ($r_{bis} = 0,485$).

7. Bodově biseriální korelační koeficient mezi dotazníkovými skóry femininity a alternativním znakem muži - ženy je u sportujících nižší (r_{bis} = 0,477) než u nesportujících (r_{bis} = 0,676).

Zhodnocením těchto výsledků bylo možné formulovat následující závěry :

1. Zkoumané výběry závodně sportujících a nesportujících studentů a studentek se v průměrných skórech jednotlivých obecnějších motivačních dispozic při sloučení obou pohlaví neliší. Významný rozdíl se ukázal jen v míře specifičtějšího motivačního faktoru - postoje ke sportu a u žen ještě ve stupni femininity.

2. Průměrný skór kladného postoje ke sportu je u skupin sportujících velmi významně vyšší než u skupin nesportujících.

3. Vztah závodní sportovní činnosti a míry pozitivního postoje ke sportu je těsnější u žen než u mužů. Kromě toho mají sportující ženy průměrný skór postoje ke sportu vyšší než sportující muži, zatímco skupiny nesportujících se v míře této proměnné významně neliší.

4. Vztah závodní sportovní činnosti a stupně femininity je výraznější u žen než u mužů. Sportující ženy jsou méně femininní než nesportující, u sportujících mužů je naznačen trend opačný.

5. Struktury motivačních dispozic závodně sportujících studentů a studentek vykazují při srovnání průměrů jednotlivých proměnných i při porovnání pořadí závažnosti motivačních dispozic větší vzájemnou podobnost, než je tomu u skupin nesportujících.

Výše uvedená hypotéza byla tedy potvrzena ve smyslu větší vzájemné podobnosti motivačních struktur sportujících mužů a žen oproti skupinám nesportujících. Při porovnání průměrů jednotlivých obecnějších motivačních dispozic se rozdíly mezi sportujícími a nesportujícími neprokázaly.

РОЛЬ СОЦИАЛЬНО-ПСИХОЛОГИЧЕСКОГО КЛИМАТА В ДОСТИЖЕНИИ СПОРТИВНЫХ РЕЗУЛЬТАТОВ

КОЛОМЕЙЦЕВ,Ю.А., Минск, СССР.

Проблема социально-психологического климата в спортивных коллективах в последнее время стала одной из актуальных.

Необходимость исследования целого ряда вопросов, связанных с этой проблемой, диктуется запросами практики.

Работы этого направления, проведенные с целью изучения влияния социально-психологического климата на эффективность деятельности коллектива, показали не только воздействие "климата" на результативность деятельности, но и обратную зависимость - "климата" от успешности деятельности. На подступах к изучению этой сложной проблемы перед психологами встает вопрос, ответ на который определяет всю дальнейшую стратегию исследования, - какие факторы являются основными структурными единицами социально-психологического климата.

Стремление некоторых психологов свести исследование социально-психологического климата к изучению симпатий-антипатий в группе представляется малопродуктивным.

Более перспективным может оказаться подход со стороны анализа влияния деятельности на взаимоотношения в коллективе, а также таких факторов как сплоченность, совместимость, руководство.

Многочисленные исследования по изучению влияния фактора сплоченности на результативность деятельности спортивных команд обнаружили сложную зависимость. В одних случаях хороших результатов добились спортивные коллективы с высоким уровнем сплоченности, в других - с низким. Иногда высоких результатов в соревнованиях добивались коллективы, где между спортсменами в процессе подготовки к ответственным стартам наблюдались ярко выраженные конфликтные отношения. Видимо, низкая сплоченность в таких коллективах компенсировалась или другими социально-психологическими факторами, или общей целью и задачами в предстоящей соревновательной деятельности.

Исследования зависимости между результативностью деятельности и сплоченностью, под которой чаще всего понимают удовлетворенность пребыванием в коллективе, наличие общей цели, стремление остаться в коллективе, согласие членов с нормами, системой ценностей, существующими в группе и т.д., показали прямую связь между этими переменными. Так, например, было обнаружено, что в группах, где сплоченность была на уровне 57,5%, рост результатов наблюдался у всех спортсменов.В группах, где сплоченность была на уровне 38%, рост результатов наблюдался только у спортсменов низкой квалификации.

Анализ социально-психологического климата и его описание не дает полной картины без изучения фактора совместимости. В тех случаях, когда речь идет о спортивном коллективе, необходимо иметь в виду совместимость между тренером и спортсменами (по вертикали) и совместимость между спортсменами (по горизонтали).

Исследование фактора совместимости может проходить на трех уровнях: психофизиологическом, психологическом и социальном.

На психофизиологическом уровне изучаются такие характеристики личности как инертность-подвижность процессов возбуждения и торможения.

На психологическом - способности, интеллект, личностные качества.

На социальном - нормы, установки, правила и требования, ценности, цели и направленность.

Исследование зависимости между уровнем психофизиологической совместимости в системе "тренер-спортсмен" и ростом спортивных результатов показало, что в тех командах и спортивных группах, где данный вид совместимости имел место, спортсмены на достоверном уровне отличались по своим результатам от тех, чьи психофизиологические характеристики не совпадали с тренером. Анализ психологической совместимости между тренером и спортсменом показал не столько идентичность их личностных факторов, сколько различие.

Так, спортсмены, психофизиологические характеристики которых совпадали с тренерскими, имели ряд совершенно противоположных личностных качеств. В отличии от тренеров, эти спортсмены были более уживчивыми в группе, адаптирующимися, менее упрямыми и подозрительными, с чувством ответственности, полагающимися на себя, менее требовательными к вниманию и помощи. Различия по этим качествам были достоверны ($t = 2,93$; $P < 0,01$).

Многочисленные исследования, связанные с изучением руководства группами, как правило, затрагивают вопросы стилей руководства.

Не вызывает возражений мнение о том, что методы и стиль руководства спортивной группой влияют на формирование социально-психологического климата. Жесткий, не допускающий проявления самостоятельности и инициативы стиль руководства спортсменами со стороны тренера бывает причиной возникновения напряженности в группе,

снижения активности, возникновения конфликтных отношений и проявления условий для формирования отрицательного социально-психологического климата.
Обсуждению подлежит не сам метод, а место и длительность его применения. Исследования показали, что в экстремальных ситуациях, перед ответственными соревнованиями кратковременное применение этого метода оправдано.
Видимо, искусство управления спортивной командой и создания в ней оптимального социально-психологического климата заключается в своевременном "переходе" на различные стили руководства.
Анализ некоторых основных факторов, который могут дать представление о данном феномене, позволяет сказать, что для исследований этого направления необходим комплексный подход и значительные усилия ученых.

EINIGE PSYCHISCHE MOMENTE DER VERWENDUNG SPORTLICHER TERMINOLOGIE IN KOMMUNIKATIVER SITUATION

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I. Wir fassen jegliche Terminologie als ein spezifisches Mittel zum rationellen Informationsaustausch auf jedem gegebenen Gebiet. Die Terminologien werden ständig ergänzt und bereichert je nach dem Zuwachs der beinhalteten Begriffe. Es werden oft bekannte Wörter erwendet, einmal aber als Termini gebraucht, behalten sie eindeutig ihren konkreten Bedeutungsinhalt; dann wird keine Interpretation des Sinnes möglich.

I.2. Die reduzierte Form der Termini ist eine für die Vollführung gegebener Handlungen geeignete Verfahrensart, wenn die Termini fast den Wert von mathematischen Symbolen haben ohne zusätzliche Redundanz in ihrer Bedeutung. Das Begreifen der Termini setzt aber eine vorherige Vereinbarung unter den an dem Kommunikationsverlauf in terminologischer Sprache Beteiligten.

I.3. Wir unterscheiden zwei Arten von Anwendung der terminologischen Sprache: 1/ als eine beschreibende Weise der Informationsvermittlung und 2/ als verbaler Stimulus, der mit den verschiedenen Phasen der Vollführung einer Handlung verbunden wird, Das bezieht sich auf die uns von der Psychologie bekannte Rolle des verbalen Reizfaktors als ein in Betrieb setzendes Signal, als Regulator der Handlung und als ein kontrollierender und einschätzender Faktor. Mit folgenden Kommandos:

Startet !	Noch mehr !	Gut !	
Los !	Weiter !	Falsch!	Ungenau!

werden zum Beispiel die zu vollführenden Handlungen verursacht /provoziert/, reguliert und kontrolliert.

2. Wir zogen in Betracht die oben angeführten Überlegungen bei der Einschätzung der Rolle der terminologischen Sprache beim Erlernen der Skitechnik von den Studenten der Hochschule für Körperkultur in Sofia, die als zweites Fach eine Fremdsprache haben und sich als zukünftige Skilehrer ausbilden lassen. Das behandelte Problem betrifft das verbale Verhalten beim motorischen Handeln, wenn kommunikative Momente verschiedener Art hergestellt werden.

2.1. Unsere Aufgabe war es, die Studenten terminologisch genau vorzubereiten, damit sie später mit den ausländischen Gästen als Skilehrer effektiv arbeiten können.

Wir stellten drei bestimmte Voraussetzungen bei der Durchführung dieser kombinierten verbal-motorischen Tätigkeit fest und zwar:

I/ die ungenügenden Sprachkenntnisse als ein negatives Moment,

II/ das Bedürfnis, ihre Aufmerksamkeit optimal auf das motorische Handeln zu lenken und

III/ die Bildung genauer Bewegungsvorstellungen auf Grund von Demonstrationen.

2.2. Unser Programm umfasste das Erlernen der Elemente der Skitechnik terminologisch, parallell mit dem motorischen Handeln. Diese Schulung führte zur Bildung von Gewohnheiten und Können, das sie später selbst ihren Schülern beibringen sollten. Bei ihrer selbständigen Arbeit wurde die Kontinuität von Bewegung-Erklärung beibehalten.

2.3. Der zielgerichtete Sprachgebrauch verlief zunächst nach deutschen und oesterreichischen Lehrbüchern für Skiläufer. Die sprachliche Barriere war aber derart grosz, dass das wesentlich Terminologische überhaupt nicht zu begreifen war. Wir schufen dann eine neue Methode und der Lehrgang ging nach Texten, die sehr vereinfacht waren, aber doch einen hohen kommunikativen Wert hatten. Die Termini stellten eine verbale Identifizierung mit den wesentlichen Bewegungsmomenten dar. Die Auswahl der terminologischen Formulierungen war nicht willkürlich, sondern nach einem zielgerichteten wirkungsvollen Programm getroffen.

Man war bestrebt, den Mechanismus von Wortstimulus und motorischen Handeln zu sichern, d.h. eine Identifikation zwischen Benennung und Aktion zu gewährleisten.

Die knappe, reduzierte verbale Formulierung wurde durch präzise vorherige Demonstrationen unterstützt, so dass eine genaue Vorstellung der zu erlernenden Bewegung gesichert wurde. Dies erübrigte die redundanten Momente der verbalen lexikalischen Beschreibung.

2.4. Die reduzierte Form der Fixierung "Wort-Bewegung" sichert einmal die rationelle Ausführung der Bewegung. Sie gewährleistet die relevante Steuerung dem gestellten Ziel entgegen und schafft ein zu optimierendes Regime. Die lexikalisch ökonomische Formulierung lenkt die Aufmerksamkeit auf die präzise motorische Ausführung.

2.5. Bei diesem Programm wurde nach folgenden Überlegungen und Kriterien vorgegangen: Eine Information, ein informativer Bericht kann beschreibenden Charakters sein, aber auch eine dynamische Ausprägung bekommen. Darunter sollen die kausalen Beziehungen der Ursache-Wirkung verstanden werden, die vorwiegend in Befehlsform als Kommando ausgedrückt werden, z.B. das Kommando "Ski zum Hang" anstatt: "Machen Sie einen Bogen zum Hang". Die so beschriebene Vorgangsweise sicherte den dynamischen Charakter des Kommunikationsaustausches durch die geschaffenen Vektor-Zusammenhänge /Vektorbeziehungen/

Das statische Moment der Beschreibung wurde abgeschafft, das dynamische dagegen durch den beschriebenen Mechanismus gesichert. Das Vektor-Verhältnis soll nicht mechanistisch ausgebildet werden, sondern als Einheit zwischen bewusstem Handeln und genauen motorischen Handlungen.

2.6. Es wurde ein pädagogisches Experiment, auf dessen Beschreibung hier verzichtet wird, zwischen einer Kontroll- und einer experimentellen Gruppe durchgeführt. Nach dem Experiment wurde festgestellt, dass die Skistudenten leichter eine Bewegung ausführten, wenn die Information reduziert vermittelt wurde, da ihre Aufmerksamkeit eben nicht auf das Verständnis der lexikalischen Formulierung, sondern auf die Bewegung gerichtet wurde. Zu diesem Programm diente ein spezielles von uns herausgegebenes Buch "Skilehrgang in 6 Tagen"..

3. Schlussfolgerungen

I/ Die reduzierte Form der verbalen Äusserung durch hoch kommunikative terminologisch gebrauchte Wörter verkürzt die Zeit für das Begreifen und verursacht schnelle motorische Reaktionen.

II/ Die bewusste Verbindung zwischen Wort und Bewegung gewährleistet die Kontrolle der Ausführung, so dass die Verbindung - hier als Stimulus und Reaktion verstanden - keineswegs mechanisch aufzufassen ist.

III/ Die reduzierte verbale Form nach der Bildung genauer Bewegungsvorstellungen optimiert die motorische Aktivität.

IV/ Das pädagogische Koment dabei besteht in der intellektuellen Schulung zwischen präziser Ausprägung des Relevanten ohne unnötige Redundanz.

ДИАГНОСТИЦИРОВАНИЕ ПСИХИЧЕСКОЙ ТОЛЕРАНТНОСТИ ПО ОТНОШЕНИЮ К ТРЕНИРОВОЧНЫМ НАГРУЗКАМ

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Обособление вопроса о влиянии физических нагрузок на психические процессы от проблемы взаимосвязи между двигательной и психической деятельностью обусловлено насущими потребностями учебно-спортивной деятельности.

Знание закономерностей изменения психических процессов непосредственно после применения нагрузок является важной предпосылкой научного управления спортивной подготовкой. Воздействие физических нагрузок на психическую сферу человека отчитывается на основе изменений отдельных психических процессов.

Исследования Ч.Фере, В.Бехтерева, А.Нечаевой, А.Пуни, Горбунова, Т.Джамгаровой, Р.Делана и др.доказали, что направленность и степень изменения психических процессов под влиянием физических нагрузок зависит от характера физических упражнений, от их объема и интенсивности, от уровня тренированности, от индивидуально-психологических различий и от места тренировочных нагрузок в течение дня.

Исходя из прикладного значения проблемы мы поставили задачу изучить изменения в психических процессах под влиянием различных по объему и интенсивности тренировочных нагрузок.

Для диагностицирования этих изменений мы использовали крестовый аппарат и прибор Пиорковского, посредством которого регистрировали психическую работоспособность перед и после тренировочных нагрузок.

Крестовым аппаратом мы отчитывали зрительно-двигательную координацию при темпе 50 сигналов в минуту, а прибором Пиорковского регистрировали при режиме 86 сигналов

в минуту комплексное проявление следующих психических процессов: зрительное восприятие, концентрацию и устойчивость внимания, быстроту двигательных реакций и оперативную память. От исследованных лиц требовалось отреагировать максимальной быстротой и точностью нажимом на соответственной кнопке при появлении квази-случайных сигналов в продолжение одной минуты.

По ходу исследований мы использовали и другие методы - наблюдение, беседы и занесение в протокол исследований данных о самочувствии и субъективной оценки толерантности к нагрузке. Занесение в протокол давало нам возможность установить в какой степени объективные воздействия на психические процессы в результате различных видов нагрузок отражаются на самочувствие и на субъективное восприятие величины тренировочной нагрузки.

Согласно этой методике было исследовано 226 участников соревнований по борьбе классического и свободного стиля, по боксу и поднятии тяжестей. Для раскрытия изменений в психической работоспособности под влиянием различных тренировочных нагрузок были проведены 928 исследований, из которых 194 во время тренировки с небольшими нагрузками, 230 во время тренировки со средней нагрузкой, 213 при тренировках с большой нагрузкой и 291 при тренировках до отказа.

Полученные результаты раскрывают следующие изменения в психической работоспособности под влиянием различных тренировочных нагрузок (см.Рис.1 и 2). На фиг.1 показаны изменения в быстроте двигательных реакций при наложенном темпе в зависимости от характера тренировочных нагрузок. Графически выражено число успешных реакций за 1 минуту при заданном темпе 86 сигналов, соответственно усредненных за всю группу при различных исследованиях. Выше всех оказалась успеваемость после тренировок со средней нагрузкой, а самая низкая - после тренировок до отказа. Успеваемость после тренировок с большой нагрузкой более высока по сравнению с успеваемостью после тренировок с небольшой нагрузкой.



Рис.1

На фиг.2 показаны изменения в зрительно-двигательной координации в зависимости от характера тренировочных нагрузок. Графически выражено число успешных реакций за одну минуту при заданной программе, включающей 50 сигналов. Самая высокая успеваемость при исследованиях после тренировок со средней нагрузкой, а самая низкая - после тренировок до отказа. В отличие от характера изменений в быстроте двигательных реакций после тренировок с большой и маленькой нагрузкой, при регистрации изменений в зрительно-двигательной координации видно, что успеваемость более высока при тренировках с небольшой нагрузкой, по сравнению с успеваемостью после тренировок с большой нагрузкой.



Рис.2

Регистрированные изменения имеют более высокий коэффициент статистической достоверности, за исключением изменений в зрительно-двигательной координации в исследованиях в условиях тренировок с большой нагрузкой.

Тренировочная нагрузка представляет комплексный фактор, который кроме воздействия на организм спортсмена, оказывает влияние по нескольким каналам и на его психику: непосредственно - через ориентировочные и установочные реакции, которые она вызывает, и косвенно - посредством изменений в работоспособности нервной системы, которые она обуславливает. Особенно интересен тот факт, что при сопоставлении данных, полученных в исследованиях, с самочувствием и субъективным восприятием величины тренировочной нагрузки, эти последние оказываются неадекватными при тяжелых тренировках с большой интенсивностью. Это обстоятельство можно объяснить наличием эуфории вследствие прекомерного возбуждения при этом виде нагрузки. Следует иметь ввиду этот факт при дозировании нагрузки, поскольку самочувствие в таких случаях неадекватно высоко и если слишком доверяем ему, первые признаки переутомления могут появиться очень скоро - что подтверждается рядом случаев, которые имели возможность регистрировать в течение наших исследований.

Отчитывая потребности спортивной практики, особенно важным является выяснение не только непосредственного влияния тренировочной нагрузки, но и динамика различных

психических процессов в период последействия различных тренировочных нагрузок. Эта проблема является темой других наших исследований, на которых в настоящем сообщении мы не останавливаемся.

При сопоставлении вышеизложенных данных о психической толерантности к нагрузкам с функциональными параметрами выявляется тенденция, которая указывает на отсутствие корреляционной зависимости. Ввиду ограниченного регламента, установленного на настоящем симпозиуме, мы не имеем возможность остановиться на данных, полученных в результате такого сопоставления, тем более, что небольшое число функциональных исследований, которые были проведены параллельно с нашими исследованиями, не дает возможность статистического доказательства.

ВЫВОДЫ

1. Непосредственно после физических нагрузок протекание психических процессов либо улучшается, либо ухудшается, главным образом в зависимости от:
   а) величины физической нагрузки
   б) степени адаптации к нагрузке
   в) вида и характера физической нагрузки
   г) индивидуально-психологических особенностей спортсменов.
2. После тренировок с небольшой, средней и высокой нагрузкой наблюдается повышение (в различной степени) психической работоспособности.
3. Непривычные физические нагрузки понижают психическую работоспособность.
4. Поскольку уровень психической работоспособности по отношению к исходным данным перед применением тренировочных нагрузок нарастает по ходу учебно-спортивного года, можно считать, что процесс суперкомпенсации физиологических функций является одним из механизмов повышения психической работоспособности.
5. Анализ полученных данных дает основание считать, что степень влияния на психическую работоспособность после тренировочных нагрузок может служить в качестве показателя психической толерантности к применяемым нагрузкам.

THE IMPACT OF SPECIAL OLYMPICS TRAINING AND PARTICIPATION ON MENTALLY HANDICAPPED CHILDREN

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Introduction

In 1968, at the Second International Congress of Sports Psychology held in the United States in Washington, D.C., Dr. Frank Hayden, director of Sports and Recreation for the Joseph P. Kennedy Jr., Foundation, presented a film describing a new sports training program for the mentally handicapped. The film, entitled "A dream to Grow on," told the story of the 1968 Olympics and showed mentally handicapped children competing in track and field events in an atmosphere similar to the pagentry of the regular Olympic Games. Since its beginning, the special Olympics program has experienced a tremendous growth, and in 1976, involved well over six hundred thousand mentally handicapped participants and two hundred and fifty thousand volunteers in the

United States alone. Special Olympics has become international in scope with seventeen countries establishing special Olympic programs.
While the special Olympics has had a number of well-stated goals from the beginning and has experienced phenomenal growth, there have been only limited attempts to assess the impact of the program in several areas related to its goals.

Purpose

The purpose of this study was to evaluate the special Olympics program in order to determine its effectiveness and potential in changing not only the physical fitness and motor skills of the participants, but also their self-concept and academic achievements. The study was also designed to assess perceptions of the children by parents, teachers, as well as, the degree to which the special Olympics affects attitudes of the community toward the retarded. There were two hundred and fifty students tested at the beginning of the study and one hundred and sixty-two were tested during the fifth data collection. The average age of all students at the beginning was 13.5 years, and the average IQ of the sample is 62.

Methodology

The primary question in assessing program impact involves determining what changes are occurring that can be really attributed to that program itself, and are not attributable to the multitude of other events occurring daily at home, at school, in the community, and even at the state and governmental level. To examine existing programs in an attempt to determine impact might be seriously misleading. Thus the investigators elected to conduct an experimental study of the impact of special Olympics programs, beginning with communities which had no program, accumulating base-rate data on those locations for a sufficient time period to detect any change which might occur as a result of the program.
Four communities were chosen for the study. These communities were approximately matched on populations, socio-economic level, size of retarded population, similarity of school system and the condition that they had never participated in a special Olympic program. Key persons within each community-such as the school superintendent and the director of special education were asked for permission to conduct the study. They were requested to keep the nature of the study confidential, and they simply informed their staffs that a longitudinal study of special education students was being conducted in their community with the support of the superintendent's office.
The fact that the study was concerned primarily with the impact of special Olympics was kept confidential. This was done to avoid the obvious bias which would occur if it were known that the program was being evaluated. Medical examinations were obtained and parental permission was secured on each child involved in the study.

This study was supported by a grant from the Joseph P. Kennedy, Jr. Foundation and was conducted at the Research and Training Center in Mental Retardation, Texas Tech University, Lubbock, Texas.

Procedure

In the spring of 1975, baseline measures were collected in all four communities. Figure 1 shows all of the dependent variables included in the study and demonstrates the scope of the study. In the summer of 1975, community attitude and parental measures were taken. In the fall of 1975, a second baseline data collection was completed for all measures. This was done to obtain reliability of the measures and control for test administration effects. In the fall of 1975, two of the four communities were chosen by random selection as experimental communities, and the other two remained control communities. In one of the experimental communities, a full year special Olympics program was initiated by other researchers unknown to community leaders. The second experimental community was designated as a half-year special Olympics program. This was done to determine the differences, if any, between a full school year special Olympics program, and one that consisted of a four month springtime program. In the spring and summer of 1976, the fall of 1976, and the spring and summer of 1977, all measures were repeated in the four communities. These last three testing sessions constituted the first, second, and third post-treatment data collections for the experimental communities.
Figure 2 shows the time table for the study.

Results

Physical fitness measures

Figures 3-9 show the results for the four physical fitness measures which were collected over the three years of the study. The five test sessions were collapsed into a pretest (test sessions 1 and 2), and a post-test (test sessions 3,4,5) for all analyses.

Figure 3 shows the results of the softball throw (best of 3 throws). Inspection of figure 3 shows that the students who participated in special Olympics training (experimental group) made significant gains from "re" to "post" program implementation, while the control students made virtually no gains. Of interest in this and several subsequent measures is the source of most of the change. Figure 4 shows the primary source for the softball throw measure:the female students made large gains, while the male students made none. Neither the male students nor the females made gains in the control groups.

Figure 5 shows the results of the shuttle-run measure. Since the shuttle-run is a timed event, a decrease in a participants over-all time from the pre to post tests indicates an increase in performance.

Inspection of figure 5 illustrates that the experimental students made a significant improvement of approximately two seconds - whereas, those in the control groups performed less adeptly slowing down by 12/100 ths of a second.

Figures 6 and 7 show the source of these results clearly. Figure 6, for instance, shows that in the experimental groups, both males and females made dramatic and significant increases in performance, while figure 7 shows that the performance was mixed in the control with the male participants showing improvement and the females showing a loss.

Figure 8 shows the results of the sit-ups measure (which is based upon the number of sit-ups per minute). Inspection of figure 8 shows that the experimental and control groups made gains in the number of sit -ups per minute with the experimental groups showing more performance gains than that demonstrated by the control group.

Figure 9 represents the results of the standing long jump. The experimental students made significant gains in this event, while the students in the control group made only slight of non-significant gains.

Further analysis of these results indicates that the female experimental students made the largest gains, and the male experimental students demonstrated the least gains in performance. And in the control group, the male participants demonstrated slight gains in performance, while the female participants showed a slight loss. The net result as it is illustrated in figure 9 is a significant gain for the experimental students and a small gain for the students in the control group.

Psychological tests and teacher ratings

Repeated measures of analysis of variance were done on a total of thirty dependent measures. These included the psychological scores of the children's tests, and scales derived from teacher ratings including areas such as self-concept of the child, social behaviour, and physical skills. The independent variables were testing occasion (pre-post) sex of the child, and experimental or control groups.

The experimental groups consisted of actual special Olympic participants, and the controls were matched with the participants according to age, sex, and IQ.

One of the measures which showed a positive gain over time for experimental versus control children of both sexes was a Seven-Item School Attitude Scale. This was administered directly to the children and items included three items which were related to physical education activities and four items related to general feelings about classmates and teachers. Significant differences ($p \leq 0.05$) indicate that the experimental children gained in school attitude. A second measure on which the experimental children improved significantly, compared with the control children ($p \leq 0.01$) was teacher's ratings of progress in physical skills such as baseball throwing, running, jumping, etc. Teachers were also asked to list the different sports activities in which their children were involved. There was a significant difference in favour of the experimental children ($p < 0.01$).

Parent ratings

Data was collected from parents on three occassions during the first summer of the project prior to the initiation of special Olympic programs, again during the second summer of the project, and finally, in the late spring of the third year.

The questionnaires included a number of five point rating scales on which parents were asked to rate their child's behaviour in the areas of physical skills, self-esteem, and to note their perceived performance as a parent. On each item, parents were asked first to rate the child's current level of functioning and then they were asked to rate change, or degree of progress which their child had made in that area over the past year.

The results indicated that there were significant differences between experimental and control group parents ratings on the difference scores between test occasion I and TEST occesion III in the following areas: (a) the child's current self-esteem, (b) parental behaviour toward the child, and (c) the child's progress in physical skills ($p = < 0.25$). In addition, although not statistically significant, parents of the experimental children indicated more recent progress in their child's self-esteem, more progress in terms of their own behaviour toward the child, and a higher level of current physical functioning.

On open-ended items, more of the parents in the experimental group than those of the control group indicated that their child was more interested in sports than in the past (69% for experimental; 40% for controls).

Monitoring of newspaper articles

Newspapers in each of the experimental and control communities were monitored during the three years of the study because newspaper coverage given to a particular topic is a good indicator of community interest and attitudes toward a particular subject. Figure 15 shows the total number of articles about mental retardation or subjects related to mental retardation (including special Olympics) which appeared in the community newspapers in the four communities over three years. While there are fluctuations in the number of articles from year to year, the overall number is higher in the experimental communities than in the control communities. (Special Olympic programs were established in the fall and spring of 1975 in the experimental communities). Figure 16 shows the number of newspaper articles broken down into categories of articles related to special Olympics (other articles are related to mental retardation but not specifically about special Olympics).

Figure 16 shows that in the control communities, no articles about special Olympics appeared.

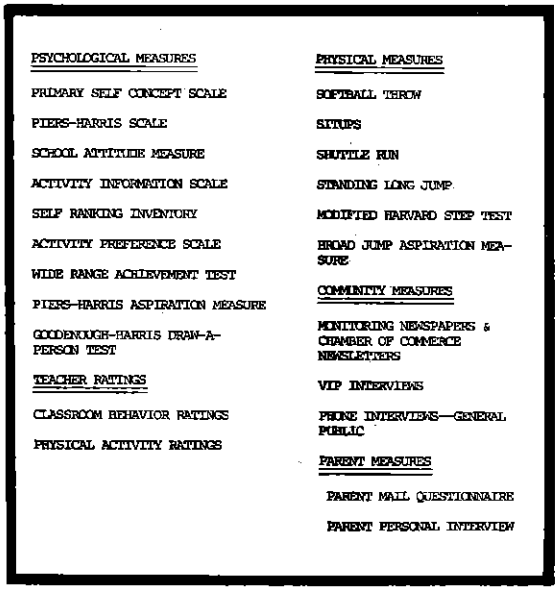
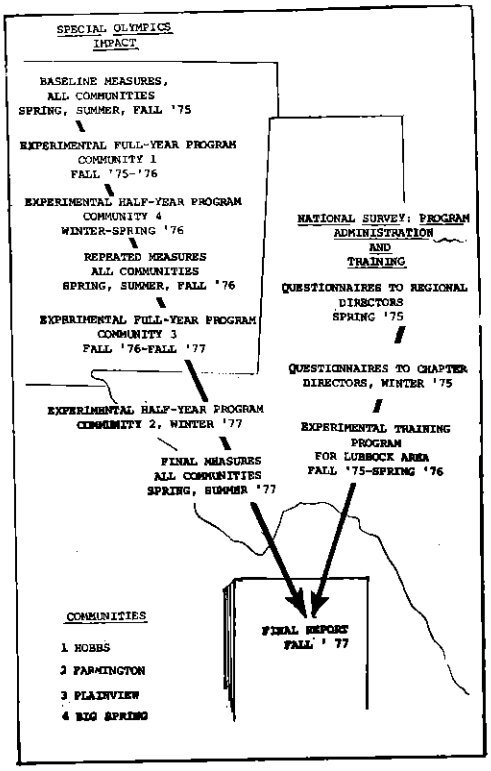


FIGURE 1— DEPENDENT VARIABLES SPECIAL OLYMPICS IMPACT STUDY



TIMETABLE: FIGURE 2

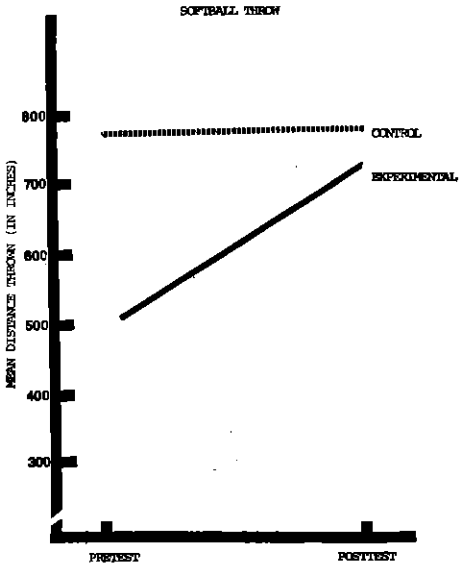


Fig. 3

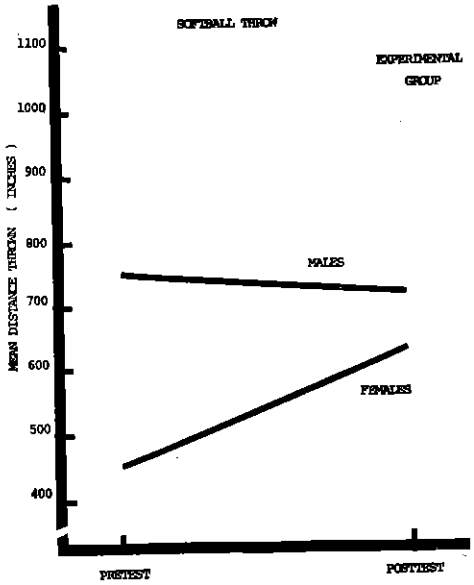


Fig. 4

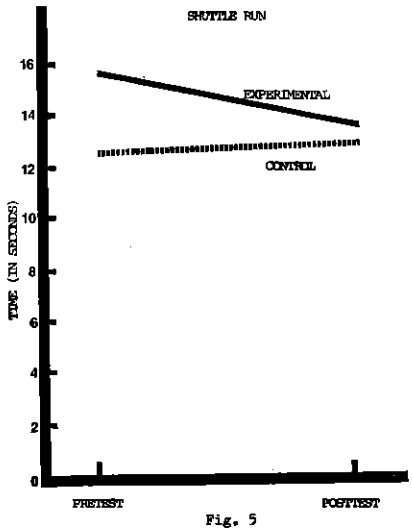


Fig. 5

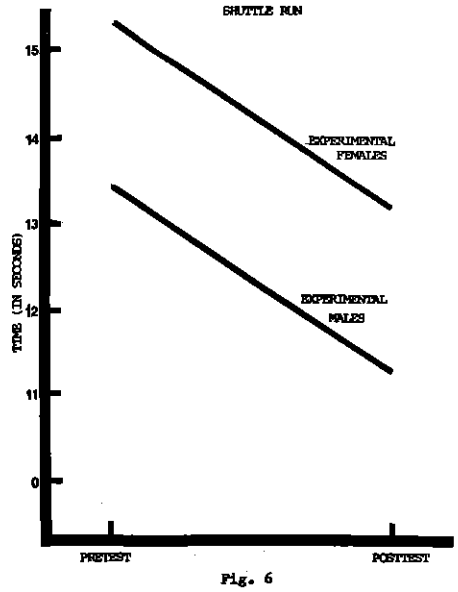


Fig. 6

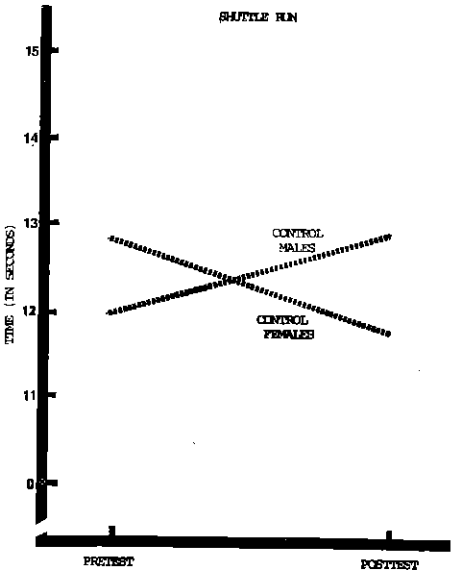


Fig. 7

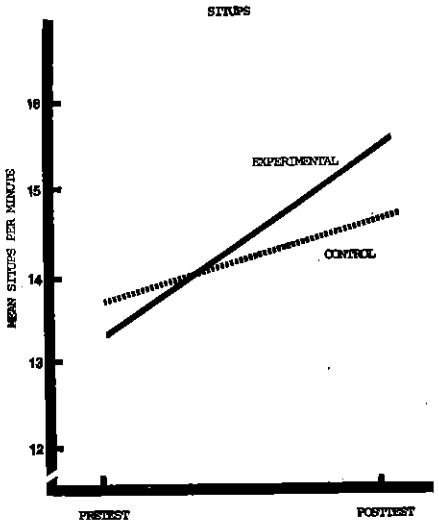


Fig. 8

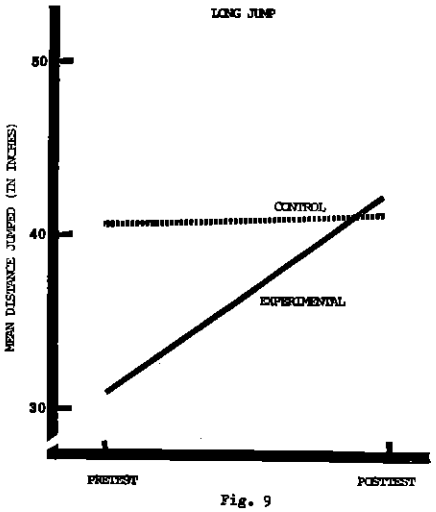


Fig. 9

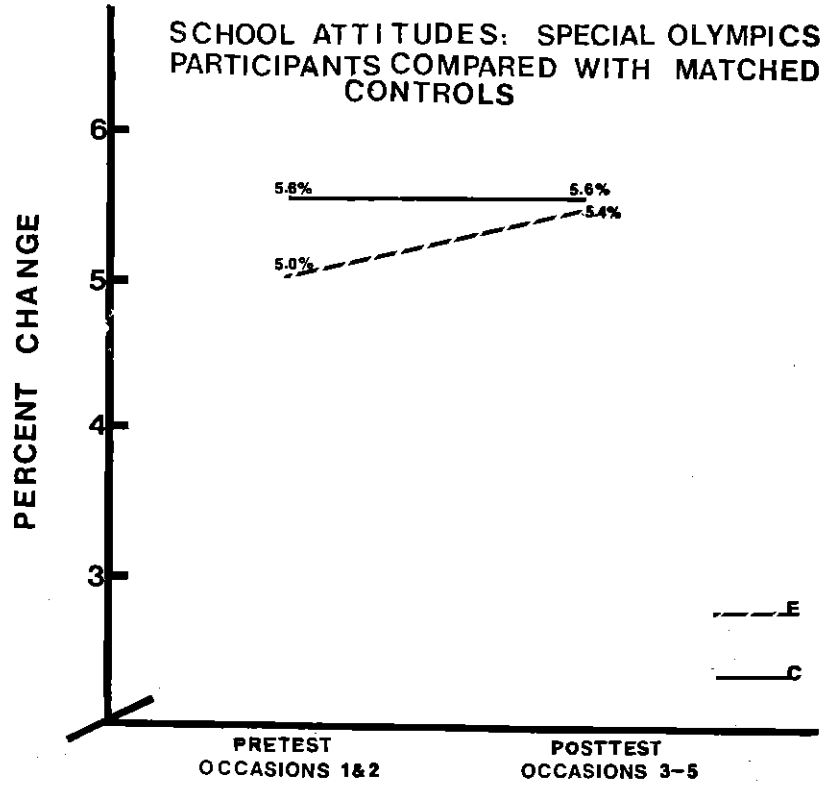

SCHOOL ATTITUDES: SPECIAL OLYMPICS PARTICIPANTS COMPARED WITH MATCHED CONTROLS
PERCENT CHANGE
6
5
4
3
5.6%
5.6%
5.4%
5.0%
E
C
PRETEST
OCCASIONS 1&2
POSTTEST
OCCASIONS 3-5

Fig. 10

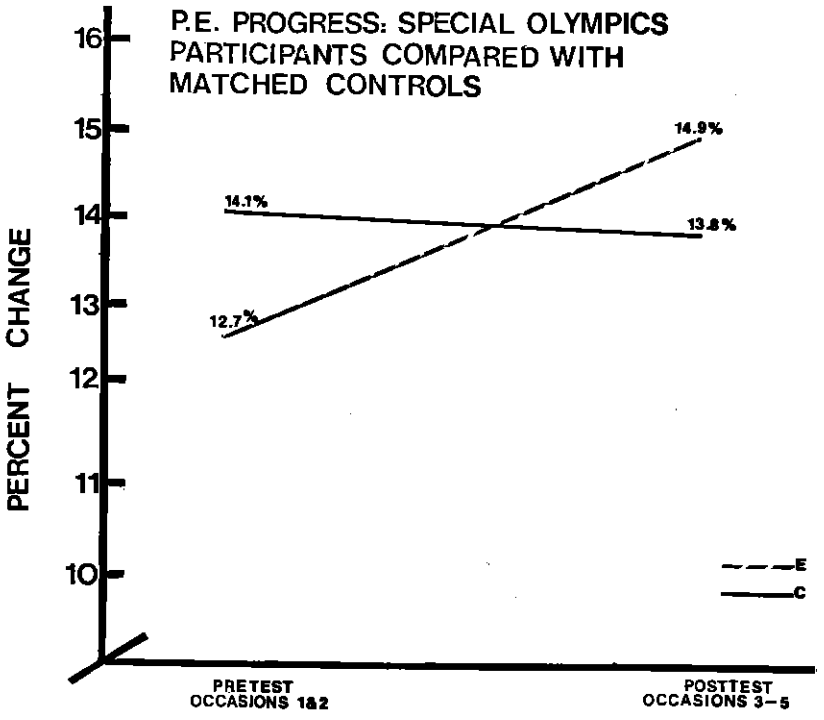

P.E. PROGRESS: SPECIAL OLYMPICS PARTICIPANTS COMPARED WITH MATCHED CONTROLS
PERCENT CHANGE
16
15
14
13
12
11
10
14.9%
14.1%
13.8%
12.7%
E
C
PRETEST
OCCASIONS 1&2
POSTTEST
OCCASIONS 3-5

Fig. 11

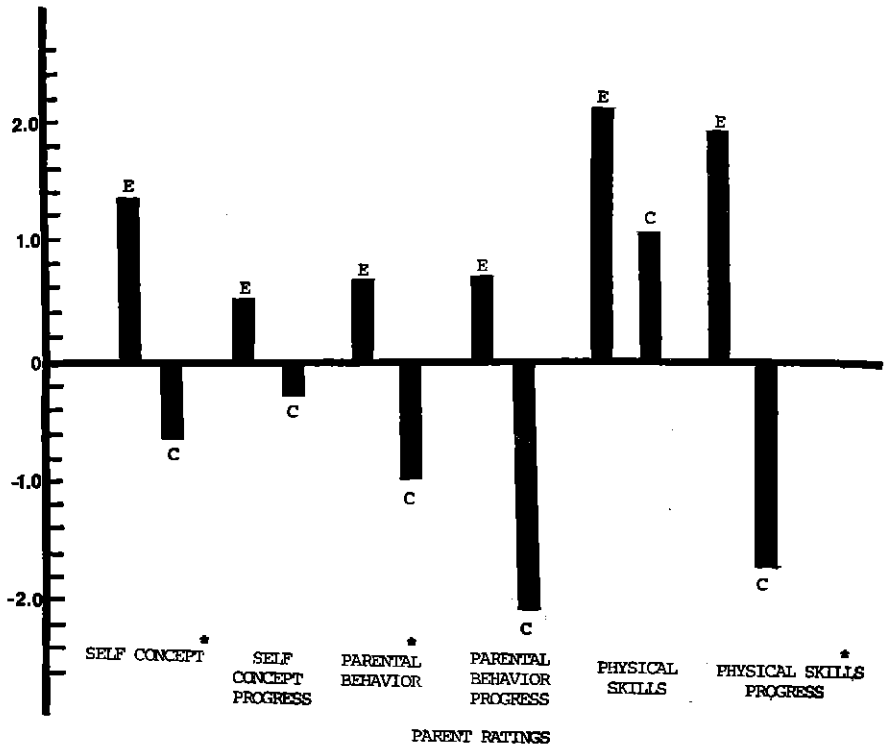


Fig. 12

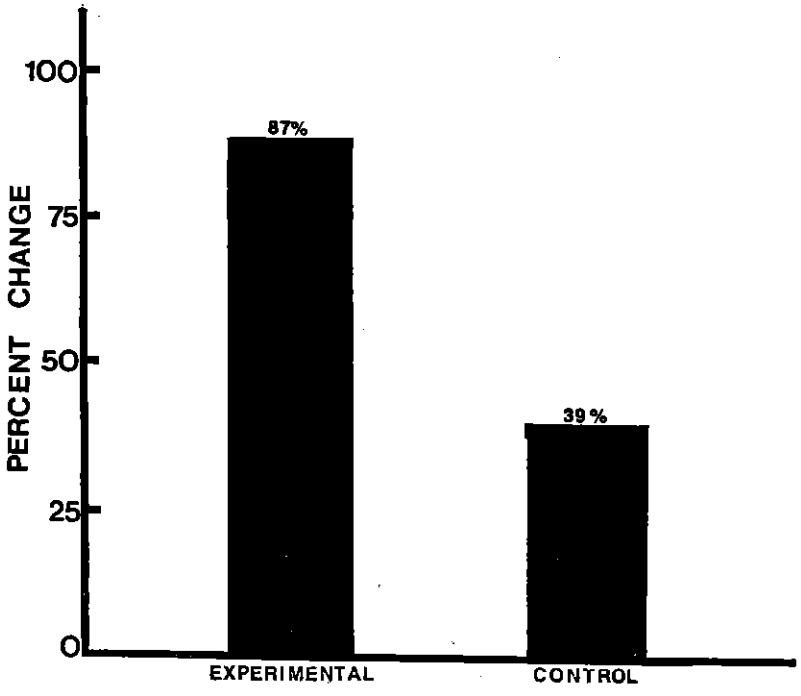


Fig. 13 ABILITY TO IDENTIFY SPECIAL OLYMPICS: PARENTS IN EXPERIMENTAL VERSUS CONTROL COMMUNITIES; OCCASION 3 (POSTTEST)

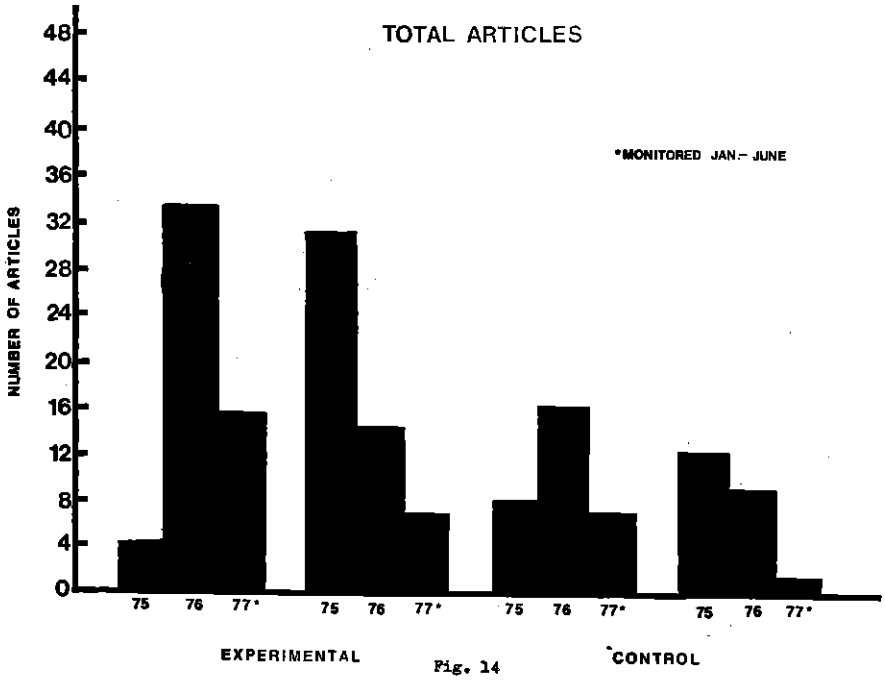

TOTAL ARTICLES
*MONITORED JAN.– JUNE
NUMBER OF ARTICLES
48
44
40
36
32
28
24
20
16
12
8
4
0
75 76 77* 75 76 77* 75 76 77* 75 76 77*
EXPERIMENTAL
CONTROL

Fig. 14

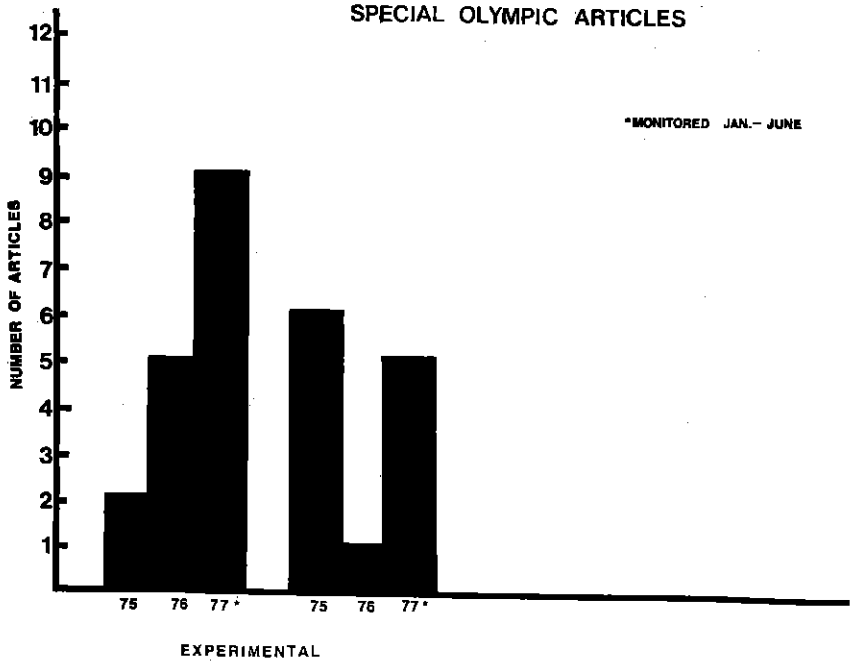

SPECIAL OLYMPIC ARTICLES
*MONITORED JAN.– JUNE
NUMBER OF ARTICLES
12
11
10
9
8
7
6
5
4
3
2
1
75 76 77* 75 76 77*
EXPERIMENTAL

Fig. 15

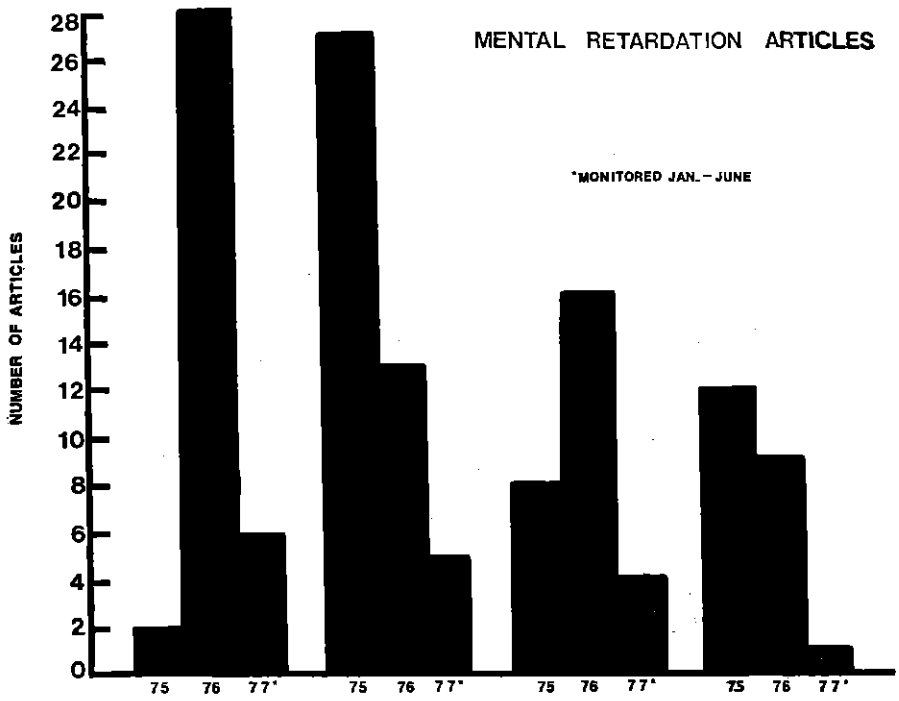


Fig. 16

SPORT IN THE OUT-PATIENT PSYCHOTHERAPY OF PUBESCENTS

Kožnar,J., Bratislava, Czechoslovakia

In the period of maturation a young person has to put up with a number of developmental tasks connected with physiological changes and growth dominating especially during the first years of pubescence. Involved are e.g. the development of a stable feeling of one´s own identity, forming of self-concept and self-evaluation, constitution of important and significant relations towards one´s peers, integration of sexual maturity into the personality context, etc. A highly demanding character of these developmental tasks, the fact that they can be experienced with a great subjective urgency, as well as a possibility of a failure, can bring about unstableness of a pubescent´s personality, temporary emotional disorders, social failure or neurotic decompensations. Social opportunities that can be utilized by present pubescents as reiforcing and supportive factors when coping with the most acute personality problems include the psychological guidance and psychotherapy.

If we take psychotherapy as a means of psychological assistance rendered to a man finding himself in a mental crisis /Široký, 1969/, psychotherapeutic work

with a problem pubescent can represent a causal contribution to a developmental solution of his personality troubles. Taking into account the objectives of psychotherapy that can be determined by a concrete work with pubescents as a support of an optimum growth and personality maturation of a young person /Reisman, 1973, Kožnar-Štúr, 1974/, we find that they are suprisingly similar to the objectives of sports and physical training activities.

Let us try to determine some more features common to psychotherapy and healthy sports activity contributing to the harmonization of a personality. Both are aimed at:

1/ activation of a personality and its stabilization by means of mobilizing inner positive potencies;
2/ forming of stenic attitudes and approaches towards life situations and barriers, development of will and perseverance;
3/ inducement and reinforcement of constructive and forming feelings of one´s self-assertion, self-realization and success;
4/ assistance in the field of determination of short-term, as well as long-term objectives, acquiring adequate values and experiencing the purposefulness of life;
5/ rich and forming emotional experiences, emotional relaxation and catharsis;
6/ acquiring physical and mental freshness, good condition, relaxation, setting oneself free from the problems, tensions and the sources of neurotization;
7/ contribution to the socialization of a personality, reinforcement of a healthy social communication both in a way of cooperation, and in a way of stimulating, non-hostile competiteveness.

Above mentioned common features stimulated our psychological practice to combine psychotherapeutic efforts with sports activities when dealing with problem pubescents and thus try to increase the possibilities of therapeutic factors included in both types of activities. Such efforts, naturally, are not unknown in the sphere of psychological guidance practice. Successful application of sports activity, particularly of swimming, in reeducational and therapeutic work with children, suffering from a light brain disfunction, was reported by Bednárová and Fehér /1972/. Štěpaník and Novák from The Psychological Guidance Clinic in Brno have a long experience with using summer holiday courses in the countryside , sport games and excursions to the countryside in their corrective work with unmanagable boys.

We applied two types of psychotherapeutic groups in our work with problem pubescents at the Bratislava Psychological Guidance Clinic. The first one was of the interaction type /according to Kratochvíl´s determination, 1975/ and the second was a controlled psychotherapeutic group including sports activities. In this empiric part of my paper I would like to dwell on these groups and try to make a partial comparison from the point of view of the style and the principle of group work, as well as from the point of view of effective therapeutic factors and therapeutic effectiveness of groups. The problem pubescents with whom we worked in both types of groups can be classified according to the symptoms in a following way: 1/ family maladjustment, significant tensions in relations with parents; 2/ maladjustment in a peers´ society; 3/ behavioral disorders of a dissocial character /missing school lessons, small thefts/; 4/ neurotic inhibitions in social communication and in performance, feelings of personal insufficiency. All clients were cared for by us on request of parents or school.

The interaction group was of an open type. Contents of a session was structured by a therapist, especially techniques of psychodrama were preferred. The group was meeting during one school year once a week for 90 minutes. t consisted of 5 - 7 boys. Following factors appeared to be effective in this type of group: insight, mutual emotional support and correction, ventilation and abreaction, social training. Some effects of the groups of pubescents and adolescents were already reported on /Kožnar, Martínková, 1975, Kožnar, 1977/. This type of group where discussion prevails proved itself only in some pubescents under our conditions. Therapeutic effect could be recorded only in some 20 - 30 % of boys originally included in the group. Stressing verbal activity in a pubescent group brings about an increased aversion to therapy. Movement in psychodrama or the introduction of motion games and construction or competition elements represent only a partial compensation. Though it is true that if the aversion to therapy is successfully overcome, the therapeutic effect is strong, we in our-patient work depend on the level of motivation of boys to the cooperation and thus face too often the boys' aversion turning to quitting the group. So far unsolved question of indications for therapy can serve as another possible explanation of low affectiveness of these groups.

As a result of introduction of a controlled psychotherapeutic group including sports activities we succeeded in doing away with some of the discussed disadvantages of the interaction group. This psychotherapeutic group consisted also of 5 - 8 members, the boys were meeting during one year once a week for two hours and sometimes for a four hours' excursion to the countryside. Sports activities of the group included games /football, voleyball, table-tennis/ and tourism in the countryside. The group appeared to be more lasting, stable and greater cohesion, transparence and mutual sincerity were achieved much sooner. Eventual affective interactions appearing in the course of games were corrected and pacified by the therapist who tried to catalyze, control arising tension and use them in a form of later reflections and interpretations in acquiring insight and personal corrections in pubescents. There was a 20 to 30 minutes' discussion after completing every sports activity. It dealt with the course of the activity and the interactions. These discussions were lively, active and unlike the interaction groups there was no necesity of stronger stimulation from the therapist. There were often critical, personal comments that were gradually accepted and played a role of an effective social feedback. Quitting the group was observed much less often than in case of the interaction group. In the course of therapy following positive factors were found: 1/ breaking the isolation by more inhibited members of the group, 2/ protective attitudes on the part of more efficient and able members of the group to the weeker ones, 3/ mutual support, 4/ great emotional abreaction followed by psychic relaxation, 5/ cohesion and a feeling of appurtenance to the group, 6/ rich and personality forming social experiences. The course of the group gave an opportunity to influence the boys by way of their more natural physical activity including a stronger emotional involvement and it also gave a lot of rich psychodiagnostic possibilities to the therapist observing the boys in their spontaneous sports interactions. The fact that the group had also different objective apart from the objective in itself showed itself as a great advantage. This sporting objective was generally adopted and with respect to it it was poss ble to achieve therapeutic objectives, too

Educational and therapeutic results were found in about 50% of boys /according to the information given by parents, teachers and a psychologist/. The process of identification with the therapist who played an active part in the sports was of a

great help. It is a very important and at the same time delicate sphere in which a great number of problem pubescents, chiefly coming from broken homes, are frustrated by the fact that teaching staffs in elementary schools include nearly 100 % of women.

Naturally, there appeared many shortcomings in the therapeutic work with groups organized in this way - e.g. small number of sporting grounds, difficulties with finding suitable time for sessions because in our civilization children are overburdened, etc. The most essential problem consists in a danger that this type of activity can turn into a mere compensation of a common educational work. This can happen, if this activity starts satisfying the pubescents' frustrated psysiological need for active, motor, emotional and social experiencing in sports. Many of those who cannot or do not want to go in for top sports are subjected to this frustration.

Conclusion: controlled psychotherapeutic group including sports activities appeared to be more effective in pubescents than classical interaction group. However, it is necessary to work out a more thorough theoretical analysis of the conditions of its functioning, of effective therapeutic factors, of demands on the therapist, as well as of the questions of indication and counterindication. From the point of view of organization it is necessary to establish cooperation with the educational school system.

References:

1/ Bednárová,V., Féhér,J.: Využitie plaveckého výcviku u detí s ľahkou mozgovou dysfunkciou.
Psychológia a patopsychológia dieťaťa,VII,1972, No.2, 163-176.

2/ Kožnar,J.,Štúr,I.: Poznámky ke studiu emocionálně osobnostní zralosti.
Psycholóģ v Československu, 1974, No.3-4, 40-52.

3/ Kožnar,J., Martínková,J.: Psychoterapie dissociálních poruch chování.
Psychológia a patopsychológia dieťaťa, X, 1975, No.6, 565-572.

4/ Kožnar,J.: Ambulantní skupinová psychoterapie s adolescenty. In: Psychologická výchovná starostlivosť a rozvoj osobnosti socialistického človeka.
Sborník, Košice 1977, 189-198.

5/ Kratochvíl,S.: Interakční psychoterapeutická a výcviková skupina.
I. Cíle a techniky. Čs.psychiat. 71, 1975,1,38-44.

6/ Kratochvíl,S.: Interakční terapeutická a výcviková skupina.
II. Elementy a příklady interakce. Čs.psychiat.71, 1975, č.2-3, 120-125.

7/ Novák, T.: Některé možnosti změny postojů u dificilních chlapců.
Psychol. patopsych. dieťaťa, IX,1974, 2, 125-141.

8/ Reisman,J.M.: Principles of Psychotherapy with Children.
J.Wiley and Sons, N.York 1973.

9/ Široký, H.: Psychoterapie a psychologie. Čs.psychologie, XIII,1969, 6, 578-589.

10/ Štěpaník,J., Novák,T., Teplík,T.: Využití prázdninových dětských táborů pro poznání a nápravu dificilit. Psychol. patopsychol. dieťaťa VI, 1971, No.4, 343-353.

11/ Štěpaník,J.: Některé otázky letních pobytů v přírodě s klienty poradenských zařízení. Psychol. patopsychol. dieťaťa, VII, 1977, No.1, 67-71.

MOŽNOSTI VYUŽITÍ LÜSCHEROVA BARVOVÉHO TESTU PŘI ZJIŠŤOVÁNÍ AKTUÁLNÍHO PSYCHICKÉHO STAVU SPORTOVCE

KUBÍČKOVÁ, L., Praha, Československo

Malý Lüscherův osmibarevný test je subtestem z klinického Lüscherova testu, který v původním vydání obsahuje 7 tabulí se 73 barevnými poli.

Lüscherův barvový test je založen na hypotéze, že reakce na barvu může být zdrojem informací při popisu či zjištění struktury osobnosti. Mezi nejznámější metody, které stejně jako Lüscherův test využívají barvy pro zjišťování osobnostních vlastností, jsou vedle barevného pyramidového testu, především metoda Rorschachova a Zulligerova.

Lüscherův osmibarevný subtest patří mezi projektivní techniky a na rozdíl od většiny ostatních je velmi efektivní, protože klade minimální nároky na čas při administraci a prezentaci.

V oblasti psychologie sportu nám tato metoda může posloužit k rychlé a poměrně validní depistáži sportovce.

Psychologie barev rozlišuje objektivní význam barev a subjektivní postoj k barvě. Subjektivní postoj k barvě je označován jako funkce, jde např. o sympatii, indeferenci, antipatii.

Objektivní význam barvy je pro každý subjekt neměnný. Tak např. tmavomodrá, ať je subjektu sympatická či nikoliv, představuje klid. Naproti tomu subjektivní postoj každého jedince je rozdílný.

Podle vlivu barevných vjemů dělíme spektrální barvy na povzbudivé - stenické, aktivní, dále pak na neutrální a na uklidňující - astenické. Stenické vlastnosti má např. červená, žlutá a částečně i zelená, zatímco barvy druhé poloviny spektra - modrá, fialová působí převážně astenicky.

Zajímavé jsou Rorschachovy nálezy (Schachtel 1943) o problematice barvy a afektivity, které vypovídají, že červená barva povzbuzuje podněcující, prudké, explozivní afekty; žlutá indikuje klidnou osobnost a mírnou stimulaci, oranžová vyvolává pocit tepla a rozkoše, zatímco modrá a zelená, při vynechání červené, označuje lidi s kontrolovanou afektivitou.

Lüscher (1948) píše v kapitole o barevné psychologii o tom, že na člověka již z dávných dob působí 2 psychologicky i fyziologicky důležité faktory - den a noc, tma a světlo. Noc přináší podmínky, které dříve znemožňovaly činnost a naopak den umožňoval činnost rozvíjet. Noc nutila k odpočinku a pasivitě, kdy se tělo zotavovalo a den znamenal pohotovost všech psychických a tělesných funkcí k výkonu. Světlo a tma - podle Lüschera - a tím i barvy jsou svázány se dnem a nocí - tmavomodrou noční oblohou a jasně žlutým denním světlem. Aktivity - útok a dobývání jsou charakterizovány barvou červenou, sebeobrana je představována barvou zelenou.

Dosti důležitými se ukazují výsledky měření preference barev a skupin s již poznanou patologií.

Shikiba (1927) porovnával preferenci barev u 26 manických a u 10 depresivních pacientů. Zjistil, že maničtí pacienti preferují červenou, zatímco depresivní pacienti zařazují tuto barvu až na konec pořadí.

Katz (1937) ve svých studiích také zjistil, že červená je hodnocena jako sympatičtější spíše manickými pacienty než schizofreniky.

Warnerova studie (1959) dokazuje na vzorku 120 katatonických schizofreniků, 60 maniaků, 60 depresivních a 60 anxiosních neurotiků, že anxiosní neurotici dávají přednost zelené ve srovnání se žlutou více než jiné skupiny a že anxiosní neurotici také více než ostatní skupiny preferují světlejší barvy.

K poněkud odlišným názorům dospěl ve své studii Grünner (1969), jenž provedl výzkum preference barev v Lüscherově osmibarevném testu na početnější skupině těžkých neurotiků. U těchto pacientů převažovaly z 91% na předních místech osmiřadu barvy šedá, hnědá a černá a na posledních třech místech se nejčastěji vyskytovaly barvy červená a zelená. Tyto výsledky vzhledem k empirickým poznatkům považujeme za dost objektivní.

V krátkém přehledu si popíšeme psychodiagnostický význam jednotlivých barev :

0 - šedá , představuje neutralitu a je bez psychické tenze. V osmiřadu by měla být na 5. - 7. místě. Do popředí vystupuje při značné únavě, může také ukazovat na nechuť jedince vypovídat.

1 - modrá , vyjadřuje především klid, spokojenost a stav bez tenze. V osmiřadu by měla být volena na 1. - 4. místě. (Z empirických poznatků spíše na 3. - 5. místě). Pokud je odmítána (zvlášť ve spojení s černou) ukazuje to na konflikty v interpersonálních vztazích, labilitu, nedůvěřivost, senzibilitu.

2 - zelená , je barvou tenze. Měla by být volena na 2. - 4. místě. Na prvním místě značí většinou napětí; ve spojení s fialovou poukazuje na určité poruchy sociální apercepce. Volba na posledních místech značí značnou potřebu osvobodit se z tenze.

3 - červená , měla by být volena na 1. - 3. místě. Volba na předních místech ukazuje na potřebu činnosti, na posledních místech poukazuje na vyčerpání.

4 - žlutá ,měla by být volena na 2. - 5. místě. Je-li volena na posledních místech ukazuje to především na pocity izolovanosti, na nedůvěřivost, anxiositu a introverzi.

5 - fialová , měla by být na 3. - 7. místě. Výrazná obliba je obecně při hormonálních změnách (puberta, klimaktérium).

6 - hnědá ,měla by být volena na 5. - 7. místě. Je-li tato barva v první polovině osmiřadu jde o potřebu zotavení.

7 - černá ,měla by být volena na 7. - 8. místě. Na předních místech vždy dokumentuje neurotizaci osobnosti a narušení její adaptability vlivem exogenních faktorů.

Použitá literatura :

1. Lüscher, M., Lüscher-Test, Test-Verlag, Basel, 1974
2. Lüscher, M., Psychologie der Farben, Test/Verlag, Basel, 1949
3. Schaie Warner, K., Heiss, R., Colour and Personality (Manual for the Colour Pyramid Test), Verlag Hans Huber, Bern, 1964
4. Havlík, K., Problematika malého Lüscherova osmibarevného testu v dopravní psychologii, Nepublikovaná přednáška, Seminář dopravních psychologů, říjen, 1975, Plzeň

EXPERIMENTAL EXAMINATION OF BODY-IMAGE ON MALE GYMNASTS

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Introduction

In my paper I wish to report on the examination of the body-image of 22 first-class and selected /national/ male gymnasts, their average age being 23 years.
The examination has had a dual purpose:
- on one hand, it endeavours to contribute data to the significance of the functional role of body-image;
- on the other hand, it attemps to reveal characteristics that in the organization of body-image are in correlation with performance.

Making use of experiances of examinations investigating body-image from different aspects /Fisher, Cleveland, Witkin, Schontz, Baumann/ we have endeavoured to elaborate a procedure suitable for examination of healthy subjects.
Increased concern with the body in sportsmen /physical load, movement-learning/ may, to a great extent, contribute to structuralization and differentiation of body-image.
Sport-anthropological examinations performed in different branches of sport have demonstrated that correlation exists between the physique of the body and performance /Tittel, Gavrilović, Eiben/. Among others this recognition has led to the assumption that between accuracy of body-knowledge and performance, as well as between body-evaluation and performance there might also be a correlation.
By the idea of body-image we mean different forms of subjective empathy and body-sensation. Neuropsychological organization that produces and substantiate this assures coord nation between special relations of the parts of the body, as well as informations related to motor activity, its integration into a unity, that plays a primary part in movement organization.

Methodology

1. The examined subject estimated verbally the dimension of 18 of his body-sizes /length, width, circumference/.
2. This was followed by complete anthropometric mapping in order to establish the true sizes of the body.

Deviations - their average taken as a basis - have been interpreted along three indices:

a/ index of body-knowledge /E-R/ expresses the deviation between the sizes estimated by the examined subjects and the true body-sizes, i.e. how accurately could they estimate a given part of his body.

b/ index of body-evaluation /I-E/. This index gives information about the degree of satisfaction related to body-sizes. The less deviation we can find between estimated and ideal body-sizes, the less is the discrepancy between the body-ideal and the real body-sizes. Dissatisfaction manifested in the differences may act as motivating factors, they may hinder, or promote better performance.

c/ the third index /I-R/: is the index of the difference between the real and ideal sizes. This yields objective information about the real situation supporting dissatisfaction. In the course of elaboration we have employed one - sample t-test and Pearson - correlation.

Results

1. According to deviations obtained on the basis of indices of body-knowledge /E-R/ we have met with underestimation in 8 cases, overestimation in 4 cases, and congruence in 5 cases.
   Their common features are: they assess themselves as individuals having smaller heads, shorter and thinner arms, longer trunks and broader shoulders and hips, than they have in reality.

2. On the basis of indices of body-evaluation /I-E/, according to deviation obtained, of 18 body-characteristics they are satisfied with 10 - independently on the accuracy of evaluation - in 6 cases broader, longer sizes , and in 1 case narrower size would be desired.

Characteristics of a build considered to be ideal: narrow hips, broad chest and shoulders, longer hands and arms.
Both indices support dominance of the upper part over the lower part in the image created of the body.
Real differences hiden in the background of dissatisfaction are of a small degree. Ideal build is, in 4 cases, still smaller than the real height, in 6 cases there are no significant deviations, in 7 cases it points toward desired direction.

Relationship with performance

1. According to relationship between real sizes and performance there exists an ideal gymnast-physique, i.e. there exist parts of body of ideal size that are preconditions of good performance.
   Their characteristics are: narrow shoulders and hips, short lower limbs and small height. They are in close correlation with forms of performance listed below.

2. According to our results body-knowledge is important from the point of view of increase of performance. There are parts of the body of specific significance: the shoulders, the upper limbs, the head, the chest, hence the whole upper part of the body, exact knowledge of which is committant with good performance: first of all in the following forms of performance: rings, free exercises, vaulting horizontal bar. Knowledge of the shoulders has the most significant role, for they show close correlation with most forms of performance.

3. In respect of body-evaluation and performance we have only found relationship with some forms of performance in case of a few parts of the body.
   The relationship have positive and negative trends, by which we mean that dissatisfaction, i.e. satisfaction concerning parts of the body may equally have a motivating and influential effect upon performance.

Summary

1. In our investigation the image of male gymnasts created of their own bodies showe significant deviations from reality in assessment of structural size - first of all in judgement of sizes of length.

2. Body-build considered being ideal and desired by them also shows significant deviations from that estimated by them. Particularly strong upper part and long arms dominate in their image of ideal body. In case of width of the shoulders this demand seems to be unreal, for it is not suported by a positive relationship with performance.

3. Differences hiden in the background of dissatisfaction are of a small degree. The assumption, according to which there is a correlation between accurate body-knowledge and performance has in some cases been proved.

4. In our pattern of examination the estimated image and that of the ideal-body deviates from the real one. Knowledge of this - which is manifested in body--evaluation has, according to our results a motivating effect that influences performance. This is supported increasingly by the correlation of objective differences hidden in the background of dissatisfaction and performance.

Bibliography

Baumann, S. : Körperschema, Feldartikulation und individuelle Leistungsbeurteilung. Leistungssport, 1975, 5-6. 494-498 p.

Cleveland,S.E.:Body-image changes associated with personality organization. Journal of Consulting Psychology. 1960.A.24. 256-261 p.

Eiben, O. : The physique of woman athletes, Budapest, Tempo KSZ. 190 p.

Fisher, S. : Body Experience in Phantasy and Behavior. New-York, Appleton Century Crofts, Meredith Corporation. 1970. 142-155 p.

Gavrilovic,Z.: O programm sportske antropológije. Fizicka Kultura 1964. 5-6. 262-264 p.

Schonts, F. : Perceptual and Cognitive Aspects of Body-Experience. New-York, London: Academic Press. 1969.

Tittel, K. - Wutscherk,H.: Sportanthropologie. Johann Ambrosius Barth, Leipzig, 1972. 276 p.

Witkin, H.A. - Dyk,R.B. - Fatherson, H.F. - Goodeough,D.R. - Karp, S.A.: Psychological differentiation. New-York: John Wiley and sons. 1962.

DIE SPORTLICHE TÄTIGKEIT ALS SPEZIFISCHE MÖGLICHKEIT ZUR FÖRDERUNG DER ENTWICKLUNG SOZIALISTISCHER PERSÖNLICHKEITEN

KUNATH, P., Leipzig, Deutsche Demokratische Republik

Die Persönlichkeitsentwicklung des Individuums erfolgt in der aktiven Auseinandersetzung mit den verschiedenartigsten Anforderungen seines Lebens. Für den Sportler werden die Möglichkeiten seiner Entwicklung als sozialistische Persönlichkeit durch die in der sportlichen Tätigkeit zu bewältigenden Anforderungen erweitert und vertieft.

Die Persönlichkeitsentwicklung des Sportlers vollzieht sich also nicht nur in der sportlichen Tätigkeit, sondern in allen gesellschaftlichen Tätigkeiten. Die zielgerichteten, geplanten und organisierten Tätigkeiten, darunter auch die sportlichen, spielen dabei eine besondere Rolle, weil sie bewusst die vom Menschen anzueignenden gesellschaftlichen Erfahrungen und Erkenntnisse zum Gegenstand der individuellen Tätigkeit machen und so der Entwicklung der Persönlichkeit eine bestimmte Richtung und einen bestimmten sozialen Inhalt geben.

Im Übungs-, Trainings- und Wettkampfbetrieb sowie in allen anderen Formen sportlicher Betätigung eignet sich der Sporttreibende den Ideengehalt und die in Zielen, Methoden, Mitteln und Organisationsformen vergegenständlichten gesellschaftlichen Erfahrungen und Erkenntnisse der Körperkultur und des Sportes an. Er nutzt sie zur Entfaltung seiner individuellen Eigenschaften und Funktionen und bereichert dadurch, vor allem durch die von ihm dabei gestalteten gesellschaftlichen Beziehungen und erreichten sportlichen Leistungen, die gesellschaftlichen Wirkungsmöglichkeiten von Körperkultur und Sport auf die Entwicklung der Persönlichkeit sporttreibender Menschen und anderer Bürger.

In den vielfältigen spezifischen Formen sportlicher Tätigkeiten spiegelt sich also der allgemeingültige Zusammenhang von Persönlichkeits- und Gesellschaftsentwicklung wider. Einerseits eignet sich der Sporttreibende in der aktiven sportlichen Betätigung die in Körperkultur und Sport unserer Gesellschaft gesammelten und verallgemeinerten gesellschaftlichen Erfahrungen und Erkenntnisse und damit die Ziele und Anschauungen auf diesem Gebiet sowie das ihnen entsprechende Verhalten an, andererseits gestaltet er gleichzeitig soziale Beziehungen mit, objektiviert in seiner sportlichen Tätigkeit seine individuellen Eigenschaften und nimmt so auf andere Sportler Einfluss. Letztlich gestaltet er dadurch auch Entwicklungsprozesse der gesamten Gesellschaft mit.

Die Nutzung der gesellschaftlichen Erfahrungen für seine Persönlichkeitsentwicklung gelingt dem Sportler vor allem dort, wo er sich die Anforderungen und Normen des sozialistischen Sportes einschliesslich der ihnen entsprechenden sozialen Verhaltensweisen nicht nur aneignet, sondern wo er selbst aktiv und bewusst an ihrer Gestaltung und ständigen Weiter- und Höherentwicklung mitwirkt. Die Aneignung der gesellschaftlichen Anforderungen, Normen und Verhaltensweisen sowie ihre aktive Mitgestaltung durch die Sporttreibenden darf dabei auch nicht auf den Bereich von Körperkultur und Sport sowie die sportliche Tätigkeit beschränkt bleiben. Die im Bereich Körperkultur und Sport entstandenen sportlichen Betätigungsformen, allgemeine und sportartspezifische Tätigkeiten, sind von der Gesellschaft hervorgebrachte Erscheinungen bzw. Prozesse, die den zur Entfaltung des Reichtums der menschlichen Wesenskräfte notwendigen Reichtum der Tätigkeiten erweitert. Ihre gesellschaftliche Funktion muss gerade darin gesehen werden, dass die sportlichen Tätigkeiten die für die individuelle und gesellschaftliche Reproduktion wichtigen Tätigkeiten, allen voran die Arbeit, ergänzen und bereichern.

Sportliche Tätigkeiten der unterschiedlichsten Form, von einfachen, allgemeinen Körperübungen bis zum Training und Wettkampf im Hochleistungssport, können also in der sozialistischen Gesellschaft als Bedingungen für die sozialistische Persönlichkeitsentwicklung wirken, wenn das sportliche Üben und Trainieren sowie die Teilnahme an sportlichen Wettkämpfen zielstrebig und bewusst mit der Erziehung der Sporttreibenden verbunden wird.

Das Verhältnis des einzelnen und das Verhältnis der Gesellschaft zu Körperkultur und Sport ist in der sozialistischen Gesellschaft nicht mehr nur ein Ausdruck subjektiver Wertschätzung, sondern objektives Erfordernis zugleich. Dabei ist objektives Erfordernis nicht als gesellschaftlicher Zwang zu verstehen, sondern als Begreifen des gesellschaftlich Notwendigen und individuell Erwünschten. Auf diesen Zusammenhang weist uns MARX hin, wenn er schreibt: "Der r e i c h e Mensch ist zugleich der einer Totalität der menschlichen Lebensäusserung o e d ü r f t i g e Mensch. Der Mensch, in dem seine eigene Verwirklichung als i n n e r e Notwendigkeit, als N o t existiert." (2)

Die Vielgestaltigkeit bzw. Vielfältigkeit der Formen gesellschaftlicher Tätigkeiten, in die die sportlichen eingeschlossen sind, darf allerdings nicht so verstanden werden, dass sie nur notwendig sind, damit sich der Mensch weltanschaulich-ideologische, moralische, materielle, geistig-kulturelle, körperlich-sportliche u.a. Werte in unterschiedlichen Tätigkeiten aneignen kann. Die allseitig entwickelte sozialistische Persönlichkeit entsteht nicht dadurch, dass sich das Individuum in möglichst vielen gesellschaftlichen Tätigkeiten aktiv mit den dabei gestellten unterschiedlichen Anforderungen auseinandersetzt und auf diese Weise seine sozialistische Qualität erwirbt.

Eine solche Denkweise würde z.B. dazu führen, anzunehmen, dass die in der sportlichen Tätigkeit erworbenen physischen Eigenschaften sowie die in den sportlichen Leistungen zum Ausdruck gebrachten Fähigkeiten und psychisch-moralischen Eigenschaften dann lediglich durch die in geistig-kulturellen Tätigkeiten oder in der gesellschaftlich-politischen Tätigkeit erworbenen ethischen, intellektuellen, ästhetischen, politisch-ideologischen Einstellungen und Verhaltensweisen komplettiert werden. Der sozialistische Typ der Persönlichkeit wäre dann das Produkt einer Summe von gesellschaftlichen Tätigkeiten und der dabei erworbenen unterschiedlichen Eigenschaften, Überzeugungen, Fähigkeiten und Verhaltensweisen.

In dieser Beziehung ist jedes Vielerlei falsch, und es gilt für jedes Individuum, über eine vielseitige Allgemeinbildung hinaus eine Sache richtig zu tun und diesen einen Tätigkeitsbereich sehr überlegt mit zu fordernden Tätigkeiten in anderen Tätigkeitsbereichen abzustimmen.

Dieses Herangehen an die Lösung der Probleme der Persönlichkeitsentwicklung berücksichtigt, dass jedes Individuum bestimmte Tätigkeiten vorrangig ausübt und vor allem in diesen dominierenden Tätigkeiten, die je einen wesentlichen Teil seines persönlichen Lebens ausmachen, seine harmonische und allseitige Entwicklung sowie seine soziale Qualität erwirbt. Diese Auffassung wird z.B. täglich in der Praxis der Produktion, Kultur, Wissenschaft, Politik und im Leistungssport erhärtet. Ihren theoretischen Ausdruck finden diese Erkenntnisse in der Darstellung der grundlegenden Determinanten der Persönlichkeitsentwicklung, wie sie in der marxistisch-leninistischen Persönlichkeitstheorie ausgearbeitet wurden.

Die wesentlichen Merkmale einer allseitig entwickelten sozialistischen Persönlichkeit kann jedes Individuum und damit auch jeder Sportler durch das Erfassen und Bewältigen der vielseitigen Verflechtung seiner dominierenden Tätigkeit mit den gesamtgesellschaftlichen Anforderungen erwerben.

Die Bedeutung der sportlichen Tätigkeit für die sozialistische Persönlichkeitsentwicklung muss deshalb in erster Linie darin gesehen werden, dass die sporttreibenden Menschen durch ihre sportliche Tätigkeit sowohl ihre Gesundheit stärken , Freude und Erholung finden sowie ihre Leistungsfähigkeit steigern und sich physisch vervollkommnen als auch durch die dazu notwendige bewusste Nutzung und Gestaltung sozialer Beziehungen moralische, politisch-ideologische, intellektuelle und geistig-kulturelle Eigenschaften einer sozialistischen Persönlichkeit ausbilden und festigen.

Die Entwicklung sozialistischer Persönlichkeiten in der sportlichen Tätigkeit erfordert von den Übungsleitern, Trainern, Sportlehrern und Funktionären, dass sie die Sporttreibenden nicht nur als Objekt ihrer Einwirkungen ansehen, sondern vor allem als selbständig handelnde Subjekte anerkennen, die ihre Eigenschaften und Funktionen zur Aneignung und Veränderung aller wesentlichen Werte des Sportes einsetzen und auch ihre natürlichen Anlagen sowie ihr gesamtes sozialistisches Verhalten immer bewusster selbst mit ausformen helfen. Unter dieser Sicht gilt auch für den Bereich Körperkultur und Sport, dass die Entwicklung der Persönlichkeiten immer ein bewusst geleiteter Prozess der Erziehung und Selbsterziehung ist. Eine einseitige Akzentuierung des einen oder anderen Aspektes über längere Zeit, auch bereits bei sehr jungen Sportlern, muss notwendig zu Fehlentwicklungen führen (3). Auch eine einseitige Beachtung z.B. der biologischen Eigenschaften des Sportlers beim Üben und Trainieren schränken die Unterstützung der allseitigen Entwicklung sozialistischer Persönlichkeiten durch Körperkultur und Sport ein, weil die gesellschaftlichen Antriebe, die Motive und Einstellungen, die Überzeugungen und positiven Gefühle der Hingabe an die von der Gesellschaft gestellten und persönlich gewollten bzw. anerkannten Ziele fehlen. Diese aber werden zu entscheidenden Voraussetzungen für individuelle und damit auch gesellschaftliche Leistungen bzw. Höchstleistungen, die sozialistische Persönlichkeiten vollbringen können. Das gilt auch für den Sport. In der sozialistischen Gesellschaft, also auch im sozialistichen Sport, wird dieser Prozess immer bewusster organisiert und gestaltet und vom einzelnen dadurch erfasst und begriffen. Die Entwicklung der sozialistischen Persönlichkeit des sporttreibenden Individuums vollzieht sich also auch in der auf vielfältige Weise mit anderen gesellschaftlichen Tätigkeiten verflochteren sportlichen Tätigkeit, die ihrem Wesen nach gleichfalls gesellschaftliche Tätigkeit ist. Sie vollzieht sich als kollektive Tätigkeit mit den Mitgliedern des Sportkollektivs und in vielfältiger Abhängigkeit von ihnen. Als kollektive Tätigkeit ist sie auch auf soziale Gruppen und Klassen bezogen, spiegelt deren Ideen und Anschauungen wider und nimmt selbst Einfluss auf sie. Dabei bilden die sozialistischen Ziele, Normen und Verhaltensweisen, die in dieser Tätigkeit realisiert werden und auf die sie selbst bezogen ist, nicht nur den "Rahmen" für ihren Ablauf, sondern ihr Wesen.

So wie jeder Mensch verhält sich auch der sozialistische Sportler nicht gleichgültig gegenüber den Bedingungen seines sozialen Lebens. Er gestaltet sie immer bewusster mit und entfaltet auf diese Weise gesellschaftliche Wirksamkeit. In seiner sportlichen Tätigkeit bringt er die angeeigneten sozialistischen Anschauungen, Normen und Verhaltensweisen in individueller Form zum Ausdruck. Der sozialistische Sportler ordnet sich z.B. nicht nur in die gegebenen sozialen Beziehungen in seinem Sportlerkollektiv, seinem Club, dem Sportverband oder der gesamten sozialistischen Sportorganisation ein. Er gestaltet sie selbst mit und versucht, die gegebenen entsprechend seinen eigenen Überzeugungen und Erfahrungen zu verändern, sie mit der Befriedigung seiner Bedürfnisse in Übereinstimmung zu bringen.

In der unter sozialistischen Bedingungen ausgeübten sportlichen Tätigkeit lernt der Sportler, gesellschaftliche Beziehungen zu gestalten und die Vorzüge des real existierenden Sozialismus für seine individuelle Bedürfnisbefriedigung in Übereinstimmung mit den gesellschaftlichen Interessen zu nutzen.

Literaturangaben

1. Marx/Engels: Werke, Band 3, Dietz Verlag, Berlin 1968, S.463

2. Marx/Engels: Werke, Ergänzungsband, Teil I. Dietz Verlag, Berlin 1968, S.544

3. Eine zeitweilige Akzentuierung bestimmter Forderungen im Training wird damit nicht in Frage gestellt.

ПСИХОЛОГИЧЕСКАЯ ПОДГОТОВКА СПОРТСМЕНА В СИСТЕМЕ ПОДГОТОВКИ БУДУЩЕГО ТРЕНЕРА

ЛАЛАЯН, А.А., Ереван, СССР

В системе подготовки будущего тренера кроме общей психологии и психологии спорта важна также в качестве учебной дисциплины психологическая подготовка спортсмена. Последняя вооружает будущих тренеров специальными знаниями и навыками для проведения психологической подготовки на столь же высоком уровне, как физическая, техническая и тактическая подготовка. Мы предлагаем следующую программу этой учебной дисциплины:

1. Основы психологической подготовки. Общее понятие о психологической подготовке. Психологическая подготовка спортсмена как важная и неотъемлемая часть подготовки спортсмена, обусловленная спецификой современного спорта. Краткий исторический очерк ее развития.

Цель психологической подготовки, ее основные задачи. Виды психологической подготовки. Различные точки зрения на сущность психологической подготовки спортсмена. Основные факторы психологической подготовки. Этапы процесса психологической подготовки. Связь психологической подготовки с другими видами подготовки спортсмена. Значение психологической подготовки.

2. Общая психологическая подготовка спортсмена. Основные задачи общей психологической подготовки. Психологическая характеристика спортсмена: общие сведения о спортсмене; уровень общей и специальной спортивной подготовленности; особенности направленности личности спортсмена; основные черты характера спортсмена; темперамент и основные свойства нервной системы; динамика развития психологических функций - двигательная активность; ощущения и восприятия; особенности внимания; эмоциональные реакции; основные трудности, испытываемые данным спортсменом во время тренировок и соревнований. Воспитание и развитие личности спортсмена; совершенствование психологических функций; развитие волевых качеств спортсмена в процессе общей психологической подготовки; средства и методы их воспитания, развития и совершенствования. Обучение приемам регулирования психологическими состояниями. Методика проведения общей психологической подготовки спортсмена.

3. Психологическая подготовка спортсмена к конкретному соревнованию. Основные задачи системы психологической подготовки спортсмена к конкретному соревнованию, методика их осуществления. Динамика состояния психической готовности спортсмена к соревнованию.

Рекомендация для формирования готовности спортсмена. Основные методы и приемы психопрофилактики (аутогенная тренировка, ПРТ и т.д.).

Методика психологической подготовки спортсмена к конкретному соревнованию.

4. Особенности психологической подготовки в различных видах спорта. Особенности психологической подготовки по классификации видов: единоборства, игры, циклические и ациклические виды. Командные и некомандные виды. Особенности групповой психологической подготовки. Специфические особенности видов спорта, как исходная позиция организации психологической подготовки спортсмена в различных видах спорта.

В лекциях преподаватель должен стремиться преподнести программный материал одновременно с методикой его применения на практике. Лабораторные занятия должны дать студенту навыки самостоятельного проведения психологических исследований и аутогенной тренировки.

Наш опыт преподавания предмета показывает, что дальнейший успех курса значительно зависит от первой темы, которая должна вызвать интерес студентов к предмету, дать возможность правильно понять значение предмета.

В процессе преподавания спецкурса надо обратить внимание на два аспекта его прикладного значения. Первый - знания и навыки для будущей тренерской деятельности. Студент должен убедиться, что курс психологической подготовки дает знания и навыки, необходимые в тренерской деятельности. На это следует обратить особое внимание, начиная с первой лекции, и в дальнейшем во время теоретических и лабораторных занятий.

Второй аспект - знания и навыки, которые нужны студенту в данный период, когда он является действующим спортсменом. Надо путем индивидуальных заданий, консультаций помочь спортсмену применить знания и навыки по психологической подготовке и его спортивной практике.

По некоторым видам спорта существуют книги и брошюры по психологической подготовке. Спортсменам, специализирующимся в данных видах, можно поручить разработку соответствующих источников.

Особую роль должны играть лабораторные занятия.

Студенты в основном с большим интересом относятся к данному курсу. Здесь срабатывает не только "эффект новизны", но и сознание его полезности для дальнейшей тренерской деятельности.

THE INVESTIGATION OF SPORTSMEN'S PERSONALITY BY CATTELL 16 PF TEST

/A contribution to the evaluation problem/

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Although the sports psychology has established itself by attaining the professional and scientific affirmation as well as by the practical application spectrum, it is still trying to solve the basic problems typical of each young scientific sub--discipline - from the terminological and methodological specifities to more precise differentiation of an expert and schoolar approach to definite problems.

The studying of sportsmen's personality has attracted the attention of experts from the very beginning of sports psychology. At the current state of sports achievements, the connection between sports activity - the achievements of top sports performances - and sportsmen's personality structure has been regarded as a very actual subject for discussion. Some of the questions have been always asked /by coaches and psychologists/, but more often put at a recent time, as for example: whether there are

typical features of sportsmen's personality; which of these distinctions are of the greatest importance for the achievement of top sports results, and which features are the favourable prerequisites for a successful work with the sportsmen, specially in the course of a selection.

There may be found some contradictions in the theory and the results of the research works referring to the question whether there exists some kind of a "model" or a type of a sportsman's personality, and to what extent it is consisted of special and specific features determining eventually his succes. The results of numerous studies have shown that an identification of a general personality "model" of a successful athlete is rather doubtful. However, the possibility of specific features existence and the possibility of their identification have been recognized. The available theoretical explanations and research results have partially proved the connection between efficiency in sports and personality structure. This problem was studied by a number of authors /Ogilvie, Vaněk, Svoboda, Neumann, Stránský, etc./, but the results happened to be different many times. It is possible that a lot of disagreements in the results may be attributed to a different approach to the problem, different methodological procedures and samples on which the investigations have been carried out, different instruments used, etc. It is unconformity that may be regarded as a reason that numerous studies have not been able to prove an existence of important differences between athletes' and non-athletes' populations.

Some researches have tried to find an answer to a question whether there are differences in personality traits of sportsmen in various sports events /Kroll and Grenshay, 1968 ; Singer 1969 etc/. The results of these researches also do not offer an opportunity of a generalization because of the same reasons already given.

The further investigations of these problems, with an improved and uniform methodology should answer the question to what extent the participation and engagement in sports may have an effect on a change of personality structure or on forming of this structure, and to what extent a definite personality structure is important for making a decision to go in for competetive sports, specially the high performance sports. The statements that the personality structure is decisive for both the sports participation and selection of certain sports event are correct, as well as the opinions that sports may influence decidedly on forming of a special and definite structure. The opposite attitudes are correct with regard to diametrically different theoretical approaches, in the course of which the mutuality of their effects is to some extent or completely excluded.

The first opinion starts from the dynamically oriented principle that there is no casualness in selection and decision for a certain activity, and it gives priority to the structure - "core". There is no wonder then, that some authors claim or state that the athletes are "insufficiently integrated persons", and that sport is only an aspect of their compensation. This opinion certainly deserves a comment to be made on, because it sets aside sports from other activities unjustifiably. We all know that every socially positive and successful activity contribute to the integration, and it offers an opportunity to suitable developing of numerous defense mechanism, specially the ones of rationalization and sublimation.

The second opinion conceives the personality structure as a dynamical structure of certain personality traits. So the opinion that sport "may change a structure" also is correct, because it is not necessary to prove that different sports emphasize some character traits more than the other ones. The importance of a genetic factor has been studied in order to prove not only the empirical but the statistical

significance, too /Geppa, 1974/. However, the relationship GENOTYP - FENOTYP has been insufficiently analyzed. Longitudinal researches have an advantage in relation to a transversal section obtained in the course of an experiment. Such a study was carried out by Werner and Gotheill in 1966 , and it used the Cattell 16 PF inventory.

The Subject Aim of Research

We have tried to prove in our research whether there is an important difference in the psychic profile, namely in the personality traits of Yugoslav top athletes in comparison with a group of non-athletes; and if the difference is proved, we have wanted to find out in what personality traits it is manifested. Our purpose also has been to get a deductive answer about the degree of importance and connection between the individual personality traits of sportsmen and their sports achievements, i.e. whether there may be assumed a possibility of defining the personality traits which determine the success in sport. We have been interested in this problem not only because of the disagreements in the researches carried out up till now, but also because such a research has been done in Yugoslavia for the first time[x/].

Parallel with studying a connection between the personality traits of athletes and non-athletes, we have tried to establish /on a sample of athletes/ whether there are significant distinctions in profiles and in personality features of sportsmen competing in various sports events. Practical experiences in the work with the athletes and the theoretical discussions have allowed us to start from an assumption that the different sports events set different psychological tasks to athletes competing in them. On the basis of an estimation, there are some psychologies of sports activities in dependance on psychological requirements. However, the difficulties regarding a proper classification of sports, according to these requirements are well-known because there still does not exist a systematic and scientifically verified psychological analysis of sports. The existance of a good categorization with the psychologically explicative criteria would facilitate an examination of personality traits of sportsmen and help to construct the new measuring instruments designed for individual sports events.

The Method and Sample

The instrument, used in this research, has been the Cattell's 16 PF inventory, the form A from 1962 , prepared for the Yugoslav population by I. Ignjatović and his collaborators. This test has been widely applied for examining of athletes throughout the world. It is preferred to other diagnostical techniques as the most suitable method for examining the "normal" population, enabling more precise evaluation and prognosis. Although by means of clinical tests battery it is possible to find more profound, casual explanations in many important fields of the sports psychology, they are not economical and suitable for statistical data processing and general application. At the same time they require from an investigator to invest more labour and emotion, because he is expected to correct the strong anxiety effect which may be understood by athletes, at least intuitively, as an exploration of

x/ This study is a segment from the project entitled "Motivation for Going in for Sports".

deeper personality strata. Studying of the personality by this test limits a generalization of data, because the conclusions may refer only to those features and behaviour patterns measured by this test. We are aware that the broad generalizations may be completed after using the battery which would comprise other aspects and strata of personality, relevant to sports achievement.

Sample - The research has been carried out on a sample of 1oo top athletes and 1oo non-athletes. For the criteria of classifying the top athletes we have used the Yugoslav official categorization of athletes based on the results achieved on the European and world championships and the Olympic Games. These athletes have the titles of "meritorious athletes" and the titles of "international class athletes ". These titles are obtained for the placing from the 1st to 4th place at the mentioned competitions. The group of non-athletes have included the students and the secondary school pupils of the last grade, being never engaged in the competetive sport.

The research according to the sports branches has been carried out on the sample of 114 top athletes /under the same conditions as mentioned above/ in 1o sporting events, 6 of which have belonged to the individual sports /wrestling, boxing, judo, shooting, swimming, track and field/ with total N = 56 testees, while the sample of team sports has comprised 58 athletes from handball, waterpolo, basketball and volleyball. The criterium for such a division of sports into individuel and team sports is obvious only at the first glance. The team sports are the sports in which the athletes are striving to achieve an aim by means of a common action of all the team members. The individual sports are the sports in which the athletes have to achieve an aim without any direct help from the others. Although we are aware of the differences existing in sports within each of the two groups, we have wanted to study and compare the profiles and personality traits of these two groups of sportsmen, believing that the classification criterium is natural and complex enough to be determinant for some of sportsmen's personality traits.

The Results and Discussions

The comparisons of the Yugoslav top athletes and the non-athletes have confirmed certain conclusions of the researches carried out in other countries. It is also our conclusion that it is difficult to talk about a special "model" or a type of sportsmen's personality, but it is possible to speak about the individual personality traits which differ statistically quite a lot in the two groups of testees. By calculating the significance of the difference by the method of Student's "T-test", there have been obtained statistically significant differences in 6 from 16 personality factors, i.e. C, G, H, L, Q_2 and Q_3.

Table 1

F	t	F	t
A	o.114	L	2.737$^{x/}$
B	1.937	M	o.274
C	3.194$^{x/}$	N	o.864
E	o.742	O	o.175
F	o.489	Q_1	o.o58
G	3.915$^{x/}$	Q_2	4.821$^{x/}$
H	2.197$^{x/}$	Q_3	3.834$^{x/}$
I	o.645	Q_4	1.3oo

The top athletes obtain higher values in the factor C - Ego strength / the significance level o.oo5/, which proves that they are emotionally more stable and consistent persons, able to solve their emotional problems more easily etc. Taking into consideration that such results regarding this factor show the firmly negative correlation with the neurosis, one may concluded that the athletes are emotionally more stable persons than the non-athletes. The statistically significant difference - at the level of o,ool has been determined on the factor G - Super Ego strength proving that the athletes possess a strong feeling of duty, consciousness, persistency and reliability of character. There is also in the factor Q_3 a significant difference between these two groups at the level o.ool, so that the athletes demonstrate a higher degree of an integration of their "Selves" and of Self-control. The athletes have proved to be more courageous /factor H/, with much less internal tension and higher trust /factor L/, but with a greater dependance of an environment of the group in which they are, than the non-athletes.

The empirical and theoretical assumptions as well as the obtained results prove that these personality traits are relevant for the athletic achievements because they highly correlate with the top sports achievements. If we analyse the authentic personality traits, in accordance with R. Cattell's explanations, as well as the results obtained in the course of this investigation, we shall be able to support one of basic questions: to what extent sports exert an influence upon forming of definite personality traits, and to what extent the athletes are entering sports because they have such characteristics. If we know that the factors H /courage - cowardice/ and the factor L /doubt, tension - trust, absence of tension/ are conditioned by the constitutional factors according to Cattell's hypothesis, and the factor Q_2 correlates with the introversion and extroversion factor, and it may be a consequence of early family influences or a result of hereditary character; if we know that the emotional stability also is subjected to these influences and morality of Super Ego and other aspect of Super Ego i.e. the factor Q_3, which also belongs to the integrative personality factors, is determined by a growth and early influence in childhood - we may then adopt the assumption that only people with the definite disposition qualities may achieve the top results. Those characteristics of personality structure enable them to bear the psycho-physical loads required by some competition situation. The engagement in sport itself contributes to a further developing and strengthening of personality structure.

The investigations of personality characteristics of athletes competing in individual or team sports has given the results which show that these two groups of sportsmen differ significantly in following factors: B,C, G, M, L, O.

Table 2

F	t	F	t
A	1.o9o	L	2.738x
B	2.3o6x	M	2.625x
C	2.117x	N	1.758
E	o.356	O	2.o78x
F	o.349	Q_1	o.oo
G	2.o94x	Q_2	1.121
H	1.o25	Q_3	1.795
I	1.836	Q_4	1.118

x/ Statistically significant difference at the level o.o5 and over.

The significance of the difference in the intelligence factor can be easily explained by the fact that the sample structure of these two groups essentially differs in a level of education. In the group of team sports, the level of education is higher on the average. We all know that the education level has a high positive correlation with the intelligence. The Ego power also differs in the athletes of these groups. This personality distrincition has a great effect upon the athletic achievements at the big competitions, because an athlete will be successful in a stressed competition situation only if he is able to maintain an adequate level of emotional stability and selfcontrol. The sportsmen competing in the team sports have a greater Ego power. It is difficult to explain these differences, but it is supposed that the individuals feel more safe in a group, they are seldom exposed to frustrations at the competitions as an individuals, because of a common sharing of responsibility, they have more opportunities to realize the truth, etc.

The result obtained in the factor of a Super Ego power /G/ is rather surprising. The athletes competing in the team sports show a greater power of Super Ego, and it is in contradiction to the hypothesis and opinion that the athletes in individual sports are more persistent and conscientious, more responsible and reliable persons, because they are usually forced to work and train on their own. They are not under a permanent control of a coach, and an implementation of their training program as well as an eventual success depend almost entirely on them /cycling, track and field/. Their training sessions are rather monotonous, and ask for a lot of patience and consciousness in order to enable them to reach the final goal and achieve good results. All these facts are less present in team sports, and Super Ego of these athletes has been expected to be less apparent than in the participants of individual sports. The research results, however, have refused our hypothesis.

The investigation has proved the supposition that the sportsmen going in for individual sports are more self-contained, more doubtful and jealous, and they have achieved much higher results in the factor L than the athletes engaged in team sports. According to Cattell, they use the projection mechanism to a greater extent, getting rid of mental strain in this way.

The important difference has been also established in the factor M. The team sports athletes, as compared with the individual sports participants, are more conventional and practical persons, demonstrating "a constant readiness to communicate with the others" /Cattell/, while "a subjectivity of strong inner life" /Cattell/ may be attributed to individual sports.

The athletes in individual and team sports are clearly distinguished in the factor O. The individual sports athletes show a greater tendency toward a feeling of guilt, worry and anxiety, while the athletes participating in team sports are more adaptable, selfconfident and calm.

The significant differences in the factors L, M, O which may be described, according to Cattell, as more constitutional /L, M/ or dispositional ones, i.e. of dynamic character /O/, may support the theory that certain personality characteristics motivate the athletes to go in for a definite sports branch.

Conclusion

On the basis of the results obtained in this research, there may be drawn some conclusions, but with a certain dose of caution:

- It is difficult to talk about a special model of sportsmen's personality, but we may talk with a certainty about the important differences in some personality traits of athletes in relation to the ones of non-athletes, specially with regard to those characteristics determining a success in sports.

- There is also a difference ascertained in individual personality traits of the athletes going in for team sports and the athletes engaged in individual sports.
- We have come to a conclusion in the course of the research and after completing the research, which is connected with an application of the tests of inventory type. No inventory comprises all the personality strata. This conclusion also refers to Cattell 16 PF inventory, so that a validity of every research, carried out only by these techniques, is reduced.

In order to get more confident and predicative results, it is necessary to complete them by the data of other psychological tests which enter the deeper strata of sportsmen's personality, describing their unconscious dynamism and motives which reflect in a visible behaviour as well as in preferring a definite type of sports activities.

Bibliography

1. CATTELL R. : Dimensional Representation of Person in THE SCIENTIFIC ANALYSIS OF PERSONALITY, Aldine Publishing Com., Chicago, 1966.
2. CATTELL R. : Some Psychological Correlates of Physical Fitness and Physique, Exercise & Fitness p. 138-151, 1960, USA.
3. CATTELL R. : Manual for form A and B Sixteen Personality Factor Questionnaire, Published by IPT, Illionis, USA.
4. CRATTY B.R. : Personality and sport, III Section in PSYCHOLOGY IN CONTEMPORARY SPORT, Prentice-Hall Inc., New Jersey. 1973.
5. KROLL W. : Sixteen Personality Factor Profiles of Collegiate Wrestlers, Research Quarterly, 1967, 49-56 p, USA.
6. PARANOSIĆ V. LAZAREVIĆ Lj. : Psihodinamika sportske grupe, NIP Partizan, 1975, Beograd.
7. SINGER N.R. : Personality Factors and Athlete, Chapter three, and Personality Factors and the Athlete, Chapter four in COACHING, ATHLETIC AND PSYCHOLOGY, McGrew Hill, New York, 1972.
8. VANĚK, HOŠEK, SVOBODA : Studie osobnosti ve sportu, Univerzita Karlova, Praha 1974.
9. POPOVIĆ V.B. : Izvorne crte po Rejmondu Katelu, autorizovana skripta, Beograd 1973.

EFFECT OF PUCK SIZE ON FIRST YEAR NOVICE HOCKEY PLAYERS LEARNING TO SKATE AND STICKHANDLE

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Hockey skills are, in scientific terms, known as "perceptual-motor" skills: "perceptual" because the player must respond to game situations which are never constant and seldom repeated: "motor" because the physical responses the player makes to this always-changing environment are produced by the motor system, or more commonly known as muscles. As a perceptual motor skill, hockey requires the brain to combine the nerve impulses from the eyes (visual system), from the ears

(balance), and from the muscles, joints and tendons (kinesthetic system), so that they will cooperate in producing a coordinated body movement to achieve some desired goal - such as skating. The process through which the brain becomes more proficient in putting together the information received through the sensory systems (visual, balance, kinesthetic) to produce these coordinate muscular movements is called learning.

To complicate matters, while performing a hockey skill, the brain is continuously receiving new information from the visual, balance and kinesthetic systems which must be processed so corrections in the ongoing movements may be made. The information that a hockey player receives is called feedback. If the amount of information or the rate of receiving information from this feedback is too great for the brain to handle, the result is uncoordinated movement for the beginning hockey player or "errors" for the more experienced player.

The more things we require the young player to do: i.e., skate, stickhandle, play position, keep his head up, stay onside, shoot, pass, etc., etc., etc., the worse the situation becomes for the boy, since, not for physical or physiological reasons, but rather for psychological reasons (ability to process information), he is incapable of performing so many new tasks at the same time.

In the early stages of learning, when the brain has problems of processing the feedback from the kinesthetic, balance and visual systems, there is a tendency to commit errors or, in the case of motor skills, to fire the neurons leading to the muscles too soon or too late, to fire these neurons at the wrong time, and to contract the muscles so that either too much or too little force is applied to the hockey stick.

By changing the size of the puck, there is a change in the amount of resistance between the puck and the ice. Consequently, the larger the puck, the greater the resistance. There is, of course, a limit to how large the puck can be and still be manageable by the hockey player.

There are, however, advantages to a large puck. First, when pushed by the boy with his stick, the large puck will not move as fast or as far as the same "push" on a small puck. Because of these two advantages, and because young boys cannot process information as fast as adults, there is more time (the puck is moving more slowly) to process information through the visual, balance and kinesthetic systems, and issue corrective muscular responses. Also, the muscles responses to the movement of the puck do not have to be as precise with the large puck as with the small puck. In essence, the large puck permits more muscular response errors in a stickhandling performance. Even with these errors the player still has puck control. Thus, when the boy's attention is focused on skating, more error is tolerated in stickhandling without losing control of the puck. The condition would be reversed with a small puck.

Effectively, the larger the puck (within reason), the less are the attentional demands of stickhandling. This should allow the player to commit larger stickhandling errors and still be relatively successful in the two skills he is performing, while he is switching his attention between the skills of skating and stickhandling and while he is attending to skating.

The purpose of the project therefore was to investigate the effect of puck size on first year novice hockey players learning the basic hockey skills of skating and stickhandling. To this end, the Riverside Minor Hockey Association[x/] cooperated

x/ The investigator wishes to extend his sincere thanks to the executive, managers, coaches, parents and players for their complete cooperation in this project.

by committing the services and time of the Novice Division coordinator, team managers and coaches, and the hockey players of four first-year novice teams.
The four teams were randomly selected to practice with either the large puck, small puck or regular puck for the entire hockey season (September 25 to April 3). One team practised with the large puck, one team with the small puck and two teams with the regular puck. Each stick handle was cut to the height of the boy's chin when standing in skates.
There were sixteen players on each team at initial testing but after the players were matched for speed of skating to better guarantee homogeneity in skill level, the original sample size was decreased.
This novice league did not have scheduled games since it was an instructional program. However, there were scrimmages following several instructional periods and when this occurred, the coaches agreed to play half the game with each other's puck size. In case of two regular puck teams playing they used the regular puck for the entire scrimmage.
There were four different conditions through which each player skated on each test-day. These conditions were:

1. skate as fast as possible through the pylon course with two hands on the stick and the stick on the ice.
2. skate as fast as possible through the pylon course with two hands on the stick and the stick on the ice while identifying and shouting out the coloured circles which were displayed on a screen located ten feet beyond the finish line.
3. skate as fast as possible through the pylon course while stickhandling the appropriate sized puck.
4. skate as fast as possible through the pylon course while stickhandling the the appropriate puck and identifying and shouting out the colours which were displayed on the screen located beyond the finish line.

While skating through the pylon course measures were taken of the:

1. skating time to the nearest 1/100 second (electronically timed).
2. number of colours identified.
3. number of errors made in the colour identification task where an error included missing a colour or an incorrect colour identification.
4. number of skating and stickhandling errors where an error was defined as: falling; hitting the pylon with the skate, puck or stick; not skating between two pylons (missing a pylon); or losing control of the puck which included the boy having to leave the "normal" skating course to retrieve the puck or getting the puck tangled up in his feet.

During each test-day each boy skated three times for each of the four conditions through the straight pylon course fifty feet in length with five pylons spaced ten feet apart. His three trials were averaged and used as the measure of his performance for that particular test-day.
The experimental design was a 3 x 5 analysis of variance with repeated measures on the practice variable.

Results and discusion

Amount of Improvement in Skating Times

First, regardless of the condition there is not a great deal of improvement in skating times after nineteen weeks (hours) of instruction and practice. This is surprising since these boys had no formal instruction prior to the year this project was undertaken and improvement in perceptual-motor skills is very rapid in the initial stages of learning.

Second, increasing the attention demands (going from skating only to skating plus colour identification, to skating plus colour identification plus stickhandling) did not have any systematic effect across puck size. The percent improvement remained constant for the Small Puck Group whereas the percent improvement for the Large Puck Group increased as the attention demands increased up to a point, but the most attention demanding condition did not result in the largest skating time improvement. Only the Regular Puck Group followed the expected trend of improvement. The interpretation of the Regular Puck Group data is that as skating skill improves, the allocation attention to skating decreased allowing more attention to be allocated to other tasks such as colour identification and/or stickhandling. The effect is cumulative so that the greatest improvement occurs when the hockey player had to perform three tasks simultaneously, that is skate, colour identification and stickhandle.

The failure of the players to show this consistent improvement in skating times is good evidence that the skating task required their full attention and they could afford very little for other tasks.

Third, in compering puck size, the large puck is superior in all but one condition: skate only - small puck.

It should be pointed out that while the percent of improvement generally increased as attention demands increased, the actual time taken to skate the pylon course does not. In fact, just the opposite occurs --- the fastest times occur when the boy is required only to skate and the times become progressively slower as he is required to perform additional tasks.

There were no differences between the groups throughout the entire instructional program.

There were differences among the three groups, but an analysis of covariance failed to find significant differences for either the puck size ($F(2,72) > .05$) or the practice effect ($F(4,72) > .05$).

The large puck had less of an effect on skating time than did either the regular or small pucks. This difference however, was not statistically significant. ($F(2,72) > .05$) with the exception of the last day of testing where the puck by trial interaction was significant ($F(8,72) < .05$).

We followed also the effect of stickhandling and identifying colours on speed of skating, but there was no difference in the effect of puck size, although there was a practice effect, $F(4,72) < .05$)

This means that as the boys learned the basic hockey skills, additional demands on their information processor had less of an effect. To illustrate this point, it

took the boys an average of 26 seconds longer to skate through the pylon course while stickhandling and identifying colours than to only skate through the course at the beginning of the hockey season, whereas at the end of the season the time was decreased to only 10 seconds.

Error Scores

We also made a comparison of the mean number of skating and stickhandling errors while skating and stickhandling as well as with the additional demands of colour identification over the entire five days of testing.

There were fewer errors per unit of time in both conditions while stickhandling the large puck than the regular or small pucks. This finding confirms the original rationale for the advantage of the large puck: larger miscues of responses are possible without losing control of the puck because the larger puck moves slower and consequently the boys have more time to process the sensory feedback and issue corrective command to the muscles. The relative advantage of the larger puck appears lost when the number of identification errors are analyzed.

The observed differences among the three puck sizes are not statistically different for the skating and identification of colours condition. There is no difference between the small and large puck groups, but both are different from the regular puck group in the skating, stickhandling and identification of colours condition.

The fact that the three groups were not different in the number of identification errors per second, while skating, yet were different when required to stickhandle, suggests that the attentional demands changed with the size of the puck: the regular puck requiring more attention than either the small or large puck.

As with most field research, maintaining control of possible confounding variables is always a problem and consequently, the generalization from the data is necessarily tenuous. The major limitation of this project was the small sample size in each of the conditions. It is believed that a larger number of subjects in the experimental conditions would yield more definite trends in the variables studied. For example, while the large puck condition yielded more learning, in three of the four conditions, more subjects would probably have resulted in more consistent trends. This is also true for the number of identification of colour errors.

One other possibility that may explain the inconsistency of the data is that the subjects, by design, were in every sense of the word "beginners ". Consequently, the attention requirements of skating are so demanding that any additional task (i.e. stickhandling and/or colour identification) would be so distracting that puck size is of no consequence at this stage of learning hockey skills. However, within the limitations of this project the following conclusions are warranted:

1/ The larger the puck the greater the amount learned in speed of skating while a/ stickhandling and b/ stickhandling while identifying colours.

2/ The larger the puck the fewer the number of skating and stickhandling errors for both a/ stickhandling and b/ stickhandling while identifying colours.

The data in general supports the use of a large puck for boys in the initial stages of learning the basic hockey skills of skating and stickhandling.

THE OUTWARD BOUND METHOD AND THE DEVELOPMENT OF MATURITY AND PERSISTENCE IN ADOLESCENTS

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Introduction:

Researchers have valorized the relationship between bodily and psychological development of the child. For example, Freud (1961) considered the affective development of personality as mainly determined by distinctive processes, related respectively to the oral, anal and phallic body zones. The research of Piaget (1971) revealed the importance of body movement in the assimilation and accommodation processes of intellectual functioning. However, systematic somato-psychological research on adolescents is generally lacking except for programs on experimental learning. Recently, the "Outward Bound" method has worked out an experimental learning system, based on an action program to improve psychological processes.

History and Method of Outward Bound:

The expression "Outward Bound" stands for the instant a ship lifts anchor and commits itself for the rigors of the open sea. Historically, the Outward Bound method was a program for merchant seamen to survive ship sinkings. Today, it has proven to be a major force for human development and provides a powerful supplement to traditional forms of education.
The Outward Bound method is founded on the assumption that persons have more resources than they believe and that the discovery and strengthening of these resources are favored through a renewed contact with body awareness, group life and the forces of nature. On a first stage the method is based on learning by doing. The activities include adventure (e.g. rock climbing, whitewater canoeing, forestry) and group actions (e.g. team projects and rescue operations). Each activity is programmed to arouse well defined mental and social experiences. On a second stage these are expressed and related to self development.

Hypothesis Formation:

The relationship between the Outward Bound method and Maturity. The basic components of maturity are openess and flexibility (Gardner, 1964). Openess or a freshness of perception can keep alive the gift of originality in an awareness of even the most commonplace events. The Outward Bound method emphasizes the perception of new things in oneself, the other and nature. Throughout the course, the participant is asked to make use of "Erlebniss techniques" in order to become aware of inner feelings, experiences and behavior. He continually has to decide and to reveal his sensations.
Flexibility requires an empathy for and awareness of the other's feeling and the use of appropriate interaction and leadership styles. The Outward Bound course increases the participant's awareness of his own and the other's feeling throughout intense interpersonal contacts. Interaction and leadership styles appear during the exchange of ideas, the collaboration of physical effort while working on group projects.
A literature overview showed a study of Fletcher (1970), investigating the effect of

Outward Bound on 3.000 English students. He found a strong increase with regard to an extended and more profound perception of the inner and outer world after the course. Hawkes et al. (1969) found that teachers after an Outward Bound course revealed an increased awareness for students' reactions and a renewal of teaching methods.

Based on the Outward Bound method and the literature overview about maturity, the following hypothesis might be stated:

"Outward Bound participants more than control persons will show a greater maturity in the after than before measures".

The relationship between the Outward Bound method and Persistence . Persistence, conceived as an achievement motivation tendency, is likely to be favored by the challenging and unstructured tasks of the Outward Bound course.

Challenging tasks require a constant attention towards the demands of the situation and an actualisation of one's capabilities together with the courage to cope with the fears, evoked by the situations. The challenging activities such as rock climbing evoke dilemma's within the participant between his resources and his aspirations, between what he is and what he can be. Throughout this educational process low achievement motivated persons often experience to be able to do more than they thought to do. They may learn that most of their limits are self-imposed. The unstructured tasks do not prescribe the way to solve the problem, they do not provide structure nor confidence. The only confidence has to reside within the participant, who has to search for resources in order to cope with his fear of the unknown. In facing up to the unknown, the dangers and hardships of the mountains, wilderness and sea, the Outward Bound participant gains a greater sense of self-reliance, a more profounded feeling of inner strength. Each phase of the program stimulates the high achievement motivated person to reach out for a goal, to experience events that reveal the edge of his temper, the quality of resistance. He might become more unwilling to settle for less. A literature overview showed that the study of Clifford and Clifford (1967) obtained increased feelings of self-worth, competence due to a one month Outward Bound course. Naches and Roberts (1967) found that Outward Bound participants took more initiative. Related findings deal with the increase in self-confidence and risk taking (Mulder, 1968; Hendrickx, 1968).

Based on the Outward Bound method and the literature about achievement motivation, the following hypothesis might be stated:

"Outward Bound participants more than control persons, scoring low on the before achievement motivation measure, will increase their scores in the after measure".

"Outward Bound participants more than control persons, scoring high on the before achievement motivation measure, will increase their scores in the after measure".

Method :

Procedure. The subjects were twenty eight students of the Department of Physical Education of the Katholieke Universiteit te Leuven. They were selected on the basis of their extreme scores on one or more tests of the administered personality battery. The subjects were randomly assigned to either the experimental (i.e. Outward Bound) or the control group. The Outward Bound course took place during the academic year and lasted two weeks. During this period, the control group attended their classes at the university. The Outward Bound instructors were unknown to the research involved and gave a standard course.

Dependent measures.

The dependent measures dealing with maturity consisted of the students' and observers' evaluation of the teaching behavior of both Outward Bound and control participants. The teaching tests took place the week before and the week after the Outward Bound event. Neither the students nor the observers were acquainted with the experimental design. The two tests occurred in a stressful situation. After each test both the students involved and the observers answered a series of questions dealing with the teacher's behavior.

The achievement motivation was assessed by means of a questionnaire test, based on Mehrabian's (1968) research. The test was found to be sufficient reliable (r = .87) and valid. The Outward Bound and control persons answered the test before and after the course period.

Results :

Statistically significant differences in the behavior between Outward Bound and control teachers were obtained for the patterns: an interesting course ($p<.01$), helpfullness ($p<.05$), an agreable teaching style ($p<.01$), readiness to listen ($p<.05$) and self-assurance ($p<.07$) with a better score for the Outward Bound teachers. The observers' reactions differed significantly for the items creativity and efficient behavior, both at the .05 level, with higher scores on the part of the Outward Bound teachers. All nonsignificant behavioral patterns showed a stronger increase for the Outward Bound than control persons. Hence, the hypothesis, stating that the Outward Bound course would favor maturity, is amply upheld.

Regarding the relationship between Outward Bound and achievement motivation, the difference between the scores of low Outward Bound and control achievers was significant ($p<.005$) with a stronger increase for the Outward Bound persons. The difference between the scores of high Outward Bound and control achievers was almost significant ($p<.07$) with an increase for the experimental group. Hence, the hypothesis, stating that the Outward Bound course would favor achievement motivation, received relatively strong support.

Discussion :

The discussion highlights the relevance of the Outward Bound method as an educational experience for youngsters and as a supplement to the traditional school system. More than ever before, youth seems to be a difficult population to deal with. Recent research (Lefebvre, 1976) found that a basic cause relates to a series of misperceptions adults have about the desires and affective problems of youngsters. Outward Bound attempts to cope with the affective world of youth. Being a "people thing" the method places a strong emphasis on how to live and on how to interact with others. The data on maturity, outlined in the present paper , give support to the relevance of the method for the affective domain.

Traditionally, the school system has provided the student with information instead of showing ways to search for and to manage information. The Outward Bound method as a form of experimental learning uses a different way of teaching. The method emphasizes self-teaching, the exploration and actualization of inner resources. This self-teaching basically occurs via the "Erlebniss techniques", which refer to an awareness and explication of bodily sensations and their relationship with the environment (i.e. people and nature). There is also a new attitude towards achieving. Information is searched for and managed on its intrinsic value, not for something measured in degrees, points or money. Among other things, this leads to an increase in the tendency to achieve, a value becoming more and more uncommon in several student populations.

AN ANALYSIS OF THE EFFECT OF DIRECT PARTICIPATION IN PHYSICAL ACTIVITY ON SUBJECT AGGRESSIVENESS

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Introduction

Review of Related Literature

A variety of studies utilizing a variety of measurement techniques have investigated the relationship between participant aggressiveness and direct participation in physical activity.

Husman (1955) obtained the responses to a series of projective tests from groups of college bowers, wrestlers, cross-country runners, and non-athletes. This study indicated that the bowers were less aggressive than the other groups. However, they also appeared to feel more anxious or guilty after a contest than did the controls, even though their aggression was socially sanctioned. Stone (1950) has also found indications of guilt or anxiety following a socially sanctioned athletic contest. A Thematic Apperception Test was administered to football players both during and after the athletic season. Their responses were then compared to those of a matched control group. While there was no difference between the groups during the season, the football players displayed significantly less aggression after the season than did their control counterparts. However, this aggressiveness was impersonally rather than personally oriented. Stone thus hypothesized that the lessened, impersonal aggression was due to anxiety because of the necessity of inhibiting overt aggression after the season.

Berkowitz (1962:205), in discussing the effect of competitive sports on aggression, points out the fact that "the Husman-Stone studies involved aggressiveness rather than an immediate frustration-elicited hostility, and aggressive sports probably do not eliminate aggressive habits".

Volkamer (1971), in conducting research on aggression in 1,986 soccer matches, found that aggression was significantly related to: a) the site of the game; b) the margin of victory or defeat; c) the league standings of the teams. He went on to conclude that the occurrence of aggressive acts in the soccer matches resulted primarily from frustrations resulting from the competition. He also concluded that his data was incompatible with the cathartic view on sports participation. Lefebvre and Passer (1974) analysed 240 soccer matches in the Belgian National Soccer League. The results of this study support Volkamer's (1971) finding in regard to increased aggression on the part of the visiting team. The findings also yielded general support that increased aggression results in losing teams, as well as teams in the most important division.

Wankel (1973), analysing the 1971-72 OUAA hockey games, provides contradictory results to the preceding two studies. Game site, outcome, and score differential were not significantly related to increased aggression.

Finally, utilizing the formal laboratory setting, both Ryan (1970), and Leith (1977) report increased aggressiveness as a result of participation in various forms of physical activity.

All in all, the findings to date regarding the relationship between aggression and physical activity are at best ambiguous. More controlled studies, in the laboratory setting are needed to help clear up the issue of aggression in sport.

Purpose

The major purpose of the present study was to investigate the effect of direct participation in different types of physical activity upon inter-participant aggressiveness. A secondary purpose of the investigation was to ascertain the effect of these activities upon inter-participant likeability.

Methodology

Experimental Design

The present study employed a 3x2x2 factorial design. The three levels of the first factor pertained to the physical activity strategy (inter-participant co-operative, inter-participant competitive, or inter-participant competitive-aggressive). The two levels of the second factor pertained to activity outcome (win or lose). The two levels of the third factor included angered and non-angered arousal conditions. All three factors were randomly assigned between subjects.

Ten different high school boys were randomly assigned to each of the twelve treatment groups and exposed to their respective experimental manipulations. Subject aggression scores in both the pretest and post test conditions were obtained by use of the Aggression Machine and the Buss-Durkee Questionnaire. As an additional measure, subject-accomplice likeability was ascertained in the post experiment setting.

Difference scores from the pretest to the post test conditions were subjected to analyses of variance, and orthogonal contrasts (when applicable) to determine which treatment sums were significantly different.

The Subjects

A sample of one hundred and twenty boys was obtained from a local high school. Grades nine, ten, eleven, and twelve were included in the present study. Only boys were utilized in this experiment in an attempt to eliminate any intervening differences resulting from the testing of both sexes.

Results and Conclusions

An analysis of variance and application of orthogonal contrasts performed on treatment sums revealed that task strategy and task outcome significantly affected the amount of elicited aggressiveness in the participants. Participant likeability was significantly affected by task strategy and subject arousal.

On the basis of statistical analysis, and within the limitations of the study, the following conclusions appear warranted:

1. Inter-participant competitive and competitive-aggressive physical activities resulted in significantly more aggressiveness than did the inter-participant co-operative physical activity. The latter condition actually resulted in a decrease in aggressiveness.
2. Losing outcomes resulted in significantly more elicited aggressiveness than did winning outcomes.
3. Angered and non-angered arousal conditions did not differ significantly in terms of elicited aggressiveness.
4. Inter-participant co-operative physical activities resulted in significantly greater participant likeability than did inter-participant competitive and competitive-aggressive strategies.

5. Winning and losing outcomes did not differ significantly in terms of participant likeability.

The present study was an attempt to provide a more comprehensive, empirically based understanding of the relationship between physical activity and aggression.

Implications

When the results of the present study are taken in conjunction with the fact that the participant's exposure to physical activity lasted only five minutes, serious implications arise. If five minutes of participation in physical activity had these significant effects upon the participants, what could be said about the effect of whole games and seasons? Research is obviously needed in an attempt to discover methods of curbing this aggression-inducing effect of physical activities.

In conclusion, the present study suggests some reason for optimism. Results indicated that direct participation in a co-operative physical activity actually resulted in decreased inter-participant aggressiveness as well as increased inter-participant likeability.

The whole realm of co-operative sports bekons...

References

Berkowitz, L. Aggression: A Social Psychological Analysis. New York: McGraw-Hill, 1962.

Husman, B. "Aggression in Boxers and Wrestlers as Measured by Projective Techniques". Research Quarterly, 1955, 26, 421-425.

Lefebvre, L., and Passer, M. "The Effects of Game Location and Importance on Aggression in Team Sport". International Journal of Sport Psychology, 1974, 5, 102-110.

Leith, L. "An Experimental Analysis of the Effect of Direct and Vicarious Participation in Physical Activity on Subject Aggressiveness". Unpublished Ph.D. Dissertation, University of Alberta, 1977.

Ryan, E. "The Cathartic Effect of Vigorous Motor Activity on Aggressive Behavior". Research Quarterly, 1970, 41, 543-554.

Stone, A. "The Effect of Sanctioned Overt Aggression on Total Instigation to Aggressive Responses". Honours Thesis, Harvard University, 1950.

Volkamer, N. "Investigation into the Aggressiveness in Competitive Social Systems". Sportswissenschaft, 1972, 1, 33-64.

Wankel, L. "An Examination of Illegal Aggression in Intercollegiate Hockey". In I.D. Williams and L.M. Wankel (Eds.), Proceedings of the Fourth Canadian Psycho-Motor Learning and Sport Psychology Symposium, Ottawa: Dept. of Nat. Health and Welfare, 1973, 531-544.

PHYSICAL ACTIVITY AND THE MENTAL DEVELOPMENT OF MAN

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Physical activity, motion in the form of accomplishing man´s needs, including escape from dangerous situations has played and still plays an important role in the life of an individual and of the society. This becomes evident considering the relations among physical activity, human work, movements of speech organs in the production of speech signs and objective activity as such. Materialized outcomes of man´s work represent the material economical, technical, and cultural basis of the development of society.

From the psychological point of view it has been proved that man´s intelligence and - along with the development of the reflection of reality - man´s consciousness developed contingent upon the development of acts and structures of activity of increasing complexity. A qualitatively novel stage of development in this sphere was reached when society became aware of the importance of physical activity and begun to pursue and cultivate it as a certain objective and need in the form of sport, dance etc. This important change took place at the beginning of the historical era of mankind - since then physical training, work of the hand and culture of the body as a whole form an important part of the life of any developing society. It is characteristic that culture of the body is given great care the world over. An important role is played by psychology, which contributes to the understanding of both the importance of physical activity and motion and its basic mechanisms . In this paper we shall illustrate on the basis of an analysis of principle developmental relationships the importance of body culture in the integrative mental development of man.

1. Development of irritability, reflection and of motion

Neural and motor function in animals, which is the basis of human mind and consciousness, developed in the course of evolution of animals out of irritability as a general property of living matter. Irritability consists in the ability to react to certain stimuli by temporary contraction on the basis of change of electric potential /see Fig. 1/.

Irritability carried from the very beginnings of development of organisms important selective value from the point of view of natural selection, i.e. survival of organisms. In the very nature of irritability, there are, from the beginning, combined the two basic properties that represent a precondition of its further development: They are, in the first place, sensibility towards external influences, which serves as a basis to the development of sensory activity; secondly it is the ability to move /motility/, which developed further in the form of behaviour and objective activity by means of the muscular system /see Fig. 1/.

Formation of a specialized structure for perception of stimuli, /i.e. ever more refined sense organs/, and that of a special motor structure /serving to initiate and control movements/, made necessary the existence of neural connections between the two. This is the basis of regulation of animal behaviour as well as man´s activity, and of the coordination of movements into a whole.

Three principle systems and at the same time preconditions were thus laid in the development of organisms to further development of neural and mental functions and regulation of differently complex kinds of movement. They were: a/ sensory system serving as a basis to the reflection of reality, perception and reception of information; b/ neural system fulfilling the regulative and analytical-synthetical

function consisting, mainly, in formation of conditioned reflexes, associations, differentiation, generalization, assimilation and integration; c/ motor system providing for actional reflection and production of responses and behaviour to registered impacts from the environment and representing the basis of further development of motor acts as well as of objective activity as a whole.
The simplest form of functional connection between the sensory reflection /percept/ and the motor response is represented by an innate unconditioned reflex, on the basis of which instincts developed. Qualitatively novel level of behaviour is represented by conditioned reflexes forming the neurophysiological basis of learning and objective activity. Their main virtue lies in the prompt adjustment to ever changing life conditions and environment. They form a basis for learning of new experience and new motor skills with the help of different kinds and different learning mechanisms.
To a qualitatively new, social level, in the form of psycho-social level of mass movement, these processes developed in connection with the appearence of social work, social consciousness and man. New conditions of social life led to the refinment of the previously developed sensori-motor functions so that man's activity and work could develop - this led not only to the qualitative changes of motor organs /esp. the development of the hand/, but also to the appearence of human intelligence and human consciousnese. These latter ones form an important mental component of any sport activity. Man's personality, whose traits and abilities, such as e.g. will, persistence, etc., have a key role in any sport achievement, also appeared.
This brief developmental interpretation enables us to understand correctly the particular components of activity structure including sporting activities, as studied in our research in the course of the last ten years.

2. Structural analysis of man's activity and its mental regulation.

In the inception of the mind and mental regulation of body movements an important role is played by the integration of the following three basic constituents of reflection /see Fig. 2/; a/ first of all, reflection of changes in the situational conditions /e.g. in ice-hockey, perception of a sudden attack by the opponent /; J.N. Sokolov /1958/ termed this reflection "a neural model of stimulus";
b/ further it is the reflection of changes in the desired object, eventually in the goal of activity, satisfying the needs and wishes of the subject or group of persons /we include here also the anticipation of movements in imagination/;
c/ thirdly, it is a reflection of the course of objective activity and its results in the form of feedback afferentation and information from the effector organs /e.g. proprioception and decision making in the defence against an attack by the opponent , evaluation of results of activity etc./. On the basis of our research of the mental reflection of reality, man's activity, and learning, we put forward a functional system clarifying the main functional relationships taking place here. Fig. 3 shows a model diagram, where integratory processes, motivation, and regulation as well as evaluation of the process of activity and its results are underlined. A model of this system, which is the resultsof modification of an older model /J. Linhart, 1965/, includes besides perceptual inputs /S/ and outputs central integration processes /CI/.
Through an afferent synthesis of the stimuli inputs /S/ and motivational impulses /M/ a set and a more or less anticipatory plan of activity develops in the control centers orienting particular operations as well as the behaviour as a whole to the

set goal. Integration processes and plan of activity comprise criteria for a comparison between the course and results of an activity and the plan. Feedback serves two functions: first, it bears on the level of arousal and the state of motivation e.g. in the sense that success causes an increase of the level of aspiration /we can term it activating eventually desactivating feedback/ secondly, it serves as a regulator of the direction of activity - these correspont to pzi a mzi in our schematic /see Fig. 3/ /they represent regulatory or directive feedback/. In the analysis of the effect of feedbacks shown in Fig. 3 it is necessary to take account of their relation to the task, the plan and motivation, their informational content, their concreteness and specificity, their latency /i.e. promptness of an information about the results of activity/, their short-term and permanent effectivity, etc. Timely activating and directive feedback brings about an increase in the sport performance. Feedback, which is at the beginning developmental stages an unconscious mechanism, bears on human performance as a rule through his consciousness. A detailed analysis of this influence is presented in numerous studies /J.Nuttin, A.G.Greenwald, 1968, J.Linhart, 1967, and others/.

At this level, the control function of the mind differentiated itself in connection with an intensive development of signal-sign and language processes into three basic components: a/ cognitive regulation, adjusting sport performance to given circumstances; b/ motivation regulation, influencing intensity and direction of movements and acts in accordance with the dominant set; c/ volitive regulation, which is of special importance in complex and conflicting sport situations.

The mind and its regulatory functions got always more refined in connection with the development of motion. The higher motility and more active effect on the environment, especially at the level of man's activity and social way of life, the more refined must be not only orientation in the environment, but also mental regulation of activity /A.N. Leontiev, 1966, Galperin, 1976, Linhart, 1976/.

A qualitatively new level, is represented by the onset of human objective activity and social division of work, which introduced a necessity of still more complex communication among people; this brought about a further increase in the ability to designate by specific signs /i.e. by speach/ individual objects as well as whole classes of phenomena. New active forms of reflection of reality appeared, characterised by anticipation, forcasting and counter-activity /Fig. 4/.

The developmental and systems approach described above should be applied also in the interpretation of the learning processes and their use in physical training. It concerns especially the theory of motor learning dealing with specific features of physical training and work activity. The most recent ones build on systems approach. For instance it is the "three stage theory of sensori-motor learning" by Cratty /1966/. The first level is represented by need of achievement, motivation, aspiration, the second one includes specific motor abilities, the third one consists in specific acts depending on the nature of sport activity. Most of research in motor learning is, however, limited to the study of particular mechanisms /RT studies, etc./ and they do not connect their findings with man's activity as a whole and his socially conditioned personality. In this sense it seems necessary to enlarge Cratty's concept of levels so that motor learning represents only one aspect of the system of different kinds and levels of learning that we suggested /Linhart, Novák, 1975/. It concerns nine principle kinds of learning occurring already in subhuman animals, which developed under the influence of different ecological and ontogenic conditions from a common conditional-reflexive mechanism. They are /see Fig. 5/: simple conditioning, extinction, habituation, imprinting, instrumental learning, latent learning,

immitation, discriminatory and differentiative learning, and, ninth, exploratory learning. A specific role is played, as mentioned above, by motor learning, which is a function of the complex effector and proprioceptive system controlled by neural and mental system of man.

A radical qualitative change in the historical development of learning came about with the onset of human society, social activity, and social consciousness. Learning is here determined socially, thinking and activity of an individual is backed by social experience, adopted actively by the subject by means of an objectively existing system of signs - speech. Man's learning and activity surmount /negate/ their narrowly individual nature and become socialized. Thus, four qualitatively new kinds of human learning have evolved /see Fig. 5/; verbal learning, commemorative learning, cogitative learning and social learning.

The brief description of the four above mentioned main kinds of human learning demonstrates the qualitative novelty of this level, which occurred through an integration of previous developmental stages on the basis of entirely new social conditions. Higher, specifically human kinds of learning subordinate lower, evolutionary older kinds in accordance with the law of qualitative development. All this shows the specific role played by higher mental functions and consciousness in all man's activities including physical training and sport activities. Learning in such complex approach is one of the main subjects not only of theoretical psychology, but also of psychology applied to physical activity, be it active sport or free-time physical excercise of youth and adults.

Conclusion

In the course of phylogenetic and historical social development of man close and multidimensional bonds between physical activity and mind as a whole as well as its particular functions have arisen. These relationships expressed in our functional system of objective activity develop in ontogeny in learning processes at first on a sensori-motor basis and then in connection with the developing personality of children, youth and adults.

Our developmental and systems analysis stressed the methodological condition, which is inherent to the dialectic materialistic approach, that regardless whether the subject of our study in the psychology of sport and physical training is a partial phenomenon or subsystem it is always necessary to bring it into the entire systems relationships, including the interdisciplinary aspect. In this way we are already at present able to overcome the mechanistic rigidness of the former approach to the psychology of sport. As an example let's take the interpretation of physical activity itself: it is first an objective psychosomatic phenomenon, at the same time it is not only an objective of physical training but also its ultimate means of harmonious development of human personality.

We have shown that physical activity bears positive influence on all mental functions. It follows that it is necessary to ensure necessary conditions for systematic physical training to become - in its connection to polytechnic education - one of the principle components of the new educational system from pre-school age to old age.

From the nature of ontogenetical development it follows that each developmental stage of man leads to formation and selection of preferential relationships from the point of view of corresponding developmental needs. Therefore the choice of physical activities must be very wide in order to satisfy various needs of men in accordance with the different life variables.

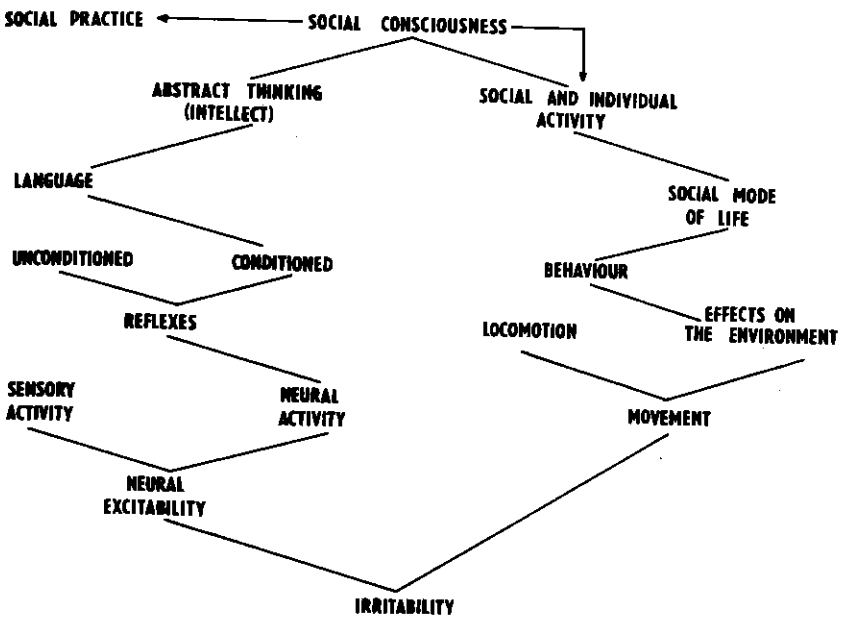


Fig. 1 : Schematic of the development of higher nervous activity and mental functions.

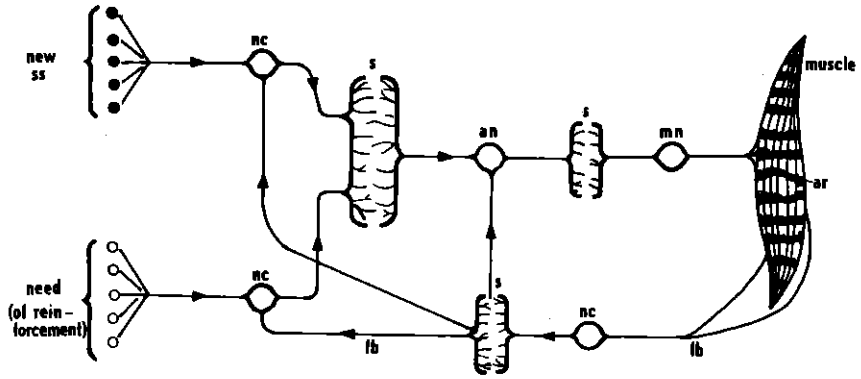
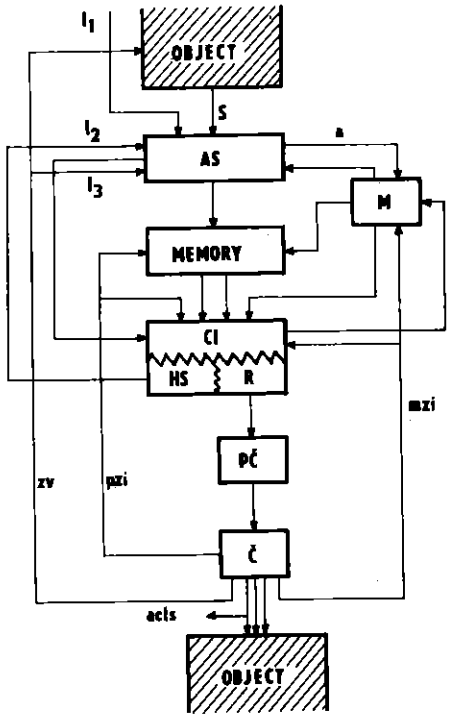


Fig. 2 : Interaction and integration of reflections within the activity unit.

A schematic representation of the role of orientation in functional system of activity

nc - neural cell
an - association neuron
mn - motoneuron
s - synapse
fb - feedback
ar - actional reflection



-g. 3 : Functional system of behavioral activity and learning with its main components.

AS - afferent synthesis
S - situational stimulation
I_1 - task situation
I_2 - evaluational situation
I_3 - information about objective activity
M - motivation factors
a - situational activation
CI - central integration
HS - evaluative system
R - regulation and decision making
PČ - plan and program of activity
Č - activity of the effector organ
mzi- motivation feed-back
zv - feed-back between the individual and the working instrument (partial coincidence with I_3)
pzi- continuous feed-back

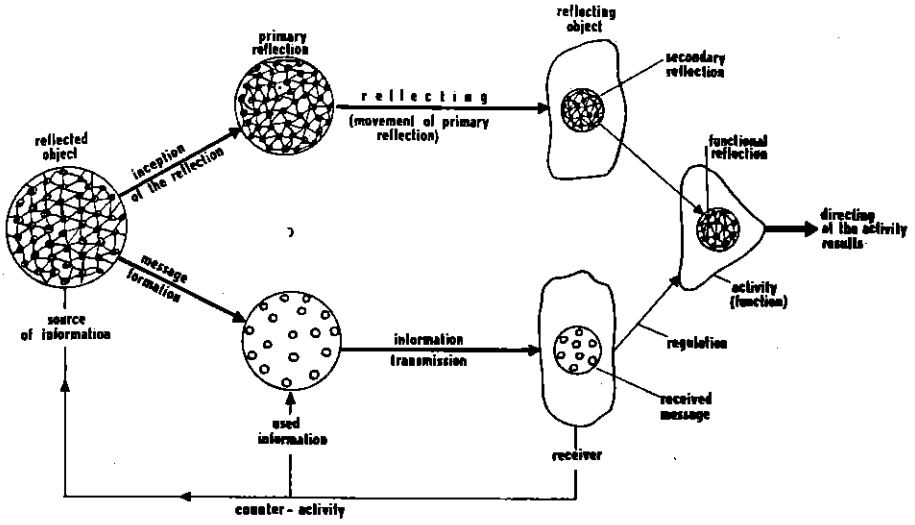


Fig. 4 : Functional reflection and information processing.

Reflection is a phenomenon common to all matter, independent on man; it reflects properties of objects in natural relationships. Information is a property of objects being discernable and usable by the receiver. Message is the same information artificially simplified for a given purpose as well as for conditions of transmittion.

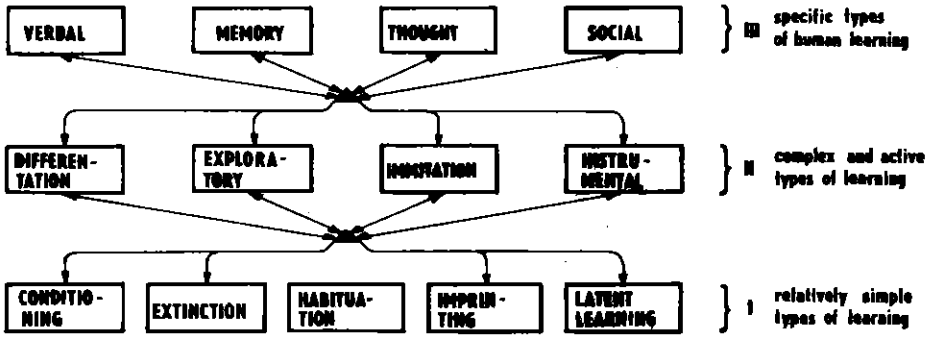


Fig. 5 : Hierarchical model of levels and kinds of learning.

PERFIL PSICOLOGICO DEL NADADOR SURAMERICANO

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Introducción

La competencia es un comportamiento dirigido a un fin, que tiene por objeto conquistar una meta y a veces comparar la marca propia con patrones establecidos o con otras marcas de individuos o grupos; por lo tanto la competencia indica lucha y el deporte es una actividad psico-física encaminada a la consecusión de un rendimiento basada en esa idea de lucha, entonces el deporte se puede considerar como una actividad natural y específica del hombre por medio de la cual logra satisfacer entre otros rasgos de la personalidad, su agresividad civilizadamente, incluso transformarla en una relación interpersonal positiva.

La selección de los componentes de equipos deportivos y el desarrollo de su aptitud física y estabilidad psicológica se ha vuelto por consiguiente, decisivos. Es una necesidad estudiar los factores psicológicos que afectan los resultados deportivos, el esfuerzo es primordial, estabilidad emocional, destreza y control de movimientos, manejo adecuado de la afectividad, ansiedad y agresividad se pueden considerar entre los factores positivos. En cambio el miedo, timidez, la tensión, complejos de inferioridad, la mala tolerancia o la frustración, son algunos de los factores negativos que influyen el resultado de un competidor.

Estableciendo una estabilidad en el aspecto psicológico se podrá reducir al mínimo estos factores perjudiciales.

El estudio presentado a continuación intentó describir las características de personalidad y el nivel intelectual de un grupo de 65 nadadores participantes en el Campeonato Suramericano de Natación efectuado en la Ciudad de Medellin en el mes de mayo del año 1974 y atletas venezolanos de alta competencia.

Se aplicaron individualmente cuatro pruebas de personalidad y una de inteligencia cuyos resultados pueden tomarse como un índice significativo de acuerdo a su validez y confiabilidad. Es un estudio descriptivo donde las técnicas de análisis utilizadas en la investigación mostrarán la frecuencia de los rasgos de personalidad y el nivel intelectual que presentan los atletas estudiados.

No. 1 Perfil psicológico del nadador suramericano
No.2 Perfil psicológico del atleta venezolano

Metodología:

Muestra No.1: Representada por 65 atletas participantes en el campeonato suramericano de natación efectuado en Medellin, Colombia, año 1974. Distribuída de la siguiente manera:

BRASIL.....4
PERU.....5
ECUADOR.....6
CHILE.....8
ARGENTINA.....10
COLOMBIA.....11
VENZUELA.....21

Muestra No.2: Integrada por atletas venezolanos de 18 deportes divididos de la siguiente manera:

Deportes individuales: Natación - Atletismo - Tenis - Tiro - Ecuestres - Pesas - Ciclismo - Gimnasia - SKY - acuático

Deportes de conjunto: Volibol - Basketball - Futbol - Beisbol - Softball
Deportes de combate : Boxeo - Esgrima - Lucha - Judo
A estos atletas se les aplicaron un total de 1645 pruebas distribuidas así:
agresividad: 338 atletas
neuroticismo
extroversión — 433
introversión
ansiedad 424
inteligencia 450

Instrumentos utilizados:

Muestra No. 1 se aplicó una batería de pruebas integradas de la siguiente manera:
E.P.I. /EYSENK FORMA B/ mide extroversión - introversión - neuroticismo.
Escala de ansiedad de WILLIUGHBY mide ansiedad
P.F.T. de ROSENZWEIG mide agresividad
M.P. de Raven mide Inteligencia
Test de Wartegg mide 8 campos de la personalidad afectividad - campo del yo - conflicto - nivel de aspiración - inteligencia - area sexual - relaciones interpersonales - angustia.
Muestra No.2. Se utilizó la misma batería de test menos el test de Wartegg.

Procedimiento:

Se aplicaron las pruebas individualmente en la ciudad de Medellin - Colombia durante la celebración del campeonato Suramericano y en el departamento de psicología de la dirección médica del instituto nacional de deportes de Caracas - Venezuela. A atletas nadadores en la muestra No.1 y en la No.2 atletas que han participado en juegos nacionales del 1975 - juegos olímpicos panamericanos - próximos juegos bolivianos y diversas competencias por deporte a nivel nacional e internacional.

Técnicas de análisis:

Por ser un trabajo descriptivo se emplearon las siguientes técnicas:
Análisis de frecuencias, análisis porcentual y cuadros explicativos de acuerdo a las frecuencias por sujeto en que se presentaron las características que arrojaron las pruebas aplicadas.

Análisis de los resultados

Muestra No.1

De acuerdo a los resultados de las pruebas de inteligencia se puede observar que en general hay un buen nivel intelectual siendo más significativo en Venezuela, Colombia, Argentina y Perú; es de notar que los integrantes de la muestra de Venezuela y Perú son los que trabajan a nivel más abstracto. De acuerdo a los resultados del Eysenck se puede observar que en los nadadores de Perú, Argentina, Venezuela y Colombia, la presencia del factor neuroticismo /N/ es significativo, sólo dieciocho nadadores del total presentan tendencia a la estabilidad, es decir se encuentran situados en la media de la escala. En cuanto a extroversión - introversión treinta y cinco /35/ nadadores se encuentran en la media, veintidos /22/ hacia el polo de extroversión y cuatro /4/ hacia el polo de introversión, por lo que podemos concluir que los integrantes de la muestra se mantienen en la media, siendo más extrovertidos que introvertidos. Es de notar que los nadadores de Venezuela, del total, más del 75% se encuentra en la media de la escala en relación a los otros países. En relación a la ansiedad, como lo indican los resultados, Argentina, Chile, Venezuela y Brasil respondieron más ansiosamente que el resto de los demás países, Colombia, Ecuador y Perú poseen un mejor manejo de la ansiedad.

El PFT nos indica que los nadadores en general presentan marcada agresividad extrapinitiva /E/ manifiesta o reprimida pero está presente siendo más significativa en Venezuela, Argentina, Colombia, en el resultado del Wartegg se puede observar los mismos resultados.

Se puede asimismo observar un alto número de respuestas ego-defensivas /ED/ y una baja persistencia de la necesidad /NP/; esto indica fuerte agresividad hacia los demás, debilidad del yo y falta de capacidad para resolver los problemas que presentan las situaciones de frustración.

Es de notar que además todos los nadadores a excepción de los de Chile presentan una alta agresividad impunitiva /M/ y un alto predominio del obstáculo /OD/ esto es indicador de que evitan la agresión considerando la situación sin importancia y se dejan dominar por los obstáculos que se le presentan. En cuanto a la agresividad intrapunitiva /1/ Argentina, Brasil, Colombia y Venezuela presentan un N° mayor de sujetos con esta característica lo que indica que la agresión va dirigida hacia ellos mismos, culpándose de las situaciones frustrantes.

En conclusión los resultados de las pruebas que miden agresividad nos indican que en los nadadores integrantes de la muestra existe presente un potencial agresivo bastante significativo en sus relaciones interpersonales.

TABLA No 1 RESULTADOS TEST WARTEGG No DE SUJETOS EN CADA CAMPO

campos / países	1		2		3		4		5		6		7		8	
	A	B	A	NA	A	B	D	R	M	R	A	C	M	I	D	I
PERU	2	2		4	3	I	I	3	I	3	4			4	4	
CHILE	4	3	2	5	3	4	I	6	I	6	2	5	2	5	5	2
BRASIL	2	I	I	2	3		3		3		I	2		3	2	I
ECUADOR	4	3		7	2	5	3	4	2	5	2	5	2	5	7	
COLOMBIA	7	4	6	5	7	4	7	4	8	3	3	8	2	9	9	3
ARGENTINA	6	2	3	5	8	0	4	4	5	3		8	2	6	6	2
VENEZUELA	14	7	5	16	13	8	11	10	12	9	8	13	5	16	15	6

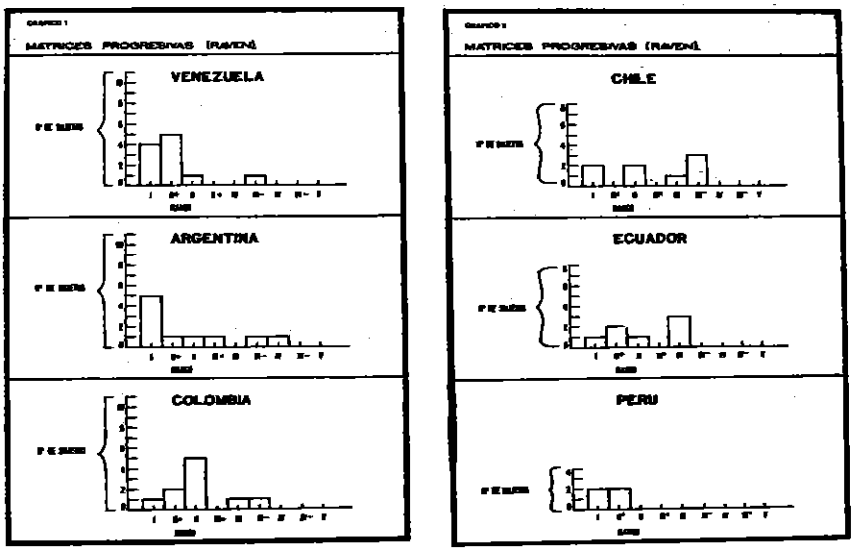
1-confianza en si mismo	alta baja	5-agresividad	manifiesta reprimida
2-afectividad	adecuada no adecuada	6-nivel intelectual	abstracto concreto
3-nivel de aspiracion	alto bajo	7-sexo	madurez inmadurez
4-ansiedad	desplazada reprimida	8-relac interpersonales	dependiente independiente

Resultados del Wartegg /Tabla 1/

El test de Wartegg indica lo siguiente:

En relación al campo 1, confianza en sí mismo, se observa que esta característica es bastante significativa en todos los deportistas que integran la muestra. Afectividad: se observa un maneje no adecuado de la afectividad en todos los nadadores, siendo más significativo en Ecuador, donde en todos hay presente esta característica.

Nivel de aspiración: es bastante alto, siendo más significativo en Argentina; es de notar que Chile y Ecuador entre los integrantes de la muestra hay más sujetos con nivel de aspiración bajo. Ansiedad: los más ansiosos Chile y Venezuela, los otros países hay una marcada represión de la ansiedad. Agresividad: es muy significativa en Colombia, Argentina, Venezuela hay presencia de una agresividad manifiesta, mientras Chile está entre todos como el que sus nadadores reprimen más la agresividad. Nivel intelectual: los resultados indican que el más alto nivel intelectual lo posee Venezuela y hay mayor número de sujetos trabajando a nivel abstracto, el país que a pesar de tener un buen nivel de inteligencia trabaja a nivel concreto es Argentina seguido de Colombia y Chile. Sexo: en este campo se nota gran inmadurez sexual en todos los nadadores, es decir que es significativo en todos los integrantes de la muestra. Relaciones Interpersonales: Según los resultados existe una gran dependencia significativa a todos los integrantes de la muestra.



Análisis de los resultados

INTELIGENCIA Muestra No.2

De 450 atletas estudiados el nivel de inteligencia es el siguiente:

29 en el rango I - muy superior percentil 95

44 en el rango II- superior percentil 90

45 en el rango II- superior percentil 75

85 en el rango III- media percentil 50

86 en el rango IV - inferior a la percentil 25

53 en el rango IV - medio percentil 10

98 en el rango V - deficiente percentil 5

Los deportes individuales presentan un mejor nivel intelectual que los deportes de conjunto y deportes de combate. De 189 atletas estudiados 119 se colocan en los rangos I - II - III y 70 en los rangos IV y V.
Los deportes de conjunto de 175 atletas estudiados 109 se situan en los rangos IV y V y 66 en los rangos I - II y III.
Los deportes de combate de 86 atletas 68 se distribuyen en los rangos IV y V y 18 en los rangos I - II y III.

Conclusión:

El nivel intelectual de los atletas estudiados está situado en la media y por debajo de ella y dependerá del deporte específico siendo en los deportes individuales donde la capacidad intelectual es mejor.

Agresividad:

De 338 atletas estudiados en los 18 deportes se observa una alta agresividad punitiva /M/ y un alto predominio del obstáculo /OD/ esto es indicador de que evitan la agresión y se dejan dominar por los obstáculos que se le presentan.
Se observa una alta agresividad impunitiva /I/ en gimnasia - Volibol - basketball natación - beisbol y softball, esto es indicador de que la agresión va dirigida hacia ellos mismo culpándose de las situaciones frustrantes en relación a las respuestas ego-defensivas indicadoras de fuerte agresividad hacia los demás es significativa en natación - beisbol - volibol - softball.
La agresividad extrapunitiva /E/ manifiesta o reprimida es significativa en natación, volibol, judo, atletismo y softball.
La persistencia de la necesidad indicador de falta de capacidad para resolver los problemas que presentan las situaciones de frustración es significativa en natación, esgrima, tenis, volibol.

Conclusión:

Todos los atletas estudiados presentan un alto potencial agresivo en algunos deportes manifiesto y en otros reprimido. En el manejo de sus relaciones interpersonales.

Ansiedad

De la muestra de 424 atletas estudiados sólo 34 indicaron reacciones de ansiedad inadaptativas, el resto presenta indicación de sensibilidad emocional no explicitamente en términos de ansiedad.
Es de hacer notar que de los 34 atletas que presentaron reacciones de ansiedad inadaptativas 11 son boxeadores lo cual puede considerarse significativo tomando en cuenta las características propias de este deporte.

Conclusión:

La ansiedad es manejada adecuadamente dependiendo de la especialidad que se practique, la competencia y las características intrínsecas de cada atleta.

Extroversión - Introversión

La gran mayoría de los 433 atletas estudiados se sitúan en el rango 9-13. Media de la escala. Deportes de conjunto se sitúan en los rangos 9-13 /media/ 16-16 /extrovertidos/. Deportes individuales se sitúan en los rangos 9-13 /media/ 14 /tendencia a la extroversión/ y 15-16 /extrovertidos/. Deportes de combate se sitúan en el rango 9-13 /media/.
De los 433 atletas sólo 47 se sitúan en el polo de introversión.

Conclusión:
Los atletas en su mayoría son extrovertidos y un gran número en la media ni extrovertidos ni introvertidos.

Neuroticismo
El mayor número de atletas se sitúa en los rangos 7-10 - tendencia a la estabilidad y en el rango 11 a 13 - tendencia al neuroticismo.
De 433 atletas 250 están situados hacia el polo de la estabilidad, de estos 250 132 están situados en la media. 183 están ubicados hacia el polo de la inestabilidad, de los cuales sólo 73 se sitúan en el rango 11 al 13, es decir con tendencia al neuroticismo.
Conclusión:
Los atletas estudiados se pueden considerar estables en el área de la personalidad siendo su ubicación hacia el polo de la inestabilidad dependiente del deporte específico y sus características inherentes al mismo.

Recomendación final
Si el equipo de técnicos que trabajan en la preparación de los atletas conoce su capacidad física y su capacidad psíquica, el rendimiento de ellos será mucho mayor en las competencias en las cuales participan y en una competencia que es mucho más importante donde se necesita ser un individuo con una gran estabilidad emocional: "La vida misma", somos formadores de campeones pero estos campeones seguirán siendo siempre "Hombres de una Sociedad".

PSYCHOLOGICKÉ ASPEKTY REKREAČNEJ TELESNEJ VÝCHOVY MLÁDEŽE A DOSPELÝCH

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Rekreačná telesná výchova, športovorekreačná aktivita, šport pre zdravie, šport pre všetkých, masová telesná výchova. Všetky tieto názvy a mnohé ďalšie, alebo rôzne jazykovo a špecificky modifikované majú jeden spoločný menovateľ: Sú súčasťou komplexnej výchovy mládeže a dospelých.

Všade na svete, kde sa zamýšľajú nad zmyslom života, práce, spôsobu života, nevyhnutne musia vziať do týchto úvah aj problematiku telesnej výchovy a športu.

Mojou úlohou v tomto referáte však nie je navodiť problematiku v jej celkovej ideovej, ideologickej či filozofickej rovine. Tieto riešia odborníci, pracujúci špeciálne v danej oblasti.

Taktiež by som nechcel nastoliť systematický prehľad všetkých psychologických aspektov tejto oblasti. Väčšina odborníkov vo svojich prácach sa ich vedome a zákonite pokúša riešiť, aj keď nie sú psychológovia - špecialisti. Psychologická stránka tejto činnosti je totiž integrujúcou zložkou tejto oblasti ľudskej činnosti ako celku.

S psychologickou problematikou sa preto stretávame v špeciálnych prácach, ktorých autori sú : Trocenko, Volodarskij, Žoldak, Sevelius, Heinilä, Dieckert, Clignet, Wohl, Seppänen, Buggel, Florl, Hrčka, Šprynar, Merhautová, Bartoš a ďalší.

Každý z týchto autorov pripisuje k riešenie problémov z vlastných ideových pozícií. Avšak všetci sú zajedno v tom, že rekreačná telesná výchova, alebo športovorekreačná aktivita je v súčasnom spôsobe života jeho nevyhnutnou zložkou vo vzťahu k zdraviu, spôsobu života a využívania voľného času.

Keby som chcel úvodne zhrnúť hlavné psychologické oblasti tejto činnosti, tak možno povedať, že pramenia v týchto rovinách analýzy :

a) Celkové postavenie telesnej výchovy a športu v tom ktorom štáte.
b) Úroveň a objektívna aexistencia telovýchovných a športových zariadení.
c) Úroveň poznania obyvateľstva vo vzťahu k telesnej výchove a športu.
d) Úroveň procesu výchovy k poznaniu tohoto vzťahu.

Psychologické aspekty danej problematiky musíme hľadať teda jednak v objektívnej realite života človeka a jednak v jeho osobnosti. Pritom objektívnu realitu nášho života si nemôžeme modelovať svojvoľne. Ona je výsledkom najvšeobecnejším zákonitostí vývoja našej spoločnosti a človeka. Preto nemožno vytvoriť jednotný systém psychologických javov. V našom politicky - ekonomicky rozdielnom svete vznikajú i rozdielne podmienky, názory, postoje i motívy k tejto činnosti.

Vývoj civilizácie však jednoznačne vyžaduje možnosti mierového spolužitia, hľadania plného života pre všetkých ľudí. Proces vedecko - technickej revolúcie zase vytvára stále viac voľného času a tak sa jedným z hlavných problémov výchovy človeka stáva jeho pripravenosť, schopnosť stráviť voľný čas čo najoptimálnejšie. Je dnes už výskumom i empiricky dokázané, že športovorekreačná aktivita môže byť jednou z optimálnych náplní prežitia voľného času.

I. Celková orientácia a hlavné psychologické problémy

Psychologickú oblasť uvedenej problematiky, pri jej komplexnom hodnotení rešpektujú a tvorive rozvádzajú temer všetci autori. Viacerí ju iste budú podrobne rozvádzať i vo svojich referátoch tu na kongrese.

Najaktuálnejšie otázky sú v rozvoji postojov, motívov, v poznání potrieb, vplyvu na zdravie pre krásu osobnosti. Pritom charakteristiku postojov formujú hlavne objektívne možnosti a stupeň vzdelania a informácií. Základný prameň motívov vyplýva z celkovej úrovne spoločnosti a transformuje ho osobnosť človeka a jeho úroveň.

Najhlavnejšie faktory psychickej pasivity smerom k športovorekreačnej aktivite uvádzajú viacerí autori /Stráňai,Hrčka/ stratu času a pohodlnosť moderného človeka. Viacerí autori pri formování motívov a postojov uvádzajú i tradície náboženské (Seppänen) a vojenské (Wohl).

Avšak čo dnes znieje v celom svete najsilnejšie, je ten komplexný zdroj motívov, že telesná výchova a šport sú dnes javy :

- medzinárodnej komunikácie
- prostriedkom politiky mieru
- pozitívnym činitelom civilizácie
- nových ľudských aktivít
- humanizácie spôsobu života
- relaxácie a upevnenia psychiky človeka
- zlepšenia celkovej úrovne jeho osobnosti

II. Možnosti a zdroje rastu poznania psychologickej významnosti športovorekreačnej aktivity

Viacerí autori výskumných prác v tejto oblasti (Šprynar, Merhautová, Bartoš, Máček, Hrčka, Trocenko, Buggel) skúmali aj psychologické ukazovatele, ich vývoj a zmenu v rôznych podmienkach pracovnej a oddychovej činnosti. Ich závery jednoznačne ukazujú na pozitívny vplyv športovorekreačnej aktivity pre obnovu telesných a duševných síl človeka a na rozvoj jeho osobnosti. Avšak na druhej strane oficiálne štatistiky uvádzajú také čísla rekreačne športujúcich, ktoré nenasvedčujú o masovom používaní tohoto prostriedku prežívania voľného času.

Pravdepodobne najaktuálnejšie činitele tohoto javu sú :

- úroveň poznania významnosti
- vôľová a regulačná kapacita osobnosti človeka
- vhodnosť, množstvo a organizácia objektívnych podmienok pre danú činnosť
- úroveň a kapacita osvetovej činnosti, komunikačných prostriedkov a propagácie
- úroveň a kapacita iných aktivít voľného času

Je pravdepodobné, že tieto javy budú analyzovať viacerí referujúci. Chcel by som však zdôrazniť dva významné psychologicky pôsobiace prvky pri hodnotení uvedených činiteľov.

Je veľký rozdiel v tom, keď sa vybudujú rôzne tématické areály zdravia, rekreačného športovania, či v týchto zariadeniach pracujú profesionálni pracovníci (a koľko), alebo keď areály sú len voľne prístupné obyvateľstvu. V ZSSR, NDR ale i v Kanade mali sme možnosť vidieť areály, kde bolo zamestnaných 10 - 12 ľudí, ktorí športovorekreačnú činnosť ľudí nielen registrovali, ale ich svojim spôsobom aj vychovávali k pravidelnej činnosti. Vybudovanie areálov teda nestačí.

Druhý veľmi významný jav v súvislosti so športovou aktivitou bežného občana spočíva v súčasnom enormnom rozvoji vrcholového športu. Vrcholový šport sa dnes modifikuje v takých podobách

- v objektívnej realite spoločenského života
- v komunikácii medzi národmi, kontinentami
- v rôznych formách jeho organizácie
- v jeho propagande

Že v mnohých prípadoch táto dominancia vrcholového športu odvádza bežnú populáciu od pravidelného aktívneho športovania a uvádza ich do postavenia pasívnych divákov, nahradzuje im často svojou divadelnosťou i iné aktivity voľného času. Túto skutočnosť umocňuje ešte aktraktivita rôznych súťaží a hlavne možnosť jej komunikácie prostredníctvom televízie do najširších vrstiev obyvateľstva.

Druhý v podstate záporný vplyv má uvedená dominancia vrcholového športu na vedomie mládeže i dospelých, aktívnych v takzvanom výkonnostnom športe. Len málo z nich má šancu sa prebojovať do uznávaných vrcholov a preto často rezignuje, uspokojuje sa s minimom alebo stráca úplne záujem. Podobne sa stráca záujem obyvatelstva ako divákov o tento druh športovej činnosti. Divák túži po maximálnom napätí, výkone. Tento jav posilňuje i komunikácia tlače a pomerne málo ho vyvažuje propagácia z oblasti športovorekreačnej aktivity človeka, aj keď v tejto oblasti je zakotvená najvýznamnejšia, najhumánnejšia zložka vývoja ľudskej spoločnosti vo vzťahu k športu.

III. Psychologická prevaha vrcholového športu a životná nutnosť športovorekreačnej aktivity

O tom, že väčšie percento ľudí číta športové stránky novín, sleduje športové podujatie ako je percento aktívne rekreačne športujúcich dnes nikto nepochybuje. Takisto však väčšina rôznych odborníkov z rozličných vedných oblastí nepochybuje o tom, že športovorekreačná aktivita je významným prostriedkom

- komplexného rozvoja osobnosti
- rozvoja a upevňovania zdravia
- predlžovania života
- celkovej úrovne spôsobu života

Jediným zdrojom k postupnému znižovaniu prevahy vrcholového športu vo vedomí človeka je výchova. Výchova vo všeobecných sférach pôsobenia na človeka. Som presvedčený o tom, že hlavne v socialistických i ďalších pokrokových krajinách dôjde skoro k plnému realizovaniu tohoto procesu v jeho reálnej forme. Príklady zo SSSR, NDR ale aj u nás sa iste budú tvorivo rozširovať. Významne k tomu prispievajú i všetci pokrokoví odborníci a organizácie na celom svete.

Aj na tomto fóre je nutné zdôrazniť, že nie najsilnejší a najpevnejší je ten národ a štát, ktorý má najvýznamnejších vrcholových športovcov, ale ten, ktorý má zdravú, telesne i duševne vyspelú širokú populáciu obyvateľstva. Športovorekreačná aktivita je toho jedným prostriedkom.

IV. Predpoklady rozvoja psychologickej významnosti športovorekreačnej aktivity vo vedomí človeka

Pramenia v životných istotách. Nič nemôže byť pre celú psychologickú zameranosť človeka formovateľnejším ako je istota, že bude žiť v mieri, že bude môcť pracovať, sebarealizovať sa v tom, pre čo má predpoklady.

Anticipácia budúceho života vytvára predpoklady tvorby jeho motívov. Očakávanie krásnych životných cieľov a zážitkov motivuje človeka k príprave pre ich zvládnutie a prežitie. Zdravie a telesná zdatnosť sú jedným z hlavných predpokladov spokojného života. Psychologická hodnota reálnych životných cieľov a ich dosiahnutie je pre osobnosť človeka nenahraditeľným zdrojom motívov.

Psychologické zvládnutie hierarchie životných hodnôt je obrazom osobnosti človeka. Dnes je nám jasné, že v zozname týchto hodnôt je aj šport a športovorekreačná aktivita. Ich sledovanie a vykonávanie nemožno človeku nahradiť ani naprogramovať. K ich zvládnutiu v optimálnej podobe, množstve i zameraní možno ho len vychovávať. Je našou úlohou, úlohou vedeckých a pedagogických pracovníkov pomáhať v našich podmienkach života formovať takúto výchovu.

Objavovať psychické zákonitosti výchovy mládeže a dospelých k tomu, aby našli v športe a športovorekreačnej aktivite hodnoty pre vlastný život, je preto najaktuálnejšia úloha z hľadiska psychologických aspektov tejto problematiky. Tak ako nestačí len objaviť talent, ale hlavne zabezpečiť jeho všestranný rozvoj, nestačí len hovoriť o význame športu pre človeka, ale každodenne, aktívne ho k tomu viesť, vychovávať a zlepšovať úroveň jeho poznania a vzdelania daným smerom. Zvyšovanie poznania, vôľových vlastností, regulačných mechanizmov spolu se všeobecnými psychologickými istotami života a rozvojom jeho materiálnych hodnôt tvorí základňu analýzy, rozvoja a formovania psychologických aspektov športovorekreačnej aktivity mládeže a dospelých.

ZOZNAM LITERATÚRY :

1/ BUGGEL, E.: Die Urlaubsfreizeit und ihr Erziehungsgefüge im Lebensvollzug erwachsener Menschen. Theor.Prax.Körperkult. 1966, n.12.

2/ CLIGNET,R.: Sport and socis cultural processes : sports as sources of emancifation verms sports as sources of alientation. Congres scientifigue. Québec, Canada 1976.

3/ DIECKERT,J.: Sport im Urlaub. In: Sport und Freizeit. Jyväskyla 1971

4/ FLORL, R.: Le développement et l amélioration des loisire par la culture physigue et le sport, comme tache sociale et politique. In: Les loisirs dans la société industrielle Forelatin Van Clé, Bruxelles 1973, p. 181-196.

5/ HEINILÄ, K.: Sport planning : Toward a humanistic approach. In: Sport an leisure. Jyväskylä 1971.

6/ HRČKA, J.: Récréológie. Congrés scientifique, Québec, Canada 1976

7/ MERHAUTOVÁ, J. a kol.: K vyjasnění postavení těleské kultúry z pohladu tvorby socialistického způsobu života. /Rukopis/. Praha, 1974.

8/ SEPPÄNEN,P.: Social Obstacles and Sport Involvement. Congres scientifigue. Quebec, Canada 1976.

9/ SEVELIUS, B.: Sport als dominierende Freizeitaktivität. In: Nahrsted, W.: Freizeit in Schweden. Walter Rau Verlag, Düsseldorf 1975

10/ ŠPRYNAR, Z.: Systém tělesné výchovy dospelých. In: Sústava výchovy a vzdelávania dospelých, Bratislava, Obzor 1972, P. 292 - 313.

11/ WOHL, A.: The quality of life, and sport. Congres scintifique, Québec, Canada 1976.

12/ ŽOLDAK, V.I. a kol.: Fizičeskaja kultura i svobodnoje vremja trudjaščichsja i učaščejsja molodeži. Moskva 1973.

PERCEPTUAL STYLE AND BALL SKILL ACQUISITION

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Perceptual style and ball skill acquisition

1. The skill of catching has been the subject of relatively few studies. As a result, little information is available which identifies the qualities or factors necessary for successful performance. It is known that the ability to catch an object proceeds from a passive receptive type of behaviour to an active, interceptive type of behaviour. In addition, this ability seems to improve with age. The characteristics which separate the successful performer from the less successful performer have not been fully determined as yet. Investigators have isolated such characteristics of the projected object as velocity, or angle of projection which tend to affect the performance level, but the individual difference factors which play a part in such performance have received little attention from researchers.

2. In the search for answers to successful performance in ball skills, one must give consideration to the cues in the external environment which are attended to, the kind of information which is abstracted, and the limitations which are imposed on the monitoring and processing of such information. The importance of the internal monitoring mechanisms (proprioception) must also be considered in such skills as ball catching.

3. Personality research has noted that there may be personality characteristics which predispose people to be successful in particular ball type activities. Some personality theorists have paid particular attention to the perceptual characteristics of behaviour. Since perception is a function of learning, one might expect individual differences.

4. The identification of those factors which do contribute to success on tasks such as that employed in the present study may do much to facilitate the teaching and coaching of motor skills. Perceptual style and viewing time are two factors hypothesized to contribute to the successful performance and learning of the catching skill used in the present study. The affirmation of this belief would do much to open new vistas to teachers of such skills.

5. The present study was undertaken in an attempt to identify the importance of an hypothesized perceptual style dimension (field dependence-independence) to the performance and learning of a ball catching task. In addition, the influence of the amount of time a person was able to view the ball during its flight was assessed with respect to their success on the task.

Review of literature

6. There have been relatively few studies which have been able to relate a distinctive perceptual style to the ease with which one performs and learns a motor skill. Those studies which have provided some insight into such a relationship have for the most part dealt with motor performance not common to sport and physical education.

7. There have been several studies which have endeavoured to draw a relationship between skill level and the degree of field dependence-independence demonstrated by individuals (4, 8, 9, 10, 11, 14). One of the few studies which attempted to relate perceptual style to perceptual-motor learning was that of Jorgensen (3). Her study identified an inverse relationship between field dependence and the learning of a novel motor skill.

8. The importance of viewing time to the performance and learning of ball type activities has been referred to in previous research (1, 6, 12, 13). All of these studies point to an optimal time for which an individual must view a ball in order to catch or intercept it successfully. In addition they noted that the degree of success on a ball tracking task increased as the viewing time was increased.

Methods

9. The subjects for this study were drawn from a random sample of 250 male high school students at Fredericton High School in Fredericton, N.B. These individuals were tested for field dependence-independence on a portable rod and frame test (7). Those subjects scoring + 1 S.D. relative to the mean on this test were classified as field dependent and those scoring - 1 S.D. were classified as field independent. There were 45 subjects selected for the field dependent and field independent groups.

10. The 45 subjects in the field dependent and field independent groups were next subdivided and 15 subjects were randomly assigned to each of the viewing time treatments of 150, 250 and 350 milliseconds. The subjects then practised a ball catching task for eight days, with 30 practice trials per day.

11. The ball catching task involved a ball projection machine, which delivered a tennis ball at a speed of 40 feet per second over a constant semi-parabolic trajectory. The ball travelled a distance of 20 feet from the machine to the subject. The subject attempted to catch the ball under one of the designated viewing time conditions using his preferred hand.

12. The rate and amount of learning on the ball catching task for the 30 trials over the eight days of practice were calculated. A repeated measures analysis of variance and a trend test were employed for this purpose. The differences between the field dependent and field independent groups and between the viewing time treatments were determined by using the Tukey HSD test for post-hoc comparison of means.

Results

13. The mean performance scores for each of the perceptual style groups within viewing time conditions were computed and analyzed by a repeated measures analysis of variance to determine the amount of learning which occurred for the eight days of practice. The mean scores for each of the perceptual style groups for the three viewing times was computed using the Tukey HSD test for post-hoc comparison. A trend test was used to determine the amount of learning for both the field dependent and field independent groups for each of the viewing time conditions.

Table 1

Means and standard deviations for the ball catching task for both perceptual style and the three viewing time treatments

Perceptual Style	Viewing Time					
	150 M.S.		250 M.S.		350 M.S.	
	M	S.D.	M	S.D.	M	S.D.
Field Dependent	15.08	3.24	30.70	4.77	49.54	2.95
Field Independent	22.18	4.14	38.00	6.29	48.24	3.82

14. It was found that perceptual style was a significant factor in performance ($P < .001$) and learning on the ball catching task. The field independent subjects demonstrated better performance and learning over the eight days of practice on the task. A post-hoc analysis of performance means showed that the difference between the field independent and field dependent subjects was statistically significant for the 150 and 250 millisecond viewing time treatments. (Table 3) This difference favoured the field independent subjects. There was no difference in amount learned between the field independent and the field dependent groups for the 350 millisecond viewing time treatment.

Table 2

Summary table for repeated measures
Analysis of variance
Field dependent and field independent subjects
for the three viewing time treatments

	S.S.	d.f.	M.S.	F
Viewing Time	706.11	2	353.05	128.82 *
Perceptual Style	25.98	1	25.98	9.48 *
Viewing Time X Perceptual Style	20.47	2	10.23	3.73 **
Error	230.22	84	2.74	

* P .01

** P .05

15. The viewing time treatments had a statistically significant effect on performance and learning. The viewing time fector was statistically significant ($P < .001$) as may be noted in Table 2.

Table 3

Tukey test: Comparison of means for field independent and field dependent subjects for all viewing time treatments

Comparison Mean	Differences					
	F.D. 350	F.I. 350	F.I. 250	F.D. 250	F.I. 150	F.D. 150
F.D. 350	-	1.30	11.54	18.84	27.36	34.47
F.I. 350		-	10.24	17.54	26.06	33.17
F.I. 250			-	7.30	15.82	22.92
F.D. 250				-	8.52	15.62
F.D. 150					-	7.11
F.D. 150						-

$P < .01 = 2.08$

16. A post-hoc analysis of means for the three viewing times showed a statistically significant difference between each of the viewing time treatments, regardless of perceptual style (Table 2). The results showed that as the viewing time was increased from 150 to 250 and then to 350 milliseconds, there was a statistically significant improvement in performance and learning on the task.

17. There was a strong linear trend noted for days of practice ($P < .01$). There was a significent rate of learning occurring over the eight days of practice regardless of viewing time and perceptual style. (Table 4)

Table 4

Summary table for linear trend for all subjects on ball catching task under all viewing time treatments

Days	20.25	1	20.25	83.99 *
Days X Viewing Time	1.82	2	0.91	3.77 **
Days X Perceptual Style	2.99	1	2.99	12.39 *
Days X Viewing Time X Perceptual Style	0.91	2	0.46	1.89
Error	20.25	84	0.24	
Blocks	1.93	1	1.93	20.02 *
Blocks X Viewing Time	0.00	2	0.00	0.01
Blocks X Perceptual Style	0.02	1	0.02	0.02
Blocks X Viewing Time X Perceptual Style	0.00	2	0.00	0.02
Error	8.11	84	0.09	
Days X Blocks	0.76	1	0.76	10.07 *
Days X Blocks X Viewing Time	0.13	2	0.06	0.89
Days X Blocks X Perceptual Style	0.02	1	.02	0.20
Days X Blocks X Viewing Time X Perceptual Style	0.19	2	.10	1.29
Error	6.31	84		

* $P < .01$

** $P < .05$

18. There was also a significant days by perceptual style interaction ($P < .01$) which was accounted for by differences in linear trend for the two perceptual style groups. The field independent group showed a greater rate of learning than the field dependent group.

19. The interaction between days of practice and blocks of trials was statistically significant ($P < .01$). This is partially explained by the fact that the rate of learning was relatively high on day one and rate of learning for the remaining seven days of practice was similar.

Discussion

20. The hypothesis that the field independent subjects would show a greater rate and amount of learning than the field dependent subjects on the ball catching task was verified. This finding is in agreement with the results of an earlier study by Jorgensen (3).

21. A second hypothesis in the present study stated that the field independent subjects would perform better under the 150 and 250 millisecond viewing time conditions. This hypothesis was verified by the results of the study. There was a statistically significant viewing time effect ($P < .01$). A post-hoc analysis showed a statistically significant difference between the field dependent and field independent groups for the 150 and 250 millisecond viewing times, which favoured the field independent group.

22. The identification of a significantly different learning effect for the field independent group at the 150 and 250 millisecond viewing time is supported in theory by Witkin (16). He suggested that the field independent person requires less practice in order to resolve problems that were presented by the catching task in the present study.

23. The finding of better performance and learning for the shorter viewing times of 150 and 250 milliseconds support earlier findings by Whiting (12) and Whiting, et al (13).

24. The third hypothesis of the present study stated that with increased viewing time all subjects regardless of perceptual style would show improved performance on the ball catching task. This hypothesis was verified as shown by the statistically significant F ratio for viewing time ($P < .01$).

25. The post-hoc analysis of means for the three viewing time treatments showed a significant difference between the 150, 250 and 350 millisecond conditions. The 350 millisecond viewing time produced the best performance and the greatest learning effect for both perceptual style classifications. These results are supportive of earlier findings of Alderson (1), Nessler (6), Whiting (12) and Whiting, et al(13).

26. This study identified significant differences in performance and learning between subjects classified as field independent and field dependent. This difference in learning and performance was most noticeable for the 150 and 250 millisecond viewing times, with no difference at the 350 millisecond viewing time. This latter finding might be due to the fact that the 350 millisecond viewing time simulated the normal illumination conditions in the test area. These results point up the apparent ability for the subjects in the present study classified as field independent to perform and learn the ball catching task in a more effective fashion than their field dependent counterparts.

27. Further research of this nature is essential before perceptual style (F.I.-F.D.) can be deemed a major causal factor in performance of perceptual-motor skills. The present study did show that the field independent subjects did demonstrate greater

learning and better performance. A follow-up study employing a perceptual style index composed of the rod and frame test and the embedded figures test would be valuable in clarifying the role of perceptual style in the performance and learning of such tasks as has been suggested by Sloan (1976). (11)

References

1. Alderson, G.J.R. "Variables affecting the perception of velocity in sports situations". In H.T.A. Whiting (Ed.) Readings in Sport Psychology. London: Henry Kimpton, pp. 116-156, 1972.
2. Hutt, J.W.R. "The relationship of some visual, perceptual and cognitive factors with ball catching performance of 9-10 year old boys". Research Papers in Physical Education. Carnegie School of Physical Education, Vol.2, No. 4, pp. 28-39, December, 1973.
3. Jorgensen, J.M. "The relationship between perceptual style and the rate of learning a novel movement task". M.S. Thesis, University of Wisconsin, 1972.
4. Kreiger, J.C. "The influence of figure-ground perception on spatial adjustment in tennis". M.Sc. Thesis, University of California, Los Angeles, 1962.
5. Meek, F. and V. Skubic. "Spatial Perception of highly skilled and poorly skilled females". Perceptual and Motor Skills. 33:1309-1310, 1971.
6. Nessler, J. "Length of time necessary to view a ball while catching it". Journal of Motor Behaviour". 15: pp. 179-185, 1973.
7. Ottman, P. "A portable rod and frame test". Perceptual and motor Skills. 26: 503-506, 1968.
8. Pargmon, D., P. Bender and P. Deshaies. "Correlation between visual disembedding and basketball shooting by male and female varsity college athletes". Perceptual and Motor Skills. 41: 956, 1975.
9. Pargam, D. and K. Inomata. "Field dependence, displaced vision and motor performance". Journal of Motor Behaviour. 8: 11-17, 1976.
10. Shugart, B.S., M.A. Souder and L.K. Bunker. "Relationship between vertical space, perception and a dynamic non-locomotor balance task". Perceptual and Motor Skills. 34: 43-46, 1972.
11. Sloan, M.R. "Field independence and psychomotor style". Proceedings International Seminar on Motor Learning. Wingate Institute, Israel, 1976.
12. Whiting, H.T.A. Acquiring Ball Skill. Philadelphia, Lea and Febiger, 1969.
13. Whiting, H.T.A., G.J. M. Alderson, and F.H. Sanderson. "Critical time intervals for viewing and individual differences in performance of a ball catching task". International Journal of Sport Psychology. 4: 155-164, 1973.
14. Williams, J.M. "Perceptual style and fencing skill". Perceptual and Motor Skills. 40: 282, 1975.
15. Witkin, H.A., "The nature and importance of individual differences in perception". In H.A. Witkin (Ed.) Personality through Perception. Durham, N.C., Duke University Press, pp. 145-170, 1954.
16. Witkin, H.A., R.B. Dyk, R.B Paterson D.R. Goodenough and S.A. Karp. Psychological Differentiation: Studies of Development, New York, Wiley, 1962.

PSYCHOPHYSIOLOGICAL PROBLEMS OF PACE LEARNING

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The perception of the pace, as a basic psychophysiological process, can be regarded as one of the most relevant features in a series of competitive situations. If a competitor wants to control his own speed, pace-estimation is to be learned. The learning is necessary both to compensate for the oscillations of the motivational level and to compensate for the inherent distortions of the perceptive processes. To meet the requirements for advanced training methods in pace-optimization, we have started an experiment to study pace-learning.

To begin with, we have initiated a survey on the pace-keeping capacity of well-trained kayak competitors. They were instructed to keep a precribed pace in several consecutive trials. We chose an arbitrary distance /120 m or so/ and marked the end of it with a fixed boat. The speed-curve of 20 consecutive trials - each performed with a deb-start - /Fig.1/ shows that the pace prescribed by the coach has n o t been maintained; instead of the subjects displayed a strong tendency to rely on its own, distorted priprioceptive afferentation. After the 10th trial, namely, the goal was moved away, unobserved, but in spite of that the "autonomous" speed-program remained to be dominant. The same tendency for the dominance was observed in the case of a fluctuating-type external time-prescription /Fig.2./.

We have concluded therefore that unless we succeed in metamorphosing the external demand into an interior one - the teaching of pace control cannot be really efficient. It was obvious that to this aim some sort of conditioning techniques must be adopted.

A small group consisting of 6 well-trained kayak sportsmen was asked to collaborate. They were instructed at first, to maintain a given speed during several trials. The particular curves so obtained served as reference. In the next step a verbal feedback was introduced: the time scores were communicated to the subjects immediately after they had arrived to the goal. After numerous repeatings a "recall" session was held. Fig. 3. demonstrates that the feeding back of the output /the performance level/ was of stabilizing effect on the spontaneous oscillations of the reference curve. /Rows in Fig. 3. from top to bottom: reference curve, conditioning phase, recall phase./ So the conditioning was successful, but this success has raised several questions too. These were: - Can the conditional effect be stabilized in time ? - Is there any transfer to speeds different from the firstly conditioned ?

The answers obtained to these questions were generally negative. Continuing with the associations of that type very soon produced an oscillation in the learning scores /mean quadratic error/, the competitors have lost their interest in working and even the "old" internal pace-patterns have reappeared. So the problem to be solved was that of finding a new method of pace-teaching. By this new method the following requirements were to be fulfilled: repeatibility without significant habituation, lasting learning-effects, easily measurable performance scores.

In analysing our previous conditioning results we have attached a great significance to the reappearance of the old, spontaneous internal time-program. It seemed that the failure in metamorphosing the external demand into an interiorized one can mostly be attributed to the insufficient motivation in learning, owing to the fact that the competitors had to learn a "pace lesson" unrelated to their own aspiration level. Beside motivation, reinforcement was the other point to be clarified.

What could be stated at the first approximation was no more, that the voluntary motor act-consisting of a series of rhythmic, consecutive strokes - has been reinforced. A further approximation has led us to the following conclusion: what really had been reinforced was not so much the muscular activity in itself, but rather the integrated sensory traces of the rhythmicity of the strokes. These integrated traces have already assumed the modality of a sensory "estimate" of speed at the time of the reinforcement. As to the reinforcing agent, we have hypothesized that it is not the verbal communication, but the information carried by it which does reinforce the previous rhythmic muscular activity. The competitor extracts this information by mentally processing the difference between estimate and reality.

It was decided to go on with the experiments as follows:

- instead of external demand merely a recommendation was given by the coach,
- before each run the competitors communicated their aspiration level,
- after the particular runnings the competitors communicated their own speed-estimate /expressed in tenth of seconds/,
- the competitors were told their real performance score.

We have called this method of teaching O.M.E.-method /offered, measured, estimated/ and obtained oscillatory-, but in their trend improving pace-estimation and pace-keeping results in a long-term /10 weeks/ experiment. Fig. 4. illustrates that in the beginning aspiration level and estimative performance - although strongly correlated -are practically independent of really obtained pace-results, while in the 8th day of the conditioning not only the "narrowing" of the O.M.E. - teaching proved to be resistant to habituation /over-learning/ during several weeks.

Analysing again - in much more detailed fashion than possible at the present time - the results obtained, we get convinced that a fairly good explanation of the whole phenomenon and of many observed details can be given by describing them with the aid of control-theoretical ideas.

We have had enough evidence that pace-estimation and pace-keeping capacities are - at the beginning - independent of each other. It was possible to suppose therefore the functioning of two regulation systems interrelated only by "loose coupling". We supposed that the coupling gets tighter in the course of the learning process - parallel with the improvement in the accuracy of the pace-estimation. To illustrate this, let us compare in Fig. 5. the frequency distributions in column II. It can be seen that the morphological similarity is more conspicuous between "M" and "E" than that between "M" and "O". The II. column represents the frequencies of the corresponding O.M.E. parameters observed during a 3-day period at the beginning of the learning. In column I. the striking morphological similarity between "O" and "E" is obvious. Column I. represents the same parameters as the other column,-after the completing of the learning phase. It can be seen too, that "improvement in pace-estimation" means that the maximal frequency of the events taking place in the speed-estimator tends to be equal with the mean of the "M" distribution, i.e. with the mean of the physically existing pace-scores.

Taking into consideration what has been said before about reinforcing agents, our model-hypothesis can be condensed into a few sentences:

In the O.M.E. -type conditioning the role of the externally prescribed time-program is being acted by the subject's own time-predictions, i.e. by his own aspiration level. The conflict, originating from the experienced difference between self-demand and performance sets up a drive which is being maintained constantly by the

punishment modality of the "offered minus estimated", "offered minus measured" differential stimuli. These stimuli are acting - simultaneously - both as reinforcing agents and "error signals". In their error-signal capacity the differential stimuli are being fed back to loosely coupled, independent control subsystems controlling aspiration-level and speed-estimation accuracy. In order to minimize error it is necessary that both prediction-accuracy and speed-estimation accuracy be optimal. This can be accomplished if the speed-estimation subsystem gains control over the aspiration-level regulating one. So the experimental setup of the O.M.E.-type teaching creates favourable circumstances for the functioning of a self-stimulative, homeostatic regulation system which "automatically" tends to improve its effectiveness. Motivated by their constantly improving pace perception the competitors gradually gain voluntary control over their aspiration-level regulating system. The pace lesson to be learned /the "recommendation" of the coach/ is no more unrelated to their own aspiration-level; it has become an integral part of it.

Appendix.

The following paragraph is a brief review of the methodology applied for making measurable the progress in learning.
If we accept that -from control-theoretical point of view - learning is a process of minimizing error-signals by means of a feedback-operated control, then the measurement of that activity can adequately be performed by computing the particular indexes of the "goodness of control".
We have computed the following indexes:
- mean quadratic error of the estimation and/or prognostics
- weighed quadratic error /weighing was done with the variance and the regression coefficient of the errors/
- stability indexes: computed either from the estimation error or from the prediction error.

$$\text{Ind.} = \frac{/e^2 - Q/}{N} \cdot s^2 \cdot e^{tg}$$

where e is the i^{th} error in a trial, Q is the mean quadratic error, N is the number of observations, s^2 is the variance of the $/e^2 - Q/$, tg is the regression coefficient

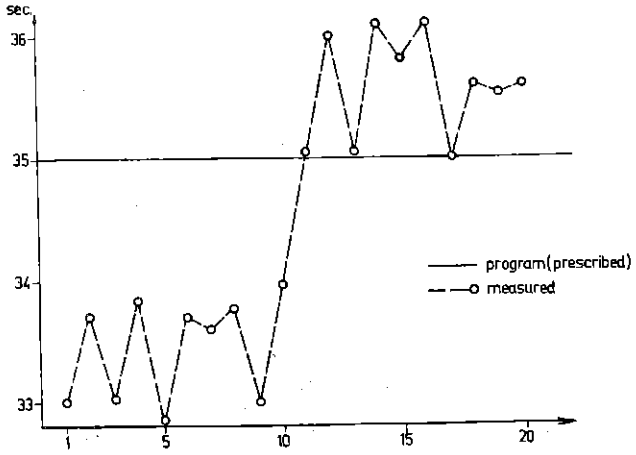


Fig. 1

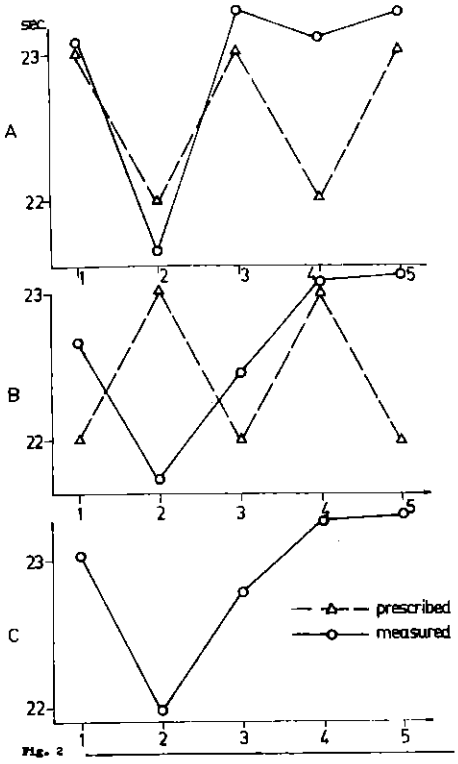


Fig. 2

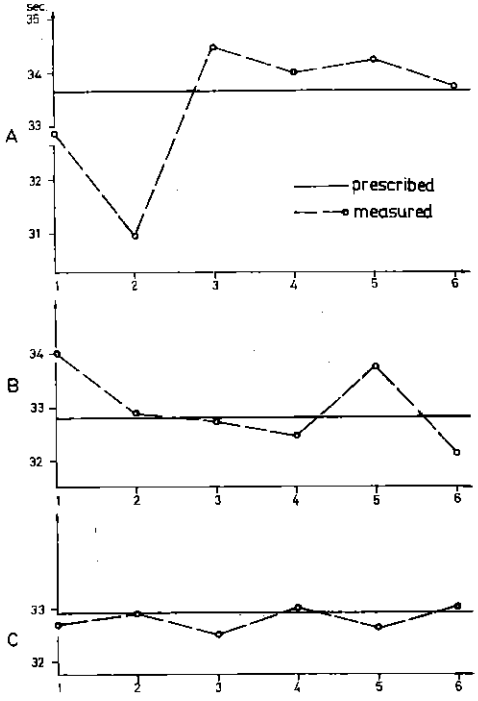


Fig. 3

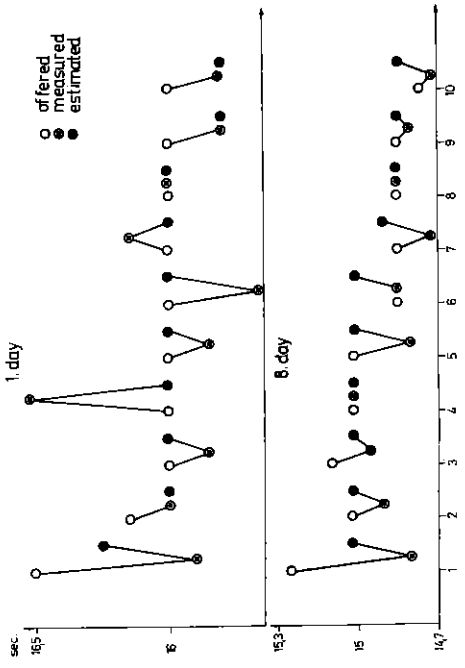


Fig. 4

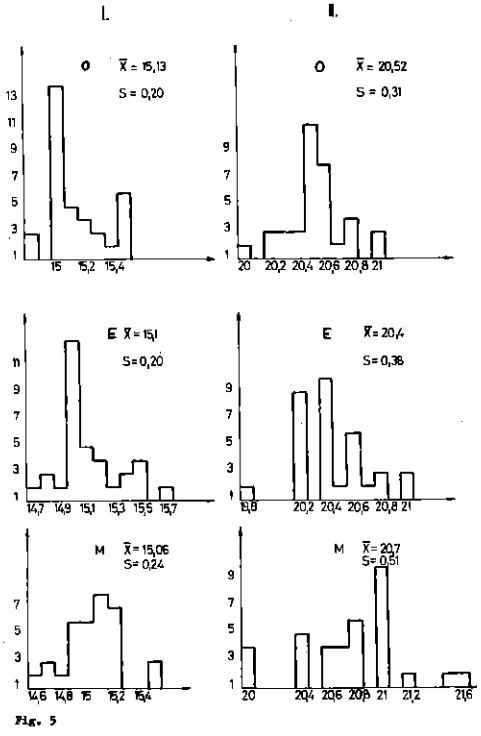


Fig. 5

SPOLEHLIVOST VÝKONU SPORTOVCE A PSYCHICKÁ ZÁTĚŽ

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Spolehlivost se v oblasti technických věd chápe jako pravděpodobnost normální funkce technického elementu či zařízení za předepsaných (např. tepelných, vibračních aj.) pracovních podmínek.

Spolehlivost člověka v pracovním procesu definuje např. Nebylicyn (Vopr. psych. 6, 1961) jako stálost jeho optimálních pracovních parametrů za daných pracovních podmínek. Ve vrcholovém sportu nám však nejde o to, aby sportovec reprodukoval svůj výkon v normálních, běžných podmínkách. Chceme na něm, aby to, co zvládl v podmínkách tréninku nebo malého závodu, realizoval v soutěži nejlepších z nejlepších v neznámém, cizím prostředí, příp. za nezvyklých klimatických a zejména sociálních podmínek, atd. To není reprodukce, nýbrž zcela nový požadavek. Kromě toho špičkový sportovní výkon se pohybuje na hranicích možností daného jednotlivce, zatímco v pracovních rutinných podmínkách jsou vždy rezervy z hlediska pracovní kapacity člověka.

Významný závod - např. olympijské hry - klade zcela nepřirozené požadavky na sportovce : sportovec několik let tvrdě trénuje, aby se přiblížil výkonnostní špičce. Při překonávání nekonečné vyčerpávající monotonie tréninku se neobejde bez sociální motivace, bez touhy po vavřínovém věnci sociálního uznání či obdivu publika. A neobejde se proto ani bez obav, strachu, frustrace v tomto směru. Anticipace neúspěchu sportovec v tréninku dokonce záměrně používá jako účinné negativní stimulace k překonávání vlastního pohodlí. Čím je plnění tréninkových úkolů obtížnější, tím častěji trenér i sportovec používají "strachového relé" k suplování pozitivní motivace za motivaci negativní. Trénink se v takových situacích stává nikoli cestou k úspěchu, nýbrž spíše prevencí neúspěchu.

Sebedokonalejší a náročnější trénink však nedává záruku úspěchu v soutěži nejlepších. Úspěch ve sportovní soutěži vždy zůstane alespoň z části otázkou náhody, štěstí a smůly. To znamená, že mezi schopnostmi nebo možnostmi sportovce a jejich realizací zůstává prostor pro vznik expektance neúspěchu, úzkosti a strachu ze selhání a z toho plynoucích sociálních konsekvencí, včetně ztráty všech dosavadních investic času, námahy atd.

Je zcela přirozené, že normální člověk s živou představivostí a emocionalitou dobře fixovaný v soustavě sociálních vazeb a vztahů, tj. z hlediska socializace zralá osobnost, člověk schopný vhledu do sociální rizikovosti své situace, se v takových podmínkách dostává do velmi obtížného duševního stavu. Jeho negativní tenze se zvyšuje s každou hodinou a s každou minutou, která přibližuje kritický okamžik definitivního a nenapravitelného řešení.

Větší růst negativní tenze má dalekosáhlý destruktivní vliv na výkon sportovce. Narušuje pohybovou a sensomotorickou koordinaci, brání střídání a rozdělení pozornosti, omezuje tvořivost a vynalézavost sportovce, vyvolává disociační jevy v psychické regulaci atd. To je zhruba popis mechanismu většiny selhání ve velkých závodech.

Tento typ průběhu dynamiky emocí před startem "velkého závodu" je docela normální a přirozený. Proto není v pořádku, jestliže ho chápeme jako defekt, vkládáme-li do pojmu "nespolehlivost" pejorativní hodnocení, apod. Musíme počítat s tím, že nepřirozené a nenormální požadavky velkého závodu vedou sportovce zákonitě na emociální scestí, vedou ho do slepé uličky. Mohli bychom říci, že tzv. emoční labilita ve velkých závodech je normální reakce socializovaného člověka,

kdežto extrémní emoční stabilita v takových podmínkách je něco nepřirozeného, co zasluhuje bližší analýzu a posouzení. (Pokud ovšem nejde o reakci např. infantilní nezralosti nebo o reakci sportovce, který ví, že ostatní výkonnostně daleko převyšuje nebo se naopak předem smířil s tím, že zdaleka nedosahuje úrovně svých soupeřů). Nemůžeme očekávat, že může dobře fungovat přirozený způsob adaptace vrcholových sportovců na nepřirozené stressogenní vlivy "velkého závodu". Vysoká intraindividuální variabilita výkonů mnohých vrcholových sportovců (srovnání výkonu ve velkém a malém závodě) si však žádá praktická řešení problémů psychické zátěže "velkých soutěží".

Setkáváme se proto se spirálou dopingových a antidopingových inovací, některé sporty se z těchto důvodů zaměřují na sociálně nezralé, anxiositou nenarušené děti. Jsou-li k tomu hmotné, organizsační a kádrové předpoklady, je universálním a jednoduchým řešením selekce : ze skupiny těch, kteří s velkou rezervou podají rekordní výkon v tréninku, lze vybrat toho, který je nejspolehlivější ve velkých závodech. Samotným enormním zvyšováním výkonnosti v tréninkových podmínkách se minimalizuje riziko neúspěšnosti. Je to ovšem namáhavé a velmi nákladné a kromě toho vůči sportovcům drastické.

Mnohem úspornější a z výchovného hlediska přijatelnější je úsilí psychologů řešit problém úspěšného absolvování velkého závodu preventivním psychologickým výcvikem sportovců.

Ten, kdo prošel úspěšně výcvikem relaxačně aktivační metody, je schopen během 30 min. transformovat negativní emoční napětí v napětí kladné (pocit svěžesti, dobré nálady, pohotovosti k překonávání překážek apod.), zrychluje se jeho osobní tempo, zlepšuje se sensomotorická koordinace, zvyšuje se jeho tolerance vůči zátěžovým situacím atd.

Vyladěnost psychofyziologického stavu trvá 20 - 30 hod. po zásahu. Vlastní průběh relaxačně aktivačního zásahu je provázen výraznými a charakteristickými změnami řady vegetativních parametrů (tepová frekvence, krevní tlak, KGR, vasomotorika, pupilární změny, EEG, EMG aj.). Po zásahu jsme kromě toho pozorovali změny v sekreci katecholaminů, trvající 20 - 30 hodin. Tím vzniká možnost objektivní kontroly kvality cvičení při vedení cvičence (biofeedback). Nácvik trvá 3-5 měsíců. V této době se cvičí 2-3x týdně, vždy asi 30 min. Cvičení se provádí na základě slovních a názorných instrukcí v domácích podmínkách. Výcvik se uzavírá individuálními laboratorními prověrkami.

Domníváme se, že psychologický výcvik představuje velký, dosud téměř nenačatý, zdroj možností pro zvyšování výkonnosti vrcholových sportovců.

MIT DEFINIERTEM KRAFTMESSEN KOMBINIERTE MESSUNG DER REAKTIONSZEIT BEI DER AUSWAHL VON GEWICHTHEBERN

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Von den Niederlanden /Biervliet/$_1$ bis zur Sowjetunion /Rudik, P.A./$_2$ durch Amerike /Elbert/$_1$ bis Ungarn erhöht sich weitweit die Zahl der sportpsychologischen und sportphysiologischen Untersuchungen, die der sportlichen Vorbereitung zu dienen berufen sind.

In meinen früheren Untersuchungen /Makkár, Márta 1969/[3] suchte ich bei Schwimmern nach Zusammenhängen zwischen den Messungsangaben von Reaktionszeit-Serien und der Intensität des Trainigs. Ähnlich dem Amerikaner Elber bewiesen meine Ergebnisse, dass sich die Serien-Reaktionszeitwerte und Durchschnittswerte auf Einwirkung einer optimalen Trainingsbelastung verbessern.

In diesem Vortrag lege ich die theoretischen und methodischen Probleme meiner mit der ungarischen Nationalmannschaft im Gewichtheben vorgesehenen Untersuchung dar.

Folgende Tatsachen berechtigen die Untersuchung dieser Sportart:

1. Mein eminenter Kollege, Endre Riegler /1974, 1975/[4-5] hatte die Leistungen der Welt- und Europameisterschaften im Gewichtheben in Moskau analysiert. Er hatte festgestellt, dass es im Rücken und im Reissen je drei Versuche genommen bei allen Sportlern beim dritten Versuch weniger gelungene Versuche gibt. Da spielt offensichtlich das Risiko eine wichtige Rolle. Die besten und die Meister dagegen haben auch den dritten Versuch in grosser Prozentzahl erfolgreich ausgeführt. Sogar die besten Ergebnisse sind in der Spitzenklasse beim dritten Versuch gelungen.

2. Die gelungenen Versuche der ungarischen Gewichtheber vermindern sich 1974 im Vergleich zu 1971 um 24,08%.

Die Zielsetzung der Untersuchung:

1. Den in Ungarn standardisierten Reaktionszeitwerten entsprechend in 10 Gewichtskategorien der Olympiamannschaft im Gewichtheben den Reaktionszeit-Typ der einzelnen Sportler zu bestimmen.

2. Im Rücken und im Reissen - im Verhältnis zur individuellen Bestleistung und zum Körpergewicht - die gerechte Auswahl der optimalen Kraft und des Anfangsgewichtes zu untersuchen, mit 15-25-er Serienmessungen.

3. Vergleichende Analyse der mathematisch-statistischen Parameter der Reaktionszeittypwerte und der mit definierter Kraftausübung kombinierten Reaktionszeitwerte.

4. Schliesslich die Frage zu beantworten, ob mit Hilfe dieser neuen Untersuchungsmethode eine Charakteristik der Sportart im Rücken und im Reissen festgestellt werden kann, die im Gewichheben zur Auswahl und zur Leistungssteigerung Hilfe leisten kann.

Untersuchungsmethoden:

1. Instrumentale Untersuchung mit Hilfe des im Forschungsinstitut unserer Hochschule gebauten, mit definiertem Kraftmessen kombinierten Reaktionszeitmessgerätes. /Die Analyse des Gerätes muss ich hier und jetzt noch vermeiden, denn das Patentieren ist noch im Gange/.

Mein methodisches Grundprinzip lautet: die Reaktionszeit zeigt die spezifischen Züge des Nervensystems der Versuchspersonen in der gegebenen Periode nur "ad hominem", nur für die Person und indirekter Weise.

Mit Rücksicht darauf erfolgen die Bestimmungen des Reaktionszeittypes in einer aus einzelnen Messungen bestehenden 50-er Serie, durch Dosierung asymetrischer Lichtreize, unmittelbar vor dem Training.

2. Die mathematisch-statistischen Methoden der Datenverarbeitung sind:
   - Parameter-Vorgänge; Korrelationsrechnung, F-Probe, und t-Test mit zwei Mustern.

Literatur:

1. WOODWORTH-SCHLOSSBERG : Experimentale Psychologie, Budapest, 1968
2. RUDIK, P.A.: Psychologische Forschungen im Sport, Teor.Prakt.Fiz.Kult. 1967, N.5, p 72-74.
3. MAKKÁR, MÁRTA: Serienreaktionszeit-Messungen mit Belastung bei Schwimmern Ier Klasse - besondern in Hinsicht auf die Intensität des Trainings. Ungarische Hochschule für Körperkultur, Wissenschaftliche Publikationen, Budapest 1969/I. p 289-299
4. RIGLER, Endre: Einige trainigsmethodische Spezifien der gelungenen und missgelungenen Versuche im Gewichtheben. Ungarische Hochschule für Körperkultur, Wissenschaftliche Publikationen, Budapest, 1974/III. p 171-177
5. RIGLER, Endre: Methodische Beobachtungen und Vergleiche nach den Welt- und Europameisterschaften im Gewichtheben in Moskau. Publikationen im Bereich der Körpererziehungs- und Sportwissenschaften. Budapest, 1975, p 177-202.

PSYCHOLOGISCHE ÜBERLEGUNGEN ÜBER DIE AUSWAHL AUF GRUND EINER AUFNAHME

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In der Auswahl zu einer Sportart reicht heutzutage zur Beurteilung der Eignung die Bestimmung des motorischen Entwicklungsniveaus nicht mehr aus. Es ist die Aufgabe der Sportpsychologie - unter anderen - die sportartspezifischen psychischen Forderungen, die die grundlegenden Voraussetzungen der Eignung sind, in einem "Sportartprofil" zu bestimmen.

Es ist ein glücklicher Fall, wenn der Sportlehrer auch Psychologe ist. Das kommt aber in unserer Zeit noch ziemlich selten vor. Deshalb müssen in die Zusammenstellung des zur Auswahl unentbehrlichen Sportartprofils, in die Bestimmung der Anforderungen auch "die direkten Quellen", die in der Praxis tätigen Sportlehrer einbezogen werden. So können die spezifischen fachlichen Gesichtspunkte und die Erfahrungen der lebensnahen Beobachtungen besser zur Geltung kommen.

Die Zielsetzung meiner Arbeit war: die grundlegenden, gemeinsamen sportartlichen Fähigkeiten auf empirische Weise aufzuklären im Turnen, in der Leichtathletik, in den Sportspielen und in anderen Sportarten.

Methode der Aufnahme: Angaben mit Fragebogen zu erhalten. So ist es möglich geworden, vom ganzen Gebiet des Landes - wenn auch ohne Anspruch auf Totalität - Angaben zu erhalten.

227 Rangreihe-Fragebogen wurden den an den verschiedenen Sportartslehrstühlen tätigen Lehrkräften, den Lehrern der Übungsschulen der Hochschule und - durch die Fachinspektoren - den "besten" Sportlehrern der verschiedenen Komitäten zugeschickt. /Von den 227 Fragebogen haben wir 129 zurückbekommen/.

In den Instruktionen zum Fragebogen habe ich die Kollegen aufgefordert: "..die Anforderungen, die ihrer Meinung nach in der Leichtathletik, im Turnen, in den Ballspielen und in den anderen Sportarten für das erfolgreiche Erlernen und Treiben des Bewegungsmateriales dieser Sportarten grundlegend sind, in Rangreihe zu stellen."

Die sportartlichen Anforderungen wurden in drei Gebieten beansprucht:

I. Anforderungen in Motrizität
II. Anforderungen den Perzeptionsorganen gegenüber
III. Anforderungen der Erkennungsfähigkeiten/Zwecks einheitlicher Interpretation wurden die einzelnen Anforderungsarten mit Erklärungen und Beispielen illustriert. Ich habe aber auch mit den Fehlerquellen und mit dem eventuellen Missverständnis der Fragen gerechnet/.

Ergebnisse: /N = 129/

Anforderungen	Sportarten			
	Leichtathletik	Turnen	Sportspiele	Andere
I. Motrizität	1. Reaktionszeit	Reaktionszeit	Reaktionszeit	Reaktionszeit
	2. Rhythmusgefühl	Rhythmusgefühl	Rhythmusgefühl	Rhythmusgefühl
	3. Kraft	Kraft	Schnelligkeit	Muskeltonus
	4. Muskeltonus	Muskeltonus	Elastizität	Kraft
	5. Schnelligkeit	Schnelligkeit	Muskeltonus	Schnelligkeit
	6. Elastizität	Elastizität	Kraft	Elastizität
II. Perzeptionsorgane	1. Plastisches Sehen	Plastisches Sehen	Kinesthese	Plastisches Sehen
	2. Kinesthese	Kinesthese	Plastisches Sehen	Kinesthese
	3. Sehschärfe	Sehschärfe	Sehschärfe	Sehschärfe
III. Erkennungsfähigkeiten	1. Kombinationsfähigkeit	Aufmerksamkeit	Aufmerksamkeit	Aufmerksamkeit
	2. Aufmerksamkeit	Kombinationsfähigkeit	Kombinationsfähigkeit	Kombinationsfähigkeit
	3. Imitationsfähigkeit	Imitationsfähigkeit	Imitationsfähigkeit	Imitationsfähigkeit

Zusammenfassung

Ad 1./ An erster Stelle steht der ausgeglichene Nervensystemszustand, an zweiter Stelle das Rhythmusgefühl als wichtigste Forderungen in allen Sportarten.

Ad 2./ Von den Forderungen den Perzetionsorganen gegenüber sind das plastische Sehen /Bei Ballspielen die Kinesthese/ und die Kinesthese die ausgezeichneten Begabungen.

Ad 3./ Im Gebiet der Erkennungsfähigkeiten wurden die Aufmerksamkeit /in der Leichtathletik die Kombinationsfähigkeit/, und an zweiter Stelle die Kombinationsfähigkeit /in der Leichathletik die Aufmerksamkeit/ als wichtigste psychische Forderungen bezeichnet.

Die Auswahl der zu untersuchenden Parameter hängt von einem gründlichen Ermessen, der Ablauf der exakten Untersuchung von den Instrumenten ab.

Literatur

1. OTT, J.M. - THOMSON, B.S. - MARRIMAN, H.O.: Auswahl zur Pädagogenberuf: eine Aufgabe der Lehrerausbildung /The Journal of Teacher Education, XXI. Jahrgang, 1970, 3. p 352-356

2. ALFEROV, J.S. - OSOVSKIJ, E.G.: Zum Problem des Berufbildes des sowjetischen Pädagogen - OPK.Dok.1971/1/101

3. KOCIÁN, M.,:Intellektuelles Niveau und Persönlichkeitsprofil bei Kandidaten für Universitätsstudien in Körpererziehung /Intellectual level and personality profile of applicants for University study of physical education/ 1970. Vortrag an der Internationalen Konferenz für Körpererziehung und Sport, Werschau/.

ANGABEN ZU DEN METHODOLOGISCHEN PROBLEMEN DER AUSWAHL

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In welchem Gebiet der Sportpsychologie auch Reihenuntersuchungen - zwecks Feststellung der Eignung-Uneignung - gemacht werden, muss unvermeidbar auch von der Untersuchungsmethodik "gemessen", d.h. bewertet werden.

Die Untersuchungen habe ich 1970-71 mit den Bewerbern an der Hochschule für Körperkultur durchgeführt /N=514, Anzahl der Angaben:80461/. Die Vorstellung der Untersuchungsparameter und - Methoden möchte ich hier vermeiden, denn meine Zielsetzung ist den zur "Messung" der Methodik gebrauchten mathematisch-statistischen Apparat darzulegen.

Die Auswertung der Angaben geschah an einer Rechenmaschine, aufgrund eines in "Algol 60"-Sprache geschriebenen Programms /mit etwa 6000 Angaben im Programm/.

Durch die Programmsteuerung haben wir folgende Parameter erhalten:

- Totalpunktzahl
- Mittelwert
- Streuung
- Streuungsfehler
- Korrelationskoeffizient
- Fehler des Korrelationskoeffizienten.

Die Angaben wurden - je nach Untersuchungsmethode - folgenden Gesichtspunkten nach analysiert:

1. Ob die Durchschnittsergebnisse der Aufgenommenen /der als geeignet qualifizierten Bewerber/ bei den einzelnen Methoden besser sind, als die entsprechende Ergebnisse der nicht aufgenommenen Kandidaten.

2. Auf Grund der gerechneten Streuungen wurden die entdeckten Unterschiede auch mit "t"-Probe kontrolliert. /Das bezieht sich auch auf die Unterschiede zwischen den Ergebnissen der Männer und Frauen, obwohl solche praktisch nicht gefunden wurden/.

3. Mit Hilfe der in den vorgehenden zwei Punkten dargelegten Methoden wurden die Angaben getrennt behandelt, die zur Verfügung der Auswahlkommission gestellt wurden, und die Teilergebnisse, die nur dem Untersuchungsleiter bekannt waren.

4. Wir haben ermittelt, ob die einzelnen Teilergebnisse /der lineare Korrelationskoeffizient/ mit der zur Charakterisierung des Kandidaten dienenden Totalpunktzahl korrelieren.

Da dieser Totalpunktwert nicht als Kriterium der Eignung betrachtet werden kann, haben wir mit dieser Methode Informationen über die gebrauchten Untersuchungsmittel gewonnen. Auf Grund der erhaltenen Informationen kann man feststellen, welche Teiluntersuchung mit dem Totalpunktwert in der engsten Beziehung steht. /Den Totalpunktwert haben wir durch Addition der mit den Untersuchungsmitteln erhaltenen Angaben erhalten/.

- Zur schnellen Durchsicht und leichter Behandlung ist es erwünscht, die Totalpunktzahl und die auf die fünf Hauptuntersuchungen gegebenen Standardwerte auch auf einer Kontingenztabelle darzustellen.
- Es ist möglich, die einzelnen Untersuchungen auch untereinander zu vergleichen, entweder mit Hilfe des aktuellen Programms, oder an einer Kontingenztabelle, obwohl alle beide sehr viel Arbeit verlangen.

Ergebnisse der Analyse

- Der Durchschnittswert der zur Charakterisierung der Bewerber gebrauchten und sich aus psychologischen Untersuchungen ergebenden Totalpunktzahl ist höher bei denen, die aufgenommen wurden, als bei denen, die nicht aufgenommen wurden. Zwischen den zwei Gruppen gibt es einen signifikanten Unterschied.
- Den Unterschied zwischen den Aufgenommenen und nicht Aufgenommenen repräsentiert diese Methode gut, soger wenn wir nur die rohen Punktwerte in Betracht nehmen. /Es lohnt sich nachzudenken, ob die Addition der rohen Punktwerte in Standardwerte gut ist./

/Die Ergebnisse stehen uns zur Verfügung, getrennt über Männer und Frauen und von beiden Jahren/.

- Auch getrennt bei den einzelnen Untersuchungsmethoden ist der Durchschnittswert der Aufgenommenen höher als der der nicht Aufgenommenen. Auch diese Unterschiede sind signifikant. Ähnliches können wir auch über den bei den einzelnen Mitteln unmittelbar hergestellten rohen Wert sagen.

Als Ergänzung: wir haben noch drei Methoden verwendet: die von Brengelman, Taylor und den Ehlers-Fragebogen. Die Ergebnisse dieser wurden aber in die Aufnahmepunktzahl nicht einbezogen. Als Kuriosität möchte ich hinzufügen, dass die Ergebnisse der Aufgenommenen - auch in den ergänzenden Untersuchungen - obwohl in kleinerem Masse - besser waren, als die der nicht Aufgenommenen.

Zusammenfassung

Mit der Analyse der fünf psychologischen Methoden nach bestimmten Gesichtspunkten kann es auf empirischem Wege geklärt werden, ob zwei, selben zwecks gebrauchte Untersuchungsmittel wirklich gleichwertig sind oder nicht. Andererseits kann es auch geklärt werden, ob sie zur vielseitigen Annährung dienenden Mittel wirklich verschiedene Ergebnisse ergeben oder nicht ?

Literatur

HAJTMAN, Béla: Einführung in die mathematische Statistik für Psychologen /Bevezetés a matematikai statisztikába pszichológusok számára/ Akadémiai Kiadó, Budapest, 1968.

ACHIEVEMENT MOTIVATION OF ICE HOCKEY ATHLETES AND ITS CHANGES DUE TO ACTUAL PSYCHIC STATES

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In ice hockey we often see better and more reliable performances by players in training and exhibition games and less reliable performances or even failure in challenging national and international regular competitions played under greater psychic stress.

To explain this fact we try - in our work - to use the theory of attributes /Weiner, 1974) using for the interpretation and prediction of performance four basic factors: ability, motivation /effort/, difficulty of the task and luck. We suppose that abilities and motivation are the most significant factors. Abilities are an internal and relatively stable characteristics and on the other hand the motivation is an internal and relatively instable characteristic. These two characteristics are influenced by external characteristics, i.e. in our case the competition, match, luck or bad luck.

In sense of causal schemes of performances /Heckhausen, 1974/ it is the motivation which varies under the influence of psychic load owing to actual

operation of intensive stimulating situation influenced by actual game - psychic state. This is also the reason of lower performance of many players and goal-keepers in matches played under great psychic stress /Man, Wohl; 1977/.
In our paper we will point out the different level of achievement motivation in the rest situation and in the pre-game situation. For this purpose we use the sensitivnese of the projection techniques in situ conditions and we assume that the actual psychic states will be reflected in the aspiration level of the players. /Hošek, 1965/. On the basis of our experience and experimental work we have determined the following basic working hypothesis:
In the pre-game and not in rest state we find statistically significant difference in variables of achievement motivation and in variables of aspiration examination both in case of goal-keepers of the I. league and of junior ČSSR representatives /field players/.

Method

For evaluating achievement motivation we applied the modified TAT /thematic apperception test/. During administration and scoring we followed Heckhausen /1963/. The pictures were not original; the material suggested and verified by Hošek et al. /1973/ was used. These pictures show a great affinity to sports activity, they are schematic and sufficiently general. The Heckhausen projective measurement system of content analysis makes it possible to separate the following basic variables: hope of success and fear of failure and from these two further variables namely net hope and total motivation can be derived using mathematical approach.
For evaluating the level of aspiration we used the Lachman aspiration test /1963/. Hošek also used this method /1965, 1976/, and developed his own evaluation which better describes the level of aspiration than the common goal discrepancy.
Applying this method we obtained these four variables: goal discrepancy, attainment discrepancy, index suggested by Hošek for goal discrepancy /aspiration/ performance x 100/ and index suggested by Hošek for attainment discrepancy /performance aspiration x 100/.

Research organization

Method used were administered in rest situation collectively during the preparation period; first of all TAT, and then Lachman' aspiration test. The total investigation took approx. 30 min. In the pre-game state /2-3 hours/ before the I. league match individually and with junior representatives collectively before the preparatory match for the European Championship. In the rest situation the investigation proceeded in an optimal atmosphere whereas in the pre-game situation the interest of players in the investigation was much lower.
Only thanks to the fact that one of the authors of this paper was the central methodologist of the Ice hockey association and coach of the ČSSR junior representative team was it possible to carry out the investigation.
The experimental group was composed of 17 goalies of the I. league and 18 members of ČSSR Junior National team /field players/.

Results and Interpretation

For comparison of the rest values with values affected by actual psychic state the two-tailed t-test was used. The values of the t-test obtained in goalies for variables of achievement motivation do not in any case exceed the critical value, i.e. they are not statistically significant. The statistically significant difference /$p < 0.05$/ was only obtained in the test suggested by Hošek indicating the

relative discrepancy of attainment. From this fact we can derive that the league goalies in the pre-game period have a lower level of aspiration as compared with that in rest time; their aspiration are more closely related to the preceding action, their hyper-aspiration is lower. This is probably a consequence of the fact that top goalies with their many-years experience became aware of the riek connected with the approaching game. The goalies know that help from their fellow players can be only small. In our top competitions matches are not won or lost in advance and so the goalies are rather anxious about the result of every match. Top goalies are experienced, however, they are able to estimate their own possibilities in the match. This is probably the reason why they are cautious, which is also reflected in the lower aspiration level.

When comparing motivation variables in the rest - and pre-game states in the members of ČSSR Junior National Team /field players/, the same method and statistical evaluations were used as in the case of the goalies.

Much the same as with goalies the discrepancy of the attainment is decreased with the players although now the statistical significance is reached by the value of the discrepancy of attainment / $p < 0.05$/ while the same value as with goalies / index suggested by Hošek/ is significant only at $p < 0.10$. Another statistically significant difference between the two situations has been found in net hope /$p < 0.05$/ which arises from the difference between the hope of success and the fear of failure. The hope of success was decreased and the fear of failure increased, but without statistical significance. Statistical significance was found only in net hope.

The results of the experiment showed that while goalies are more realistic in the pre-game state, their level of aspirations is decreased / $p < 0.05$/. In juniors /field players/ the overall reduction of net hope /$p < 0.05$/ is added to this characteristic resulting from a slightly lower hope of success in the pre-game state and statistically insignificant fear of failure. This significant shift in the negative sense of junior National team athletes as opposed to league goalies is interpreted as resulting from smaller experience and the as yet incomplete selection of team line-ups for the European Junior Championship. The fear that some athletes might be not nominated considerably increased the anxiosity of psychic game conditions which was also reflected in the TAT.

References:

1. HECKHAUSEN, H.: Hoffnung und Furcht in der Leistungsmotivation, Meisenheim /Glan, Hein 1963.
2. HECKHAUSEN, H.: Leistung und Chanzengleichtheit. Göttingen, Hogrefe 1974.
3. HOŠEK, V.: Aspirační úroveň a její úloha při sportovní činnosti. Kand. disert. práce, Praha, UK 1965.
4. HOŠEK, V. - MAN, F. - PERGL, R.: Zjišťování výkonové motivace u hráčů sportovních her. Teor. praxe těl. Vých. 21, 1973, č. 6, s. 334-346.
5. HOŠEK, V.: Psychická odolnost při neúspěšné činnosti. Habil. práce, Praha, UK 1976.
6. LACHMAN, S.J.: Improvements in a Level of Aspiration Technique. Perceptual and Motor Skills, 16, 1963, č. 1, s. 87-90.
7. MAN, F. - WOHL, P.: Výkonová motivace hráčů ledního hokeje a její změny. Teor. Praxe těl. Vých. 25, 1977, 7 s. 442 - 448.
8. WEINER, B. /Ed./: Achievement Motivation and Attribution Theory, Morristown, N.J.: General Learning Press, 1974.

NÁCVIK RELAXAČNĚ AKTIVAČNÍ METODY /RAM/ A BIOFEEDBACK

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Princip zpětnovazebné kontroly vegetativních funkcí (tzv. biofeedback) u člověka spočívá v tom, že pokusná osoba sleduje příslušný parametr na technickém zařízení a metodou náhodných manipulací (pokus - omyl) se svým psychofyziologickým stavem se přibližuje danému cíli (např. zpomalení TF, snížení TK, modifikaci mozkových potenciálů, apod.). Jde o proces zdlouhavý, dosažené vegetativní výkyvy nejsou velké, bývají však statisticky významné.

Zájem o biofeedback v posledních letech vzrůstá, i když se soustřeďuje převážně na teoreticko experimentální práce se zvířaty.

Již řadu let používáme zpětnovazebné kontroly vegetativních funkcí (jmenovitě elektrického odporu kůže a tepové frekvence) jako doplňkové zážitkové informace osob při nácviku relaxačně aktivační atoregulační metody.

Tato metoda umožňuje záměrně regulovat celkovou aktivační úroveň (snižování a zvyšování), odstraňovat negativní emoční tenzi, stabilizovat pozitivní emoční sféru, apod. Efekt zásahu trvá 20 - 30 hod. V poslední době ji zavádíme jako součást psychologické přípravy vybraných sportovců.

Hlavním problémem nácviku záměrné autoregulace psychofyziologického stavu je verbální komunikace. Jednotlivé autoregulační operace představují umělé, zážitkové, z počátku neznámé, útvary. Proto nemáme, na co bychom při nácviku RAM navázali. Pomáháme si odkazy na jednotlivé zážitkové aspekty z různých životních situací, z nichž novou zážitkovou konstrukcí kompilujeme (např. jde o konstrukci zážitku napětí, vzrušení, ale bez ideační aktivity a svalové tenze).

Biofeedback nám v prvních fazích nácviku pomáhá překonávat sémantické bariéry. Zejména u sportovců, kteří mají jen základní vzdělání, je někdy tento postup nezbytný. Sportovec podle instrukcí zkouší jednotlivé průpravné operace autorelaxačního nebo autoaktivačního typu a zároveň sleduje jejich relaxační či aktivační efekt, objektivně zachycený např. pohybem ručičky psychogalvanometru. Poněvadž nezkouší naslepo, pokusem a omylem, dokáže zpravidla rychle odlišit relevantní manipulace od irrelevantních a kontrérních.

Pokud nám jde pouze o to, aby cvičenec získal elementární zážitkové zkušenosti v počátečních fázích nácviku, nýbrž sledujeme objektivní kontrolu kvality zhruba hotových autoregulačních dovedností, je biofeedback nepoužitelný.

Proto konfrontujeme zkušenost cvičence se záznamem o vegetativních změnách během autoregulačního cvičení ex post, po ukončení cvičení. Poněvadž známe charakter změn KGR, KT, TF, vasomotoriky, EMG, EEG, dechu aj. v průběhu dobře provedeného autoregulačního cvičení, máme možnost používat těchto objektivních údajů ke korekci některých chyb, jichž se cvičenec dopouští.

Emočně vegetativní sféra představuje psychofyziologickou bázi veškeré činnosti, ovlivňuje její dynamiku a do určité míry i obsah. Záměrné ovlivňování této sféry u vrcholových sportovců je důležitým krokem ke zvyšování jejich výkonnosti a spolehlivosti, k ovlivňování jejich psychofyziologické formy a i k zvyšování jejich odolnosti vůči stressogenním faktorům.

О ПЕРЕРАСПРЕДЕЛЕНИИ ФУНКЦИОНАЛЬНЫХ РЕЗЕРВОВ В СПОРТИВНОМ СТРЕССЕ

МАРИЩУК,В.Л., Ленинград, СССР

В данном сообщении мне хотелось бы акцентировать внимание на пяти аспектах проблемы спортивного стресса.

Первое. Перед тем, как говорить о стрессе, следует достаточно четко определить, что понимать под этим термином. Мы думаем, стресс – это далеко не всякая реакция напряжения организма. О стрессе, на наш взгляд, можно говорить только в том случае, если имеет место переход к выраженным гормональным реакциям по "оси гипофиз-кора надпочечников" (как это понимал Г.Селье). Наличие таких реакций можно определить, например, по экскреции стероидных гормонов, по развитию эозинопении и лимфопении и некоторым другим признакам. Мы в меньшей мере при этом обращаемся к оценке катехоламинов, так как их рост часто сопутствует обычным нейро-рефлекторным реакциям при эмоциях.

Если не выявлены достаточно выраженные гормональные реакции, оперировать термином стресс едва ли правомочно.

Второе. Когда говорят о стрессе, то обычно обращаются к его негативным явлениям, отмечают ухудшение деятельности. Об этом писали Васильева, Худадов, Парваков, Генов и многие другие. Именно негативная сторона стресса отмечена в выступлениях Зайчовеки, Микшика, Клавора на нашем конгрессе сегодня. Справедливая точка зрения, подкрепленная многими фактами. Общеизвестно, что многие спортсмены на ответственных состязаниях в стрессовой обстановке показывают более низкие результаты, чем на тренировках.

Однако, я хочу остановиться на противоположных случаях, которые также имеют место в спортивной практике.

Дело в том, что в стрессе человек нередко выполняет какую-либо деятельность с необычайно высокой эффективностью, хотя казалось бы все силы исчерпаны. Именно в стрессовом состоянии человек порой способен на то, что в обычных условиях представляется невозможным. Не столь редко мы можем наблюдать, что стрессовая обстановка большого состязания способствует тому, что спортсмен показывает свой наиболее высокий результат, который для него непосильным в самых оптимальных условиях тренировки.

Третье. В подобных случаях, как правило, говорят о чрезвычайной общей мобилизации функциональных резервов. Однако, нельзя также исключать возможность действия другого механизма. Я имею в виду не только мобилизацию, но и перераспределение этих резервов, усиление и поддержание на высоком уровне более важных функциональных показателей за счет менее важных, для выполняемой деятельности, в конкретные моменты ее протекания.

Например, в ряде экспериментов мы наблюдали, как в условиях больших тренировочных нагрузок спортсменами были достигнуты высокие технические результаты, но при этом у них резко снизились показатели иммунной реактивности, оцениваемые по гамма-глобулиновой фракции крови и фагоцитарной активности. У этих спортсменов ухудшились также тестовые показатели ряда психических процессов.

Всем известны многочисленные примеры из практики, когда в состоянии спортивной формы атлет оказывается весьма уязвимым к простудным воздействиям, к инфекциям; у него отмечается понижение отдельных психологических показателей и т.п.

В экспериментальных условиях деятельности нередко наблюдается такие некоторая диссоциация между физиологическими и психологическими реакциями. Так в одном полете по резком усложнении ситуации пилотирования, мы зарегистрировали у летчика частоту пульса 187 уд./мин, частоту дыхания 30 циклов/мин. (затем после посадки самолета были выявлены стрессовые гормональные реакции). Этот летчик на 70% ухудшил результаты в ряде отвлеченных психологических тестов, но полетное задание выполнить безупречно и в пробе на распределение внимания показал данные лучше, чем при исходном обследовании на земле. Эти и аналогичные материалы были неоднократно нами опубликованы (В.Л.Марищук, 1968; В.Л.Марищук и др.1969, 1970, 1971).

Подобные примеры можно объяснить с позиции учения Г.Селье о стрессе, но с тем уточнением, что в стадии повышенной (перекрестной) резистентности следует видеть две фазы:

1. Фазу перекрестной резистентности
2. Фазу перекрестной сенсибилизации.

В первой фазе происходит общее повышение функциональных резервов, во второй – их перераспределение (повышение, поддержание одних за счет других),

Более того, в последующей " стадии истощения" понижение функциональных показателей и устойчивости психических процессов происходит не общим потоком, как можно бы полагать, исходя из известной схемы Г.Селье, а также избирательно, как и в предшествующей фазе, только не в виде повышения отдельных показателей, а в их поддержании и более медленном падении. Например, при выраженной пищевой депривации в начале "сгорает" жировая ткань, затем наблюдается уменьшение мышечной массы, объема печени, селезенки и др., но сердечная мышца остается почти неприкосновенной.

Четвертое. Отметим также, что при физических нагрузках в диапазоне физической культуры и массового спорта, мы обычно не выходим за пределы перекрестной резистентности, но зато в "большом спорте" чаще имеем дело с перекрестной сенсибилизацией.

Пятое. Очень важно также сказать о том, что при стрессе в фазе перекрестной сенсибилизации выполняемая деятельность воспринимается как тяжелый дискомфорт и осуществление ее возможно лишь на базе очень устойчивых психологических установок, физиологической основой которых являются соответствующие доминанты (по А.А. Ухтомскому). Такие установки особенно прочны и эффективны, когда они социально обусловлены, социально окрашены.

Из нашего сообщения следует, что результаты психологического тестирования, проводимые с целью оценки функционального состояния иногда могут ввести в заблуждение, если не учитывать, в какой мере исследуемые психические процессы входят в структуру выполняемой деятельности. Например, временное понижение результатов какого-нибудь задания на ассоциативное мышление или запоминание слов и др. не дают основания для отрицательной диагностики или прогноза. Напротив, иногда такие показатели свидетельствуют о высокой направленности на определенную спортивную деятельность, характеризуют высокую спортивную форму. С другой стороны, вышеизложенное характеризует высокое значение психологических установок в спорте, свидетельствует о необходимости их формирования и упрочения в процессе психологической подготовки.

EL SWING IMAGINARIO, PROCESO DE ADAPTACION DE UN ACTO MOTOR COMPLEJO

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I) Introducción

El aporte de las diferentes ciencias aplicadas al deporte es incalculable y gracias a su contribución la actividad deportiva ha encontrado vías de superación y desarrollo, así como innumerables modificaciones en la forma y el contenido de algunos métodos de entrenamiento.

La Psicología como ciencia joven también ha invadido el ámbito deportivo y en el momento actual no solamente se muestra como ciencia experimental en uno de sus aspectos, sino que llega al entrenamiento y constituye un apoyo inigualable del atleta y el entrenador en la realización de su objetivo: el alto rendimiento deportivo.

El presente trabajo es un intento de sustraer de anguas concepciones pedagógicas deformantes desde el punto de vista psico-fisiológico algunos ejercicios utilizados todavía por ciertos entrenadores y atletas para el logro óptimo de la actividad deportiva.

Dentro de las especialidades del deporte, el tenis de mesa ha alcanzado en los últimos años un desarrollo ascendente. Su técnica se ha ido modificando y alcanzando cada día renglones más ambiciosos, pasando desde los más refinados golpes y estilos hasta la confección de gomas especiales que juegan con estos elementos.

Todo esto ha obligado a los atletas de este deporte a especializarse cada día más en su juego y a poner en acción la fuerza de su coordinación motora y visomotora, el desarrollo de la velocidad de sus reacciones y otras funciones también eminentemente psicológicas como la concentración de la atención y la velocidad de sus procesos de pensamiento, para poder cumplir exitosamente con los requerimientos que la técnica y la táctica lo plantean en el seno de la actividad. En ocasiones toda esta estructura de elementos psicológicos que sirven de base a la técnica y a la táctica no son fásiles de engranar por sí solas en una actividad de tanta rapidez e intensidad como lo es el tenis de mesa. Ante esta situación los entrenadores de este deporte han ido buscando paulatinamente durante los entrenamientos el automatismo de algunos golpes y jugadas fundamentales. Uno de los ejercicios más usuales para lograr ésto ha sido el llamado swing imaginario.

El swing imaginario es un ejercicio clásico conocido en nuestro país a través de los japoneses, los cuales han hecho de él un arma imprescindible.

Se le llama swing imaginario por ser una práctica automática de ciertos golpes fundamentales del tenis de mesa, el atleta haciendo swing-automatiza sus movimientos; es imaginario porque el atleta lo realiza sin pelota, imaginariamente.

Según reportes de la literatura muchos jugadores de fama internacional, entre ellos Hasegawa, Matsusaky, Ohzehu, Shibya (10) Yamanaka (9) y otros han utilizado el swing imaginario obteniendo resultados satisfactorios. Dentro de sus opiniones sobre el ejercicio tenemos entre otras:

- El swing imaginario debe realizarse como si se golpeara verdaderamente la pelota.
- Con disposición mental.
- Para corregir y perfeccionar la forma.
- Combinando los diferentes golpes y el juego de pies.

Esto nos hace inferir que el swing imaginario no es un mero ejercicio físico de automatización de movimientos, sino que está provisto en gran parte de una llama-

da disposición mental, psíquica, que sirve de real base para la ejecución y el rendimiento exitoso del mismo.

II/ El proceso de adaptación de un acto motor complejo

La práctica o entrenamiento del swing imaginario no es más que un proceso de adaptación de un acto motor complejo.
Acto motor que requiere un proceso de aprendizaje y ejercitación, es la base del cual se encuentra el reflejo condicionado, piedra angular de los mecanismos del aprendizaje y de la formación de hábitos en general. (2).
Es por éste que el swing imaginario no debe ser explotado indiscriminadamente como es el criterio de algunos atletas y entrenadores, llegando a elevados números de repeticiones, pues corremos el peligro de encaminar nuestra actividad a una saciedad, llevando la automatización de nuestros reflejos condicionados a niveles supramaximales donde puede aparecer la extinción. Además con un uso indiscriminado, por lo repetitivo del ejercicio tiende a decaer la motivación ante la tarea y aparecer la monotonía como elemento psicológico desfavorable en la actividad. Asimismo con lo continuado del ejercicio puede aparecer la fatiga la cual conduce mediata o inmediatamente al deterioro de la expresión de la actividad, como a resultados no deseados en el desarrollo de la misma (1).
Para combatir estos obstáculos, el atleta debe tener una retroalimentación constante del producto de sus movimientos, ésto es, brindamos fundamental importancia al reforzamiento del reflejo. Pero, ¿dónde se encuentra dicho reforzamiento, independientemente de las correcciones que pueda hacer el entrenador? Si no tiene la pelota que es el elemento externo del juego que le indica cual es el resultado de cada uno de sus golpes. Las responsables de ésto son las sensaciones propioceptivas y kinestésicas.
Las sensaciones propioceptivas y kinestéticas brindan la información de la posición y movimiento de nuestro cuerpo y extremidades en el espacio, independientemente de la información laberíntica.
Esta información epicrítica, discriminativa, llega a la corteza gracias a fibras nerviosas especializadas en forma de receptores que se encuentran en las articulaciones, músculos y tendones (3) (8).
La propiorrecepción es el aparato que mantiene el equilibrio del cuerpo en movimiento, su coordinación. Son los órganos de la homeostasis externa, es el aparato de la coordinación motora (6). De ahí la importancia de la educación de este aparato para encontrar la sensibilidad que sirva de reforzamiento y retroalimentación a los movimientos.
A.R.Luria en 1967 al citar los mecanismos de la sensibilización dentro de los factores psicológicos señalaba, además de la significación signalizadora del estímulo y del papel de las señales en la significación, el importante rol que juegan las condiciones especiales de la actividad profesional, factor éste que crea un set una actitud especial discriminativa, pudiéndose lograr agudizar determinada forma de sensibilidad (7).
Esto es, si bien el atleta por la práctica de su actividad tiene desarrollada su propiorrecepción y su kinestesia debemos además de ésto educarla, con el fin de que esa sensibilidad discrimine lo mejor posible aquellos movimientos que van a servir como retroalimentación y reforzamiento a su acción. Este elemento enriquece el swing imaginario como acto motor complejo, pues no sólo es importante como reporte Luria en 1967, el impulso referente que sale de la zona motora de la corteza

por vía piramidal hasta las astas posteriores de la médula y de ahí el efector para realizar el movimiento, es necesaria, la información propioceptiva por el grado de independencia de los músculos y ligamentos en relación al organismo, para que sea perfecta la distribución del movimiento de esas partes (6). La perfección y la fuerza de los movimientos se debe al aparato de función motora, más el aparato propioceptivo (4) (6).

Esa retroalimentación del movimiento que nos brinda la información propioceptiva y kinestésica para que sirva de reforzamiento a dicho acto motor nos lleva a la noción de aferentación de retorno de Añejin, próxima al extendido concepto de feedback.

La aferentación de retorno cumple una doble función. En relación con cada eslabón intermediario del vasto complejo motor juega un rol de señal para el pasaje al eslabón siguiente y en caso de frustración, de señal de una nueva tentativa. En relación al resultado total surge un rol diferente, forma la persecución de los movimientos y refuerza el sistema de excitaciones formadas en el cerebro. Eso es, constituye un modelo de acción, este modelo de acción es el producto de las aferentaciones de retorno (5).

El descubrimiento de la aferentación de retorno permite explicar una de las principales manifestaciones del aprendizaje, ésto es el perfeccionamiento de la estructura de los actos motores complejos durante el curso de la realización es decir, el proceso del desarrollo interno del aco mismo. Es aquí donde reside el problema central del aprendizaje motor y es por éste el camino por el que debemos encauzar el swing imaginario, no solamente por el de la automatización.

BIBLIOGRAFIA

1) FLOYD, W. Fatiga y Trabajo, Ediciones revolucionarias, 1964

2) GARRET, E.H. Las grandes realizaciones de la Psicología

3) GOLDARD, F.A. Otros canales de información. La Kinestesia. Escuela de Psicología. Universidad de la Habana, 1970, F-5421

4) JOKL, E. La estructura física de la mente. Un estudio psicológico de la imagen del cuerpo partiendo de la anatomía. III Congreso Mundial de la Sociedad Internacional de Psicología del Deporte. INER, Madrid, 1973

5) LEONTIEV, A.N. Reflejos condicionados. Aprendizaje y Conciencia. Escuela de Psicología. Universidad de la Habana, 1973, F.9173

6) LURIA, A.R. Clasificación de las sensaciones. Escuela de Psicología, Universidad de la Habana, 1967

7) LURIA, A.N. Variabilidad de las sensaciones. Adaptación y sensibilización. Escuela de Psicología, Universidad de la Habana, 1967, F.3588

8) TRUEX, R.C. Neuroanatomía humana. Cap.I Las terminaciones Perisféricas de las fibras Nerviosas Aferentes y Eferentes. Tercera Edición 1967

9) YAMANAKA El swing imaginario y yo. Mis memorias, Serie 55, C.D.INDER

10) Table Tenis Report, Abril 1972, C.D.INDER

DETERMINACION DEL NIVEL DE PREPARACION PSICOLOGICA DEL DEPORTISTA

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La necesidad de poder determinar con exactitud el nivel de preparación psicológica de un deportista o de un grupo de deportistas, ha venido a constituirse en un objetivo fundamental para la psicología del deporte. La importancia de éste es indiscutible, ya que ofrece la posibilidad de conocer los puntos débiles del deportista o del equipo, con lo que facilita la adecuada rectificación. Sin embargo, esta determinación no es fácil de lograr por la multitud de factores que intervienen en la ejecución de cada una de las acciones que tienen lugar durante un entrenamiento o en el transcurso de una competición.

En realidad, se trata de establecer un diagnóstico confiable acerca del estado psicológico, o mas bien, de la forma psicológica del deportista o del equipo, y para esto es necesario, ante todo, resolver varios problemas. Por ejemplo, cuál es el momento adecuado para tomarlo como base del diagnóstico, qué elementos debemos tomar del conjunto a fin de poder obtener datos confiables. Estas y otras muchas, son las interrogantes que surgen cuando se aborda esta tarea.

En la práctica del deporte moderno existen dos momentos fundamentales; el entrenamiento y la competición, los que a su vez contienen varias sub-divisiones. Sin embargo, el análisis de la actividad del deportista en cada uno de estos momentos, destaca sin lugar a dudas a la competición como la forma de evaluación de todo el trabajo realizado.

El Profesor Dr.Puni, en su obra Ensayos de Psicología del Deporte, se refiere a múltiples investigaciones psicológicas realizadas en condiciones de competencia en las que se aclaran aspectos tan importantes como "La influencia estimulante de la competencia", "La importancia del conocimiento previo de los resultados del contrincante" y de manera fundamental se refiere a "la influencia de la importancia social de la competición en el deporte". Así también, el Dr.Walter Doil en la obra "Aportes a la Psicología Deportiva", se refiere a la importancia de la preparación ideológica del deportista, como un medio eficaz de influir positivamente en el desarrollo del rendimiento deportivo. El Profesor, Dr.Epuran, en su obra "Psicología del Deporte", nos habla de la "Psicología del deportista en el Concurso", refiriéndose a aspectos tales como la táctica y su aplicación, así como los múltiples factores que deben tomarse en consideración al elaborar el plan téctico.

En general, un elevado número de científicos reconoce, y la práctica así lo confirma, que la competición resulta, por sus características, un momento excepcional dentro de la actividad del deportista.

Para nosotros, la competición es el laboratorio ideal en el cual deben medirse los resultados alcanzados por efecto del entrenamiento sistemático, partiendo del criterio de que es precisamente en ése y no en otro momento que el deportista o el equipo debe rendir el máximo de las posibilidades para las que fue preparado. Partiendo de esta premisa, se ha realizado todo el trabajo de investigación para el establecimiento del diagnóstico del estado psicológico del deportista, en las condiciones reales de la competencia.

Por ser el hombre un todo inseparable, cuyas manifestaciones se producen siempre con la participación íntegra de su personalidad, donde tiene una importancia fundamental la influencia del medio sobre el sujeto; nuestro trabajo se ha dirigido en su etapa inicial a la búsqueda de los medios que nos permitan establecer con un grado de exactitud confiable, el nivel de la forma psicológica del deportista.

Obtenido este dato fundamental, se hace posible entonces introducir en los planes de preparación, aquellos elementos que permitan corregir los errores detectados.
Para el desarrollo de nuestras experiencias, hemos tomado como método fundamental él del "análisis de la actividad del deportista y sus resultados", tanto en el aspecto psicológico, como en el deportivo a fin de establecer la correspondencia entre ambos.
Como métodos auxiliares o complementarios, fueron utilizados la observación programada y sistemática, el registro en protocolos especiales de cada una de las acciones del deportista durante el entrenamiento y la competición, el registro en Video-Tape el Cine, la Fotografía, la utilización de aparatos especiales construídos con fines específicos, las encuestas y el registro cualitativo y cuantitativo de los resultados deportivos del sujeto. Los deportistas utilizados como sujetos de experimentación, han sido miembros de nuestros equipos de más alta calidad en boxeo, atletismo, baloncesto, voleibol y natación.
El volumen de experiencias obtenidas, ha sido similar en lo que se refiere al entrenamiento y la competición.
En la actualidad, ha sido ampliado el grupo de deportes incluídos en la investigación.
Los resultados de nuestro trabajo hasta ese momento, nos permiten inferir las siguientes conclusiones:

1) Los resultados de investigaciones psicológicas, obtenidos en el laboratorio y en el entrenamiento, tienen un excepcional valor como elementos de comparación entre sí, y con los obtenidos en la competición.
2) Las características específicas del entrenamiento deportivo, exigen que sean concebidos métodos psicológicos específicos para su medición.
3) La competición resulta el momento más apropiado para establecer el nivel del estado psicológico del deportista.
4) Los métodos de investigación señalados, han permitido establecer un diagnóstico confiable tanto en deportistas en forma individual, como para equipos completos en los llamados deportes de conjunto.
5) La utilización de la metodología señalada, ha permitido obtener en el deportista datos de procesos psicológicos específicos, a través del registro de la acción total.

ZUM ZUSAMMENHANG ZWISCHEN AKTIVEM SPORTTREIBEN UND DER SUBJEKTIVEN SELBSTEINSCHÄTZUNG DER GESUNDHEIT

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1. Vorbemerkungen

Bei der Ableitung und Postulierung von Zielen des Sports werden vor allem von Seiten der Vertreter der Sportorganizationen in zunehmendem Masse biologisch-medizinische Argumente berücksichtigt: allgemeiner Bewegungsmangel, begründet durch die technisch-industrielle Entwicklung, führe zu Zivilationsschäden, die Volksgesundheit sei in Gefahr, so dass dem Sport als Gesundheitsvorsorge, als Erhaltung oder Wiederherstellung der Gesundheit eine besondere Rolle zugesprochen werden müsse (vgl. JÜTTING 1976). Gestützt durch Ergebnisse sportmedizinischer Untersuchungen, wonach eine regelmässige sportliche Betätigung sowohl im präventiven als auch im rehabilitativen Bereich einen positiven

Einfluss auf die Gesundheit ausübt (vgl. BECKMANN 1973, REINDELL/ROSSKAMM 1974), zielen z.B. in der BRD die Werbemassnahmen für den in diesem Zusammenhang relevanten Freizeit- und Breitensport fast ausschliesslich auf diesen Gesundheitsaspekt ab.

2. Zum Begriff der Gesundheit

Gesundheit kann aus medizinischer Sicht als "ein Zustand der Homöostase des dynamischen Gleichgewichts der Stoffe, Formen und Funktionen des Organismus in Relation zu den Anforderungen der Umwelt" definiert werden (MELLEROWICZ 1974). Damit wird jedoch die Gesundheit schon allein durch die Überprüfung der Organfunktionen operationalisierbar. Im Gegensatz dazu kann man wie z.B. die Weltgesundheitsorganisation unter Gesundheit das psychologische Gleichgewicht verstehen, das sich subjektiv im Wohlbefinden des Einzelnen ausdrückt. Gesundheit kann dann als Ausdruck völligen geistigen, körperlichen und seelischen Wohlbefindens definiert werden, das durch eine operationale Definition nicht fassbar ist.

Nach GRUPE (1976) hängt dieses subjektive Empfinden nicht allein von körperlichen Voraussetzungen ab, obwohl diese als sehr wichtig anzusehen sind, sondern auch von psychischen und sozialen Faktoren. Gesundheit im Sinne von Wohlbefinden ist demnach einerseits als ein "von individuellen körperlichen und psychischen Gegebenheiten abhängiges Phänomen anzusehen, das vor allem individuell wahrgenommen und empfunden wird" (GRUPE 1976:357); andererseits steht sie jedoch auch unter dem Einfluss von kulturellen und sozialen Wertvorstellungen.

3. Folgerungen

Die Auswirkungen von Trainingsprozessen und Leistungsanforderungen auf den menschlichen Organismus sind vor allem im Rahmen medizinischer Untersuchungen aus dem Bereich der Trainingslehre eingehend diskutiert worden. Die dabei gefundenen positiven Auswirkungen sportlicher Betätigung insbesondere auf die Leistungsfähigkeit des Herz- Kreislaufsystems führen zu global formulierten Behauptungen wie "Sportler sind gesünder", wobei für die Überprüfung dieser These in der Regel nur objektiv messbare Kriterien, d.h. vorwiegend physiologische Parameter als Indikator für den Gesundheitszustand herangezogen werden.

Diese Erklärungsansätze erscheinen zwar aus medizinischer Sicht notwendig und hinreichend, vernachlässigen aber das subjektiv erlebte Gesundheitsempfinden, das für das aktuelle Verhalten von ausschlaggebender Bedeutung sein kann.

In der vorliegenden Untersuchung, die lediglich als heuristische Studie zu werten ist, wird deshalb primär vom individuell erlebten Gesundheitszustand ausgegangen und versucht, Beziehungen zur sportlichen Betätigung unter gleichzeitiger Berücksichtigung wichtiger soziodemographischer Determinanten herzustellen.

4. Empirische Untersuchung

4.1.Stichprobe und Methode

Die Gesamtstichprobe umfasste 485 erwachsene Versuchspersonen verschiedenen Alters (18 - 50 J.), Geschlechts und Schulbildung. Die Befragung erfolgte mit Hilfe einer sechsstufigen Ratingskala zur subjektiven Einschätzung des Gesundheitszustandes. Die vorgegebenen Antwortkategorien reichten von sehr gut (6) bis sehr schlecht (1). Zusätzlich wurden neben soziodemokraphischen Variablen die Häufigkeit und Intensität des aktiven Sporttreibens erfragt.

4.2. Ergebnisse

Die befragten Versuchspersonen geben überwiegend an, sich gesund zu fühlen. Die Verteilung der Ratingwerte der Selbsteinschätzungsskala ist eindeutig linkssschief mit einem Mittelwert von 4.72 und einer Standardabweichung von 0.92. Lediglich 8,5% der Befragten geben an, einen schlechten Gesundheitszustand zu besitzen.

Zentrales Thema der Datenverarbeitung war die Frage, ob sich unterschiedliche sportliche Aktivität auch im subjektiven Gesundheitserleben ausdrückt, d.h. die Prüfung der Arbeitshypothese "Sportler sind gesünder" oder umgekehrt "Gesündere treiben mehr Sport", wobei nun unter Gesundheit kein objektiv erfassbares medizinisches Kriterium, sondern lediglich das subjektive Wohlbefinden verstanden wird.

Dazu wurden die 485 Versuchspersonen nach dem Ausmass ihrer sportlichen Aktivität in 6 Gruppen zusammengefasst, und die Mittelwertsdifferenzen mittels einer einfaktoriellen Varianzanalyse auf Signifikanz abgetestet.

GRUPPE		N	$\bar{X}$	s
0	KEIN SPORT	209	4.45	1.01
1	GELEGENTLICH SPORT	34	4.68	0.72
2	EINMAL MONATLICH SPORT	10	4.80	1.31
3	EINMAL WÖCHENTLICH SPORT	103	4.93	0.76
4	MEHRMALS WÖCHENTLICH SPORT	117	5.04	0.76
5	TÄGLICH SPORT	12	4.75	0.62
	GESAMTGRUPPE	485	4.72	0.92
	F = 8.297 p = 0.001			

GRAPHISCHE DARSTELLUNG DES PROFILVERLAUFES

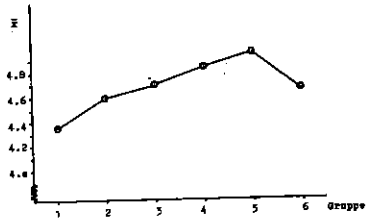


ABB. 1: MITTELWERTSVERGLEICH DER SUBJEKTIVEN GESUNDHEITSEINSCHÄTZUNG BEZÜGLICH SPORTLICHER AKTIVITÄT

Der F - Test wird signifikant, d.h. die verschiedene Sportaktivitätsgruppen unterscheiden sich bezüglich ihrer subjektiven Gesundheitseinschätzung. Der Mittelwertsprofilverlauf zeigt, dass die Einschätzungswerte mit steigender Aktivität nahezu linear ansteigen, ein Knick erfolgt erst bei der Gruppe der Vpn, die täglich Sport treiben. Es liegt die Vermutung nahe, dass für diese Sportler die aktive Betätigung bereits wieder zu einer Belastung wird, die sich auch im physischen und psychischen Erleben ausdrückt.

Die Ausdifferenzierung der obigen Fragestellung, ob die Unterschiede im "Gesundheitserleben" gruppenspezifisch verschieden sind, wurde mit Hilfe einer vierfaktoriellen Varianzanalyse abgetestet.

Neben dem bereits diskutierten signifikanten Mittelwertsunterschied bei unterschiedlicher sportlicher Aktivität ergibt sich lediglich noch eine statistisch bedeutsame Abhängigkeit der Einschätzungswerte vom Alter der Befragten. Die Vpn unter 32 Jahren fühlen sich signifikant gesünder als die älteren Vpn. Keine signifikanten Haupteffekte ergab die Unterscheidung nach Geschlecht bzw. Schulbildung. Die folgende Abb. 2 verdeutlicht noch einmal den Profilverlauf der Mittelwerte bei Berücksichtigung der zwei signifikanten Faktoren "Alter" und "sportliche Betätigung". Zu beachten ist dabei, dass die Ausprägungen für den Faktor "sportliche Betätigung" auf drei Kategorien zusammengefasst wurden, um eine ausreichende Zahlenbesetzung zu sichern.

ABHÄNGIGE VARIABLES: SUBJEKTIVE GESUNDHEITSEINSCHÄTZUNG

F - TABELLE:

	F	P
HAUPTEFFEKTE	11.06	0.000
SPORTLICHE AKTIVITÄT	11.71	0.000
SCHULBILDUNG	0.027	0.870
ALTER	16.176	0.000
GESCHLECHT	2.507	0.114
2-FACHE INTERAKTION	0.567	0.824
3-FACHE INTERAKTION	0.392	0.907
4-FACHE INTERAKTION	0.328	0.721

GRAPHISCHE DARSTELLUNG DER MITTELWERTSPROFILE UNTER BERÜCKSICHTIGUNG DER SIGNIFIKANTEN HAUPTEFFEKTE

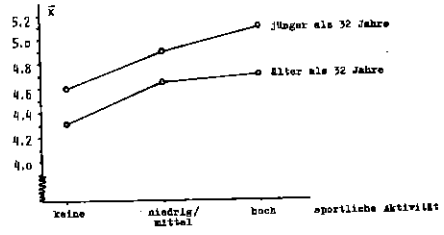


ABB. 2: ERGEBNISSE DER VARIANZANALYSE

Beide Profile verlaufen nahezu parallel. Die Mittelwerte der jüngeren Vpn liegen dabei in allen Altersbereichen signifikant höher. Der Ansteig beim Faktor "sportliche Betätigung" weist einen deutlichen Knick auf, d.h. Sporttreiben wirkt sich zunächst einmal positiv auf das Gesundheitsempfinden aus, es besteht aber kein perfekter linearer Zusammenhang.

5. Zusammenfassung

Die Tatsache der allgemein hohen Einschätzung des eigenen Gesundheitszustandes im Sinne eines wahrgenommenen und empfundenen Wohlbefindens mag vor allem mit persönlichkeitsspezifischen Vorstellungen, dem Einfluss soziokultureller und sozialer Werte und Normen, aber auch mit der Unkenntnis biologischer Vorgänge im eigenen Körper zu erklären sein.

Dennoch muss nach den vorliegenden Ergebnissen festgehalten werden, dass eine Beziehung zwischen der Gesundheitseinschätzung und der sportlichen Betätigung besteht. Damit werden weitesgehend die Ergebnisse medizinischer Untersuchungen gestützt, so dass eine Parallelität zwischen dem pädagogisch-psychologisch orientierten und dem rein medizinisch orientierten Gesundheitsbegriff festgestellt werden kann. Es empfiehlt sich jedoch insbesondere für den Freizeit- und Breitensport aus motivationalen Gründen stärker auf das individuelle Gesundheitsempfinden einzugehen.

Literatur
BECKMANN, P.: Moderne Gesundheitspflege. Frankfurt 1973
GRUPE, O.: Leibeserziehung und Erziehung zum Wohlbefinden. Sportwissenschaft 4, 1976: 355-373
JÜTTING, D.H.: Freizeit und Erwachsenensport. München 1976
MELLEROWICZ, H./MELLER, W.: Training. Berlin/Heidelberg/New York 1975[2]
REINDELL, H./ROSKAMM, H.: Sport und Freizeit in ärztlicher Sicht In: SCHMITZ-SCHERZER, R. (Hrsg): Freizeit. Frankfurt 1974: S. 148-159

ОБУСЛОВЛЕННОСТЬ ОПТИМАЛЬНОГО СТИЛЯ ДЕЯТЕЛЬНОСТИ В СПОРТЕ ТИПОМ НЕРВНОЙ СИСТЕМЫ

МЕРЛИНКИН,В.П., Казань, СССР

Рядом исследований по общей теории системы установлено, что человек содержит целый ряд иерархически организованных уровней индивидуальных свойств, которые обладают значительной вариативностью. Однако, при этом, выделяют и такие, которые имеют физиологическую основу и генетически обусловлены. Теплов В.М., Небылицын В.Д., Мерлин В.С., Гуревич К.М., Климов Е.А. к последним относят свойства нервной системы и темперамента, играющих роль в трудовой, учебной и спортивной деятельности и определяющие нормально-динамическую сторону действий. Этими же исследователями изучались вопросы приспособления субъекта к объективным требованиям. Установлено, что существует несколько путей такого приспособления. Одним из таких путей является подбор вида спортивной деятельности к психическим свойствам человека. В спорте это именуется отбором. Другим путем приспособления человека к объективным условиям деятельности является путь нивелирования индивидуальных особенностей при организации деятельности. В основе такого пути лежит учет свойств нервной системы, темперамента и индивидуализация учебно-тренировочного подхода. В процессе такой организации спортивной деятельности становится возможным людям с различными и даже противоположными свойствами приходить к одному и тому же конечному положительному результату. Такой подход привел к выделению наиболее универсального пути - формирование индивидуального стиля деятельности.

Вместе с тем стало известно, что в процессе направленного формирования индивидуального стиля возможно приобрести ложный стиль, не оптимальный стиль. Отсюда важным является вопрос о соотношении наследственного и приобретенного в индивидуальном стиле. В контексте вышесказанного и находились последние наши исследования.

В одном случае формировался стиль не на оптимальной, а в другом на оптимальной индивидуально-психологической основе, т.е. спортсмены обучались "своему" и "чужому" стилю (соответствующему и не соответствующему свойствам типа нервной системы). Оказалось, что в результате целенаправленного педагогического процесса можно научить как "своему", так и "чужому" стилю. Вторым вопросом было выявление степени сохранности "своего" и "чужого" стиля в сложных условиях. В качестве таковых создавались стрессовые ситуации. В таких условиях у спортсменов имеет место разрушение сформированного "чужого" стиля деятельности и переход к способам и приемам действий адекватных их типологическим особенностям.

Таким образом мы установили, что в случаях формирования индивидуального стиля деятельности в спорте, спортсмену совместно с тренером, необходимо искать "свой" стиль, опираясь на оптимально-индивидуальную психологическую основу.

METHODOLOGICAL PROBLEMS OF ASSESSMENT OF PERSONALITY DETERMINANTS OF INSTABILITY IN SPORTS PERFORMANCE

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Investigations of personality determinants of instability of sports performances of top sportsmen with regards to the dynamics of conditions and circumstances of sports contests are in the focus of sports psychology. We concentrate our attention on those sources of instability of the sports performance which are manifested by impaired psychical functions and lead to a generally impaired interactive behaviour of the sportsmen during a contest and to disintegration of his personality. Thus we want to know for instance why the performance of the sportsman who in national contests holds constantly a superior place drops at international contests to a lower average level of the other representatives of his country; why he does not exhibit a standard performance during the nomination contest; why does an otherwise distinguished hockey player begin to play in crucial moments of the contest individually, etc.

It is a complicated methodological problem to reveal the causality, role of personality positional and psychosocial determinants of the dynamics of behaviour and performance in sports contests. The essential interactive approach to investigations of the complex action of the above determinants is grossly at variance with the routine applied so far in psychological examination procedures, i.e. with the /a/ statistical concept of the dynamic process of interaction, /b/ with linear instead of curvilinear /pessimal-optimal/ trends and /c/ with the isolated evaluation of individual features and properties instead of considering structure, clusters of the acting components.

There are sports disciplines where there seem to be associations between personality and positional, apparent and obvious components. Thus for parachutists the crucial moment seems to be the disintegrating effect of fear for life on the coordinated activity and ability to preserve orientation of himself and his environment, to perform the trained operations. The involved variables are obvious. As regards personality variables it is desirable to select so-called emotionally stable individuals. In psychology we cannot reflect, however, in linear trends but in curvilinear trends where the pessimum lies at both ends of the continuum and the question arises in which space we may assume with regard to adequate interactions the optimum measure /quality/. The optimum measure /quality/ of emotional stability is that which on the one hand does not imply a psychopathic negation of anticipation and on the other hand creates in the given individual the prerequisite to make, if his training is well organized, his first jumps and to experience gradually pleasure from overcoming himself and from the implementation of the activity. The remainder /the transmission of the potential prerequisite into reality/ is the concern of aimed training, directed psychological preparation etc. to prevent the development of extreme situations.

The interactive approach to the evaluation of the role of positional and personality variables in the instability of sports performance is projected also in the concept of determinants and investigations of the dynamics of basic psychical functions. During assessment of basic psychical functions in the laboratory we can reveal typical differences between top sportsmen in different sports disciplines. By categories of these differences it is possible to specify the demands of various sports disciplines as basal values of selected psychical functions which are among the fundamental

determinants of success in a given sports discipline / or type of sports discipline resp./. Thus we revealed e.g. substantial differences between rowers and volley-ball players in their spontaneous reactivity, reaction time, qualitative indicators of sensomotor coordination, in the concentration and division of attention, perception, subjective time flow etc. At the same time we found, however, that this basic structure of values of psychical functions alone is not decisive for stable top performances under dynamic conditions and situations. The problem is to what extent and in what respect it is determined by subjective experience, anticipation, motivational structure, the influence of the actual situation - i.e. to what extent it can assess typical dynamics of the given psychical functions in the given subject, the personality background.
This assumes that an adequate application of the interactive approach for elaboration such a personality concept is found and that it will be further studied and that it must have:

- an adequate psychological concept of the personality as a dynamic structuralized system of effective interaction with the dynamic living environment, conditions and circumstances of life and activities;
- corresponding ways and tools for recording laws of subjective behaviour and activities, reveal its basic personality and positional determinants in their structure and dynamics to explain and foresee the interactive behaviour of the individual.

Our research of the nature and ways of interactive behaviour in the common population exposed to the dynamic action of stressogenic circumstances of life led to the assessment of personality factors which determine this behaviour and which can be described as a certain psychical potency of the dynamic adjustment to variable and permanently acting variables. Four basic mutually independent factors of the psychical variability of personality were revealed which form a specific structuralized complex of cognitive, emotional regulatory and adjustable components which combine in every individual to form a typologically unique personality profile of his individual structure of psychical variability of the personality /Mikšík, 1975, 1976, 1977/.
In every one of the above mentioned factors we consider two aspects:

a/ the quantitative aspect on the continuum from maximal inertness /stability, rigidity, constancy/ via the "average" /most common/ balanced state to maximum variability /mobility, motility, instability, plasticity/;

b/ the aspect of psychic quality /component/ to which this variability pertains:

- cognitive variability pertaining to cognitive functions, recording and processing of a complex of positional variables.
  A high variability is a typical tendency towards change, inclination to high quantity, dynamics and variability of intense external stimuli during their comprehensive recording and cognitive processing; invariability is a trend towards interaction with a stable, cognitively poor environment, or a low cognitive capacity for recording variables and their processing;
- emotional variability pertaining to the experience of interaction with the environment, with situational variables. We evaluate here the dynamics of emotions and their consequences in the cognitive and conative sphere /in particular as regards the relationship of emotional and rational aspects in the interaction

of the subject with the environment/. At the pole of variability there is a high emotional excitability, experience of tensions, situational tension, anxiety etc., inertness is typical by its emotional stability to reduced emotivity;

- regulatory variability, pertaining to regulatory or directing functions of conative modality, goal-oriented behaviour. High variability is typical by low determination of selection of goal-oriented behaviour, invariability by systematic inclusion of the future possible effect into the present decision and behaviour /so-called anticipating regulation of behaviour/;
- variability of adjustment pertaining to adaptation. High variability is typical by its tendency to respond to the permanent and dynamic action of positional variables by expedient adaptability / in the sense of adaptation or yielding/. Inertness can be conceived as rigidity of adjustment: the individual adjusts only to very specific aspects of the situation and has a tendency to adhere to his own persisting approaches, patterns of activities and behaviour /i.e. he rather adapts the situation to himself than vice versa/; under dynamic conditions he develops more easily maladaptive behaviour.

Research implemented under laboratory conditions of a model psychical stress and real stress situations proved an association of structures of psychical variability of personality with basal biotypical characteristics of the individual / in the concept of temperament/. On the other side, the assumption was confirmed that the individual structure of psychical variability determines the mode and dynamics of interaction of the subject with situational variables where each one of four independent components is projected in a specific way into the resulting structure and mode of activities and behaviour /Mikšík 1976, 1977/. Intense collaboration of psychologists and coaches and our own activities at the Olympic games in 1976 proved:

a/ a substantial role of the individual structure of psychical variability of the sportsman's personality as regards achieving top performances in dynamics of situational variables.

b/ the possibility and necessity to define for a given sports discipline the optimal, unsuitable or pessimal structure of this psychical variability of personality

c/ the aptness of the applied IHAVEZ questionnaire /Mikšík 1973, 1976/ for the diagnosis of the above personality structure.

These findings are discussed elsewhere /Mikšík 1975, 1976, 1977/.
If it proved to be of practical use to record the structure of psychical variability, then there is the crucial problem of objectivization of methods for the penetration into its fundamental components. We cannot be satisfied with the contemporary habit in psychology of the personality - i.e. orientation focused only on questionnaires - only where /1/ global orientation is involved or where /2/ it is not possible or economical to select more comprehensive examination procedures. For effective prediction it is essential to confront findings obtained by questionnaire methods with other more exact procedures. This assumes, however, that we overcome /1/ traditional approaches to the concept and study of personality and /2/ a statical view of experimenting, i.e. the measurement of individual functions as such /an sich/ and that we conceive laboratory procedures as the modelling of miniature life situations where substantial personality structures are dynamically manifested. In this sense we approached to conceive the methodological procedure of experimental

tests of possibilities and ways how to diagnose the structure of psychical variability of the personality of top sportsmen, based on the assumption that

- the individual structure of the psychical variability of the personality is manifested by specific qualities of interaction with the dynamics of situational variables in the dynamics of all basic psychic functions
- behind the dynamics of interactive behaviour in different life situations we can detect a real personality background of the holder of this behaviour, the dynamic structure of his personality.

For the laboratory examination of 132 sportsmen from representative teams under conditions of several hours model stress the following hypotheses were defined:

1. In different types of model psychical stress in the dynamics of psychical functions different actualized components of psychical variability of the personality, typical for the given type of psychic stress will be manifested.
2. In the laboratory it is possible to achieve under certain conditions the necessary variability of the background for a standard set of activities. The new organization of conditions causes that behind the same indicators of dynamics of performance different personality backgrounds are hidden which determine its attainment.

We created a standard structure of tasks for every period /level/ of continuous examination which renders it possible to record the dynamics of performance in all basic psychical functions / from tapping via simple and disjunctive reaction time, different aspects of sensomotor coordination, quality of attention, subjective flow of time to mental performance supplemented by demands on secondary activities. A different background when the demands on the examined subject are the same, led to the development of two different types of model stress:

A. stress of a persisting type /homogeneous background during continuous six-hour solution of the above tasks/
B. emotionally exposed stress situation /when the tasks were resolved under specific conditions - anticipation of possible fall with chair, intense unpleasant sounds, etc./

The revealed relations are discussed elsewhere /Mikšík 1977, a,b/. Based on these relations it was possible to deduce indicators of components in the structure of psychical variability on which the dynamics of performance in a given type of "miniature life situation" in the laboratory depend.

Thus in model stress of a persisting type it appeared that:

- the indicator of cognitive variability was the mean rate of work in mentally demanding activities, the dynamics of performance in complex sensomotor coordination and in the concentration of attention, a peculiar insight into the essence of mentally demanding tasks,
- the indicator of emotional variability is spontaneous reactivity, the dynamics of the quality of performance in tests of sensomotor coordination and concentration and divided attention,
- the variability in regulation was associated with an estimate of time intervals and the intervals and the dynamics of the reaction time,
- the indicator of the adaptation variability was then mainly the rate of reactivity, the quality of mentally demanding performances, the dynamics of attention.

In the emotionally exposed model stress:

- the indicator of cognitive variability was the quality of performance of vision and concentration of attention, trends in the reaction time, the dynamics of the working tempo in mentally demanding operations, etc.,
- a typical indicator of the emotional variability was the concentration and division of attention, the dynamics of qualitative indicators of performance in all mental functions ,
- the regulation variability correlated with the performance in mentally demanding activities and in tests of complicated sensomotor coordination and with typical trends in the quality of performance in indicators of regulation of psychical activities /concentration and division of attention, etc./,
- in adaptation variability in particular associations with the dynamics of the estimated time intervals and the subjective flow of time were manifested.

All assembled findings are in keeping with the initial hypotheses and are logically interpretable /Mikšík 1977/. In practice this means that:

1. the basic prerequisite for evaluating components of the psychical variability of the personality by laboratory tests is adequate modelling of aspects of model miniature life situations where these components may be manifested.
2. behind indicators of performance in different types of model situations we can reveal those personality components which are actualized by the situation. If we know in what way different components are manifested in different types of model situations, we can define by varying adequately the situation, while preserving a stable set of indicators of performance, the above dynamic personality structures.
3. If we are able to record /1/ which psychical functions are fundamental for the stability of top performance in a given type of sports activities and /2/ if we know what type of personality background is associated with their quantitative and qualitative indicators in the dynamics of model situations, we can assess hypothetically the optimal and pessimal structure of psychic variability of personality as regards the limits of performance in a given sports discipline and compare it with individual specific features as regards the personality profile and manifestations of instability of the sports performance.

CHANGES IN ACTIVATION LEVEL UNDER THE EFFECT OF AUTOGENIC TRAINING

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Changes in the activation level under the immediate effect of the Schultz-type Autogenic Training /AT/ have been studied in archers and high-jumpers. The investigated problems were the following:

1. how does activation level change under the effect of AT in our athletic subjects;

2. what differences can be observed between the results obtained after prolonged /15 to 20 minutes/, respectively after 5 or 10 minutes exercises?

3. do the effects of AT fall in with the aims and purposes of a successful preparation of athletes?

Methods

The examinations were carried out in three groups of athletes.

Group I. consisted of members of the Hungarian National Archery Team /5 females and 5 males; mean age was 28.2 years/.
In regard of practice in AT they could be classified as medium advanced.

Group II. consisted of 9 adult archers belonging to one and the same club / 5 females and 4 males, their mean age being 27.1 years/.
The members of
group III. were top level high-jumpers / 3 females and 5 males/, their mean age was 20.3 years. From the point of view of AT the two latter groups were classifiable as beginners.
To register the changes in the activation level heart beats were counted by palpation and by telemetry, blood pressure was measured as by Riva-Rocci-Korotkoff; grip-strength, skin temperature, galvanic skin response were measured by standard techniques, and also EMG and EEG methods were used. Shooting performance was studied indoors under competitive conditions.

Results

1. In general, the psychophysiological effect of standard AT exercises upon our athletes /archers and high-jumpers/ corresponds to data found in the international literature referring to athletic and healthy non-athletic subjects /see e.g. Luthe and others/.

2. Except contradictory blood-pressure data - our results show that the activation level of subjects in group I. decreases significantly during prolonged AT exercises and according to grip-strength and heart rate data it does not reach initial values even after the reactivation procedure prescribed by Schultz. The difference between the data obtained before and after prolonged standard exercises is highly significant: $P < 0.001$.

3. In groups II. and III. /of club-level archers and high-jumpers/ the activation level decreases significantly after 8-10 minutes' standard exercises according to heart rate data / $P < 0.01$/, while the decrease in grip strength data was not significant.

4. According to our laboratory findings short-term /5 minutes'/standard exercises bring about less change in the parameters referring to activation level than standard exercises of longer duration. There is hardly any appreciable difference between data obtained before and after AT.

5. In the laboratory experiments the intentional formulae related to archery had a psychophysiological effect somewhat different from those of a standard character, although the difference found in e.g. the EEG data could not statistically be verified.

6. In groups II. and III. we have studied also the changes occurring in grip strength. Grip strength of both hands was measured three times: namely /a/ before AT, /b/ immediately after the 8 to 10 minutes' session and /c/ 8-10 minutes after the reactivation procedure. It was found, that 8 to 10 minutes after the end of the AT session activation level tended to return to the values measured before exercises.

7. We have studied the effect of AT upon the performance of archers im competitive conditions. The largest increase in performance was found after the specific exercises /i.e. after archery-related intentional formulae/, although the increase in scores was not significant at the 5% level.

Conclusions

To summarize our findings: activation level of the athletes decreases under the immediate effect of standard exercises. The degree of decrease is related to the duration of AT sessions.
In this regard special consideration has to be given to grip strength that decreased highly significantly under the effect of prolonged standard exercises. These data lead to the conclusion that it is not advisable to apply prolonged neuro-muscular relaxation closely before sport activities that demand powerful muscle-contraction, such as in weight-lifting, wrestling, sprints, jumps, throws, etc.
According to the retrospective reports of high-jumpers the "heaviness" formula is strongly antagonistic to the spirit of this sport activity.
A similar contradiction could be found in many other cases, e.g. in weight-lifting, wrestling etc. According to our experience such "negative" suggestions acting against the nature of these events should definitely be avoided.
On the basis of our experiments and observations we suggest that AT should be employed in dependence on the phase and actual situation of training and competition, and in agreement with the competitors' personality traits. In other words, in order to achieve a better performance it is necessary to elaborate in every sport and in every case an actually suitable modification of AT or AT-type mental exercises.

References.

1. Cratty, B.I.: Psychology and Physical Activity. Prentice Hall Inc., Englewood Cliffs, New Jersey 1968.

2. Koronkai, B.: Sipos, K., Arató, O.: Application of Autogenic Training in Sport /In Hungarian/. A sport és testnevelés idószerü kérdései, No. 2. 17-54. p. 1970.

3. Luthe, W.: Autogenic Therapy, Volume IV., Research and Theory, Grune and Stratton, New York and London, 1970.

4. Mónus, A.: Activation, Mental Exercises, Concentration of Attention /In Hungarian/. Tudományos Sportélet, No. 4.1.-2. p. 197o.

5. Mónus, A.: Psychophysiological Problems in Application of Autogenic Training /Unpublished doctorial dissertation in Hungarian/, Budapest, 1973.

PSYCHOLOGICAL PROFILE OF ARCHERY

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Detailed psychological analysis of this sport would go beyond the frames of this publication. Our aim is to give a sketch of the psychological profile of target archery.

Methods

We have performed our investigations and observations partly in laboratory, partly in natural circumstances. Our main methods have been: telemetric pulse-measurements, EEG and EMG tests, guided exploration, questionnaires, projective tests and observations.
We have composed the psychological profile of target archery on the basis of the obtained results according to principles described by Rókusfalvy/1974/.

Analysis and characterisation of the activity in Archery, critical elements of the execution of movements

Archery is an individual sport in which the activity of the archers is bound and limited, always directed towards the solution of identical tasks.
In target archery the aim of the sport-activity is getting the arrows into the target, i.e. hitting the gold, the center of the target face containing 10 concentric circles.
Characteristics of perfect shots are the execution of synchron and successive elements of movements in exactly the same way; at each shot each element is exactly identical, a stereotype reproduction of the previous ones. By this the monotony of this activity is demonstrated as well.
On the basis of guided explorative interviews made with world top shooters and with members of the Hungarian national team we may state that the most important and at the same time most critical elements of successful archery are steady and calm aiming, stable holding of the bowarm and bowhand, intensive tension of the shoulder - and back-muscles while aiming.
These statements have been reinforced by our own EEG and EMG examinations /Mónus, 1973/.

The effect of psychosomatic loading upon the cardiovascular system

In order to examine the effect of archery upon the cardiovascular system we have performed a series of telemetric pulse-measurements in training camp conditions with six members of the Hungarian national archery team /Mónus, 1973/.
We have recorded the pulse-rates before the beginning of trainings, immediately before aiming, while aiming and immediately after shots. We have obtained the following average results:

Initial values :	73.9 beats/min
Before aiming:	100.9
While aiming:	108.9
After shots:	100.8

We have obtained the highest pulse-rates while aiming, in some competitors occasionally these values rose above 130 beats/min.

Requirements regarding sensorimotor-functions

Archery is a sport typically demanding sensorimotor coordination /Nagy, 1973/. Almost every stage of the series of movements demands continuous precise coordination of the sight and the movement of both arms.
Fundamental perceptual requirement is sound or corrected sight. Among the sensorial and perceptual functions beside sight body sensation and kinaesthesia have an outstanding role. There is only one single sight on the bow, and the exact hit depends in the first place on how identical is the position of the parts of the body /head, shoulder, arm/ to each other, to the equipment, to space, shot by shot. All these require delicately differenciated body and position perception, sense of equilibrium, akin perception and kinaesthesia, all of which consist partly of conscious, partly of automated components.

Requirements in regard of emotional and motivational functions, as well as of other personality traits

In our personality examinations /Mónus,1973/ performed at the members of the Hungarian Archery Team /N:10/ we have applied the Hungarian version of the Brengelmann questionnaire /Tringer, 1969/. This questionnaire yields informations concerning extroversion, neurotic signs and rigidity. In comparing the obtained data to the Hungarian standard values we have found that the examined archers produced in regard of extroversion a significantly higher level than standard value /well above confidence intervel/, in regard of neurotic signs they have shown a value below the average /somewhat below confidence interval/ and in rigidity they have produced a value not much above the average /on the upper limit of confidence interval/.
With Picture Frustration Test /PFT/ of Rosenzweig, by which typical reactions manifested in frustration-situations of everyday life can be examined, our subjects have generally shown good-medium adaptation and tolerance indices.
According to our directed explorative and questionnaire examinations decisive motivating factors in cultivating archery are in order of rank the following:

1. liking for archery,
2. liking for combat,
3. possibility for recreation,
4. material advantages,
5. possibility of travelling abroad.

Examinations by questionnaires have also pointed out that excessive start-fever and competition-fever occurs in 50% of competitors.

Discussion

Archery is characteristically a "psychic" sport. The primary precondition of good performance is such a complex ability that implies the capacity of steady and intensive concentration of attention, accurate sensorimotor coordination, differentiated body-sensation and kinaesthesia, steadiness of the bowhand high-degree of self-discipline, self-assurance and calmness. In revealing the psychological profile of archery we have also been led by the aim of examining the possibilities of application of the Autogenic Training by Schultz in the preparation of archers. The results of our investigations show that adequate

application of AT may promote the development of psychic skills necessary for successful archery.

References

1. Cadet, J.: Technologie du Tir á l´Arc de Competition.
J. Cadet, Montreull-sous-Bois, 1972.

2. Mónus, A. : Psychophysiological Problems in Application of Autogenic Training.
/Unpublished doctorial dissertation in Hungarian/.
Budapest, 1973.

3. Nagy, Gy.: Sport and Psychology /In Hungarian/.
Sport, Budapest, 1973.

4. Rókusfalvy, P.: Sportpsychology /in Hungarian/.
Sport, Budapest, 1974.

5. Tringer, L.: Hungarian Version of the Brengelmann Personality Questionnaire
/ in Hungarian/. Magyar Pszichológiai Szemle. No. 3-4.
477-491 p.

APPLICATION OF AUTOGENIC TRAINING IN PHYSICAL THERAPY AT SCHOOLS IN HUNGARY

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In Hungary schoolchildren suffering from orthopaedic disorders, cardiac diseases, high blood pressure, bronchial asthma, vegetative disorders, obesity etc. are treated by physical therapy in school environment.
It is known that these children have to face several psychological problems such as inferiority complex, anxiety, disease-consciousness, behavioural disturbances etc. /Mónus, 1967/. In overcoming these problems Autogenic Training /AT/ by Schultz may be of help. Besides, for the purpose of more efficient therapy special formulae of AT may be usefully applied in almost every field of physical therapy /Gárdos, Mónus, 1976/.
In Hungary Standard Exercises of AT in School Physical Therapy have since the beginning of the sixties more and more extensively been applied /Mónus, Sipos 1977/. During more than one and a half decade we have gained the following experiences in the application of these exercises.

Test-exercises

The first few lessons of the schoolyear are in every respect the period of assessment. In this stage tests of mobility of the articulations and simple relaxation-test can also be applied. This is necessary because surprisingly many children have no idea what relaxation of muscles means, in other instances their joints are so rigid, that they are hindered in their free movement.

Conducting and preparatory exercises

According to our experiences comprehension and feeling of relaxation is best promoted by the opposite perception, by tension. One of the simplest of such exercises is clenching the fists, then relaxing them. As an initial step we can equally apply letting raised arms fall. Thus the aim of preparatory and conducting exercises is the decrease of tension of muscles and the increase of articular mobility. Fundamental rule of teaching these exercises is gradualness.

Combination of relaxation and AT exercises with breathing exercises

Breathing exercises by themselves influence effectively the function of the organism, first of all on account of their effect exercised upon the cardiovascular and nervous system. This effect may significantly be increased if breathing exercises are consequently combined with relaxation exercises and with the AT formulae. During breathing at rest there are two fundamental phases, out of which inspiration demands active muscle function, while at expiration respiratory muscles relax. Expiration in itself is already characterized by relief and relaxation, thus it is evident to combine it with the relaxation of the whole muscular system, with the deepening of absolute rest and psychic relaxation.

Music and relaxation

Relaxing and dynamizing effect of music is well known. It can be combined with relaxational exercises in two ways: as background music or synchronizing the beat and rhythm of music and exercise. A good example for the latter is combination of the rhythm /e.g. simple scales/ and of breathing. Csider /1972/ suggests that music applied for this purpose should generally be selected from solo instruments /cello, violin, piano/.

Insertion of relaxation and AT exercises into the structure of lessons

Preparatory and conducting exercises can well be applied in the first part of the lesson, when loading is started from a low level and is raised gradually. In the main part of the lesson for the more favourable distribution of loading - especially in cases of decreased loadability - it is useful to employ less loading movements after more difficult exercises. Relaxation and AT exercises are excellently suitable for this purpose by their promoting a faster recovery after work.
In the final part of the lesson - especially in case of children suffering with cardiac disorders, vegetative distonia, highblood-pressure-relaxation exercises have a fundamental role. On one hand they serve favourably the soothing of the organism, on the other hand the organism that has tired out by the end of the lesson creates favourable preconditions for the execution of these exercises. We cannot obtain the desired effect if we only make the children do these exercises three times a week, as school-occupation. They have to be practiced daily, regularly, that may be solved by homework-exercises.

Intentional formulae

In the past 10 years, for the purpose of more effective therapy we have, in some fields, been employing intentional formulae, partly elaborated by ourselves, partly adopted from other authors /Luthe, 1969/.

Some examples of these formulae:

- In case of deficiencies of posture:
  "My posture is nice and erect"
  "My back is straight"
- In case of obesity:
  "I am diligent and move about a lot"
  "I feel satiated"
- In case of bronchial asthma:
  "Air is streaming easily and freely"
  "Breathing calm and easy"
  "My chest is warm"
- In case of cardiac deficiencies:
  "Heartbeat calm and regular"
- In case of vegetative distonia:
  "Calmness is spreading about in me"
  "I do everything calmly and coolly"
  "Perfect calmness is surrounding me"
  "Heartbeat calm in every situation"

Conclusion

More wide-spreading application of AT exercises in physical therapy, in physical education at schools and in sport is increasingly justified if we consider the large number of children struggling with psychic tension, disturbances of vegetative regulation and if we take into account that many children are unable to relax, to move easily and freely. We believe that experts on physical education /physical therapists, teachers of physical education and coaches/ are - in case of adequate qualification - by all means destined for teaching relaxation and simple AT exercises, and by this they serve a beneficial social aim.

References

1. Csider, T., Kránitz, I.: Medical Gymnastics /in Hungarian/ Sport, Budapest, 1972.
2. Gárdos, M., Mónus, A.: Physical Therapy /in Hungarian/. Sport, Budapest, 1976.
3. Luthe, W.: Autogenic Therapy, Volume II., Medical Applications Grune and Stratton, New York and London, 1969.
4. Mónus, A.: Psychological Factors in Physical Therapy /in Hungarian./ OPI, Budapest, 1967.
5. Mónus, A.: Description and Application of Relaxation in School Physical Therapy / in Hungarian/. OPI, Budapest, 1969.
6. Mónus, A., Sipos, K.: Autogenic Training in Hungarian Sport and Education. In: Therapy in Psychosomatic Medicine, Autogenic Therapy. Edizioni L. Pozzi, Roma 1977.
7. Sipos, K.: Systematic Muscle-relaxation Exercises /in Hungarian/. A testnevelés tanitása, V.2., 6., VI.1., 1969/70.

PSYCHOLOGIC AND AUTONOMIC CHANCES ASSOCIATED WITH THE COMPETITIVE SITUATION IN TOP ATHLETES

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By a 10-year experimental field investigation on top athletes using original and standardized tests and an Emotionality Questionnaire /specially devised/ emotional reactivity was assessed with special reference to emotionality associated with competition, that is to the psychophysiologic activation elicited by the pre-competition situation. In order to study the qualitative subjective aspects of this state commonly known as stage fright we devised a questionnaire including 98 items grouped into 35 main questions concerning the intensity /11/, duration /12/, causality /16/, symptomatology /13/, influence-on-performance /17/ and genetic aspects /14,15/ of this specific affective process. 124 sportsmen of the national skiing, light athletics, boxing, wrestling and fencing teams filled out the Emotionality Questionnaire in field-experiment, under pre-competitive stress conditions, i.e. 20 to 60 minutes before a match.

In order to assess the psychological and autonomic changes /"symptoms"/ of which the athletes could be aware before a match, the following question had to be answered: "Did you notice on the days or during the hours preceding this competition /or another important match in which you were a competitor/ any one of the symptoms listed below? " /For the symptoms-signs that disturbed you most please put an "X" on the check-list at "Marked"/. Then the subject was required to answer 26 items /subquestions/ concerning various psychologic and autonomic changes /which one of the authors was able to perceive by self-observation during her 20-year activity as a top-level target shooter and by interviewing top athletes and coaches in various sports branches.)

The answers concerning the mental and autonomic changes, as perceived by the subjects investigated, were processed along five directions.

A/ Differences among sports branches

Table 1

	Boxing	Free wrestling	Classic wrestling	Fencing	Mean
Mean No. of symptoms over subject	9.8	12.3	10.7	12.8	11.4

By this index /and also by others that are not discussed here/ the highest emotionality levels were scored by fencers followed by wrestlers. The differences are significant / .05 level/ only between boxers and fencers.

B/ Correlation between the "symptom" index and other indices of the test battery used to assess the pre-competition state /mean: 11.05; standard deviation: 5.91/

Among the parameters of the battery administered, correlations which are positive and statistically significant at .05 or .01 level exist between the variable

"symptom" and following indices: anxiety /MAACL/; neuroticism /EPI/; specific emotionality /TPCF/; duration of emotional state /Questionnaire/; unspecific emotionality /Questionnaire/; number of invoked causes /Questionnaire/; anxiety as an acute state /STAI - X_1/; anxiety as a personality trait /STAI-X_2/; anxiety /16 PF/. Negative correlations also statistically significant exist with adaptability /MAACL/ and emotional stability, emotional maturity /16 PF/.

C/ Factor analysis revealed two factors of which the first had all the variables positively loaded and significantly so in 77% of the questionnaire variables.

1. The highest-loaded variable /.61/ proved to be the feeling of uncertainty, lack of self-confidence. This loading proves the construct validity of the Emotionality Questionnaire.
2. High loading displayed also a wellknown aspect of the sportsmen's behaviour before competition, that is their egocentrism, their concern with themselves which induced in most of them the tendency toward isolation.
3. "Sleep disturbance, partial or total insomnia" /difficulty in going to sleep, interrupted sleep or awakening before time, agitated or superficial sleep etc./
4. Less predictable was the high loading of the variable "lack of energy, tiredness". This is a further symptom calling attention on the disturbing effect of stage fright on performance.
   Fatigue may by either a cause or a consequence of pre-competition emotions.
5. "Ill humour" may also be a consequence both of uncertainty and of fatigue, or they can be different manifestations of a single event.
6. "High suggestibility", that is the tendency toward taking the opinions of others for granted /said by colleagues or, especially, by persons with with authority over the subject/.
7. "Slight dizziness" /intermittent or almost unremitting/;
8. "deficient" or accelerated and superficial breathing /in some subjects it is manifested by frequent yawning/;
10. "various gastric disturbances"; 12. "heart beats, throbbing" or beating in the temples etc.; 13. "muscle tenseness or muscle pains" groups or other than those involved in the specific movements/; 14. "profuse sweating" of palms but also of the forehead or whole body /before starting the warming up/; 15. "peripheral circulatory disorder" manifested by a flushed face or on the contrary paleness, by cold or, on the contrary, warmer-than-usual extremities; all these evidence these presence of an autonomic storm decited before the start of the competition. 16. "State of agitation" /doing sometimes irrelevant things/; 17. "marked irritability" and 18. "deterioration of interpersonal relationships" /with colleagues, coaches or others/, 19. "exaggerating the importance of small details in equipment, atmospheric conditions etc. are also specific manifestations of pre-competition emotionality.

A comparison of the above data with stage-fright symptoms recorded in professional actors before theatrical premières, obtained by analogous methods and factor-analyzed too, may be helpful in establishing the characteristic distribution of stage-fright symptoms in athletes versus other subjects in competitive situations. This comparison reveals emphasis and loading shifts according to the particular kind of activity of the sample, though influential may also be the mean-age

difference between the samples: 23.6 in athletes to 39.5 in actors. Thus, for example, sleeplessness, heart beats, irritability, coarse voice show a higher loading, with actors than with athletes, whereas the feeling of uncertainty, egocentrism, tiredness, high suggestibility, with high loadings in the investigated athletes are of second importance in the professional actors' factor matrix.

A further comparison, this time with the results obtained by university matriculants before examination, also shows a distribution of the symptoms other than in athletes. Trembling, profuse sweating, throbbing, agitation, dry mouth, coarse voice prevail, whereas the feeling of uncertainty, lack of energy, dizziness, deficient breathing or muscle tenseness are much less frequent in university matriculants. The variables with the highest loadings in all three factorial matrices for the three samples are "sleeplessness", "isolation tendency", "egocentrism", "agitation", "dry mouth", "throbbing". Among those with loading over .40 is als the "uncertainty", "lack of self-confidence", an exception being only those matriculants who probably chose not to admit having such feelings just a few hours before taking the examination. This category of symptoms also includes "difficulty in focussing on other activities " /other than the task facing them such as reading a book, for example/, "irritability" and "deterioration of interpersonal relationships" that are closely linked to one another. These symptoms, with high loading in the three competitive situations, may be regarded as common stage-fright symptoms.

D/ From computing of the multiple correlation and regression of certain variables of the test-battery to evaluate the pre-competition state, using the criterion "of "symptoms" of the Emotionality Questionnaire, there resulted in a correlation coefficient with statistical significance at p .01 level.

Table 2

Criterion: Number and intensity of symptoms /Questionnaire/

Predictors	Means	St.dev.	Corr. coeff.	Regr.coeff.	T val
1. Anxiety /MAACL/	-2.00	4.94	-259	.414	-1.277
2. Depression /"/	-6.43	7.80	.247	.090	0.613
3. Adaptability /"/	10.39	30.68	-.210	.002	0.043
4. Neuroticism /EPI/	10.74	4.96	.720	.420	1.767
5. Specific emotionality	5.26	3.24	.422	.572	2.045
6. Anxiety as state /STAI X_1/	43.96	10.61	.536	.114	1.246
7. Anxiety as trait /STAI X_2/	40.13	7.24	.637	.133	0.963
8. Talent /Trainers' Quest./	7.99	1.10	-.525	.456	1.939

Table 3

Multiple correlation coefficient: .875 ^{xx}

Source of variation	Df	Sum square	Mean square	F calcul.
Regression	8	459.124	57.391	5.694^{xx}
Deviation from regr.	14	141.113	10.079	
Total	22	600.237		

This result shows which are the components of the psychological and autonomic changes before an important match and thereby which variables can predict them.

LEISTUNGSERWARTUNG UND MASSSTABDENKEN IM PROZESS DER BEWÄLTIGUNG VON TRAININGSANFORDERUNGEN

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Die Erarbeitung von realen und anspruchsvollen Leistungserwartungen stellt bekanntermassen einen Schwerpunkt der psychologischen Vorbereitung von Sportlern und Mannschaftskollektiven auf einen bestimmten Wettkampf dar. In der individuellen und kollektiven Leistungserwartung, die als messbare Leistung oder als Plazierungsposition ausgedruckt werden kann, erfahren Inhalt und Stärke der generellen und aktuellen Leistungsmotivation, die konkreten Wettkampfbedingungen und die aktuelle sportliche Form ihren konkreten Ausdruck in der Höhe und Stabilität der subjektiven Zielsetzungen. Letztlich leisten alle Massnahmen der langfristigen Persönlichkeits- und Kollektiventwicklung, die auf die Herausbildung der Leistungsbereitschaft gerichtet sind, einen Beitrag für die Formierung der Leistungserwartung der Sportler. Der Prozess der Erarbeitung von individuellen und kollektiven Leistungserwartungen bietet für den Trainer vielfältige Möglichkeiten sowohl des Niveau seiner Erziehungsarbeit zu prüfen als auch die Erwartungsbildung erzieherisch zu durchdringen.

Es wäre jedoch zu einseitig gesehen, würde man die Psychodynamik der individuellen und kollektiven Erwartungsbildung nur auf die Vorbereitung sportlicher Wettkämpfe oder gar auf die Einstellung auf die Hauptwettkämpfe eines Trainings- und Wettkampfjahres reduzieren. Mindestens gleichwertig bedeutungsvoll erscheint uns die Tatsache, dass auch die konkreten Trainingsprozesse, also die jeweilige Trainingseinheit so vorbereitet wird, dass auch für ihre konkreten Anforderungen klare Erwartungen im Bewusstsein der Sportler existieren und die erzielten Ergebnisse an ihnen gemessen werden. Auf dem Vergleich von subjektiver Erwartung und objektivem Resultat gründen sich Erfolgs- und Misserfolgserlebnisse.

Der Vorgang der subjektiven Erwartungsbildung interessiert uns vor allem aus folgenden Gesichtspunkten. Die Präzision der individuellen Erwartungsbildung korrespondiert sehr eng mit der Befähigung der Persönlichkeit, das aktuelle sportliche Leistungsvermögen und die momentene psychische Situation real einschätzen zu können. Eindeutige subjektive Erwartungsbildung setzt ein entsprechendes Niveau der Selbsteinschätzungsfähigkeit voraus. Das ist die <u>rationale Seite</u> des Problems. Zweitens interessiert uns die normative Seite der Erwartungsbildung. In den individuellen und kollektiven Leistungserwartungen findet nämlich das Anspruchsniveau der Persönlichkeit eine anforderungsspezifische Konkretisierung. Ein Vergleich zwischen individuellen Erwartungen und tatsächlich möglichen und objektiv erforderlichen Zielen bietet unmittelbar dem Trainer ein breites Feld erzieherischen Wirkens. Zu beiden Seiten sollen unsere Erfahrungen mitgeteiltwerden.

Im Verlaufe eines Trainingsjahres haben wir zu bestimmten Testleistungen bei verschiedenen trainigsmethodischen Kontrollformen vorher die Sportler aufgefordert, ihre individuellen Leistungswertungen schriftlich zu formulieren. Nachträglich wurden sie zu den tatsächlich erreichten Leistungen in Beziehung gesetzt. Der Wert 100 bedeutet reale Einschätzung: kleine Werte kennzeichnen Unterschätzungen, grössere Werte bedeuten eine Überschätzung des eigenen Leistungsvermögens.

	Dezember	Januar	Februar	April	Mai
Fähigkeit zur Selbsteinschätzung	98,9	101,2	99,7	100,9	99,8

Zwei Aussagen können getroffen werden:

- Die Fähigkeit zur Selbsteinschätzung der aktuellen Leistungsfähigkeit ist bei leistungsstarken Sportlern auf einem sehr hohen Niveau ausgeprägt.
- Die Fähigkeit zur Selbsteinschätzung zeigt einen dynamischen Verlauf und erreicht unmittelbar vor den Wettkampfabschnitten (Februar: Hallensaison und Mai: Beginn der Freiluftsaison) den besten Ausprägungsgrad.

Anders formuliert: Die Fähigkeit zur Selbsteinschätzung der Sportler stellt ein beachtenswertes psychologisches Kriterium ihrer komplexen sportlichen Form dar.

Die gleichen Sportler hatten aber nun auch die Aufgabe, die schriftlich formulierten Erwartungswerte qualitativ zu bewerten. Sie waren aufgefordert, von einem konkreten Testwert auf die bekannten fünfstufigen Zensurenskala einzuschätzen, ob sie dieses Resultat für ein sehr gutes, normal-befriedigendes oder völlig ungenügendes Ergebnis halten würden. Als Mass für den tatsächlich möglichen Wert bezogen wir die vom zuständigen Trainer erwartete Leistung als objektiven Bewertungsmassstab ein. Diese Vergleiche brachten einige interessante Ergebnisse. Die nachfolgende Tabelle zeigt drei charakteristische individuelle Reaktionsweisen:

	Sportler A	Sportler B	Sportler C
Leistungsvorgabe durch den Trainer	100 %	100 %	100%
Leistungserwartung des Sportlers	93,5 %	93,2 %	93,7 %
qualitative Bewertung durch den Sportler	2,1	3,7	1,9

Die ersten beiden Sportler liegen aus verschiedenen, uns hier nicht interessierenden Gründen deutlich mit ihren persönlichen Zielstellungen unter den Vorgaben des Trainers. Während jedoch Sportler B darüber seine Unzufriedenheit klar äussert, hält Sportler A seine Leistungskontrollergebnisse trotzdem für gut. Sportler C bewertet sich auch so, wie wir es gemeinsam mit dem Trainer auch erwartet haben. Psychologisch interessant ist also nicht nur die Tatsache, dass es mehr oder weniger grosse Differenzen zwischen Erwartungswerten der Sportler und Trainer gibt, sondern vor allem der Fakt, dass die qualitative Bewertung der vorgenommenen Leistung ein charakteristisches Spiegelbild des Anspruchsniveaus darstellt und unmittelbar herausfordert, die Ursachen für diese Diskrepanz mit den Sportlern zu klären. Wir sehen in diesem Vorgehen eine geeignete Möglichkeit, den pädagogischen Prozess der Persönlichkeits- und Kollektivsentwicklung effektiv zu beeinflussen. Wir möchten dabei vor allem auf folgende Ansatzpunkte aufmerksam machen:

- Aus dem Verhältnis von Selbsteinschätzung der Sportler und dem Urteil ihrer Trainer lassen sich konkrete Rückschlüsse auf Entwicklungsstand und Stabilität des Selbstvertrauens der Sportler nehmen. Wir erachten diese Tatsache vor allem deshalb als bedeutsam, weil die Praxis zeigt, dass bei vielen Athleten Trainingsleistungen einen grösseren Einfluss auf das Selbstvertrauen für die wichtigten nachfolgenden Wettkämpfe ausüben, als oftmals anerkannt worden ist. Wenn es überzeugend gelingt, das Zustend kommen bestimmter Testleistungen im Training den Sportlern zu erklären, wird ein ganz konkreter Beitrag zur Festigung des Selbstvertrauens geleistet.

- Es ist bekannt, dass einzelne Sportler bestimmten Testwerten einen subjektiv sehr differenzierten Stellenwert beimessen. Test- und Kontrollwerte, mit denen ein Sportler sein Anschneiden im Wettkampf in unmittelbarem Zusammenhang sieht, sind vom Trainer mit besonderem pädagogischen Geschick zu interpretieren.

- Für besonder beachtenswert halten wir die qualitative Wertung individueller Trainingsleistungen durch die Sportler selbst. Dabei geht es uns nicht nur um psychische Stabilität oder Labilität. Der Vergleich liefert dann konkrete Belege für Tendenzen oder Selbstzufriedenheit, wenn der Sportler auch relativ schwache Leistungen für ausreichend oder gar für gut hält. Er signalisiert aber auch unerwünschten Ehrgeiz, wenn der Sportler trotz erwartet guter Trainingsergebnisse unbegründete Unzufriedenheit bekundet. Das Ziel einer richtigen pädagogisch-psychologischen Führung des Sportlers durch den Trainer muss es also sein, dass der Sportler ein hohes und gefestigtes Anspruchsniveau entwickelt und festigt. Dazu kann aber das regelmässige Werten erreichter sportlicher Ergebnisse im Training massgeblich beitragen. Wir schätzen dieses erzicherische Bemühen deshalb so hoch, weil es viel häufiger praktiziert werden kann als die Analyse von Wettkampfergebnissen. Wir legen aber auch aus zwei Gründen noch besonderen Wert darauf: werden erstens individuelle Erwartungen im Kollektiv der Trainingsgruppe erörtert, dann kann man mit grosser Gewissheit und Anschaulichkeit den leistungsstimulierenden Effekt sozialistischer Sportler-Sportler-Beziehungen registrieren und gleichzeitig ihre kollektivbildenden Wirkungen beobachten. Und zweitens bietet sich eine beachtenswerte Gelegenheit, die weiter zu vertiefende erzieherische Durchdringung des Trainingsprozesses zu praktizieren und die bewusste und schöpferische Mitarbeit der Sportler an und in ihrem eigenem Trainingsprozess zielstrebig zu gestalten.

EINE NEUE INTERPRETATION DER PSYCHOLOGISCHEN PRINZIPIEN IM BEWEGUNGSUNTERRICHT

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Die Methoden und Vorgänge des Bewegungsunterrichtes haben sich in den letzten 30 - 40 Jahren - trotz Anwendung von modernen Anschauungsmittel, Filmtechnik und Zeitlupenaufnahmen - fast gar nicht geändert. In der Praxis des Unterrichtes kommen noch heute dieselbe Prinzipien und dieselbe Anschauung zur Geltung als am Anfang des Jahrhundertes.

Im Unterricht des Bewegungsmateriales aller Sportarten lautet das Grundprinzip: das Ganze aus den Teileinheiten der Haltungsarten, der Gesten und der Bewegungen aufzubauen. Man geht also von den Teilen zum Ganzen. Auch die Gesichtspunkte der Eleganz und der Ästhetik der Bewegung werden betont.

All dies gründet sich- wie es im folgenden dargelegt wird - auf einer lang überwundenen physiologischen und psychologischen Anschauung der Bewegungsorganisation. Es wurzelt in der Auffassung, dernach alle Äusserungen, alle psychologischer Formationen und Prozesse aus der mechanischen Verbindung von elementaren Einheiten /Empfindungen, Vorstellungen, usw./ herstammen.

Unserer Auffassung nach entsteht die aktive Bewegung - wie auch der Satz durch Verbindung von Wörtern aufgebaut wird - aus einer Reihe konsekutiver Bewegungen, durch irgendeine Verbindung dieser.

Soger auch die Behavioristen verkündeten diese Auffassung. Watson z.B. fasst den "Aufbau" einer aktiven Bewegung wie folgt auf: "Eine jede vollbrachte Bewegung ruft neue Tast- und kinesthesische Impulse hervor, die dann die folgenden Bewegungsteile hervorrufen." Später fügt er noch hinzu: "nachdem die überflüssigen Bewegungen eliminiert werden, folgen die korrekten Bewegungen einander."

Diese Auffassung ist auf allen Gebieten /in der Sprachwissenschaft, in der Psychologie, usw./ unhaltbar geworden. Auch ihre physiologischen Grundlagen können eben im Zusammenhang mit der Bewegung bezweifelt werden. Immer mehr Angaben weisen darauf hin, dass sich die Organisierungsprozesse der motorischen Rinde nicht auf der Nerven-Muskel Repräsentation gründen, wie es die Anhänger der sog. Mosaikstruktur voraussetzten. Die aktive Bewegung entsteht also nicht als Ergebnis der Aktivität der den konsekutiven Reizwirkungen entsprechenden Muskelgruppen. Auf künstliche, chemische und elektrische Reize induziert die motorische Rinde nicht Geste, sondern Bewegungen /Umarmen, usw./

Mit einem entscheidenden Beweis hat aber die psychologische Forschung gedient.

Krueger, Kohlmann und Rupp haben bewiesen, dass unsere Bewegungen primär immer durch die Zielsetzung, durch die Forderung bestimmt werden. Ohne jede bewusste Absicht bestimmt die Perzeption automatisch den Rhythmus, die Richtung und den energetischen Parameter der zu ausführenden Bewegung.

Die Perzeption der Aufgabe organisiert sozusagen automatisch die adäquaten motorischen Patterna. Mit einem genaueren und mehr fachgemässen Wortgebrauch: zu den perzeptiven Strukturen werden - mit entsprechender Übung - automatisch die in ihrer Formalisation adäquaten motorischen Akten zugeordnet.

Es wurde auch experimental bewiesen, dass die zielgerichteten, objektbehandelnden Bewegungen ein spezifisches Ganze darstellen, in deren Entstehung eine gewisse Selbstregelung zur Geltung kommt.

Der Charakter und die Gesetzmässigkeiten des Bewegungsganzen gehören nicht zum Thema unseres Aufsatzes, hier möchten wir nur darauf hinweisen, dass sie z.B. den von Wertheimer aufgedeckten Eigenheiten der optischen Gestalt nicht gleich sind.

Einheitlichen Feststellungen nach wird die Ausbildung des Bewegungsganzen durch drei Elemente bestimmt:

a/ die /motorische/ Zielsetzung, die Aufgabe
b/ die Übung und schliesslich
c/ das eventuelle Gerät /oder der Gegenstand/, mit dem die Bewegung ausgeführt wird.

Eigentlich kommt dasselbe zum Ausdruck in der Feststellung des berühmten sowjetischen Psychologen Rubinstein, dernach die Gesten Folgen der objektorientierten und durch das Objekt bestimmten Handlung sind.

Aus diesem wird es auch schon klar, dass in modernem Bewegungsunterricht nicht die Einzelheiten, sondern die Hauptaufgabe betont werden muss. In den Ballspielen z.B. sind das Korbwürfe oder Torschüsse, denn eigentlich bedeuten diese die Zielsetzung des Spieles, und die Organisation der Bewegung wird eben durch die Zielsetzung /durch deren Perzeption/ bestimmt. Das Hervorheben oder die Korrektion einiger Einzelheiten und technischer Elemente soll eher im Rahmen der ganzen Bewegung erfolgen.

Unsere eigenen Experimente haben wir vor Jahren mit Gymnasten durchgeführt. Es wurde bewiesen, wenn man den 8- bis 10-jährigen Schülern die einzelnen Elemente vom Anfang an in ihrer Reihenfolge und als ein Ganzes unterrichtet, können sie mit weniger Übung bessere Ergebnisse erreichen als die Schüler der Kontrollgruppe, in der mit partieller Methode gearbeitet wird.

Ein ähnliches Ergebnis ist bei Hanawald zu finden, der das Erlernen eines Labyrinthes bei Tieren und Menschen untersucht hatte. Auch er hat die Überlegenheit der globalen Methode bewiesen. Seinen Angaben nach beträgt die Zusammensetzung der erlernten Bewegungsteile, ihre Organisierung in ein Ganzes - falls partiellen Unterrichtes - 60 % der Gesamtheit /!/ der Aneignung der Bewegung.

Der im Stil der Ballspiele in den letzten Jahren erschienen Wendung, den die traditionelle Spielweise verdrängenden mehr elastischen und zielbewussten Bestrebungen entsprechend soll der Unterricht vor allem die Tatsache in Betracht nehmen, dass eine jede Bewegung ein dynamisches Ganze ist. Die in ihrer Organisierung mitwirkende Selbstregelung wird durch die Übung, durch das Lernen immer wirksamer. In Folge kommt - fast automatisch - die beste ökonomische, zielgerichtete Bewegungsgestalt oder Bewegungseinheit zu Stande. Selbstverständlich ist dazu der Beitrag des Lehrers unentbehrlich: die Aufmerksamkeit muss auf die kritischen Elemente und auf die grundlegenden technischen Elemente gerichtet werden. Auch die Erklärungen, die Darstellung der mechanischen Bewegungsstruktur und die kritischen Bemerkungen können dem Sportler helfen, eine seiner individuellen Begabung, seiner Struktur und seinem körperlichen Aufbau entsprechende Bewegungsweise auszubilden und zu befestigen. Die grundlegende Bedingung ist hier, dass das Bewegungsganze nicht gestört werden darf und dass man die Selbstregelung und die inneren gestaltbildenden Kräfte zur Geltung kommen lassen soll.

Es muss erkannt werden, dass die Bewegung nur in Theorie und durch Abstraktion auf Teile gegliedert werden kann. Die neurophysiologische Organisierung einer getrennt ausgeführten Bewegungseinheit - von der folgenden getrennt - wird ganz unterschiedlich als wenn sie im Gesamtprozess zu Stande kommt. Im Ganzen ist also der Teil eigentlich nur scheinbar der selbe.

PSYCHOLOGISCHE PROBLEME DES TRAINIGS UND DES WETTKAMPFES BEI JUGENDLICHEN

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In unserem Vortrag werden wir - auf Grund der Angaben unserer sozialpsychologischen - und Persönlichkeitsuntersuchungen- folgende Themen erwähnen:

1. Ursprung der im Laufe des Trainings und des Wettkampfes auftauchenden pädagogischen Probleme

2. Das Training der Jugendlichen beeinflüssende erleichtende und hemmende Faktoren

3. Soziale Struktur jugendlicher Sportlergruppen, zweiseitige Beziehungen zwischen Trainer und Sportler, bzw. Sportler und Sportler.

Unsere Untersuchungsmethoden sind folgende: Exploration, projektive und Fragebogen-Persönlichkeitstests, Wertskalen /Rorschach, Szondi, Kinder PFT, Farbenpyramide, Cattell, Leary/ und Soziometrie.

1. Quellen der im Laufe der Trainings- und Wettkampfsleitung auftauchenden pädagogischen Probleme:

a.- Probleme wegen Vernachlässigung der Altersspezifika der Jugendlichen

b.- Probleme, die der Persönlichkeit der Sportler entstammen

c.- aus der Persönlichkeit des Trainers stammende Probleme

d.- aus der Struktur der Mannschaft stammende Probleme.

Diese Aufteilung ist willkürlich, die Probleme zeigen sich meistens gemeinsam.

Ad a./ Die Verhaltensanomalien der an der Schwelle der Selbstständigkeit stehenden Halbwüchsigen sind wohl bekannt. Die autokraten Trainer wollen diese nicht dulden, sie verletzen oft die erhöhte Empfindlichkeit und das Gerechtigkeitsgefühl ihrer jungen Sportler mit öffentlicher Beschämung oder mit falsch verwendeter Strafe, und sie finden auch schwierig die gerechten Masse und Verhältnisse der Belohnung. Wir haben einen 10-jährigen Sportler /Schwimmer/ getroffen, dem es kaum mehr zählt, wie viele Medaillen er gewonnen hat, denn die an den häufigen wettkampfartigen Treffen verteilten Medaillen haben für ihn allen Lohn-Charakter verloren. Die Trainer erkennen auch nicht leicht, dass es schwierig sei, den Wettkampfsport und die Studien zu vereinigen. Die meisten Kinder müssen mit 14 Jahren eine Entscheidung fürs Leben treffen: sie müssen sich ein Beruf wählen. Das ist oft stark beeinflusst durch die Sporttätigkeit. Die für den Sport gebrachten Opfer sind oft unverhältnismässig grosse, der Erfolg und die Ergebnisse stehen damit nicht immer im Verhältnis. Das bedeutet oft eine Konflikt-Quelle.

Ad b./ Zahlreiche Probleme ergeben sich aus der Persönlichkeit der Sportler. In diesem Alter sollte die individuelle Behandlungsweise die wichtigste Forderung sein, die Grösse der Gruppen und die Begrenztheit der Zeit /Schule, Lernen/ erlaubt es aber kaum. Es ist eine Praxis, die auch die

Persönlichkeitsentwicklung der Kinder bedroht, dass die Fluktuation der Trainer ziemlich stark ist, und auch die Eltern geneigt sind, ihre Kinder von einen Klub in den anderen zu schleppen, was die Anpassung und die Kontaktbildung sehr erschwert. Es kommt auch häufig vor, dass die Auswahl der Sportart zur Persönlichkeit des Kindes nicht passt. Z.B. bei Verhaltensstörungen empfehlen die Pädagogen das Schwimmen, obwohl es das Kind nur ermüdet, leitet aber die Spannung des unruhigen, Reize suchenden Jugendlichen nicht ab.

Ad c./ Die Vorbereitung, die Intelligenz und das Selbstkenntnisniveau der Trainer ist wohl unterschiedlich. Oft ist ihre emotionelle Einstellung positiver den erfolgreichen Jugendlichen gegenüber, und sie bemühen sich lieber mit den begabter erscheinender Kindern. Eine andere, viele Probleme hervorrufende Erscheinung ist /die von mangelnder Selbstkenntnis herführt/, dass sie es nicht wagen, die mit der emotionellen Identifikation gebundene Belastung auf sich zu nehmen. Sie begreifen nicht, dass die jungen Sportler im Trainer oft die Gestalt der Mutter oder des Vaters suchen, und sie verlangen vom Erwachsenen persönliche, auch gefühlsmässig gefärbte Beziehungen. Statt dessen zeigen viele Trainer ein unpersönliches, kaltes, steifes und strenges Verhalten. Dadurch versteckt der Trainer manchmal sein eigenes "Ich", er spielt eine Rolle, und die Kinder spüren das, sie ziehen sich zurück, fühlend, dass sie ihre Dependenz- Ansprüche im Bereich des Sportes nicht erfüllen können.

Ad d./ Die soziale Struktur der Kinder- und jugendlichen Sportlergruppen ist lockerer als die der Schulklassen im selben Alter. Die Freunde sind oft auch Gegner, und durch die zu häufigen Qualifikationen und Rangreihen lockern sogar auch die Trainer die Beziehungen, die sich durch die gemeinsamen Erlebnisse /Sieg, Niederlage, Reisen/ bilden könnten. In Gruppen von 16-18jährigen Sportlern kommt auch schon vor, dass einige dominierende, den Jungen durch irgendetwas imponierende Sportler die Lenkung der Laune, der Attitüde der Gruppe aus der Hand des Trainers zu sich greifen. Manchmal reden sie sogar in die Facharbeit ein, und sie bewegen ihre Kameraden zum Übertrainung oder zur Lockerung.

Aus all diesem können folgende Schlussfolgerungen gezogen werden:

2. Das Training und der Wettkampf der jugendlichen Sportler werden gefördert durch

- eine fachliche und pädagogische Arbeit, die die Altersspezifische Züge in Rücksicht nimmt. Das fördert folgende Bedingungen:

a./ genaue Erkennung der Motive der Jungen, Rücksicht auf ihre Ansprüche /Dependenz-Anspruch, Affiliation, Selbstschätzung, Erfolg, Abwechslung, usw./ und deren Erfüllung

b./ Individuelle Behandlung, die auch durch die Persönlichkeitsuntersuchung und die psychologische Beratung gefördert werden kann. Es bedeutet einen grossen Vorteil, wenn der Anspruch auf Selbstkenntnis auch beim Trainer höher ist, und wenn auch er sich den Untersuchungen unterwirft.

3. Über die aus dem Charakter der sozialen Struktur entstehenden Probleme haben wir schon gesprochen. Die Untersuchung der zweiseitigen Beziehungen /Trainer-Sportler, bzw. Sportler-Sportler/ haben wir erst vor kurzem begonnen. Es ist bemerkenswert, dass in dem Moment als es nicht um die Erfolge, Behandelbarkeit oder Fleiss ihrer Sportler geht, die Trainer kaum im Stande sind, ihre Sportler auszuwerten oder zu charakterisieren. Von den Jugendlichen kann man nicht dasselbe sagen, was eine Mahnung ist: der heranwachsende und der junge Sportler nähert sich seinen Lehrern viel differenzierter und kritischer als die Lehrer ihm.

Sie sind auch selbst aufrichtiger, haben mehr Autokritik und auch höhere Ansprüche auf Selbstkenntnis als die sich mit ihnen beschäftigenden Erwachsenen.

PSYCHOLOGISCHE PROBLEME DES WETTKAMPFES

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1. Trainingstheoretische Bestimmung des Sportwettkampfes und seine von psychologischem Aspekt aus wichtige Faktoren

Der Sportwettkampf ist ein durch Regeln begrenzter und gelenkter Spiel-Kampf. Sein entscheidendes Motiv ist der Wunsch, andere in einem sozial angenommenen und hochgewerteten Tätigkeitsrahmen zu besiegen.

Aus psychologischem Aspekt ist sein wichtigster Zug die Unsicherheit des Erreichens des Zieles, das Risiko, die Möglichkeit des Misserfolges, was die Attitüd des Sportlers und sein emotionelles Verhalten ambivalent macht. Diese Ambivalenz, wie auch das Erwarten des Unsicheren, als eine der grössten psychischen Belastungen rufen das Startfieber vor dem Wettkampf hervor, was ein zentrales, auch von der Persönlichkeit stark abhängiges Problem der psychischen Ausdauer ist.

2. Der spezifische und der allgemeine Charakter des Wettkampfes

Es ist eine grobe Verallgemeinung, über "den" Sportwettkampf zu sprechen. Auch den Sportarten nach sind alle Sportwettkämpfe spezifische Situationen, und für die teilnehmenden Sportler hat jeder einzelner Wettkampf einen einmaligen Charakter. Auch der Forscher muss unterschiedliche Aspekte beachten, wenn es um eine Kampfsportart, um individuelle Leichtathletik-Disziplinen oder um Sportspiele geht. Auch innerhalb dieser hängen die Faktoren vom Einsatz, von der Wichtigkeit, vom Schauplatz des Wettkampfes, usw. ab.

3. Die bei der psychischen Vorbereitung beachteten inneren und äusseren Faktoren, das Erkennen der Persönlichkeit des Sportlers

Das Wesentliche in der psychischen Vorbereitung besteht darin, dass man die Adaptation des Sportlers zur Wettkampfsituation sichert. Die spezifische Wettkampfsituation kann erst nachträglich genau analysiert werden, einige äussere und innere Faktoren können aber schon im voraus in Rücksicht genommen werden. /Die Distinktion unter diesen Faktoren ist fast willkürlich/.

Zu den äusseren Faktoren kann man folgende rechnen: Rang und Einsatz des Wettkampfes, Rang des Sportlers unter den anderen Teilnehmern, Stärke und Rang der Gegner, Front- und Witterungsverhältnisse, objektive Bedingungen am Wettkampfort /Geräte, Zustand der Bahn, Beleuchtung, Temperatur, Erholungsstelle, usw./, Stand und Verhalten des Publikums, Verhalten der Partner /Sportler, Trainer, Autoritäten, Schiedsrichter, Gegner/, das ängstig, spöttisch, gerechtig oder subjektiv, feindlich, agressiv, bestrafend, freundlich, usw. sein kann. Hierher gehören die Dauer des Wettkampfes, die eventuelle Verlängerung und verschiedene zufällige Ereignisse /Loszieben, Verletzungen, unerwartete Ereignisse, usw./.

Innere Faktoren sind unter anderen: die Einstellung des Sportlers, die von der Sportform des Sportlers, von der subjektiven Einschätzung seiner Chancen, von seiner Meinung über Gegner, Wichtigkeit des Wettkampfes, zu erwartenden Schwierigkeiten und von seinen früheren Erfahrungen, usw. abhängt.
Die Wettkampfroutine, der aktuelle Startzustand, der Charakter, die Stärke, die Dauer, das Spannungsniveau der Angst und die Schwankungen dieser sind auch innere Faktoren. Ein wesentlicher innerer Faktor ist das Funktionsniveau der mentalen Kontrolle des Sportlers im gegebenen Moment, wie auch im allgemeinen.
Neben dem Wachsamkeitsniveau ist es dieser Faktor, der die stetige Kontrolle des während des Wettkampfes bestehenden kognitiven und perzeptiven Feldes und die schnelle und erfolgreiche Adaptation zu diesen sichert /Bewegungskorrektion, Taktik, usw./.

Das Erkennen der Persönlichkeit ist von entscheidender Wichtigkeit, weil all diese Faktoren durch die Persönlichkeit filtriert werden, und sie werden davon anhängig zu erleichtenden oder zu hemmenden Faktoren. Auf das Erkennen der Persönlichkeit darf man nicht verzichten, auch wenn wir genau wissen, dass unsere Teste zahlreiche Fehlermöglichkeiten enthalten, dass sie vom Menschen nicht nur als von Sportler informieren, dass ihre Ergebnisse eine statistische Gültigkeit haben, und wenn wir auch wissen, dass es sehr schwierig ist, das Verhalten auf Grund von Testen vorauszuwissen - hauptsächlich bei gesunden Personen -, und dass im Falle eines Misserfolgs der Psychologe zum besten Sündenbock dient.

4. Zielsetzung und Methoden der Persönlichkeitsuntersuchung

Die Persönlichkeitsuntersuchungen haben eine doppelte Zielsetzung: a/ wir suchen die Persönlichkeitsfaktoren der Eignung zu den verschiedenen Sportarten mit Hilfe der Untersuchung von Gruppen ausgezeichneter Sportler zwecks Auswahl und b/ wir möchten den Trainers Hilfe leisten zur psychischen Vorbereitung zum Wettkampf, zur Lösung der pädagogischen Probleme, zur Stärkung ihres positiven Einflusses. Es ist eine riesige Hilfe, dass sich manchmal sogar auch die Trainer der Untersuchung unterwerfen, um ihre Selbstkenntnis zu verbessern.

Wie es die Interviews zeigen, kann das Verhalten des Trainers zum entscheidenden psychologischen Faktor in der Wettkampfsituation werden.

In der Persönlichkeitsuntersuchung der Spitzensportler unterstreichen wir folgende Faktoren: Typ der Persönlichkeit, Stärke des "Ich", Integration, Gefühlsstabilität, Frustrationstoleranz, Energetisiertheit, Konzentrationsfähigkeit, mentales Bremsensystem, Elaborationsfähigkeit, Anspruchsniveau, am interpersonellen Niveau bewertbare Persönlichkeitszüge. Zwecks Auswahl heben wir die Züge hervor, die in der Gruppe der erfolgreichsten Sportler der einzelnen Sporterten am häufigsten vorkommen.

Untersuchungsmethoden sind: Rorschach, PFT, Szondi, CPT, Cattell, Leary, wie auch das Interview und die gelegentliche Wertung des Trainers und der Sportfreunde.

Die Praxis beschäftigt sich mit den psychologischen Problemen des Wettkampfes am meisten, wenn Favoritsportler oder Mannschaften Misserfolg erleiden. Es ist die Aufgabe des Forschers zu erkennen und den Sportfachleuten bewusst zu machen, dass sich die aufgezählten äusseren und inneren Faktoren der Wettkampfsituation durch die psychischen Mechanismen und von der Persönlichkeit des Sportlers abhängig positiver oder negativer Weise auf die Wettkampfergebnisse auswirken. Diese Erkenntnis muss sowohl in der Forschungsarbeit als auch in der psychischen Vorbereitung nützlich gemacht werden.

CHOICE OF PROFESSION IN PHYSICAL EDUCATION

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In the academic year of 1976/1977 we conducted personal interviews with 46 female and 46 male second-year students of the College of Physical Education about the circumstances of their choice of profession. We were seeking for answers to the following questions:

1. At what age have they chosen the profession of teachers of physical education?
2. By whom have they been influenced in their choice?
3. To what extent has sport at general school helped them in their decision?
4. Is there any difference in the enumerated factors between male and female students?

Mode of elaboration of the answers:

We have examined in the relation of influential factors/persons/ averagely at what age has their decision become final, and what percentage of the interviewed students belonged to each group. In evaluating the effect of general school sport we have also taken the level of accomplishment into consideration. We have used as a criterion, whether the interviewed student- when at general school- had at least on one occasion participated in the national finals of Pioneer Olympiad.

Results:	Females. N = 46		Males. N = 46	
Influential persons	When did she make her decision? /Average age/	%	When did he make his decision average age	%
Teacher of Phys.Ed.	14 years 11 months	47.9	16 years 2 months	54,4
Parents	14 years 10 months	13.1	14 years 8 months	10,9
Friends	15 years 5 months	10.8	18 years	6,5
Coach	12 years 6 months	4,3	16 years 3 months	15,5
Self-decision	14 years 10 months	23,9	18 years 8 months	13

Out of the students having answered the questions 43,5% of female students, and 34,8% of male students had participated in the national finals of Pioneer Olympiad.

Conclusions

1. In decision-making the influence of teachers of physical education /school/ is the most important. About 50% of both, female and male students have chosen the profession of teachers of physical education upon their influence.
2. The role of the coach, friends, or parents in the choice of profession is about 28% in total with females, whereas with males it amounts to about 32%, thus it may roughly be considered the same. Self-decision- so it seems - plays a greater part in case of females, than in that of males /24% against 13%, that is in case of female students the proportion is almost double/.
3. Females decide upon their profession at an earlier age than males. The difference- except parental influence, which may be considered the same - is significant in each case.
4. Sport at general school /Pioneer Olympiad/ has a favourable influence upon the students' choice of profession.

Control-test

Out of the answers one - influence of sport at general school - has been subjected to a control-test. Students/ N = 239/, who had participated in the national finals of the Winter Pioneer Olympiad in January 1977, have been asked, whether they wanted to choose the profession of teachers of physical education as a career. The breakdown of their answers is as follows:

	Girls			Boys		
Age Years	Number	Wanting to be teacher of Ph.Ed.	%	Number	Wanting to be Teacher of Ph.Ed.	%
8	7	-	-	5	-	-
9	10	2	20	17	-	-
10	13	1	7,7	12	2	17
11	17	5	29,4	9	2	22,2
12	20	3	15	21	8	38,1
13	27	4	14,8	31	6	19,3
14	25	11	44	25	10	40
Total:	119	26	21,8	120	28	23,3

Conclusions

Decision-making in the choice of a profession demands a certain level of maturity. This is well demonstrated by the fact, that considering total data of girls and boys, 7,8% /N = 64/ of the 8-10 year age group, 22,4% /N = 125/ of the 11-13 year age group, while 42% /N = 50/ of the 14 year age group gave a positive answer to the question. It seems that the age of 14 is the lower limit, when decision is becoming firm.

The percentage of this age-group is roughly identical with the percentage of participation in the Pioneer Olympiad referred to by the students of the College.

Summary

Our investigations concerning orientation towards the profession of physical education have disclosed the influential role of direct environment. The personality of the teacher of physical education/ the school/ has proved to be the most effective. It seems that the decision of the students becomes firm at about the age of 14.

Decision comes about earlier in females than in males; this is probably due to the difference in development between the two sexes.

ZUSTANDS-PSYCHODIAGNOSTISCHE PARAMETER VON SPORTLERN

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Hypothese

Der Trainingsprozess bringt den Sportler in einen leistungsfähigen Zustand von bestimmten Niveau, in dem sich seine Sportleistung erhöht. Diesen nennt man Trainingszustand. Die Hauptcharakteristik dieses Zustandes ist die ständige Änderung, auch die Änderung der in der Traininglehre bestimmten Trainingsfaktoren (1) inbegriffen. Da die sich dynamisch ändern Prozesse am meisten ihren dynamischen Komponenten nach charakterisiert werden können, halten wir die Untersuchung der auf die Trainingsbelastung empfindlich reagierenden psychologischen und physiologischen Komponenten für grundsätzlich. Wir schreiben eine besonders wichtige Rolle den psychologischen Funktionskreisen zu, denn ihre relative Veränderlichkeit - besonders im Gebiet der Perzeption - beeinflusst stark ihre regulative Rolle im Leistungsverhalten des Sportlers.

Der im Trainingsprozess erreichte Trainingszustand wird also als ein leistungsorientierter, spezifischer psychophysiologischer Zustand betrachtet, an den man unserer Hypothese nach durch die Ausarbeitung einer Zustandspsychodiagnostik herangehen kann. (2,6).

Die psychodiagnostischen Ergebnisse werden wahrscheinlich auch in der individualisierten Zustandsprognose verwendet werden können.

Methoden

Die Untersuchungen wurden sechsmal, sechs Monate lang, mit 13 qualifizierten Sportschützen durchgeführt. Die Messungen fanden in ±3-tägigen Intervallen um den Wettkämpfen statt. Den Tag vor dem Wettkampf haben wir nicht gemessen, um das Startfieber zu vermeiden.

Die folgenden Funktionen sind verwendet worden.

1. Der Umfang der Aufmerksamkeit wurde mit Tachistoskop gemessen und in Prozenten bestimmt. Das komplexe Programm (Figur, Punktruppe, Zahl) haben wir zusammengestellt (3).

2. Das Tremor des Armhaltens wurde mit Tremometer untersucht. Die Frequenz wurde registriert, d.h. der Frequenzfehler und die in Kontakt verbrachte Zeit, d.h. der Zeitfehler – in 30 und 60 Sekunden (4).

3. Das Gleichgewicht des Körpers wurde im Stehen, mit Stabilometer gemessen. Die Parameter waren die Frequenzfehler in 60 Sekunden und die Zeitfehler in 30 und 60 Sekunden (5).

4. Die Leistung des peripherischen Sehens wurde mit einem Kugel-Perimeter gemessen in der Horizontalen Meridian in je 15° nach oben und nach unten, auf weisse, rote und grüne Lichtsignale, bei beiden Augen (6).

5. Die peripherische Farberkennung wurde gleichfalls mit Perimeter untersucht auf 3 Lichtsignale. Kriterium war: neben dem zentralen Sehen die verbale Benennung der auf der Peripherie erscheinenden Farben (6).

6. Die Schiessergebnisse in den Wettkämpfen wurden regelmässig registriert, zwecks nötiger Validierung.

Ergebnisse

Den Regeln der Testologie entsprechend, wurden die Zuverlässigkeit und die Validität der instrumentalen Messergebnisse untersucht. Bei einem jeden Schützen wurde die beste und die schwächste Sportleistung (positiver und negativer Zustand) des Halbjahres hervorgehoben, und die in diesen zwei Zeitpunkten gemessenen Parameter wurden mit statistischen Proben verglichen. Als diagnostische Parameter haben wir diejenige angenommen, die statistisch signifikante ($p < 0,05$) Unterschiede ergaben, und diejenige, für die vom Gesichtspunkt des Unterschiedes aus eine starke Tendenz ($p < 0,10$) charakteristisch war.

Tabelle 1. Zuverlässigkeit

	Ro Werte				N
Umfang der Aufmerksamkeit	.93				20
Frequenzfehler im Tremor	.64	(30 s)	.79	(60 s)	45
Zeitfehler im Tremor	.61	(30 s)	.82	(60 s)	45
Frequenzfehler im Gleichgewicht	–		.31	(60)	40
Zeitfehler im Gleichgewicht	.65	(30 s)	.47	(60 s)	40
Peripherisches Sehen (auf drei Farben)	.90				20
Peripherische Farbenerkennung (auf drei Farben)	.92				20

Tabelle 2. Validität

N = 13

Parameter		Negativer Zustand	Positiver Zustand	Signifikanz
Umfang der Aufmerksamkeit		72,6 %	79,4 %	xxx
Frequenzfehler im Tremor	(30 s)	12,3	7,6 s	xx
Frequenzfehler im Tremor	(60 s)	23,3	15,1 s	xx
Zeitfehler im Tremor	(30 s)	1,11	0,67 s	xx
Zeitfehler im Tremor	(60 s)	2,15	1,42 s	x
Frequenzfehler im Gleichgewicht	(60 s)	40,0	32,0	xx
Zeitfehler im Geichgewicht	(60 s)	16,75 s	12,40 s	N.S.
Peripherisches Sehen (weiss)		86,8°	84,5°	N.S.
Peripherisches Sehen (rot)		84,5°	85,1°	N.S.
Peripherisches Sehen (grün)		86,2°	85,4°	N.S.
Peripherische Farbenerkennung (weiss)		32,4°	40,1°	x
Peripherische Farbenerkennung (rot)		45,9°	52,7°	xx
Peripherische Farbenerkennung (grün)		32,0°	41,7°	xxx

p < 0,01 : xxx p < 0,05 : xx p < 0,10 : x

Die zuverlässigen und validen Parameter folgen durch seohs Monate der Fluktuation der Sportleistungen. So werden sie im Späteren zu Indikatoren der Leistungsfähigkeit des Sportlers und der Fluktuation des psychophysiologischen Zustandes. All dies ermöglicht uns, in der Leistungsprognose der Spitzensportler einen Fortschritt zu machen.

Literatur

1. Nádori, L.: Theorie und Methodik des Trainings (Az edzés elmélete és módszertana
Sport. Budapest, 1976, p 255

2. Nagykáldi, C.: Diagnostische Probleme der psychomotorischen Leistung bei Sportlern (Sportolók pszichomotoros teljesitményének diagnosztikai kérdései)
Magyar Pszichológiai Szemle, 33, 1976, 2. p 180 - 184

3. Nagykáldi, C.: Ein Test für den Umfang der Aufmerksamkeit, als Parameter des Trainingszustandes im Sport (Figyelem terjedelme teszt, mint a sportedzettség mutatója)
Sonderaufgabe der Wissenschaftlichen Publikation der Hochschule für Körperkultur, Budapest, 1973, 2. p 69 - 90

4. Nagykáldi, C.: Diagnostische Verwendung des statischen Tremors (A statikus trémor diagnosztikai alkalmazása)
Wissenschaftlichen Publikation TF, Budapest, 1974, 2. p 47 - 59

5. Nagykáldi C.: Untersuchung des statischen Gleichgewichtes zwecks Diagnostisierung des Trainingzustandes (A statikus egyensuly vizsgálata az edzettséget diagnosztizáló szempontból)
Wissenschaftliche Publikation TF, Budapest 1974 3. p 21 - 32

6. Pilvein, M.: Konditionsbestimmung mit Untersuchungen des Sehensraumes und der Farbenerkennung (Kondició meghatározás látótér és szinfelismerés vizsgálatokkal)
Manuskript 1972 p 82

DIE WIRKUNG VON "VITA MAXIMA" - BELASTUNGEN AUF EINIGE PSYCHOPHYSIOLOGISCHE PARAMETER

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Im Laufe der Sporttätigkeit spielt unter den Nervensystems-psychologischen regulativen Mechanismen die Ausführungsregelung eine entscheidende Rolle. Unsere Frage besteht darin, welche Wirkung die direkte körperliche Belastung auf einige, an der Ausführungsregulation teilnehmende psychophysiologische Funktionen ausübt.

Zur Beantwortung dieser Frage haben wir im Laboratorium eine Belastungssituation hergestellt.

Methode

Die körperlichen Belastungen wurden auf einer Jäger-Laufband gegeben. Bei 10 Hochschulstudenten (22,3 Jahre) handelte es sich um eine vita maxima Belastung, die in 12 Minuten Lauf mit 14 km/Stunde Geschwindigkeit bestand, gefolgt von einem 2 Minuten-Lauf auf einem Anstieg von 5 %, nachher freiwillig noch 2 Minuten. Die Vp-n haben selbst das Aufhören bestimmt.

Vor und nach den Belastungen und teilweise auch während des Laufes wurden bei den Vp-n in derselben Zeit-Reihenfolge folgende Parameter gemessen:

1. Einfache Reaktionszeit (RZ) auf 40 Lichtreize in Random - Serien mit Genauigkeit auf ms.

2. Disjunktive Reaktionszeit (DRI) auf Grund von geraden und ungeraden Zahlalternativen. Bei der Auswertung wurden auch die Fehler in Betracht genommen, so haben wir qualitative Angaben erhalten.

3. Die Fehler des retardierten Reagierens wurden durch Serien - Aufgaben registriert. Wir haben es aus der Genauigkeit eines ringsherum laufend und nach einem freien Lauf auf dem gewisse Zeit stehengebliebenen Lichtpunkt errechnet.

4. Die Fluktuation der Aufmerksamkeit wurde auf Grund der Häufigkeit eines mit der 2 Minuten lang dauernden Wahrnehmung eines Necker-Würfels verbundenen "Figurenwechsels bestimmt.

5. Der Umfang der Aufmerksamkeit wurde mit Tachistoskop, in Prozenten gemessen.

6. Der peripherische Sehraum wurde mit einem Kugel-Perimeter mit weissen, roten und grünen Lichtsignalen untersuchet.

7. Die peripherische Farberkennung wurde mit Perimeter gemessen. Kriterium war die verbale Benennung der Farben.

8. Peripherische Gestalterkennung mit Perimeter. Kriterium wie vorher.

9. Messung von Sehraum-Reaktionszeit mit Perimeter.

10. Bestimmung der psychophysischen Schwelle bei visueller Fusionsfrequenz (VFF).

Ergebnisse

Wir hatten 6 Parameter vor und nach der Belastung registriert und hatten eine technische Möglichkeit bei 3 Parametern auch während der Belastung zu messen.

Der Fehlerwert des retardierten Reagierens (im Sec.) verlängerte sich auf Wirkung der Belastung, verkürzte sich signifikant nach dem Aufhören (im 2-3 Minute) und wurde niedriger als der Ruhewert.

Der Umfang der Aufmerksamkeit veränderte sich nicht.

Der peripherische Sehraum bzw. Sehen verbreitete sich signifikant ($p < 0,005$) auf Wirkung der Belastung in der Minute nach dem Aufhören.

Die peripherische Farberkennung (8-10. Minute) und die Gestalterkennung (10-11. Minute) erhöhten sich auch signifikant ($p < 0,01$ bzw. $0,05$) nach der Laufbelastung.

Die Fluktuation der Aufmerksamkeit erhöhte sich vom Ruheniveau in fast signifikanter Weise ($p < 0,10$), nach dem Lauf dagegen (11-13. Minute) verminderte sie sich, erreichte aber das Ausgangsniveau nicht.

Die visuelle Fusionsfrequenz erhöhte sich im Vergleich zum Ausgangswert signifikant ($p < 0,05$) und blieb auch nach der Belastung (13.-15. Minute) an einem hohen Niveau.

Die einfache Reaktionszeit verlängerte sich signifikant ($p < 0,001$), sie verkürzte sich signifikant nach dem Aufhören (15.-17. Minute) und sank sogar unter den Ausgangswert.

Die disjunktive Reaktionszeit (17.-20. Minute) zeigte keine wesentlichen Änderungen.

Die Sehraum-Reaktionszeit veränderte sich auch nicht. (20.-24. Minute).

Besprechung

Sieben von den untersuchten zehn Parametern zeigten in charakteristischer Weise, dass die körperliche Belastung selbst eine Wirkung auf einige, in der Regelung der Sporttätigkeit eine Rolle spielende Funktionen ausübt. Das ist in der Psychoregelung mit folgenden Änderungen verbunden:

1. Bei den mit der visuellen Informationsaufnahme verbundenen Funktionen übt die körperliche Belastung eine steigernde Wirkung aus, die sogar nach der Belastung bemerkbar bleibt (Angabe der visuellen Perzeption).
2. Eine stimulierende Wirkung der Belastung aufs Aktivierungsniveau wurde gleichfalls festgestellt (Fluktuation der Aufmerksamkeit und VFF).
3. Die Laufbelastung bremst die neurodynamischen Prozesse, diese Prozesse beschleunigen sich aber unmittelbar nach der Belastung (einfache und retardierte Reaktionen).

ПСИХОЛОГИЧЕСКИЕ АСПЕКТЫ СПОРТИВНОГО ЗРЕЛИЩА

(Анализ интеракций между создателями и воспринимателями спортивного зрелища)

НАВРОЦКА,В., Варшава, Польша.

Наблюдение спортивной борьбы представляет особые удовлетворения, связанные прежде всего со свойственной драматургией спортивного зрелища, а также со специфическим свойством идентификации, типичной для зрителей и спортивных болельщиков. Участие в восприятии спортивного зрелища отличается от участия в восприятии других видов массовых зрелищ. Его свойственность заключается в значительно больших, чем это бывает в театре, в кино или в концертном зале, возможностях непосредственного взаимодействия, как между отдельными зрителями, так и между зрителями и создателями спортивного зрелища - спортсменами. Спортивные зрители и болельщики имеют возможность не только свободно наблюдать ход и результаты спортивной борьбы, но также в данное время публично высказывать свои мнения, принимать участие в дискуссии, взаимно поддерживать себя или же противодействовать. Кроме того имеют также возможность непосредственно вмешиваться в ход спортивных событий - приподносить возгласы одобрения или порицания, апробации или дезапробации, передавать советы и указания отдельным спортсменам или целым коллективам.

Спортивный зритель ощущая и обнаруживая в данной среде свой контакт со специфической спортивной общиной, входит в своего рода интеракции с почти целой спортивной ареной, взаимодействует в создании своеобразной социально-психологической обстановки апробации и акцептации деятельности спортсменов - актеров драмы разыгрывающейся на стадионе, на плаше или в ринге.

В противопоставлении к театральному или кинотеатральному зрителю, или слушателю концерта, которые в камерной обстановке воспринимают ценности осматриваемого спектакля или слушанной музыки, зритель спортивный явным способом интегрируется с другими путем общих эмоций и переживаний, обобществляет в ходе событий свои восприятия и оценки, одновременно принимая участие в переживаниях других зрителей и болельщиков, усиливая чувство общественной связи со спортивной общиной. Это чувство связи усиливает процесс идентификации зрителя с его спортивным фаворитом. Успех фаворита усиливает у зрителя чувство собственной ценности и силы, снижая при этом чувство угрожения со стороны различных превратностей судьбы и трудностей встречаемых в повседневной жизни.

Таким образом воспринимательное соучастие в спортивных зрелищах является часто положительным фактором психотерапевтической процедуры, благодаря которой члены спортивной арены обладают хорошим самочувствием, получают удовлетворение аспираций и потребности престижа, что в последовательности вызывает повышение уровня мотиваций и различных форм деятельности на благо социальной общины.

Среди различных социально-психологических факторов, характерных для участия в восприятии спортивного зрелища, особого рода интерес вызывают те факторы, которые могут или не должны обуславливать ход и результаты спортивной борьбы. Мы имеем в виду прежде всего роль, какую играют интеракции возникающие между творцами и воспринимателями спортивного зрелища, опирающиеся на циркуляции реакций.

Особого рода обратная связь, являющаяся основой механизма упомянутой циркуляции реакций, как правило имеет очень сложный характер. Под влиянием правильного хода спортивной борьбы а также достижения предвиденных результатов, зрители манифестируют свое одобрение, а иногда даже и энтузиазм, что в свою очередь возбуждает у спортсменов убеждение в эффективности их действий и вызывая положительные стенические эмоции - способствует интенсификации дальнейших усилий, которые в последовательности увеличивают благосклонные реакции зрителей. Подобным образом отрицательные, неодобряющие реакции публики, вызванные невыполнением спортсменами возложенных на них надежд, снижают уровень мотиваций и ухудшают самочувствие спортсменов, тем самым проявляют отрицательное влияние на ход и результаты спортивной борьбы, что в свою очередь усиливает неудовольствие и дезапробацию со стороны зрителей.

Одноименные, как положительные, так и отрицательные реакции создателей и воспринимателей спортивного зрелища взаимно индуцируют и подкрепляются.

Существенную роль в формировании общественно желательной интеракции между спортсменами и спортивной публикой играет однозначное, правильное и консеквентное деяние спортивных арбитров или же спортивных судей. Непосредственное влияние, которое оказывает ошибка или пристрастие судьи на ход спортивной борьбы данного спортсмена, и в последствии на ее результаты - общеизвестное. Не всегда же мы осознаем, что ошибки и промахи или же сознательно несоответствующее правилам поведение судьи, усиливая возбуждение спортивной публики, усиливает у спортсменов чувство угрожения, что как известно, снижает уровень психической и физической подготовки к выполнению поставленных им задач.

Необходимо напомнить еще об одном элементе, характеризирующем спортивную публику и отличающем ее от публики таких массовых зрелищ, как театральные спектакли,

кинофильм и тому подобные. Мы имеем в виду диктора соревнований, которого роль в регулировании интеракций между создателями и воспринимателями спортивного зрелища нельзя не досценивать. Это именно от его профессиональной и спортивной подготовки, а также от осознания конкретной ситуации на данном стадионе, спортивной площадке или в манеже, в значительной степени зависит социально-психологическая обстановка спортивного зрелища, о значении которой мы уже упоминали. Соответственно управляя реакциями зрителей, а прежде всего самых горячих болельщиков, он мог бы, зная механизмы влияния на массового зрителя, использовать их общественно желательные вовлечения, способствующие правильному ходу спортивной борьбы.

Управление ходом восприятия спортивного зрелища, позволяющее на усиление и обобществление желательных с культурной точки зрения эмоциональных ощущений большинства зрителей, могло бы их одновременно предохранить перед влиянием групповых истерических действий или грубостей, возникающих как результат общественно неправильных поведений некоторых индивидов находящихся на спортивной арене. Наблюдение спортивного зрелища часто предоставляет этим людям возможность компенсации отсутствия собственной спортивной активности и связанных с ней положительных эмоциональных ощущений, путем замещающих, субституционных восприятий и поведений, находящих свое выражение в сверхвозбудимости, азартном раздражении актах агрессии против спортсменам и арбитрам и т.п.

Сознательное управление процессом восприятия спортивного зрелища, способствующее элиминации упомянутых выше отрицательных поведений зрителей, усиливающих появление социально-психологических ситуаций стрессового характера, могут, по нашему мнению, значительно содействовать возникновению такой обстановки на стадионах, площадках, в манеже, которая давала бы спортсменам возможность оптимально использовать свои способности, с целью достижения самых лучших спортивных результатов.

Не безразличным с общественной, а особенно идейно-воспитательной точки зрения, являются род и характерные черты интеракций, возникающих между творцами спортивного зрелища и публикой, состоящей иногда из многих тысяч или миллионов людей. Управление различными видами интеракций может содействовать более полному, чем это до сих пор бывает, использованию культуротворческих а также личностнотворческих ценностей, заключающихся в современном спорте.

СПОРТ КАК ФАКТОР СОЦИАЛИЗАЦИИ СОВРЕМЕННОГО ЧЕЛОВЕКА

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Пропорции между временем, в котором современный человек занимается профессиональным трудом, а свободным временем, которое может посвятить общественной деятельности (между другими и рекреационной, спортивной), являются одним из основных критериев общественно-экономического уровня развития данного общества, а также степени социализации его отдельных членов.

Межличностные реляции и вытекающие из них нормы и принципы сосуществования, а также общественного взаимодействия, общественный образ поведения человека формируются не только в процессе его производительной деятельности. Могут они ведь обогащаться и углубляться благодаря различным видам его общественной активности, например - спортивной, предпринимаемой добровольно, согласно с его потребностями и признаваемой системой ценностей.

Разнородные формы деятельности человека расширяют круг и углубляют характер его

контакта с окружающей средой путем постепенного развития познавательных, эмоциональных, а также мотивационно-действенных функций психики. Усиливают они одновременно, на основе свойственной обратной связи, возможность его социализации в процессе преобразовывания среды, согласно потребностям формирующих и развивающих ее индивидов.

В нашем реферате мы пытаемся ответить на вопрос, могут ли и в какой степени, занятия спортом, в широком понятии этого определения, наряду с производительным трудом стать существенным фактором развития и формирования личности современного человека, а особенно фактором ускоряющим процесс его социализации.

Выступающий в ходе спортивной деятельности своеобразный характер взаимодействия и соревнования; необходимость признавать общественно выработанные и акцентированные нормы и принципы поведения, а особенно правила "фер плей"; взаимозависимость между соотношением интерперсональных связей в команде, а эффектами ее деятельности; необходимость подчинять личные стремления и аспирации интересам и целям команды - это только некоторые примеры указывающие роль занятий спортом в процессе социализации человека.

Каждая из представленных выше проблем и много еще других типичных для спортивной деятельности и среды, влияют на поведение человека занимающегося спортом, знакомят его с формами общественной деятельности, которые следовательно могут быть использованы в его общественных контактах, в профессиональной, семейной или товарищеской среде.

Поэтому не безразлично, с точки зрения правильного хода процесса социализации, в какой воспитательной обстановке протекает спортивная деятельность, какая система признаванных ценностей является основой ее программных и организационных предпосылок, какие в ней применяются этичные и моральные нормы, какие наконец соотношения межличностных связей характеризуют данную спортивную среду.

Необходимо при этом подчеркнуть, что формирование общественно акцентированного образа поведения человека значительно эффективнее в процессе добровольной деятельности, являющейся источником добавочных эмоциональных впечатлений, чем в ситуациях принужденности, складывающихся в систему мало пластичных требований и персональных зависимостей, как это иногда бывает в ходе производительного труда.

Широко понимаемая спортивная деятельность развивает своеобразные, общественно обусловленные виды мотиваций и аспираций. Среди мотивов, которые заставляют человека предпринимать и продолжать спортивную деятельность, на первое место выдвигается мотивы общественного характера. Именно этой общественной мотивации учится он подчинять часто разногласные, противоположные личные мотивации. Это одна из основных характерных особенностей, определяющих уровень социализации данного индивида, а особенно его общественного образа поведения.

В исследованиях, которых целью было определение влияния занятий спортом на процесс социализации, мы искали ответы на вопросы, какой род общественного образа поведений характеризует людей занимающихся спортом в отличие от тех, которые им не занимаются; какие факторы спортивной деятельности обусловливают общественные поведения, а какие - антиобщественные; а также - каким образом общественные поведения, сформированные в процессе занятий спортом, проявляются во внеспортивных ситуациях общественной взаимодеятельности?

С целью поиска ответов на вышесформулированные вопросы мы провели серию эмпирических исследований, охватывающих спортсменов отличающихся разным уровнем онтогенетического развития, уровнем образования, степенью спортивных квалификаций, общественным происхождением и видом спортивной деятельности. С целью сравнительного анализа мы обследовали определенно подобранные группы людей, не занимающихся спортом.

В отдельных сериях исследований применялись лабораторные и натуральные эксперименты, шкалы норм, методы проекции, а также участвующие наблюдения.

В связи с ограниченностью времени мы пропустим в наших рассуждениях подробное описание отдельных серий исследований и подробный деловой и статистический анализ полученных результатов. Отсылая заинтересованных этими вопросами к литературе предмета мы позволим себе представить лишь общие окончательные выводы:

1. Обследованные индивиды, занимающиеся спортом, независимо от пола и возраста, характеризуются положительной, статистически значимой разницей уровня социализации, в сравнении с людьми, которые спортом не занимаются. Обследованные самой высокой спортивной квалификации показывают при этом относительно высокий уровень социализации, чем индивиды с меньшими успехами в спорте. Это находит выражение, например, в их по большей части общественных поведениях по отношению к другим людям, а также в акцептации и действительно относительно ригористическом соблюдении норм и принципов, признаваемых в данной общественной среде.
2. Такие факторы, как однозначимость и ясность целей и задач, относительно ригористическое соблюдение норм и принципов поведения, соответственный не слишком большой разрыв между реальными возможностями и аспирациями, применение одинаковых понятных всем критериев оценки, гармоническое соотношение межличностных связей опирающееся на демократическом стиле управления коллективом, а также коллективный характер деятельности специфический для данного вида спорта - отчетливо способствуют формированию п р о о б щ е с т в е н н ы х поведений. Немного меньшую роль в этой сфере играют положительные личные образцы отдельных членов команды, а также относительно одинаковый или же сближенный уровень достижений всех членов группы.
3. На возникновение а н т и о б щ е с т в е н н ы х поведений влияют, прежде всего, такие факторы, как чрезмерная слишком ригористическая система требований, чрезмерно дифференцированный уровень достижений отдельных членов команды, неодинаковые критерии оценки и связанная с ними несправедливая система награждений, слишком автократический стиль управления командой, а также отсутствие однозначно точно определенной цели деятельности.
4. В большинстве обследованных случаев констатировано трансфер (перенос) общественных поведений, сформированных в ходе спортивной деятельности на другие ситуации деятельности обследованных индивидов. Это касалось прежде всего соблюдения признаваемых норм коллективного взаимодействия; применения своеобразных принципов "фэр плей" в различных формах общественного соревнования; в способах поведения в ситуациях коллективного угрожения; в установках афилиативных а также в признавании действительных, а не только формальных авторитетов.

Представленный ход наших рассуждений, а также результаты упомянутых и других наших исследований, о которых мы не докладывали в связи с ограниченностью времени выступления, позволяют, как нам кажется, сформулировать следующие выводы:

Обеспечение самым широким массам возможно оптимальных условий использования свободного от производительного труда времени на разнородные формы активной рекреации, м.др. такие как спорт, туристика и т.п., является одним из основных факторов развития всего общества, а также ускоряет процесс правильной социализации отдельных членов этого общества.

ЛИТЕРАТУРА:

1. Baley S.: Wprowadzenie do psychologii spolecznej (Interoduction to social psychology). Warsaw 1964, PWn.
2. Cowell Ch.C., Isamil A.H.: Relationship between selected social and physical factors."Research Quarterly" 1962, No.33.

3. Epuran M.: Psihologia sportului. Bucuresti, 1968.
4. Introna F.: Le attivita sportive nella profilassi dell´antisocialista. In:Psicologia dello Sport, Roma 1965.
5. Lambertini G.: Motovi psicologici dell´attivita sportiva di alcuni giovanni. "Traguardi" 1965, No.11.
6. Malczewski F.: Wybrane zagadnienia psychologii spolecznej sportu. (Selected problems of social psychology of sport.) Warsaw 1971,INKF, Wyniki Badań (Research Results) No.12.
7. Nawrocka W.: Dorobek i perspektywy rozwojowe polskiej psychologii sportu. (Achievements and prosepcts of development of Polish psychology of sport). "Przegląd Psychologiczny",1975, Vol.18 ,No.2.
8. Nawrocka W.: Analiza oraz ksztaltowanie ukladu stosunkow miedzyosobniczych w zespole sportowym jako istotne elementy procesu treningowego. (Analysis and formation of arrangement of interpersonal relations in sports team as essential elements of training process). In: Psychologia i współczesny sport."Sport i Turystyka", Warszawa 1976.
9. Wolkow S.P.: Socialno-psichologiczeskije issledowanija w sportie."Tieoria i Praktika Fiziczeskoj Kultury" 1967, No.8.
10. Zaborowski Z.: Próba eksperymentalnej weryfikacji koncepcji wyrowynawania postaw. (Attempt at experimental evaluation of attitude equalization). "Psychologia Wychowawcza" 1969, Nr.1

УРОВЕНЬ И ЛАБИЛЬНОСТЬ ПСИХИЧЕСКОЙ УСТОЙЧИВОСТИ КАК ПОКАЗАТЕЛЬ ПОДГОТОВКИ К СПОРТИВНОЙ ВОРЬБЕ

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1.Проблема и ее обоснование

Многие психологи ищут лучших методов и техник исследований, которые представили бы возможность более точно определить уровень а также темп развития различных психических качеств, между другими и эмоциональной устойчивости (ЭУ), существенных для достижения спортивных результатов (Черникова, 1964; Навроцка, 1966,1972; Свобода, Ванек, Хошек, 1976 и другие).

В работах этого периода чаще всего применяются классические психологические инструменты исследований, как опросник - напр.Кателла, инвентарь - напр.Эйсенка или Терстона, тесты - напр.Равена, шкалы - напр.Тейлора и т.п.

В наших исследованиях мы вышли из несколько других положений, считая что успех, в такой специфической деятельности как спортивная, зависит, не только от уровня или темпа развития отдельных психических качеств, но также от их своеобразного с и н д р о м а . В этом синдроме основную роль играет соответственный уровень эмоциональной устойчивости. Необходимо при этом подчеркнуть, что такого рода динамические синдромы психических качества вероятно дифференцируются не только в зависимости от требований предъявляемых спортсменам занимающимся различными видами спорта, но также от уровня спортивного мастерства данного спортсмена.

Исходя из этих предпосылок особенно плодотворным мы нашли принять попытку провести исследования экспериментального характера, которые основываются на так называемых м о д е л ь н ы х ситуациях, по своему содержанию и структуре действия, а также по правилам и технике выполнения задач сближенным к аналогическим или подобным ситуациям, выступающим в действительной спортивной деятельности.

Предпосылки а также конструкция этого рода модельных экспериментальных ситуаций должны в принципе учитывать комплексное содействие п о з н а в а т е л ь н ы х , э м о ц и о н а л ь н ы х , а также м о т и в а ц и о н н о - д е й с т в е н н ы х психических функций человека, так как это имеет место во всех родах его деятельности.

Поставление задач ангажирующих только "изолированные", в некотором смысле функции, или же психические качества человека, может, по нашему мнению, привести к деформации хода исследованного процесса и тем самым к ограничению заложенной в концепции исследований а н а л о г и и с действительной ситуацией, типичной для данной спортивной деятельности.

В наших рассуждениях как эмоциональную устойчивость мы понимаем способность сохранения в процессе деятельности определенного уровня умственной дееспособности, а также прецизии движений помимо возникшего эмоционального напряжения (Рейковски, 1966). На основании этого определения мы предполагаем, что дееспособность человека в условиях эмоционального возбуждения, вызванного стрессовыми факторами, можно рассматривать как адекватное мерило его эмоциональной устойчивости (ЭУ).

2. Цель, объем и методы исследования

В связи с ограниченностью времени мы можем представить только узкий фрагмент наших исследований, целью которых было проведение методологического анализа пригодности избранных исследовательских методов и техник, примененных с целью определения психологической характеристики квалифицированных спортсменов. Этот фрагмент относится к попытке определения уровня и лабильности психической устойчивости.

Исследованиями, которые проводились в 1969-1974 гг., охвачено 180 спортсменов в возрасте 18-34 лет, занимающихся всеми видами фехтования. Первую группу составляли спортсмены сборной команды - мастера спорта по фехтованию, другую - спортсмены составляющие непосредственные резервы сборной команды, третья группа - это спортсмены более низкого уровня спортивных достижений.

Исследования проводились в двух сериях. В первой серии испытаний мы охватили всех обследованных, во второй - случайно избранных из каждой группы - 90 спортсменов дифференцированного уровня спортивной квалификации.

Многие авторы (Лурия, Трофимов, 1956; Леонтьев, 1928; Гурфинкель и др.,1966; Сафонов, 1961; Зайцев, Коц, 1969; Ох, 1968; Родионов, 1968; Генов, 1972 и другие), применяя в исследованиях метод тремометрии, высказывают мнение, что тремор является одним из существенных показателей отражающих функциональное состояние центральной нервной системы. Является он также ценным показателем изменений в сфере координаций, особенно центрального происхождения, которые по нашему мнению необходимо учитывать в ходе анализа сложной спортивной моторной деятельности. Констатировано также, что меньшая частота тремора обычно предзнаменует лучшее исполнение моторного действия.

Разработана нами модификация рутинного тремометрического исследования, заключающаяся в введении к ходу выполнения задачи добавочных вербальных раздражителей, усиливающих чувство угрожения обследованного индивида, основана была на аналогических моделях ситуаций спортивной фехтовальной борьбы.

Целью первой серии исследований было определение эмоциональной устойчивости спортсменов к ситуационному психологическому стрессу. Показателем уровня эмоциональной устойчивости являлась дееспособность и прецизия, а также время выполнения задачи отдельными испытуемыми.

Целью второй серии наших исследований была верификация результатов, полученных в первой серии, к которым был прибавлен анализ критериев применяемых непосредственными тренерами при оценке пригодности отдельных спортсменов во время состязаний по фехтованию. В этой серии применялись трехкратные тремометрические исследования, в которых постепенно усиливалось чувство угрожения и общественной девакцептациивследствие интенсификации воздействия вербальными вызывающими стресс раздражителями.

Примененный вариант исследования в предположениях являлся моделью ситуаций, аналогических к нарастающим эмоциональным напряжениям выступающих под влиянием спортивных неудач на поле боя.

3. Результаты исследований

Материалы собранные в ходе обеих серий исследований были подвергнуты меритори-ческому и сравнительному статистическому анализу в различных реляциях.

Исходным положением для наших сравнений стали данные и корреляции в области интерперсональных и интераперсональных различий, выступающих у трех обследованных популяций фехтовальщиков.

Релативно самые лучшие результаты в тремометрических испытаниях, указывающие на относительно высокий уровень эмоциональной устойчивости, показывали спортсмены самых высоких квалификаций по фехтованию, как сформализованных (место в классификационном реестре), так и находящих выражение в мнениях тренеров. Особенно четко проявлялась этого рода закономерность в нескольких реляциях, в которых мы определили различия эмоциональной устойчивости на высоком уровне статистической значимости. В качестве примера можно здесь указать на сравнения между фехтовальщиками-мастерами спорта и их непосредственными гипотетическими наследниками, а между спортсменами с низшим уровнем достижений; сравнения в каждой группе фехтовальщиков занимающих наивысшее место в классификационном рееестре с теми, которые занимали места определенно дальшие, а также сравнения обследованных индивидов с многолетним спортивным стажем и спортсменов с кратковременным стажем. (Соответственные данных иллюстрируются на таблице).

Остальные, реляции характеризующиеся также выступанием различий на высоком статистическом уровне мы пропустили в докладе по причине отсутствия времени.

Несмотря на неполное представление полученных результатов можно, на наш взгляд, с некоторой осторожностью констатировать, что разработан и применен нами вариант тремометрических исследований может быть пригодным для определения уровня и лабильности эмоциональной устойчивости в ситуациях психологического стресса. Может об этом свидетельствовать, как нам кажется, факт, что как мастера фехтования, так и другие обследованные спортсмены по мнению тренеров особенно пригодные к спортивной борьбе во всех вариантах наших тремометрических испытаний достигали лучших результатов, чем спортсмены определяемые как менее пригодные. При этом можно констатировать некоторое схождение результатов полученных в наших исследованиях с результатами Гешен, которая занималась смежной проблематикой, но на ином материале испытуемых, применяя также между другими и тремометрический метод (Гешен,1970).

В заключение мы хотели бы представить, что как вытекает из предварительного анализа эффектов тремометрических испытаний, проводимых нами в 1975-76 гг., использованных в процессе отбора детей к спортивным классам по фехтованию в одной из варшавских восьмилетних школ, обследованные индивиды, достигающие лучших показателей в эмоциональной устойчивости, почти как правило, занимали первые места в т.наз. предварительном турнире, который проводился без тренировочной подготовки.

Кроме того они достигали лучших результатов в процессе тренировки и во время стартов также в ходе обучения по фехтованию.

Наши рассуждения позволяют нам утверждать, что примененный метод тремометрического исследования может стать основанием как для предварительного отбора и селекции спортсменов, так и инструментом диагностики, а также прогнозирования, учитывающего роль психической устойчивости в процессе тренировки и стартов на соревнованиях. Может он также найти применение в анализе и оценке правильности процесса подготовки спортсменов, не только по фехтованию, но также и в других видах спорта.

ЛИТЕРАТУРА:

1. Czajkowski Z.: Wplyw stressu psychicznego na dzialalność sportowa (Effects of psychological stress on sports activity). "Sport Wyczynowy" 1975, No.11.
2. Czernikowa O.A.: Wplyw emocji na zachowanie sie sportowca i ich autoregulacja (Effects of emotions on the athlete's behavious their selfcontrol). Materialy Szkoleniowe PKOL, 1964, No.5.
3. Heszen I.: Wielkość potrzeby jako czynnik warunkujacy zmiany poziomu funkcjonowania po niepowodzeniu (Intensity of need as a determinant of changes of the level of functioning after failure). "Przeglad Psychologiczny", 1968, No.15, "Ossolineum".
4. Miedwiediew W.W.;Rodionow A.W.; Chudadow A.N.: Doznania psychiczne w działanosci sportowej (Psychological sensations in sports activity). In:"Psychologia i współczesny sport", Warsaw 1976, Sport i Turystyka.
5. Nawrocka W.: Les sources les symptomes des effects emotionnels on sport Qualifié. Psicologia dello sport 1965.
6. Nawrocka W.: Pozion rozwoju wybranych cech psychicznych jako kriterium selekcji oraz stopnia zaawansowania sportowego (Level of development of selected psychological traits as a criterion of selection and a degree of sports advancement). In: Osobowosciowe i pedagogiczno-spoleczne czynniki powodzenia w sporcie kwalifikowanym. Biblioteka Trenera PKOL, 1972.
7. Oja S.M.: Psychologiczne zagadnienia emocji przedstartowych. (Psychological i współczesny sport, Warsaw, 1976, Sport i Turystyka.
8. Reykowski J.: Eksperymentalna psychologia emocji. (Experimental psychology of emotions). Warszawa 1968, Ksiażka i Wiedza.
9. Reykowski J.: Funkcjonowanie swiadomości w warunkach stressu psychicznego. (Functioning of conscience under the conditions of psychological stres). Warsaw 1966, PWN.
10. Svoboda B., Vaněk M., Hošek V.: Metody psychologicznej diagnozy sportowca i trenera. (Methods of psychological diagnosis of the athlete and coach). In: Psychologia i współczesny sport, Warsaw 1976, Sport i Turystyka.

MOTIVACE TRENÉRŮ A CVIČITELŮ ČSTV K PEDAGOGICKÉ AKTIVITĚ

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Úloha trenéra nebo cvičitele v tělovýchovném procesu spočívá především v pedagogickém působení na sportovce, jehož cílem je rozvoj zdatnosti a výkonnosti včetně všech aspektů ideových a politických. Vedle tohoto prvořadého efektu má však pedagogická práce v tělovýchově i hluboký význam pro vlastní nositele této role - dává řadě lidí příležitost se aktivně společensko-politicky angažovat při výchově mladé generace. Tento aspekt je zvláště výrazný v československé tělovýchově, kde převážná část pedagogického působení je uskutečňována trenéry a cvičiteli, kteří tuto funkci vykonávají dobrovolně (volontairement), vedle svého vlastního zaměstnání. Tím, že vztah trenéra nebo cvičitele k tělovýchovné organisaci spočívá na bázi dobrovolnosti, je výrazně ovlivňována i stabilita této funkce jak v počtu aktivních trenérů a cvičitelů, tak v délce jejich aktivity. Výběr a příprava vhodných jedinců pro výkon role trenéra nebo cvičitele, s ohledem na požadavky odborných kvalit, pedagogických předpokladů, osobních vlastností, ale i jistých předpokladů stability, je velmi náročná a zodpovědná činnost.

V poslední době byla proto pozornost výzkumu zaměřena na sledování osobnostních a sociálních charakteristik a to jak uchazečů o funkci trenéra nebo cvičitele, tak aktivně pracujících i nakonec těch, kteří dočasně nebo definitivně zanechali činnosti. Smyslem těchto šetření je přinést průkazný materiál, který by pomohl objasnit některé příčiny v nesprávném výběru jedinců, nebo méně kvalitní práci i poměrně velkou fluktuaci. Z bohatých empirických výsledků se však v tomto sdělení soustředíme pouze na sociologickou interpretaci některých zjištění (obzernations), která mají souvislost se stabilitou pedagogické funkce v tělovýchovné organisaci. Ty jsou odvozovány především z motivů vstupů do funkce důvodů setrvání, spokojenosti s prací, překážek v práci a ocenění aktivity okolím.

Výzkumy prokázaly, že nejsilnějšími motivy pro zapojení do trenérské funkce jsou ty, jež souvisejí s dřívějším aktivním sportováním, definované dvěma třetinami trenérů, jako potřeba dále se zúčastňovat sportovního dění v oddíle. Jako významný motiv pro trenérskou práci se v poslední době ukazuje též začínající sportovní úspěch vlastních dětí, zvláště u mladých rodičů, shodně u mužů i u žen. Důležitým faktorem pro spokojenost v trenérské práci je dále srovnání představ, se kterými trenéři vstupovali do funkce s tím jak se po určité době v praxi realizují. Pokud jde o posouzení vlastních schopností pedagogicky působit a dosahovat sportovních a výchovných úspěchů, naznačují výsledky převažující shodu aspirací s realitou. Pokud však jde o hodnocení vnějších podmínek pro výkon trenérské funkce, velmi často se představy a přání se skutečnými podmínkami rozcházejí. Jako prvořadé limitující faktory se ukazují především povinnosti spojené s výkonem povolání, starosti o zabezpečení rodiny a další funkcionářská činnost jak v tělovýchově, tak v jiných organisacích. Až druhořadé se jeví nedostatečné hmotné, kádrové nebo organisační podmínky dané možnostmi tělovýchovné organisace. Problémy, které znesnadňují trenérům výkon jejich funkce, zejména pracovní zaneprázdnění a přetěžování funkcemi nelze podceňovat, neboť právě tyto faktory mají podle vyjádření neaktivních trenérů prvořadý vliv na jejich fluktuaci. Pro posílení stability trenérské činnosti mají proto značný význam všechny činitele ať již s přímým či zprostředkovaným kompenzačním účinkem.

Bylo zjištěno, že podstatný vliv má např. společenské ocenění dobrovolné trenérské práce, zejména v postojích zaměstnavatele, uznání v místě bydliště i příznivé klima v rodině. V souvislosti se zvyšujícími se nároky na kvalitu a kvantitu trenérské práce, která v současné době již překračuje tradiční míru dobrovolnosti, nabývá významu i finanční a hmotné odměňování. Výzkumy sice prokázaly opodstatněnost hmotné satisfakce za trenérskou práci, ne však rozhodující z hlediska formování postojů k této formě společenské aktivity. Zdroje postojů nutno hledat v hlubší hodnotové orientaci v rámci životního způsobu této kategorie naší populace. Jejich základem je především výkonová funkce sportu, tj. dosahování určitých cílů a překonávání překážek, i když u trenéra prostřednictvím jeho svěřenců. Neméně důležitým činitelem je kompenzační úloha sportu, kdy vedení tréninku je aktivním odpočinkem po duševní a fyzické námaze.

Ve stručném souhrnu je možno konstatovat, že trenéři jsou v zájmové pedagogické aktivitě silně motivováni především předcházející aktivní sportovní činností, vyúsťující v potřebu dále se sportovně angažovat.

Přes to, že se tyto motivy ukazují jako velmi silné, jsou dosti přesně definovány překážky, které za jistých okolností mohou stabilitu trenérské funkce ohrozit. Mezi ně patří zejména zvyšující se nároky na pracovní vytížení, změna organisace volného času a další funkcionářské zatížení. Důležitým stimulem pro trenérskou práci je společenské a morální ocenění i vhodná forma odměňování hmotného. Postoj k výkonu pedagogické funkce pramení však z hlubší hodnotné orientace v rámci životního způsobu, kde tělovýchovná aktivita má své pevné místo.

STRUKTURANALYSE SPORTLICHER HANDLUNGEN

NITSCH, J.R., Köln, Bundesrepublik Deutschland

Im folgenden sollen einige Grundprinzipien der psychischen Regulation sportlicher Handlungen umrissen werden, deren Kenntnis wichtig erscheint, um einerseits Handlungsstrukturen in Unterrichts-, Trainings- und sporttherapeutischen Prozessen in optimaler Weise aufbauen sowie andererseits Handlungsstörungen differenziert erklären und gezielt beheben zu können.

Sportliche Handlungen weisen eine triadische Grundstruktur auf (NITSCH & ALLMER, 1976), die durch folgende Phasen bestimmt ist (vgl. Abb. 1):

(1) Handlungsantizipationsphase,
(2) Handlungsrealisationsphase,
(3) Handlungsinterpretationsphase.

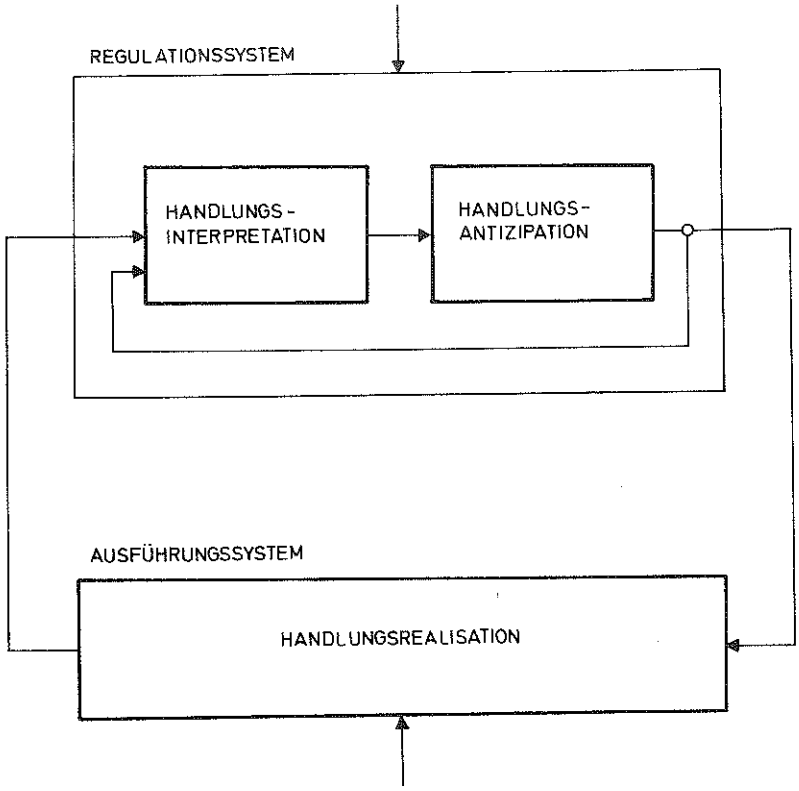


Abb. 1 Schema der triadischen Handlungsgrundstruktur

In der Antizipationsphase wird eine Erwartungsstruktur als Grundlage für die nachfolgende Ausführung und Bewertung einer Handlung ausgebildet. Genauer betrachtet sind vier Arten der Antizipation zu unterscheiden:

(a) Ergebnisantizipation, konkretisiert im Handlungsziel;
(b) Verlaufsantizipation, konkretisiert im Handlungsplan;
(c) Effektantizipation als Erwartung der mit einer Handlung verbundenen Befriedigung;
(d) Aufwandantizipation als Erwartung der mit einer Handlung verbundenen Beanspruchung.

Ergebnis- und Verlaufsantizipation (vgl. hierzu auch SCHNABEL, 1976) lassen sich im Sinne HACKERs (1973) als Teilvorgänge der Ausführungsregulation, Effekt- und Aufwandantizipation als Teilvorgänge der Antriebsregulation verstehen.

Die vier Antizipationsarten seien an einem Beispiel verdeutlicht:

Ein Mittelstreckenläufer steht im Zwischenlauf einer Meisterschaft. Will er Aussichten auf den Meistertitel behalten und in den Genuss der damit verbundenen

sozialen Anerkennung kommen (Effektantizipation), muss er zu den ersten Drei des Zwischenlaufs gehören (Ergebnisantizipation im Sinne der Zielfestlegung). In diesem Zusammenhang schätzt er die Stärke seiner Konkurrenten ein und erkennt, dass er nur dann Chancen hat, wenn er volles Tempo läuft (Aufwandantizipation). Dies birgt allerdings die Gefahr, dass er sich zu früh verausgabt. Er muss deshalb die Strecke sehr genau taktisch einteilen (Planfestlegung im Sinne der Verlaufsantizipation).

In der zweiten Phase, der Handlungsrealisationsphase, werden die Ausgangserwartungen in entsprechend regulierte Handlungen umgesetzt.

In der dritten Phase schliesslich, der Handlungsinterpretationsphase, wird die Handlung unter Bezug auf die Ausgangserwartungen subjektiv bewertet. Zunächst werden - als Teilvorgänge der Ausführungsregulation - Handlungsplan und Handlungsverlauf sowie Handlungsziel und Handlungsergebnis miteinander verglichen (Ausführungskontrolle). Weiterhin wird aber auch die Handlungseffizienz überprüft, d.h. erwarteter und tatsächlich eingetretener Aufwand sowie erwarteter und tatsächlich eingetretener Effekt jeweils - als Teilvorgang der Antriebsregulation - gegenübergestellt (Effizienzkontrolle).

Die blosse Feststellung von Erwartungsübereinstimmungen oder Erwartungsabweichungen hat jedoch noch keine unmittelbare handlungsregulierende Bedeutung. Erst die subjektive Erklärung von Erwartungsübereinstimmungen oder -abweichungen entscheidet über den weiteren Gang der Handlung. Massgeblich für die Wertung von Erfolg und Misserfolg und damit für das Ausmass der Zufriedenheit ist die Einschätzung des Grades, indem man die eigene Handlung als selbstbestimmt bzw. fremdbestimmt erlebt. In diesem Zusammenhang wird von internaler und externaler Kausalattribution gesprochen (vgl. zusammenfassend u.a. WEINER, 1972; MEYER, 1973). So wäre beispielsweise ein Handlungsergebnis internal erklärt, wenn man es auf die eigene Leistungsfähigkeit zurückführt, dagegen external erklärt, wenn man den Schiedsrichter dafür verantwortlich macht. Die Notwendigkeit einer Änderung von Handlungsplänen ergibt sich nur dann, wenn man das Nichterreichen eines Ziels als selbstverschuldet erlebt.

Bisher wurden ausschliesslich Komponenten der Handlungsregulation angesprochen, die den Funktionsablauf einer Handlung bestimmen. Diese Komponenten seien unter den Begriff der (psychomotorischen) Prozessregulation zusammengefasst.

Unberücksichtigt ist jedoch noch ein anderer Gesichtspunkt geblieben: Antriebs- und Ausführungsregulation können nur dann optimal ablaufen, wenn bestimmte Grundvoraussetzungen erfüllt sind. Ein noch so differenzierter Bewegungsplan führt nicht zu einer entsprechend differenzierten Bewegung, wenn man hyper- oder hypoaktiviert ist, also beispielsweise wenn man körperlich verkrampft ist, Angst hat oder einem einfach die richtige Lust fehlt. Ein optimaler Funktionsablauf ist nur möglich auf der Grundlage einer optimalen Funktionslage, genauso wie in der Technik das Funktionieren eines Radioapparates die richtige Betriebsspannung voraussetzt. Die mit der Aufrechterhaltung oder Wiederherstellung einer optimalen Funktionslage verbundenen Prozesse seien vorläufig unter dem Begriff der (psychovegetativen) Basisregulation zusammengefasst und damit von der Prozessregulation abgehoben.

Es ergeben sich hier zwei Probleme:

a) das Problem der Mobilisation bei einem zu geringen Aktivierungsniveau, beispielsweise bei Ermüdungszuständen, Monotonie oder Motivationsverlust. Man muss sich dann "in Schwung bringen", sich wachhalten, sich selbst stimulieren.

b) das Problem der Relaxation bei einem zu hohen Aktivierungsniveau, beispielsweise bei Startfieber oder Einschlafstörungen. In diesem Fall geht es darum, sich zu entspannen, sich abzulenken, abzuschalten.

Solche Probleme der Mobilisation und Relaxation bestimmen sehr wesentlich auch das Informationsaufnahmeverhalten einer Person. Zur Mobilisierung werden auf Erweiterung des Reizspektrums abzielende explorative Strategien entwickelt, zur Relaxation dagegen das Reizspektrum einschränkende reduktive Strategien.

Basisregulatorische Prozesse sind nicht nur im Rahmen der Handlungsvorbereitung anzunehmen, sondern sie haben sicherlich auch grundlegende Bedeutung als Stützprozesse in der aktuellen Handlungsregulation: So werden beispielsweise während der Ausführung einer Handlung immer wieder Phasen eingeschoben, in denen die Funktionslage neu auf ein optimales Niveau einreguliert wird. Deutlich wird dies etwa beim Einlegen von Kurzpausen oder auch darin, wenn ein Referent auf eine kritische Diskussionsbemerkung erst einmal eine sehr weitschweifige Erklärung abgibt, um Zeit zu gewinnen und sich währenddessen zu "sammeln".

Genauso wie sich Prozessregulationen zu Bewegungsfertigkeiten automatisieren, können sich basisregulatorische Prozesse zu individuellen Mobilisations- und Relaxationstechniken verfestigen. Über solche Techniken gibt es bisher allerdings nur wenige differenzierte empirische Aufschlüsse. Der Nachholbedarf ist dementsprechend gross, vor allem wenn man davon ausgeht, dass sich Handlungen nur dann hinreichend erklären und auch beeinflussen lassen, wenn man sowohl ihre prozessregulatorischen als auch ihre basisregulatorischen Komponenten berücksichtigt.

Literatur:

HACKER, W.: Allgemeine Arbeits- und Ingenieurpsychologie. Berlin (DDR), 1973.

MEYER, W.-U.: Leistungsmotiv und Ursachenerklärung von Erfolg und Misserfolg. Stuttgart, 1973.

NITSCH, J.R. & ALLMER, H.: Entwurf eines Prozessmodels der Leistungsmotivierung. In: NITSCH J.R. & UDRIS, I. (Hrsg.), Beanspruchung im Sport. Bad Hamburg, 1976

SCHNABEL, G.: Die Bewegungskoordination - Grundablauf und Erscheinungsformen in der Bewegungstätigkeit des Sportlers. In: MEINEL, K. & SCHNABEL, G. (Hrsg.), Bewegungslehre. Berlin (DDR), 1976, 59-220.

WEINER, B.: Theories of motivation: From mechanism to cognition. Chicago, 1972.

AN ANALYTICAL STUDY OF TENNIS MATCHES

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Introduction

The purpose of this study was to clarify the relationships among factors which were supposed to exist in gaining points in games, win-or-loss of a match, or to determine superiority or inferiority of players. The specific feature of this study was laid in the utilization of a VTR to record the whole processes of a match, and the data were processed in a computor.

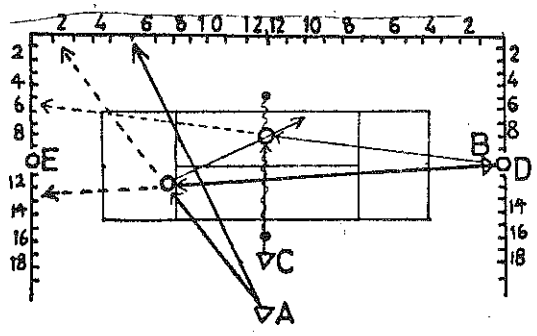


Fig. 1 The experimental court and the method of measuring ball speed and direction

Experimental Setting

An experimental court was set up in a gymnasium. Figure 1 is the diagram of the experimental court and shows the method measuring ball speed, direction and angle. A,B and C designate positions of Cameras A, B and C. D and E indicate the position of two ball contact judges. Numerical markers on a wall outside of a side-line were used for identifying ball contact point and for measuring ball flight distance. Each marker was plotted at intervals of 1.5 meters. Markers on the walls outside of both base-lines were used for identifying the ball contact point and position of a ball when it passed over the net. The markers were set at intervals of 80 cm.

Procedures of Measurement and Calculation

Observations and measurements of the whole processes of games and matches were made on the pictures video-tape-recorded by a VTR kit of Sanyo Electric Company in Japan, and all data were processed in a computor, HITAC #7800, in order to calculate the direction and distance of ball flight, ball speed, and angle of a returned ball.

1. The ball contact point was determined on the spot where a line which hit Camera A, the ball and a marker on the wall outside of a side-line crossed against another line which hit a contact judge, the ball and a marker on a wall outside of an opposite base-line.

2. The position of the ball when it passed over the net was determined by integration two pictures obtained by Cameras B and C in one picture.

3. The ball speed was calculated by dividing a ball flight distance, which corresponded to three intervals from the contact point on the wall outside of a side-line, by the time in which he ball took to fly that distance. In this the time was measured by installing a digital timer in Camera A.

4. For the verification of the method of measuring ball speed used in this study, a 16mm high speed camera was applied to testing the ball speed. The correlation coefficient between two values thus obtained was .974.

Subjects, Test Trials and Matches

The subjects used in this study were 8 college tennis players selected from the Tennis Club of the University of Tokyo. Their mean age was 20 years. They were divided into two groups according to their rankings in the Club. Totally eight matches were performed among players.
Before the matches, in order to determine each player's highest performances in tennis skills, tests were administered in the first service, forehand stroke and backhand stroke.

Results

The results so far obtained from this study were as follows:

1. The total means of the 8 players for the highest ball speeds in the first service, forehand stroke and backhand stroke were 40 m/sec, 31 m/sec and 27m/sec, respectively. The higher ranked players revealed greater ball speed in the first service than the lower ranked ones.

2. During matches, the total mean ball speeds for 8 players were 34 m/sec in the first service, 28 m/sec in the second service, 23 m/sec in forehand stroke and 20 m/sec in backhand stroke. In both test trials and matches, the higher ranked players demonstrated greater ball speed in the first service.

3. During rallies, which included forehand and backhand strokes and volleys, the individuals mean ball speed was nearly the same even if his opponents were changed.

4. Whe compared ball speeds between the test trials and the matches, the ball speeds in the latter were corresponded to 85%, 74% and 72% of the values in the test trials for the first service, forehand stroke and backhand stroke, respectively.

5. When comparison was made in the ball speeds between the good-hits and the bad-hits, in the first service, the faulted ball was 4% faster than the good one, and in the forehand and backhand strokes, the ball speeds of the bad-hits were 6% and 10% faster than the good ones, respectively. In this respect, it was suggested that hitting a ball at the speed of 5-10% faster than the average value seemed to increase the probability of making miss-shot.

6. Other factors of the ball speed during rallies after service were examined. / Table 2 /. A shows each individual's opponents' mean distances of their ball contact points from the net. B shows each individual's opponents' moving ranges from the middle line of the court. C indicates each individual players's average angle of his returned ball. From these, it might be clear that the higher ranked players were returning a ball with greater angle than the lower ranked ones, regardless of the ball distances given to their opponents.

Conclusion and Further Problems

In this study no decisive role of the ball speeds, except that in the first service, had so far been validated as the factors which might affect win-or-loss of a match. Other factors, such as the angle of the returned ball and the like, seemed to be sought for. The present investigators believe that the specific research technique used in this study might be able to be applied to game analyses in other forms of sports. Further problems to be solved from now on may be thought of as in-depth analysis of strategic pattern of each individual player.

Tab. 1 Average ball speed in good hits and bad hits

		Service (m/sec)		Stroke(m/sec)	
		1St	2nd	Fore	Back
Good	N	290	189	321	285
	M	33.9	28.4	22.9	19.6
	S. D.	5.1	4.9	2.6	1.9
Bad	N	224	34	83	63
	M	35.2	28.7	24.2	21.8
	S. D.	5.4	5.7	3.2	2.8

Table 2 Other factors of the ball speed

	A / cm/	B / m/	C /degree/
M	10.55	2.03	7.69
N	651	651	626

DIE AUSWAHL VON VERSCHIEDENEN REKREATIONSFORMEN DETERMINIERENDEN PERSÖNLICHKEITSFAKTOREN

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Das Ziel der vorgenommenen Untersuchungen war die Feststellung der Abhängigkeit zwischen einigen Persönlichkeitsfaktoren und der Auswahl von Rekreationsformen. Hierbei handelt es sich um ein umfangreiches und kompliziertes Problem, dessen Exploration durch die Tatsache erschwert wird, dass es nur im geringen Masse von Forschern der theoretischen Grundsätze für Touristik und Rekreation behandelt wurde. Zusätzliche Schwierigkeiten bietet der Mangel an einer modernen, den gegenwärtigen Bedingungen angepassten Klassifizierung von Rekreationsformen.

Es darf jedoch angenommen werden, dass die Persönlichkeitsfaktoren, die auf die weitgehend verstandene Tätigkeit des Menschen in allen Lebensbereichen Einfluss gewinnen, die Auswahl von Formen der Freizeitgestaltung ebenfalls determinieren. Der durchgeführte Versuch, eine Antwort auf die Frage zu finden, ob und

auf welche Weise gewisse Persönlichkeitsfaktoren über die Auswahl von bestimmten Rekreationsformen entscheiden, hatte das Ziel, den für die Organisation der Erholung von Menschen verantwortlichen Institutionen erforderliche Informationen zu erteilen.

Die Untersuchungen wurden an 3 verschiedenen Gruppen durchgeführt: an 90 Schülerinnen und Schülern der Oberschulen, am Krankenpflegepersonal des Krankenhauses für nervlich und psychisch Kranke in Kosclan (90 Personen) und an 63 Beschäftigten (Männer und Frauen) des Kombinats für Gartenbau. Als Hauptuntersuchungsmethode wurde in allen 3 Gruppen der Fragebogen für die Präferenz der Auswahl von verschiedenen Rekreationsformen angewandt. Darüber hinaus wurden in der Gruppe des Krankenpflegepersonals das Persönlichkeitsinventar von H.J. Eysenck, und der von der Psychologischen Beratungsstelle in Wrocław bearbeitete Interessenfragebogen benutzt. In den Untersuchung von Schülern wurde neben dem Persönlichkeitsinventar MPI von H.J. Eysenck auch der Persönlichkeitsfragebogen von R.B. Cattell verwendet und in der Gruppe von Kombinatsarbeitern wurde der Temperamenttyp mittels des Fragebogens von J. Strelau bestimmt. Die Anwendung von Untersuchungseinrichtungen bildete einen Versuch, den Einfluss von verschiedenen Persönlichkeitseigenschaften auf die Auswahl von Rekreationsformen zu bestimmen.

Auf Grund von erhaltenen Untersuchungsergebnissen lässt sich feststellen, dass die für extravertierte, ambivertierte und introvertierte Menschentypen charakteristischen Persönlichkeitseigenschaften die Auswahl von den Rekreationsformen determinieren, die der psycho-physischen Struktur dieser Menschentypen entsprechen.

Die extravertierten Typen verwenden gern alle Erholungsformen, wobei die individuelle Erholung von allen anderen Rekreationsformen etwas bevorzugt wird.

Je grösser der Neurotikgrad bei einem ambivertierten Typ ist, desto deutlicher wird seine Neigung zur Auswahl von individuellen, mehr intimen Formen der Freizeitgestaltung. Die steigende Intensität der Neurotik bei den introvertierten Menschentypen führt zur Auswahl der für diese Gruppe charakteristischen, individuellen, mehr intimen Regenerierungsformen der physischen und psychischen Kräfte. Bei der untersuchten Krankenschwesterngruppe wurde auch der Zusammenhang zwischen den Interessen der untersuchten Personen und deren Realisierung und Entwicklung durch den Anteil an entsprechenden Rekreationsformen festgestellt.

Mit den bei Krankenschwestern dominierenden medizinischen, pädagogischen, wirtschaftlichen und Betreuungsinteressen hängen die individuellen Freizeitgestaltungsformen und aktive körperliche Tätigkeit zusammen.

Die an Schülern durchgeführten Untersuchungen bestätigten die Bedeutung der Persönlichkeitsfaktoren für die Auswahl von Rekreationsformen. Die Untersuchungen auf Grund des Fragebogens von Cattel erwiesen nämlich ebenfalls, dass die Jugendlichen, für die die Geselligkeit, Fähigkeit zur schnellen Kontaktaufnahme, Aufrichtigkeit, Anpassungsfähigkeit sowie die Fähigkeit andere anzuleiten, charakteristisch sind - Gruppenrekreationsformen wählen. Dagegen die Jugendlichen, bei denen solche Persönlichkeitseigenschaften überwiegen, wie: Selbstgenügsamkeit, Misstrauen, Vereinsamung, Selbstunsicherheit, grosse Empfindlichkeit, Neigung zum Risiko, Schwierigkeiten bei der Kontaktaufnahme mit anderen Menschen, bevorzugen individuelle Rekreationsformen.

Die an Produktionsarbeitern des Kombinats für Gartenbau bei Anwendung des Temperamentsfragebogens von J. Strelau durchgeführten Untersuchungen ergaben, dass die Kenntnis der Temperamenttypen voraussehen lässt, welche Erholungsform von dem Erholungssuchenden bevorzugt wird.

Unter Melancholikern und Phlegmatikern wurden Neigungen zur passiven Erholung, die von einem Konsumptionscharakter geprägt ist, beobachtet. Sanguiniker dagegen bevorzugen aktive körperliche Tätigkeit (u.a. Sport und Touristik). Lediglich Choleriker benutzen meistens im gleichen Masse alle Rekreationsformen.

Eine richtige Freizeitgestaltung erfordert solche Sicherung und Organisation von Rekreationsmöglichkeiten, die dem Menschen die Auswahl der Erholungsform ermöglichen, die seinen durch die psycho-physische Struktur bestimmten Bedürfnissen entspricht.

Nur ein Angebot an umfangreichen Erholungsmöglichkeiten lässt die Wahl treffen, die den Erholungssuchenden zufriedenstellt und ihm somit volle Möglichkeiten der psychischen und physischen Regenerierung schaffen kann.

Bibliografia

1. Cattell, R.B.: Eber H.W., Handbook for the sixtenn personality factor questionnaire. The Institute for Personality and Testing Urleno Illinois 1957, w: opracowaniu Pracowni Psychometrycznej PAN w Warszawie 1959.

2. Choynowski M.: Opracowanie polskiej adaptacji "Inwentarza Osobowości" H.J. Eysencka. W: Biuletyn psychometryczny, T. II, Ossolineum, Wrocław 1968.

3. Czajka S.: Z problemów czasu wolnego. IW CRZZ, Warszawa 1974.

4. Cwiakowski M.: Problemy spoleczne wolnego czasu. Warszawa 1967.

5. Hansen A.: O sztuce wypoczynku. IW CRZZ, Warszawa 1976.

6. Kamiński A.: Czas wolny i problemy jego wykorzystania. Ossolineum Wrocław 1965.

7. Strelau J.: Temperament i typ ukladu nerwowego. PWN, Warszawa 1967

8. Sanocki W.: Kwestionariusze osobowosci w psychologii. PWN, Warszawa 1976.

9. Wolanska T.: Rekreacja fizyczna. Centralny Ośrodek Metodyki Upowszechniania Kultury, Warszawa 1971.

NĚKTERÉ ZVLÁŠTNOSTI INTELEKTOVÝCH VÝKONŮ ŽÁKŮ PLAVECKÝCH TŘÍD

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Ve svém referátě vycházím ze zkušeností, které jsem získala sledováním žáků plaveckých tříd na základní devítileté škole bratří Cervíů v Olomouci. Výzkum probíhal od roku 1972.

Vliv senzomotorického učení na intelektovou výkonnost a školní prospěch pohybově talentované mládeže sledoval v longitudiálním výzkumu Miloslav Kodým /1/. Šlo o třídu hochů zaměřených na lední hokej a o třídu dívek zaměřených na sportovní gymnastiku. Analýza výsledků ukázala, že ve struktuře inteligence pohybově talentované mládeže ve srovnání s normální populací se projevily, zejména na konci specialisovaného učení, rozdíly v úrovni názorné složky inteligence ve prospěch žáků specialisovaných tříd. Průměrný školní prospěch však byl slabší než v kontrolní skupině, přestože tito žáci se jevili učitelům i v intelektových zkouškách jako bystřejší.

Domnívám se, že vedle obecných faktorů projevujících se v učení žáků sportovních tříd se uplatňují i specifické faktory podle druhu sportu. Proto nemusí platit totéž pro intelektové výkony žáků v různě zaměřených třídách a tedy také ve třídách plavců.

Intelektové výkony žáků byly zjišťovány testem Progresivních matric, verbálním testem Bratislavská orientační zkouška I, v některých třídách byl aplikován Váňův intelektový test a experimentální zkouška učení. Tato zkouška byla modelem učební situace, jak k ní často dochází ve škole. Proband se má naučit, jak optimálně řešit určitý typ úkolů. Důležitým ukazatelem byl dále průměrný prospěch z pěti základních předmětů, zpravidla to byla čeština, ruština, matematika, fyzika, chemie. Dále byly zjišťovány postoje žáků ke školnímu učení, vlastnosti významné pro školní úspěšnost, profesionální zájmy a zájmová činnost mimovyučovací a mimoškolní.

Při výběru žáků do plavecké třídy se vedle sportovního nadání a zdatnosti přihlíží také k dosavadnímu prospěchu ve škole a částečně i ke zjištěné úrovni výkonu v intelektové zkoušce. Přesto výsledky intelektových vyšetření v dalších letech ani průměrný prospěch v uvedených základních předmětech nevykazovaly statisticky významné rozdíly ve srovnání s kontrolními skupinami. Plavecké třídy měly většinou lepší výkony v testu Progresivních matric než ve verbální Bratislavské zkoušce. Také kolerace mezi výsledky v testu Progresivních matic s průměrným prospěchem byly nepatrně vyšší než korelace výsledků v Bratislavském testu a prospěchem. V kontrolních skupinách tomu bylo naopak. Průměrný prospěch byl v plaveckých třídách většinou nepatrně horší než v kontrolních skupinách.

V diplomové práci Jany Sršňové /2/ jsme v r. 1974 ověřovali, zda soustavný trénink v plavání zaměřený na rychlost výkonu, ovlivní rychlost disjunktivních reakcí a rychlost výkonu v modelové zkoušce učení. Hypotéza, že plavci budou mít lepší disjunktivní reakční čas a tedy i rychlejší psychické tempo než kontrolní skupina, nebyla potvrzena. Kontrolní skupina měla statisticky významně rychlejší reakce. Také průměrná rychlost výkonu v modelové zkoušce učení byla statisticky významně vyšší u kontrolní skupiny. Někteří plavci se v průběhu této zkoušky obtížněji soustřeďovali, což negativně ovlivnilo jejich krátkodobé i dlouhodobé pamatování. Proto osvojení naučeného pravidla bylo v kontrolní skupině kvalitnější. Také v jiných plaveckých třídách bylo zjištěno pomalejší tempo učení než v kontrolních třídách. Přitom se žáci plavci často předem zajímali, bude-li jim měřen čas a na

počátku učení postupovali často ukvapeně. Potvrzují se tak zjištění jiných pracovníků /3/, že plavání zřejmě neurychluje reagování. Jde spíše o jednorázovou startovní reakci. Naopak únavné tréninky mohou způsobit i zpomalení reakcí.

Ve všech plaveckých třídách, v nichž byla aplikována modelová zkouška učení, se projevovala u většiny žáků, zejména na počátku učení, ukvapenost, která vedla ke zbytečným chybám. V některých případech, zejména ke konci sezení, se projevovala únava. Ukazovalo se, že intelektové předpoklady některých žáků plavců jsou lepší než jejich školní prospěch. Jindy opět byly výkony v modelové zkoušce učení ve shodě s prospěchem, zatímco výkon v neverbálním testu byl lepší.

Při výuce se žáci plaveckých tříd projevují často jako méně ukáznění. Někdy může být nekázeň projevem únavy, většinou však bývá projevem nevyužité energie žáků. Podaří-li se učiteli vhodně žáky motivovat a neustále je zaměstnávat, probíhá výuka úspěšně. Skutečnost, že vedle žáků se slabým prospěchem se vyskytují také žáci s výborným prospěchem, svědčí o tom, že stimulující vliv rodinného prostředí, zvýšená péče vyučujících a vhodný režim dne mohou kompenzovat negativní důsledky většího zatížení žáků.

Nejoblíbenějším předmětem žáků plavců bývá tělocvik, mnozí se chtějí sportu nebo tělocviku dále profesionálně věnovat. Po organizačních úpravách režimu dne žáků u většiny trvá zájem o plavání. Větší část žáků chce dále studovat, častěji na odborných školách než žáci kontrolních skupin. Žáci plaveckých tříd uvádějí méně zájmových činností než žáci kontrolních skupin, což souvisí s jejich větším časovým zatížením.

Citovaná literatura :

1. KODÝM Miloslav : "Vliv senzomotorického učení na intelektuální výkonnost a školní prospěch pohybově talentované mládeže", Čsl. psychologie, 1973, ČSAV, č.6, s. 521 - 527.

2. SRŠŇOVÁ Jana : "Osobní tempo a jeho vliv na intelektové výkony žáků-plavců ve speciální třídě ZDŠ", Nepubl.dipl.práce, 1975, Olomouc, filosofická fakulta UP

3. WOODWORTH R.S. - SCHLOSBERG H. : Experimentálná psychológia, Bratislava, SAV, 1959, s. 53.

ТИПЫ ОТНОШЕНИЯ К СПОРТУ ПО ДАННЫМ ТАТ

ПАЛАЙМА,Ю.Ю., Каунас, СССР

Советская психология главным в личности считает ее направленность,определяемую избирательным положительным или отрицательным отношением к различным сторонам действительности. Направленность личности включает обусловленные всей общественной практикой ее отношения, т.е. ее взгляды, убеждения, оценки, вкусы, интересы, цели, а также мотивы отдельных поступков и всей деятельности. (Мясищев В. Н.) Таким образом, отношение к деятельности, в том числе физкультурной и спортивной

в своей структуре содержит компонент мотивации, которая главным образом и определяет его характер; само отношение становится понятным лишь через мотивацию личности. Мотивационный компонент отношения в свою очередь обусловлен, в частности, характерологическими и типологическими особенностями, сообщающими этому отношению своеобразную окраску.

Изучая мотивацию достижения спортсменов проективным методом, наряду с картинками, взятыми из набора МЭРРЕЯ, мы применили две картинки, вызывающие ассоциации более определенного содержания: одну, изображающую сидящего молодого человека в спортивном тренировочном костюме ("спортсмен") и другую, содержащую момент спортивного действия в соревновании ("спортивное действие"). Первая картинка была одинакова для всех испытуемых, во второй же содержание спортивного действия менялось в соответствии с видом спорта испытуемого. Картинки предъявлялись испытуемым два раза: первый раз - в нейтральной в отношении соревнования мотивационной ситуации за полтора - два месяца до соревнования; во второй - после актуализации мотивационного состязания перед соревнованием (обычно накануне его). Испытуемыми были 300 спортсменов мужчин: бегунов, штангистов, баскетболистов, велосипедистов, лыжников и пловцов.

По характеру реакции испытуемых на эти две картинки мы могли распределить написанные истории на 3 группы, выражающие типы отношения к физкультурно-спортивной деятельности.

К первой группе (130 исп.) мы отнесли истории, которые содержали указания на процесс тренировки и спортивного соревнования с описанием действий персонажей историй. Картинка "спортсмен" у испытуемых этой группы вызывала ассоциации, связанные с размышлением о технической стороне физических упражнений прошедших или предстоящих тренировок или соревнований. Персонажи обдумывали, как они выполняли отдельные действия, какие недостатки они при этом допустили, вспоминали указания и советы своих тренеров и товарищей и т.п. На картинку "спортивное действие" испытуемые сочиняли истории с подробным техническим описанием движений и действий, совершаемых изображенными спортсменами, и тех движений, которые они собирались выполнить и т.д. В написанных историях этой группы четко выражался деловой подход к воспринимаемой ситуации, в центре ассоциаций стояло физическое действие, как средство, инструмент, достижения цели, на действие было направлено внимание и умствование испытуемых.

Эта группа историй позволила выделить <u>первый</u> тип отношения к спортивной ситуации - <u>действенно-деловой, инструментальный</u>.

В историях, написанных в нейтральном в отношении соревнований мотивационном состоянии, превалировало содержание, имеющее название "воображение, связанное с выполнением рутинного задания", или короче "воображение-задание" ("task imagery ").

В содержании историй, написанных перед самым соревнованием, элементы мотивации достижения заключались главным образом в озабоченности персонажей о совершенстве выполняемых движений и действий. В историях, несодержащих элементов мотивации достижения, действенно-деловой подход к спортивной ситуации был еще более подчеркнут. Такой тип отношения с различной степенью четкости, просматривался и в историях испытуемых данной группы, написанных в ответ на картинки, взятые у МЭРРЕЯ.

Ко второй группе (192 исп.) мы отнесли истории, которые изобиловали указаниями на эмоциональную сторону физкультурно-спортивной деятельности и переживания персонажей в связи с трудностями тренировочной работы и успехом или неудачей на соревнованиях. В историях, сочиненных испытуемыми в нейтральном мотивационном состоянии по картинке "спортсмен", доминировали жалобы на тяжкую жизнь спортсмена или суждения о светлых ее сторонах и радостях, приносимых спортом, встреча-

ми с выдающимися мастерами, о положительных ощущениях, вызываемых физическими упражнениями и т.п. Картинка "спортивное действие" в том же нейтральном мотивационном состоянии вызывала ассоциации, связанные с эмоциями, переживаемыми персонажами, выполняющими изображенные упражнения. В актуализированном мотивационном состоянии перед самыми соревнованиями картинка "спортсмен" в большинстве случаев вызывала воображения с элементами мотивации достижения, выражающимися в эмоциональной озабоченности об исходе спортивной борьбы, в эмоционально окрашенных перспективах на будущее, радостях побед и горечи поражения и т.п. Картинка же "спортивное действие" вызывала у испытуемых этой группы такую же эмоциональную озабоченность в отношении исхода отдельных приемов или действий или всей деятельности в целом. В историях же без мотивации достижения испытуемые чаще всего высказывали общие мысли о переживаниях персонажей, без связи с озабоченностью об исходе действий или деятельности.

Этот второй тип отношения к физкультурно-спортивной ситуации или деятельности можно назвать аффективным. С большей или меньшей четкостью он просматривался и в историях написанных по картинкам Мэррея.

Наконец, к третьей группе (78 исп.) были причислены истории, которые содержали волевое стремление персонажей к соревнованию, желание победить, достичь высоких спортивных результатов в будущем. В нейтральном мотивационном состоянии обе картинки вызывали у данной группы испытуемых общие мысли о соревновании, о победе, иногда даже не связанные со спортивной деятельностью. В состоянии же актуализированной мотивации перед самым соревнованием большинство испытуемых данной группы сочиняли истории, содержащие элементы мотивации достижения, выражающиеся в подчеркнутой целеустремленности, новаторстве, творчестве; персонажи истории характеризовались как инициаторы новых, прогрессивных методов тренировки, открывающие новые возможности в спорте и т.п. Подразумеваемая при этом эмоциональная сторона высоких достижений - почет, слава, общественное признание - обычно прямо не упоминалось.

Этот третий тип отношения к физкультурно-спортивной деятельности и ее ситуациям мы назвали конативным (от лат. conare - стремиться).

Особенности личности испытуемых устанавливались по форме А опросника КЕТТЕЛЛА. Оказалось, что испытуемые делового-действенного типа отношения отличались более выраженными особенностями личности, обозначенными факторами A+, M-, N+, Q_2-; аффективного типа - факторами C-, E-, I+, O+, Q_4+; конативного типа - факторами C+, E+, H+, M+, Q_1+, Q_3+.

Таким образом, для личностей делового-действенного типа отношения более характерными были такие особенности, как специальность, практичность, проницательность и точность, связанность с группой; личности аффективного типа отношения оказались более эмоциональными, покорными, мягкими, боязливыми, напряженными; личность же конативного типа отношения характеризовались, как более эмоционально стабильные, доминантные, смелые, мечтательные, радикальные, самоконтролирующиеся.

Как видно, для делового-действенного типа отношения более близки факторы, характеризующие экстравертированную личность, для аффективного типа - менее эмоционально стабильную личность, а для конативного типа - более интровертированную личность.

Вышеуказанное соотношение особенностей личности с типом отношения с большей четкостью выявилось при анализе историй, написанных в нейтральном в мотивационном отношении состоянии испытуемых. Эта четкость значительно терялась при анализе историй, написанных в высокомотивационном состоянии перед соревнованием. Здесь сказались другие важные факторы, как значимость предстоящих состязаний для испытуемых, оценка ими своей подготовленности, возможностей соперника. Это и многое другое в большой мере скрывали долю чисто личностных факторов в проявлении типа отношения.

OSOBNOSTNÉ A MOTIVAČNÉ ASPEKTY ŠPORTUJÚCEJ MLÁDEŽE

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VÚDPaP, ako rezortné pracovisko MŠ SSR, má vo svojom pláne výskumu zaradenú úlohu štátneho plánu výskumu s problematikou talentovaných detí. Cieľom čiastkovej úlohy je teoretické rozpracovanie problematiky nadanie a talentu a vypracovanie podkladov pre výchovnovzdelávaciu prácu s nadanými deťmi na základej škole pri uskutočňovaní Projektu ďalšieho rozvoja československej výchovnovzdelávacej sústavy. Úloha sa zameriava na sledovanie troch skupín detí školského veku : pohybovo, technicky a umelecky nadaných.

My vo svojom výskume sledujeme pohybovo nadané deti. (Naša informácia je z prvej, úvodnej časti výskumu, ktorý bude ďalej prebiehať).

Snahou spoločnosti je zistiť a zúžitkovať talent detí. Pre tieto deti zakladáme speciálne triedy, školy. Zvýšenou starostlivosťou, odborným vedením chce spoločnost co najviac rozvinúť talent do konečnej formy. Pri práci s vrcholovými športovcami, kde, najmä je zameraná činnosť psychológov, sa zistili niektoré charakteristiky osobnosti športovcov. Uvádza sa, že športovci sú dominantnejší, agresivnejší, reálnejší, samostatnejší. (Macák, 1970; Norakidze, V.G., 1975). Podľa Vaněka a Hoška (1973) vrcholoví športovci sú introvertovanejší než športovci s nižšou výkonnosťou, dominantnejší, svedomitejší. Kontek (1972) uvádza, že športovci sú extroventovanejší. Podobné zistenie uvádza Kocian (1970). Knetek (1970,1972) zistil, že športovci v individuálnych športoch sú neurotickejší ako športovci v rizikových športách a kolektívnych športoch. V uvádzaní výsledkov by sme mohli pokračovať ďalej. Schématicky možeme zistenia autorov rozdeliť do troch okruhov :

1/ športujúca a nešportujúca populácia sa líši, alebo nelíši
2/ športovci sú extrovertovanejší, alebo introvertovanejší, alebo majú rôznu osobnostnú charakteristiku oproti nešportujúcej populácii
3/ sú viac alebo menej neurotickejší (anxióznejší) než normálna populácia

V prípade takto postavených tvrdení, treba však brať do úvahy, pri porovnaní výsledkov jednotlivých autorov, vážny metodologický problém. Niekedy sa všeobecne uvádza, že zistilo sa u športovcov, alebo, že u športujúcich v tej a tej disciplíne apod. Myslíme si, že na to, aby výsledky mohli slúžiť k určitému porovnaniu, prípadne zovšeobecneniu, je nevyhnutné udať ďalšie možné intervenujúce premenné, ako napr.: výkonnosť športovca, vek, počet rokov počas ktorých prebiehá tréningový proces, množstvo hodín, ktoré venuje športovec tréningovému procesu, atď. Zohľadnením týchto intervenujúcich premenných bude možné podať špecifickejšie informácie. Informácia, resp. tvrdenie - športovec je extrovanejší alebo introvertovanejší, neurotický alebo stabilný, nemusí byť metodologicky vždy na mieste a takýmto zovšeobecňujúcim tvrdeniam by sme sa mali vyhýbať.

V našej práci sme pôvodne narazili na podobný problém. Chceli sme porovnať športujúcu a nešportujúcu mládež, resp. deti. Pri čiastkovej analýze výsledkov sme zistili zásadné momenty, ktoré nebolo možné prehliadnúť. Konečná štruktúra výskumnej vzorky bola nasledujúca : vyšetrili sme 270 detí bratislavských ZDŠ zo 6.,7.,8.,9., tried. Ako základné kritérium delenia sme použili : Individuálne športujúci, kolektívne športujúci, nešportujúci. Druhé kritérium delenia bolo množstvo rokov, ktoré sa trénuje. Ďalšie kritérium bolo množstvo hodín venovaných týždenne tréningu. Posledným kritériom delenia bola kombinácia postupných

ročníkov ZDŠ a individuálne, kolektívne športy a nešportujúci. Takéto rozdelenie nám malo zodpovedať niekoľko otázok :

1/ Či je rozdiel medzi športujúcimi a nešportujúcimi deťmi, individuálne a kolektívne športujúcimi, individuálne športujúcimi a nešportujúcimi, kolektívne športujúcimi a nešportujúcimi.

2/ Či počet rokov tréningového procesu nejakým spôsobom ovplyvní osobnosť športujúcich detí, alebo nie, keď áno, tak v ktorých charakteristikách.

3/ Či množstvo hodín týždenne venovaných tréningu spôsobí zmeny v štruktúre osobnosti.

4/ Či je rozdiel v neurotičnosti u individuálne sportujúcich, kolektívne športujúcich a nešportujúcich.

5/ Či je rozdiel v motivácii u športujúcich a nešportujúcich. Ss.

Ako výskumné metódy sme použili : HSPQ, KSAT, CMAS, Projekčné obr., Motivačný dotazník.

Stručne najdoložitejšie výsledky :

Výsledky, o ktorých Vás budeme informovať treba považovať za priebežné. Výskum bude pokračovať predbežne do konca roku 1980.

Teraz sa stručne pokúsime zodpovedať na prvú otázku - či je rozdiel medzi športujúcimi a nešportujúcimi, individ. a kolekt. individ. a nešport. kolektív. a nešportujúcimi.

Hneď úvodom možno jednoznačne povedať, že nebol zistený výrazný rozdiel v 14 faktoroch HSPQ medzi individ. a kolekt. športujúcimi deťmi. Štatisticky významný rozdiel sme zistili medzi individ. šport. a nešport. deťmi vo faktore H (H+Parmia, H-Threcia) - Neokrozená spontánnosť - Nedvôverčivá plachosť. Individ. šport. deti dosiahli významne výššie priemerné skóre v tomto faktore. Teda môžeme povedať, že individ. šport. deti sú sociabilnejšie, majú viacej kontaktov a sú aktívnejšie pri nadväzovaní kontaktov, majú viac priateľských väzieb, prežívajú rôzne situácie s menšími starosťami. Ďalšie dva faktory A.Bezprostrenosť-uzavrenosť /affeotothymia-schizothymia/ a Q_3 spoločensky zameraná sebavláda - Závoslosť na skupine (self sufficiency-group dependecy/ majú pomerne vysoké t-hodnoty / A-1,43, Q_3-1,79/. Individ. šport. deti dosiahli vo faktore A vyššie priemerne skóre, čo by mohlo súvisieť s faktorom H, tieto deti viac túžia po spoločenskom uznaní a sú impulzívnejšie v spoločenských vzťahoch. Vo faktore Q_3 môžeme iba predpokladať určitú tendenciu. Rozdiel v priemernej bodovej hodnote nie je štat. významný, ale individ.šport. deti majú lepšie stvárnenú predstavu vlastného ideálu a jevia sa tak, ako by takými v skutočnosti boli, teda svoje chovanie adekvátnejšie podriaďajú svojmu ideálu. Tieto deti sa vo väčšej miere snažia dosiahnúť úspech a záleží im na tom. Vedia lepšie ovládať svoje city.

Medzi kolekt. šport. a nešport. deťmi sme zistili ešte viac rozdielností. Podobne ako v predchádzajúcej skupine i tu sú statisticky významné t-hodnoty vo faktoroch A/t-2,39^{xx}/; H/t-2,00^{xx}/; Q_3/3,65^{xxx}/; Q_4/2,77^{xx}/. Faktor Q_2 nám určitým spôsobom špecifikuje kolekt.šport., ktorí dosiahli nižšie priemerné skóre /t-1,92/. Nižšie skóre v tomto faktore poukazuje na ľudí, ktorí majú rádi kolektív. Vo faktore Q_4 dosiahli kolektívne šport. deti nižšie priemerné skóre ako nešport. deti,/Q_4- napätá dráždivosť, Q_4- uvolnený kľud/, teda tieto deti sú kludnejšie, majú menej rôznych obáv, sú menej dráždivé a javia sa menej

frustrované. Veľmi podobné výsledky sme zistili, keď sme porovnali nešportujúce deti s individ. a kolekt. šport. deťmi spolu : A/t-2,31^{xx}/, H/t-2,65^{xxx}/, Q_3/t-3,13^{xxx}/, Q_4/2,31^{xx}/.

Záverom k tejto otázke niekoľko poznámok. Vo všetkých porovnaniach sa výrazne prejavuje faktor H. Dnes ešte nie sme oprávnený podať podložené tvrdenie, ale výsledky nás nútia položiť si otázku, čo tento faktor (podľa Cattella dedičný) nie je ten, ktorý vo veľkej miere zapričiňuje, že S inklinuje k športovej činnosti. Hlbšia analýza nami zistených výsledkov a porovnanie s výsledkami z motivačnej oblasti a ďalšie rozšírenie výskumnej vzorky nám môže potvrdiť alebo vyvrátiť tento názor, resp. domienku.

Ďalšia otázka, resp. hypotéza by mala umožniť zodpovedať, či roky venované športovej činnosti nejakým spôsobom ovplyvňujú osobnostnú štruktúru. Ss sme rozdelili do 6 skupín : nešportujúci 1, 2, 3, 4, 5, a viac rokov športujúci. Vzájomnou kombináciou sme získali všetky možné porovnania. Očekávali sme, že týmto rozdelením získáme špecifickejší pohľad na športujúce deti. Prekvapili nás výsledky nešportujúcich s deťmi jeden rok športujúcimi a nešport. s deťmi 5 a viac rokov šport. V obidvoch skupinách sme nezistili žiadne rozdielne výsledky (okrem faktoru Q_3 v kombinácii nešportujúci - 1 rok športujúci, t-2,55^{xx}). Niekoľko štatisticky významných výsledkov je v kombinácii - nešportujúci - 2 roky športujúci /A-t-2,84^{xxx}, D-t-2,35^{xx}, Q_2-t-2,97^{xxx}, Q_4-t-3,14^{xxx}/ a nešportujúci - 3 roky športujúci /G-t-2,34^{xx}, H-t-3,22^{xx}, Q_3-t-2,51^{xx}/ a jedna v kombinácii nešportujúci - 4 roky športujúci /J-t-2,84^{xxx}/. Ovšem nás zaujímal viac vertikálny pohľad /jeden faktor vo všetkých kombináciach/. Zdá sa, že stabilnými ukazatelmi v tomto pohľade je faktor H/ t hodnoty - nešportujúci - 1 rok šport. -0,95, nešport. -2 roky šport. -2,55^{xx}, nešport. -3 roky šport. -3,22^{xxx}, nešport. -4 roky šport. -0,55, nešport. -5 rokov aviac šport. -1,34/ a najmä Q_3/t hodnoty nešport. -1rok šport. -2,55^{xx}, nešport. -2 roky šport. -2,99^{xxx}, nešport. -3 roky šport. -2,51^{xx}, nešport. -4 roky šport. -1,45, nešport. -5 a viac rokov športujúci - 1,02/. Čistačne možno podobne tvrdiť i o faktore A/ t hodnoty - nešport. -1 rok šport. -0,70, nešport. -2 roky šport. -2,84^{xxx}, nešport. -3 roky šport. -1,81, nešport. -4 roky šport. -0,53, nešport. - 5 a viac rokov šport. -1,52/. Vrchol zistených hodnôt se zdá byť v 2. a 3. roku športovania, po tejto dobe sa zdá, že je konvergencia smerom k nešportujúcej populácii.

Je možné, že toto vyvrcholenie je zapríčinené tým, že prevážná väčšina 2. a 3. rokom športujúcich detí je zo 7. a 8. triedy, teda z obdobia puberty, kedy je možný vplyv práve v uvedených faktoroch. Niekoľko štatisticky významných výsledkoch sme zistili v ďalších kombináciách. Väčšinou nevidieť určité trendy, preto niektoré z týchto výsledkov považujeme za náhodné.

V poradí tretia otázka sa dotýka množstva tréningových hodín týždenne s možným vplyvom na štruktúru osobnosti. Podobne, ako u predchádzajúcej časti, sme Ss rozdelili do skupín : nešportujúci, 5 hod., 10 hod., 15 hod., 15 a viac hodín týždenne trenujúcich. Rozdiel medzi nešport. a 5 hod. trenujúcimi vo faktore A je ešte nevýznamný /t-0,96/, no medzi nešport. a 10 hod. trén. je už štatisticky významný /t-2,18^{xx}/. Pomerne vysoké /avšak nevýznamné/ sú rozdiely medzi nešport. a 15 a 15 aviac hodín trénujúcimi. Výraznejšie rozdiely sme zistili vo faktore H. Hodnota t medzi nešportujúcimi a 5 hod. trén. je 2,30^{xx}, medzi nešport. a 10 hod. trén. -1,97^{xx}, medzi nešport. a 15 hod. trén. je 1,73, medzi nešport. a 15 a viac hod. trén. je t hodnota 1,69. Priemerné hodnoty dosiahli športujúce Ss vyššie vo všetkých uvedených kombináciách. Podobné, hraničné a významné výsledky sme zistili vo faktore Q_2, avšak pre športujúce Ss s menšími priemernými hodnotami, aké dosiahli nešportovci. Vo faktore Q_3 sú tieto štatisticky významné rozdiely :

nešportujúci - 5 hod. trén. - 1,54, nešport. -10 hod. trén. -3,12^{xxx}, nešportujúci - 15 hod. trén. -2,45^{xx}, medzi nešport. a 15 a viac hod. trén. Ss nie je statist. významný rozdiel.

K tejto časti možno záverom dodať, že najviac štat. významných rozdielov je v skupinách nešport. -10 hod. šport. a nešport. -15 hod.trén.

Ďalším problémovým okruhom, na ktorý sme hľadali odpoveď, je problém neurotičnosti, anxiozity športovcov. Výsledky, ktoré sme zistili nedávajú jednoznačnú odpoveď. Ak porovnáme Ss športujúce a nešport., nezistíme rozdiel v bodových hodnotách na škále KSAT, v škále CMAS je určitý rozdiel v neprospech nešportujúcich, kde tieto Ss dosiahli priemerné hodnoty 18, šport. 16 (individ. -17, kolekt. -15). Trocha zaujímavejší pohľad sa nám ukázal pri detailnejšom delení na skóre klasických strachov, situačných strachov a trémy. Zaujímave je, že klasické stracky majú bodovú hodnotu najvyššiu u všetkých Ss /priemerne 21/. O niečo menšie, ale zároveň rozdielnejšie, sú bodové hodnoty situačných strachov (individ.šport. -21, kolekt. šport. -19, nešport. -20/. Najnižšie bodové hodnoty vo všetkých 3 skupinách dosiahli Ss v tréme. Individ. šport. -19, nešport. -18. Vôbec najnižšiu hodnotu dosiahli kolektívne šport. -17. Vysvetlenie zdá sa, že bude jednoduché. Deti v individuálnych športoch sú predsa len viac vystavení obavám zo zlyhania ako v kolektívnych športoch. Toto tvrdenie nám čiastočne dokresľuje posledná z našich skúmaných otázok - či je rozdiel v motivácii u šport. a nešportovcov. Individuálne šport. Ss dosiahli najvyššiu priemernú bodovú hodnotu v motivačnom dotazníku /21/, kolektívne šport. 20 a nešportujúce Ss iba 18. Vidno, že motivácia úspešnosti u individ. šport. Ss je najvyššia a obavy pred možnosťou zlyhania sú predsa tu opodstatnejšie ako u kolektiv. šport. Ss, kde prípadné zlyhanie môže ešte určitým spôsobom "zachrániť" kolektív.

Záverom treba dodať, že je veľmi potrebná analýza vzájomných vzťahov medzi osobnostnou štruktúrov-neurotičnosťou a motiváciou skúmaných Ss. Po jej uskutočnení budú zistené výsledky špecifickejšie.

СТИЛЬ РУКОВОДСТВА СПОРТИВНОГО КОЛЛЕКТИВА

ПАНАЙОТОВА,Л.Э., София, Болгария

Процесс оптимизации взаимоотношений в спортивном коллективе ставит одной из основных проблем стиль его руководства. Каким стилем руководство является лучшим, содействует развитию внутриколлективных отношений команды и для достижения самых высоких спортивных результатов.

По литературным данным известен ряд опытов для классификации стилей руководства: авторитарный, демократический, и смешанный, универсальный и ситуативный (Б.Д.Парыгин)[1]; авторитарный, демократический и либеральный (Курт Левин, Ю.А.Азаров, Б.Ф.Поршнев, Г.Гибш и М.Форверг);объективный, субъективный и ситуативный (А.А.Бодалев, А.А.Русалинова)[2] и прочие.

1- Б.Д.Парыгин Основы социально-психологической теории. М., Мысль, 1971.С.305-306.

2- А.А.Русалинова Влияние взаимоотношений между мастером и учащимися на формирование коллектива учебной группы профессионально-технического училища. Высшая школа, М., 1968.

Начало деления стилей не авторитарный и демократический находим в работах А.С.Макаренко и К.Левин и вошло в теорию как педагогики, так и социальной психологии. Несмотря на это однако в оценке эффективности руководства наблюдаем относительно большое многообразие. Некоторые из авторов отдают предпочтение демократическому стилю. (А.А.Бодарев, Ю.А.Азаров, Б.Ф.Поршнев), а другие считают сочетание всех стилей более целесообразным (Г.Гибш и М.Форверг, А.А.Ершов и др.). Не находим и единство по отношении анализа сущности одного или другого стиля руководства. Ссылаясь на наши исследования спортивно-игорных команд (волейбол, баскетбол, гандбол, футбол) мы установили, что демократический стиль является оптимальным для развития внутриколлективных отношений игроков команд[3].

Оптимум этого стиля имеет следующие характеристики:

Во-первых, активно-положительное отношение тренера к спортсменам, основанное на педагогическом авторитете.

Во-вторых, высокая степень сплоченности и коллективного взаимодействия в командах.

В-третьих, соответствие между взаимоотношениями по горизонтали (между спортсменами) и вертикали (между тренером и спортсменами).

В-четвертых, относительно устойчивые и высокие спортивные результаты.

Рассматривая данных настоящих исследований мы находим довольно аргументированное основание признать в высшей степени преимущества демократического руководства, тем более, что он является типичным стилем руководства в условиях нашей социалистической действительности, отвечающий так сказать вполне адекватно еще требованиям высокого спортивного мастерства. В этом смысле приведем некоторые из наших соображений.

Во-первых, команды с авторитарным стилем руководства как показывают исследования, не в состоянии развернуть в полной мере свои возможности и проявить творчество в деятельности. А ведь именно самостоятельность и творчество являются те основными требованиями к спортсменам, которые высокое спортивное мастерство предъявляет в преодолении трудности на тренировках и соревнованиях. Суровость, строгость, авторитарность, сухие приказы в команде в большинстве из случаев не ведет к ее правильному развитию. Если идет речь о достижении максимальных спортивных результатов, то здесь более уместны сотрудничество, взаимное доверие и помощь, чем дресировка.

Во-вторых, добровольный характер спортивной деятельности несовместим ни с каким внешним принуждением. Сознание свободы выбора основной и необходимый элемент в спорте несмотря на его характер. (Физкультура или высокое спортивное мастерство.) Если только попробуем заставить кого-нибудь заниматься спортом вопреки его желанию, сразу сами убеждаемся в этом. Педагогический такт тренера совершенно не вяжется с диктатурой, которая лишает личность свободы выбора ее активности.

В-третьих, демократический стиль руководства имеет существенное значение в создании оптимального социально-психологического климата в команде. Взаимоотношения между тренером и спортсменами определяют в большой степени этот климат. Обстановка напряжения и конфликтов расходует огромную психическую энергию, необходимую для других целей.

Конечно схематизм непременим в отношении богатой и многообразной спортивной деятельности. Все мы знаем огромное количество конкретных случаев и ситуаций в жизни различных спортивных коллективов и их руководителей - некоторые из них безусловно требуют авторитарности: критические мгновения спортивной борьбы не допу-

[3]- Д.Панайтова Опыт экспериментального исследования и формирования взаимоотношений спортивного коллектива. Канд.дисс.София,

скают дискуссии; здесь решительное вмешивание, указания и безапелационные приказы компетентного тренера встречаются готовностью всей команды.
Тот же самый тренер в других ситуациях например после соревнования и особенно после проигрыша берет на себя общее напряжение и сумевает с обстоятельственным и спокойным анализом игры, допущенных ошибок, на основании развернутой дискуссии снять напряженность у спортсменов, и даже более того,ободрить их, указывая направления на их перспективность.
Следовательно при определении стиля руководства нужно иметь в виду как различия отдельных команд, их спортивный опыт и традиции, так и степень развития внутриколлективных отношений, квалификацию тренера, его морально-политические качества и психические особенности и прочие.
В заключение можно обобщить, что ни одного из указанных стилей руководства нельзя встретить в "чистом виде". Многообразие спортивной практики постоянно требует от тренеров гибко действовать, меняя свое поведение в зависимости от ситуаций, проявляя себя то как демократ, то как диктатор.

INDICATORS OF TOP ATHLETES ADAPTATION AS SEEN ON THEIR DRAWINGS OF THE FAMILY

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This information treats /and that quite marginally/ one fragment of a voluminuous research study by which we wish to determine the value of the drawings, as projected technique, in the psychological research of athletes. Here, we have limited ourselves only to the drawings of the family and we shall try, by way of a short survey of our results, to point to the limits of its practical application.
We have started from our own experiences that refer to fundament and mechanism of social functioning of an athlete in a group/team/. The group /sports team/ we have regarded as a "secondary family", considering that in it, the athletes very often repeat the patterns of behaviour that have been established and fixed in the primary family. So, in the attitude towards the coach very often the attitudes are repeated towards the first authoritative figure /the father/, and in the relationship towards the other members of the team the patterns are repeated of behaviour towards the brother, the quality of integration into the sports collective sometimes is distinctly determined by dynamism of emotional and functional relationships in the primary family.
Experience of belonging to a group and acceptance by the group very often is richer through the media of fine arts /drawing/ than by the way of verbal expression /telling about problems/ or by manifest behaviour of the athlete.
By the way of an assignment /drawing/ the athletes have projected not only many of their emotional and interpersonal relationships /for e.g. dependency, insecurity, isolation, subordination, fear ... guilt/ but the technique offered them the possibility to react sometimes even as catharsis. Contrary to our expectations, the athletes rarely manifested defence, specially resistance to examination, even on the level of demanding that the given instruction be more closely determined or explained by "meaning", "purpose", "final aim" ...

We have analysed drawings of the families of 60 top athletes, basketball players, members of 4 top teams and drawings of 30 students of the Faculty for physical education which have served as a comparative group. Both groups are similar in many social traits /sex, age, social origin, actual family constellation, basic profession/. For our research however, the differencies between these two groups were more important. The basketball players represent a group of contestants specialized in collective sport, where they have reached a degree of very high affirmation. The student represent a group of "universal athletes" - according to their determination - who have not specialized on any one sport and who have n e v e r competitive gone in for sport.
The most concise review of the comparative analyses could be shown in the following way:

The attitude towards the proper body and to the proper "sports personality"

- Athletes very rarely /only 3/ show their own figure as the figure of an athlete-sportsman.

- Students show this even on 10 drawings.

Those preferences were found in the drawings of male figures, in the other examination.

We can say that athletes even by means of drawing project their need to overcome space and functional limits of their sport activity, as by sport and achievements in sport they do not satisfy all the needs which they as young men have had. Students however, by means of drawing project their unfulfilled sports-competitive aspirations.

The experience of integrity and cohesiveness towards the family /and team/

- The athletes most often draw family in a row /52 from 60/, were the face is much more drawn than the profile. Space and functional separation is rarely given / on 8 drawings/ , but only one of 60 athletes draw family in a way that can be regarded as a family scene.

- Students /23 out of 30/ most often draw family within a group, joint activity, and most often at the table.

Although our material in no way implies any generalizations, it is interesting that the primary family of the athletes appeared as less cohesive than the family of students. This gives way to an assumption that decision itself to go in for collective sport should serve, besides other things, as compensation for conflicts which originate from insufficiently emotional and functional integration of the family.

Problems of communication

- Athletes /41 out of 60/ very often draw members of the family turned away one from other, at the same time they very often do not draw hands or they draw eyes "that do not see".
Fear of communications is even more expressed on drawings where the hands "are hidden / 8 drawings/; and shading as well as wiping off in the areas where parts of the body serving for communication are /hands, eyes, ears/ can be found on 8 drawings. These last point to an experience of guilt because of the suppressed pulsions. On 15 drawings athletes have left out their own figure, either because they remained in the role of an observer of the family dynamism, or because they had experience of insufficient acceptance.

- Students project similar problems of communication, but in rather lesser degree / 6 out of 30/ and mostly refer to omitting of their own figure in the drawing of the family / 4 drawings/.

The interpretation would be similar to the previous situation: in a sports group the problems of communication are successfully solved, the problems in connection with family are overcome, the patterns of behaviour which can not be learned within a family are adopted. The primary deficits in social adaptation are successfully solved within a sports group, however the possibilities of compensation of more serious deficits are rather limited. Athletes, who on their drawing projected more serious problems in communication, have significantly lower sociometric status in their teams, the fact which we have determined by separate researches.

The attitude towards authority and rivality relationships

- Athletes showed authoritative figures /a father as many times as a mother/ either by giving them a dominant position on the drawing, or by other marks of strength and power, or by the inverse dimensions of the figures. Dependency which is projected on one of the drawings, is clearly regressive. Dominant position of a brother is projected on 4 drawings.

- Students project their attitude towards authority by a traditional distribution of roles in the family, without distinct pointing out of that authority. Rivality relationships with brother /sister/ are shown on 3 drawings.

The attitudes towards authority, that have been expressed by drawing, athletes, as a rule, show in their relationship with the coach, in sports situations /subordination, dependency, fear, rivality, protest/ and the attitude of rivality towards a brother they repeat in their relationship with their co-players /most often as a role of a neglected or denied member of the team in connection with the co-player-competitor/. These observations are based on the systematic follow-up of two basketball teams whose members are the players with whom the research has been done. Social behaviour of the students has not been observed and followed, so the interpretation is omitted, but we allow the presumption that the experience of authority is coloured with distinctly traditional characteristics, mostly because of the situation of the existential dependency on parents which the students keep longer, and from which the top athletes are liberated early.

Conclusion

Drawing of the family, can, together with other diagnostic techniques, be a useful index of the attitude towards the proper body, towards the proper personality, towards the other members of the team, towards the team as a whole and towards the common obligations, towards the authority and leadership.

The particular value of the drawings lies in the possibility to explore deeper motives and attitudes in behaviour of the athletes, and since it makes possible the dynamic and causal interpretations it can effectively help to prevent or at least to correct inappropriate and undesirable attitudes or patterns of behaviour of athletes.

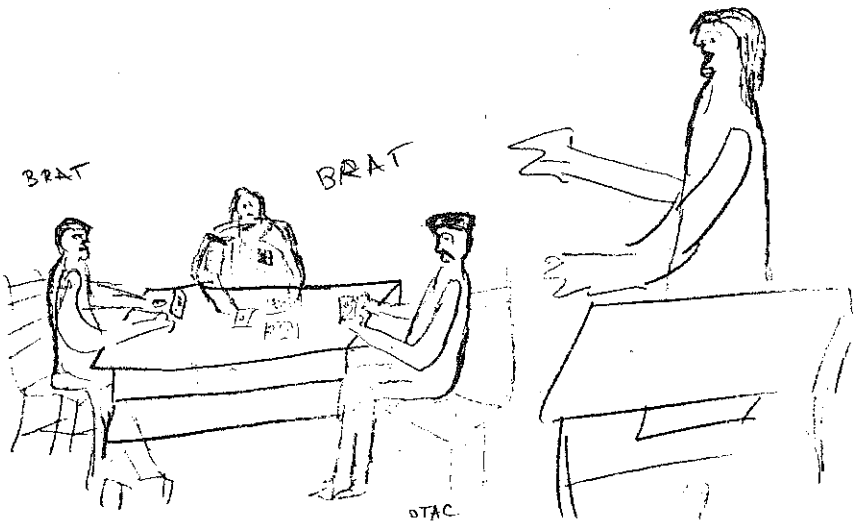
Moja porodica

6
(STUDENT)



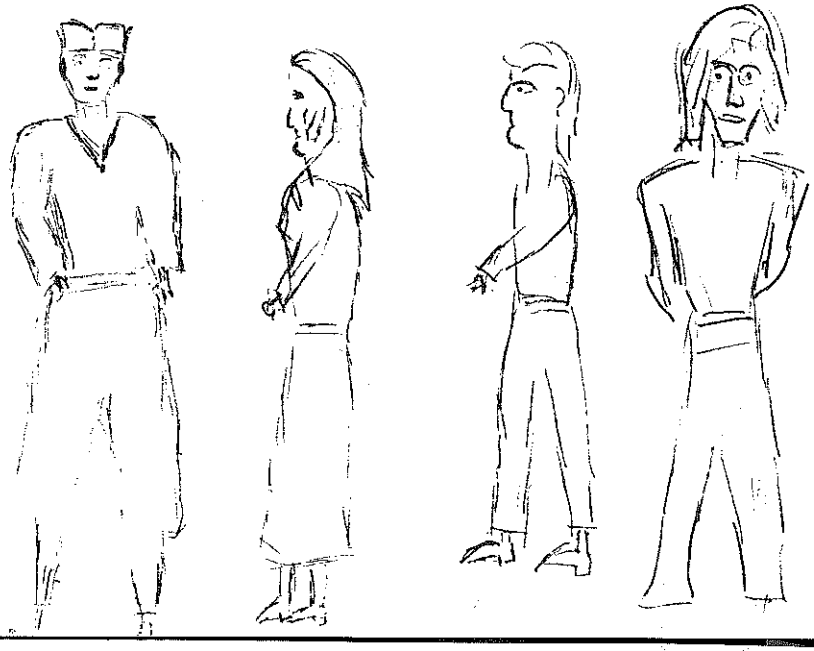
Moja porodica

5
(STUDENT)



MOJA PORODICA

8
(SPORTSMAN)



COGNITIVE PROCESSING CAPACITIES OF FEMALE GAMES PLAYERS

PARKER, H.E.- JONES, J.G., Australia

Introduction

Assessment of superior athletes has interested researchers for many years and a great deal is known about the physical and physiological characteristics of successful performers. But to assess only the motor aspect of skill is to ignore the importance of central nervous system processes which receive, interpret and use sensory stimuli to formulate appropriate responses. Where environments present stimuli that regulate the spatial, temporal and force characteristics of the skill these cognitive processes are very important /Kay, 1957; Jones, 1972; Higgins and Spaeth, 1972/. For example, fast team games, like netball,[1] present complex stimulus environments in which unpredictable signals regulate the response. Therefore, skilful performances by players are partly determined by the quality of the cognitive abilities which detect and interpret changing stimulus patterns and make response decisions. A fundamental problem in understanding the skill of games players is whether certain cognitive abilities that are part of the skills demanded in a game, may be identified in controlled laboratory tasks which theoretically measure these same abilities.

Review of literature

The overriding feature of game environments is the degree of stimulus uncertainty. Fast ball games, in which opponents are directly opposed and share the same court boundaries and where events change rapidly, represent highly uncertain environments. Netball is one such game where uncertainties arise from the movements of players, the speed and direction of the ball, tactical considerations, and from the player's own kinaesthetic feedback. An ability to interpret and handle this signal uncertainty is probably very important for skilled performance.

The function of the player's cognitive processes is to reduce the uncertainty in the signals /Welford, 1968/. Reducing uncertainty means that information about the signals is transmitted to the response mechanisms through a communication channel. However, the cognitive processing of stimulus information takes time. This latency in responding is related, in a predictable manner, to the amount of information which the input contains. Research in choice reaction tasks has consistently shown that reaction time increases in a linear $\log_2$ fashion as stimulus information increases /Hick's law/. The capacity to process information at high rates is important for fast reactions, so it would seem that game skill may partly depend upon this capacity.

The game environment presents a dynamic pattern of visual stimuli related to movements of players and of the ball. The ability to perceive motion, to make accurate judgements about the speed of the object and to respond to it, is widely acknowledged as being fundamental to success in ball skills /Whiting, 1969; Alderson and Whiting, 1974/. Motion perception appears to be related to perceptual-judgement ability whereby stimuli in the display are compared with each other

1 Netball is played by two teams of seven players who share the same court area. The game is a "running game" based on throwing and catching. The aim is to out-score the opposition. Goals are scored from within a defined area by throwing the ball into a ring attached to a 3.05 m. high post.

/comparative judgements/ or are compared with events stored in memory /absolute judgements/ /Fitts and Posner, 1967/. Salmela /1975/ relates motion-prediction ability to the cognitive processes which reduce temporal and spatial uncertainty in stimulus displays. This ability has been investigated in industrial and occupational settings /for example, air traffic control and vehicle driving/ but only recently has research been specifically directed to velocity judgements in ball games / e.g. Alderson, 1972/.

Research in velocity prediction can be grouped into two designs. Both are relevant to assessing players' velocity judgement ability since practical situations in games require both types of judgements to be made. The first is the prediction paradigm, whereby the subject estimates the time a moving stimulus will take to reach a final goal position. The stimulus is seen briefly and then is concealed from view in the latter part of the track. This design has application to Whiting's /1969/ view that anticipation in ball skills requires that the player extrapolates from present input the future happenings, and times his response initiation to coincide with the "arrival" of the ball. An example in netball is when a player must judge where to place a pass to reach a moving team-mate. When a player decides to initiate his movements in reference to the anticipated arrival of the ball at some predicted point, he is performing an anticipatory timing task /Adams, 1964; Alderson and Whiting, 1974/ or a transit reaction time task /Whiting, 1969; Alderson 1972/. The second experimental design is one which requires the subject to make interception judgements of convergence times of two or more targets, or of the arrival of two targets at a goal. For example, the netballer makes this comparative judgement when determining whether a "marked" team-mate is likely to outrun her immediate opponent, and therefore be in a position to receive a pass. Studies thus far have primarily investigated the effects of stimulus speed, viewing extent and occluded extent on prediction performance but few have related the velocity-judgement ability to an external criterion of skill. The relevant problem for this study is whether velocity judgement and prediction performance, vital to success in ball games, is related to the skill level of the player.

The ability to parallel-process two streams of stimulus information is another capacity related to the ability to handle signal uncertainty, and is a function of total processing load on the information channel. The processing load for games players comes from information contained in the external /visual display/ and internal /feedback from movement/ environments. Thus it is very important that the games players have considerable reserve processing capacity while performing the motor skills of the game, to utilize other sources of information related to tactics and team-work that distinguish the skilled team. One way of achieving this is to reduce the degree of cognitive processing required to control the physical movements. Extensive practice enables a performer to reach the automated stage of skill learning which is characterized by low error rates, higher speeds of performance and an increased resistance to stress and interference from other concurrently performed activities /Fitts and Posner, 1967, p. 14/.

Posner /1969/ discussed two approaches to the explanation of skill automation. One was that automated skill control is based on internal or proprioceptive cues rather than external or visual cues. Support for this approach comes from studies by Fleishman and Rich /1963/, Bahrick and Shelley /1958/ and Schmidt /1968/. The information load arising from the internal feedback would be low since the proprioceptive signals would be highly coded and predictable in skilled tasks /Annett and Kay, 1956 ; Kay, 1957; Salmela, 1975/. The second approach was that automated skills result from decreased cognitive control of the task with many

of the basic motor components being largely preprogrammed. Posner /1969/ holds the view that a task is considered automated to the degree it can be performed whilst the subject's attention is on some other concurrent task.
This latter approach forms the basis of the dual-task paradigm by which any reserve capacity is filled with information from a concurrently performed task to force errors in performance. By appropriate instruction the errors can be channelled into one or other of the tasks, and be used to reflect the degree of processing capacity required by primary task performance.
In the subsidiary-task method /Brown 1964/, errors are channelled into the second or subsidiary task. By instructing the subject to perform the primary task well at all times, and perform the second task only when the primary task allows, the changes in processing demands by the primary task are reflected in the performance of the secondary task. Accordingly, the errors on the subsidiary task are positively correlated with the perceptual load of the primary task /Brown, 1964/.
There are no reported studies in which this parallel-tasking technique has been applied to assessment of players' skill. The measurement of parallel-processing ability of teams competing at different competition levels, would be a way of validating the use of this method in sports research. Since there is wide acceptance of the relationship between high levels of training and low cognitive control of skills, it follows that skilled players would have greater reserve processing capacity to handle parallel-task information than would less-skilled players. Parallel-processing is the third ability examined in this study.

Aim

The purpose of this study was to compare the performances of highly-skilled, average and poorly-skilled netball players on three perceptual-motor tasks designed to assess some of the cognitive abilities used in games. The tasks measured ability in choice reaction time, velocity judgement and parallel-processing.

Measurement Techniques

The subjects consisted of three groups of 14 female subjects per group, representing either highly-skilled /A-grade/, average /B-grade/, or poorly-skilled /C-grade/ players. The ages of the 42 subjects ranged from 15 to 24 years.

Choice reactions of each grade was quantified by measuring total response times and reaction times in a visual, choice reaction
test for each of four levels of stimulus choice /1, 2, 4 and 8 stimuli/. The subject's task was to respond as fast as possible to the presented stimulus light by leaving the home button and pressing the response button immediately adjacent to the stimulus. Each subject performed 10 experimental trials /following two practice trials/ at each of the four levels of stimulus choice.
Linear velocity judgements of the three grades were assessed by measuring the error in judging the time of coincidence of a stimulus moving at 0.57, 0.85 and 1.66 m/sec, with a stationary target. The apparatus consisted of a display panel containing a 176 x 4 cm stimulus slot within which 44 light emitting diodes were mounted. A 86 cm long screen occlude the latter half of the stimulus slot from subject's view. The target light was mounted at the extreme right of the display.
Stimulus motion was produced by the serial flashing of 44 lights mounted 4 cm apart across the display apparatus. There was no delay between one diode's offset and the next diode's onset. Stimulus velocity was varied by adjusting a potentiometer that changed the time period for which each diode was illuminated.

The subject's task was to watch the stimulus move from left to right across the 86 cm display and press a response button at the predicted coincidence of the stimulus and the target. The subject's prediction error in milliseconds was recorded for 10 trials at each velocity and constant error /average algebraic error/, absolute error and variable error /intra-subject variability/ scores were derived from raw error times for analysis /Schutz and Roy, 1972/.

Parallel-processing ability of the three grades was assessed by having subjects perform two tasks at the same time. The primary task required the subject to throw a netball continuously at randomly nominated targets on a wall, whilst the subsidiary task was a two-choice visual detection task. Both tasks were scored for control /each task performed separately/ and overload /tasks performed concurrently/ conditions with the three dependent variables being time taken to complete 30 throws for the primary task, percentage detection error for the subsidiary task and percentage total overload scores derived by summing percentage decrement in throwing times and percentage error in the subsidiary task.

Data were analysed using a two factor analysis of variance design with repeated measures on the game skill factor, and Tukey HSD comparisons between pairs of means on significant factor main effects. Choice reaction data were also subjected to trend analysis.

Results and Discussion

Results indicated that not all perceptual-motor tasks differentiated between the levels of game skills. Highly and poorly-skilled players performed significantly different in velocity judgement and in parallel-processing ability.

The ability of highly-skilled players to judge the velocities was manifested in significantly lower intra-subject variability / $F_{2,39} = 3.72 < 0.05$ /, but not in significantly decreased errors of judgement /i.e. either constant error, $F_{2,39} = 1.93 > 0.05$, or absolute error, $F_{2,39} = 0.97 > 0.05$ / although grade did interact with stimulus velocity for constant errors / $F_{4,78} = 26.05 < 0.05$ / / see Figures 1 and 2/.

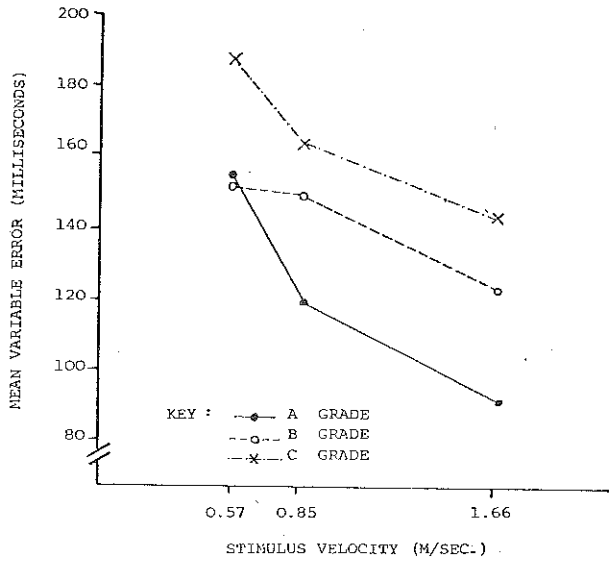


Fig.1 : Mean Variable Error of Velocity Judgement for Each Playing Grade as a Function of Stimulus Velocity.

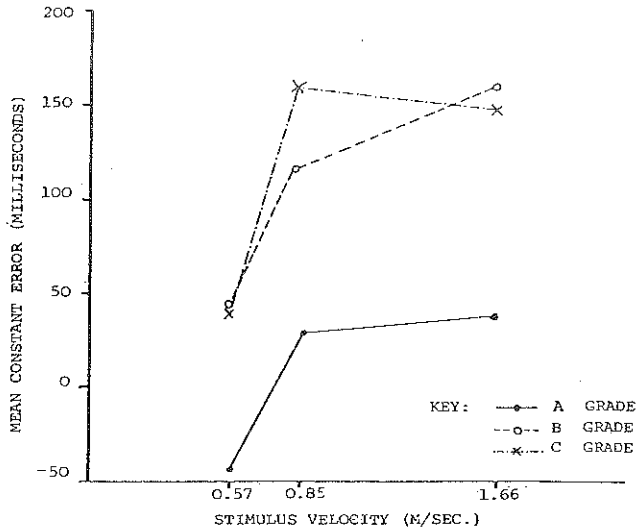


Fig. 2: Mean Constant Error of Velocity Judgement for Each Playing Grade as a Function of Stimulus Velocity.

In spite of apparent wide group differences in average constant error scores illustrated in Figure 2, very high intra-group variance prevented this from showing significance. This within-grade variance could indicate that some players made very accurate judgements whilst others who judged relatively inaccurately were relying on other player characteristics, for example height and fitness, to maintain their positions in the superior grade. On the other hand, talented players in lower grades may mainly play for social reasons rather than strive to achieve a position in the best team possible, and thereby increase the variance within these lower skilled groups. The significantly more consistent velocity judgements, along with a trend towards accurate judgements for highly-skilled players leads support to the common observation that skilful performers show good prediction and timing, because prediction ability in linear velocity judgement depended upon accurate temporal-judgement processes.

The other cognitive capacity on which grade was differentiated was parallel-processing ability. On the basis of percentage error in the subsidiary task highly-skilled players performed significantly better than poorly-skilled players ($F_{2,39} = 3.49 < 0.05$) (see Figure 3).

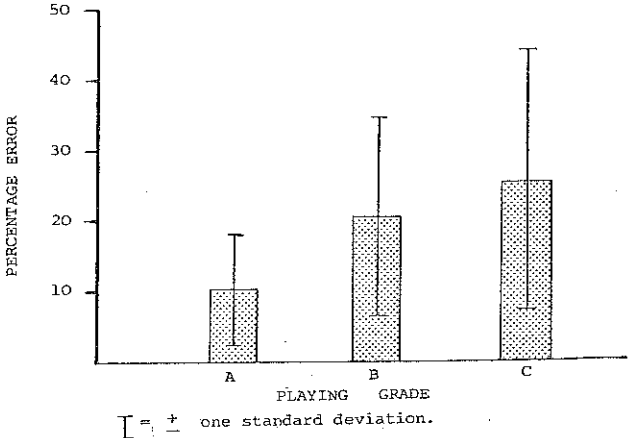


Fig. 3 : Parallel Processing Test. Percentage Error in Visual Subsidiary Task as a Function of Playing Grade.

Performance of the primary throwing task, however, showed no significant grade differences ($F_{2,39}$= 3.12 > 0.05) although data showed a consistent trend of better trial times by highly-skilled players in both control and overload conditions (see Figure 4).

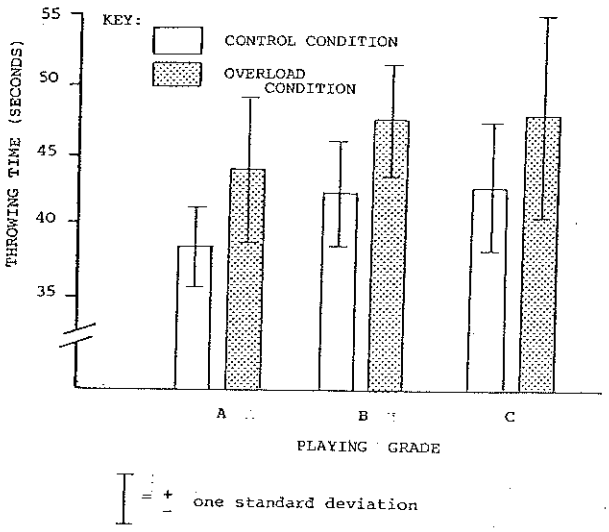


Fig. 4 : Parallel Processing Test. Mean Throwing Times for Each Playing Grade under Control and Overload Conditions.

The third dependent variable, total percentage overload, also failed to show significant grade effects ($F_{2,39}$ = 2.76> 0.05). Although the subsidiary task appeared to interfere with primary task performance (longer trial times) its effect was consistent across each level of playing skill and therefore the subsidiary task results are still informative (Rolfe, 1971).

The finding that significantly fewer errors were made on the concurrently performed visual detection task by highly-skilled players supported the contention that these players had greater spare cognitive capacity to process the information arriving in parallel from the visual task. The process of automation had reduced the uncertainty in the feedback by increasing the consistency and accuracy of the movement patterns for throwing and catching. Therefore, for highly-skilled players, the organiation and control of basic game techniques occurred with very little conscious attention. The reduced level of attention to basic motor techniques allowed the player to give consideration to the extra visual information available in the display. This ability to attend to other visual cues in the game is essential to decision - making for strategy and tactics. For the least-skilled players, however, the primary throwing task alone required extensive processing or attention, in order to initiate the throw, to control the force and direction of the throw and to process the unreliable, uncertain feedback. As a result, little spare capacity was available to also attend to the visual detection task and high errors were made in this parallel task.

The one test which did not discriminate to any degree between the grades was choice reaction (see Figure 5). No significant grade effect was evident for either total response time ($F_{2,39}$ = 0.06>0.05) or reaction time ($F_{2,39}$ = 0.26> 0.05). However, fast times measured in this type of task have been used on occasions by coaches as

an indication of special ability in skilled sportsmen, although the validity of such indication has not been established. These results seriously question this use. An examination of the design of the test offered possible reasons for the lack of grade effects. Temporal uncertainty and random order of signal presentation had purposely been included in the test design to preclude anticipation and prediction of signal occurrence by subjects. Each signal then, presented maximum uncertainty, related to temporal, event and response factors, which the subject had to resolve before correct and speedy responses were made.In the apparatus design, therefore, no signal occurrence had any predictability or redundancy.

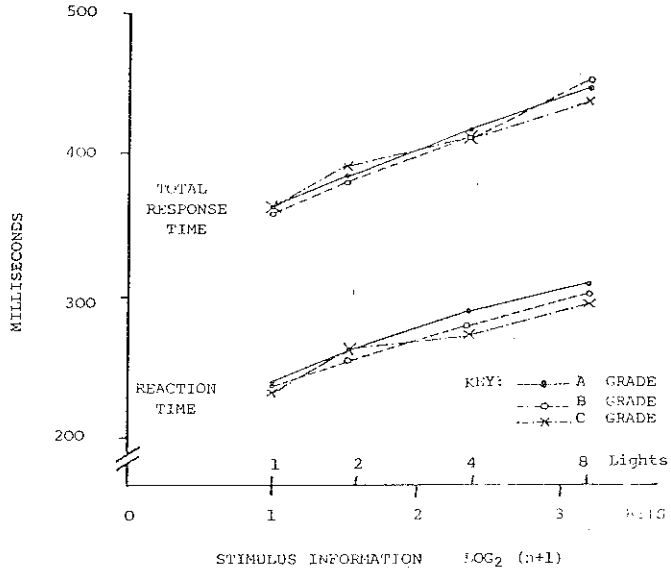


Fig.5 : Mean Total Response Time and Mean Reaction Time for Each Playing Grade as a Function of "Bits" of Stimulus Information.

Game displays, however, are quite different. Certain events and signal sequences occur with different probabilities. To the skilled player signal redundancies have been learnt, thus allowing anticipation of stimulus events and the organisation of responses in advance to overcome inherent reaction lag. This results in a response that is timed to coincide with the anticipated event. The less-skilled inexperienced player, however, does not appear to appreciate signal redundancy, and therefore processes redundant as well as important signal information in her effort to reduce uncertainty. There is little anticipation and her responses are typically "out of phase" with events, executed with haste and unreliability. In their early analyses of skilled performance Annett and Kay (1956) and Kay (1957) recognised the important function of anticipation in skilled movement. The lack of discrimination between skill groupings on this discrete, choice reaction task is because it does not test abilities such as anticipation and prediction, which are important in processing game display information.

Conclusion

Based on the results reported above it was evident that some tests of cognitive processing capacity do differentiate highly-skilled from less-skilled games players. Tests which best measured cognitive processes, akin to those demanded in the game, were those including velocity and temporal judgements, anticipation and prediction

of events, such as in the velocity judgement test; and those which include high rates of information input arriving in parallel, such as the parallel-processing test. Choice reaction measures obtained from discrete and unpredictable signals did not discriminate levels of game skill. Therefore, the validity of using choice reaction measures as a criterion of games skill is seriously challenged.

References

Adams, J.A., Motor Skills, Annual Review of Psychology, 1964, 15, 181-202.

Alderson, G.J.K., Perception of Velocity and Prediction of Motion, in I.D. William and L.M. Wankel (Editors) Proceedings of Fourth Canadian Psycho-Motor Learning and Sports Psychology Symposium, Ottawa, Canada, Department of National Health and Welfare, 1972.

Alderson, G.J.K. and Whiting, H.T.A., Prediction of Linear Motion, Human Factors, 1974, 16(5), 495-502.

Annett, J. and Kay, H., Skilled Performance, Occupational Psychology, 1956, 30(2), 112-117.

Bahrick, H.P. and Shelley, C., Time Sharing as an Index of Automatization, Journal of Experimental Psychology, 1953, 56(3), 288-293.

Brown, I.D., The Measurement of Perceptual Load and Reserve Capacity, Transactions of the Association of Industrial Medical Officers, 1964, 14, 44-49.

Fitts, P.M. and Posner, M.I., Human Performance, Belmont, California, Brooks-Cole, 1967.

Fleishman, E.A. and Rich, S., Role of Kinaesthetic and Spatial-Visual Abilities in Perceptual-Motor Training, Journal of Experimental Psychology, 1963, 66, 6-11.

Higgins, J.R. and Spaeth, R.K., Relationship between Consistency of Movement and Environmental Condition, Quest, Monograph Series, 1972, 17, 61-69.

Jones, M.G., Perceptual Characteristics and Athletic Performance, in H.T.A. Whiting (Editor), Readings in Sports Psychology, London, Henry Kimpton Publishers, 1972.

Kay, H., Information Theory in the Understanding of Skills, Occupational Psychology, 1957, 31 (4), 218-224.

Posner, M.I., Reduced Attention and the Performance of Automated Movements, Journal of Motor Behaviour, 1969, 1(4), 245-258.

Rolfe, J.M., The Secondary Task as a Measure of Mental Load, in W.T. Singleton, J.G. Fox and D. Whitfield (Editors) Measurement of Man at Work, London, Taylor and Francis Pty, Ltd., 1971.

Salmela, J.H., Sports Task Analysis: An Interface of Motor Learning and Sports Psychology, in B.S. Rushall (Editor) The Status of Psychomotor Learning and Sport Psychology Research, Nova Scotia, Canada, Sport Science Associates, 1975.

Schutz, R.W. and Roy, E.A., Absolute Error, Constant Error and Intravariance-Interrelationships and Interpretation in I.D. William and L.M. Wankel (Editors) Proceedings of Fourth Canadian Psycho-Motor Learning and Sports Psychology Symposium, Ottawa, Canada, Department of National Health and Welfare, 1972.

Schmidt, R.A., Anticipation and Timing in Human Motor Performance, Psychological Bulletin, 1968, 70, 631-646.

Welford, A.T., Fundamentals of Skill, London, Methuen, 1968.

Whiting, H.T.A., Acquiring Ball Skill: A Psychological Interpretation, London, G. Bell and Sons, Ltd., 1969.

СТРУКТУРНЫЕ ОСОБЕННОСТИ ПСИХИКИ КОМАНДЫ

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В исследованиях спортивного коллектива до нынешнего дня главным объектом были деловые и междуличностные отношения, лидерство в команде и социальнй статус. Эти проявления действительно имеют большое значение для силы и сплоченности спортивного коллектива, но они далеко не исчерпывают его полную характеристику. Другое социально-психологическое явление коллектива, которое играет исключительно важную роль, это психика команды. В области социальной психологии это явление является предметом более новых исследований (А.Г.Ковалева, В.Михайловой, В.Вичева и др.). Удачно определение А.Г.Ковалева о коллективной психике как творческом проявлении взаимоотношений между членами коллектива. Подчеркивается, что коллективная психика характеризуется специфической структурой, возникновением, развитием и закономерностями, которые у индивидуальной психики или сознания различаются. Она имеет относительную самостоятельность и одновременно находится в диалектическом единстве с общественным сознанием, в особенности с идеологией и индивидуальными сознаниями членов коллектива. Механизм коллективной психики это подражение, соревнование, психическое вдохновение, внушение и др. Спортивный коллектив основное звено в физкультурном движении. Исследования особенностей психики команды тоже находятся в начальном этапе. Психика команды характеризуется богатой структурой и сложным построением и развитием. Ее основные подструктуры это: коллективная воля, тактическое мышление команды, коллективное настроение, общественное мнение в команде, традиции коллектива, психологический климат, психическая устойчивость команды и др.

Пока в области социальной психологии вопрос о коллективной воле все еще дискуссионный, то в спортивной психологии на основе убедительных фактов определенно поддерживается мнение о ее проявлении. На основе наших исследований коллективную волю можно определить " как творческое социально-психологическое проявление оптимальной согласованности волевых усилий между членами команды в борьбе с коллективными трудностями при осуществлении коллективного идеала, целей и задач в тренировочной и спортивной деятельности, в результате чего действия команды максимально организованы и эффективны" (Б.Пырванов, А.Такев). Создание коллективной воли сложный и противоречивый процесс. Укрепляющую роль играют факторы, как: постоянный состав команды, коллективная деятельность, авторитет тренера, борьба за коллективную победу и др. Отрицательно действуют факторы как фаворизирование отдельных игроков, текучий состав команды, наличие индивидуальностей, неправильное стимулирование и др.

Тактическое мышление команды другое основное проявление коллективной психики. В основе коллективных творческих действий проявляется тактическое мышление команды. Коллективный характер тактического мышления в организованном спортивном коллективе проявляется на основе общего тактического плана, главной коллективной задачи и цепи коллективных задач в процессе тренировочной и спортивной деятельности. Все это требует от членов коллектива проявлять в своих тактических действиях общий замысел, коллективную ориентировку, взаимопонимание, коллективное решение, согласованность замыслей и тактических действий. Из-за исключительной роли тактического мышления ряд его проявлений как структура, коллективное решение, прогнозирование и выбор решения, взаимосвязь между теоретическим и тактическим мышлением и др. становятся предметом новых научных исследований (Г.М.Гагаева, Р.Л.Кричевски, А.Каликински, А.В.Родионов, В.Пырванов, А.Такев и др.).

Общественное мнение в команде играет важную роль в жизни и деятельности организованного коллектива. В широком аспекте общественное мнение изучали ряд авторов, но более основательно это сделал Р.Рачков. Нам не известны никакие исследования особенностей общественного мнения в команде, Его можно определить как проявление коллективной оценки и отношение к общественным событиям, к коллективным интересам, задачам и деятельности. Общественное мнение в команде делится на два вида: положительное, прогрессивное и отрицательное, реакционное. Общественное мнение в команде создается в борьбе разных мнений, при чем господствующим становится то, которое самое убедительное. Ведущую роль для формирования общественного мнения в команде играют тренер, капитан, комсомольский секретарь и лидеры в команде. Можно указать на ряд примеров как положительных, так и отрицательных о роли общественного мнения в команде.

Спортивные традиции (А.Такев) другая сплачивающая сила в организованном коллективе. Это общественное проявление, связанное с сильными эмоциями, которые передаются из поколения в поколение в одной команде или обществе. Какие спортивные традиции встречаются чаще всего в жизни спортивных команд в нашей стране? На основе исследований футбольных команд "А" РФГ в 1975 г. можно сказать, что они следующие: а) торжественное прощение с теми кто покидает спорт - 26,8 %; б) чествование имени - 20,8 %; в)чествование юбилея общества - 15,3%; г) торжественное вручение наград и отличий - 15,2%; д) встречи с выдающимися ветеранами-спортсменами - 9,8%; е) встреча и проводы клубного знамени - 5,3 %. Наряду с положительными спортивными традициями можно встретить и отрицательные. С последними необходимо вести системную борьбу.

Коллективное настроение в команде проявляется как продолжительное эмоциональное состояние средней силы. При положительном настроении коллектив проявляет высокую и творческую активность, а при отрицательном настроении коллектив подавлен, недоволен и участвует в занятиях без желания. С точки зрения теории и практики интересно знать каковы главные факторы коллективного настроения. На основе наших исследований мы считаем, что они следующие: а) одобряющий разговор с руководителями - 21,6%; б) уважение противника - 20,8% ; в) самочувствие тренера - 17,5%; г) влияние публики - 14,5%; д) расположение лидеров - 10,1%; е) поведение капитана - 8,9%; ж) мнение судьей - 6,7%.

Психологический климат последняя подструктура психики команды, которую мы рассматриваем. О сущности этого психического явления существуют разные мнения: как эмоциальный заряд, психический феномен (Ф.Генов), как состояние группового сознания (В.Вичев), как совокупность социальных связей (М.Драганов) и др. Мы считаем, что он представляет собой суммарный результат междуличностных отношений, стиля и метода руководства тренера, комсомола и других руководителей, идейного и морального единства команды, коллективного эмоционального состояния и др.

Результаты нашего социально-психологического исследования дают следующую картину психологического климата в футбольных командах: а) хороший - 65,4%; б) очень хороший - 25,3%; в) плохой - 7,8 %; г) не ответили - 1,5%.

Заключение

Хорошее знание структурных особенностей психики команды имеет важное значение в ее правильном формировании, развитии и управлении.

ЛИТЕРАТУРА

1.Вичев,В. - Особенности на колективистичното съзнание.-Народна просвета,1975, кн.12.

2.Вичев,В. - Социално-психологическият климат като състояние на груповото съзнание. - Социологически проблемы, 1975,6.

3.Генов, Ф. - Психологическият климат в колектива и производителността на труда.- Психология, 1975, кн.3.
4.Драганов, М.- Социално-психологически климат.- Политическа просвета, 1974, 11.
5.Ковалев,О.Г.- Коллектив и социально-психологические проблемы руководства, М., 1975.
6.Михайлова,В.- Социална психика и управление, С., 1972.
7.Рачков,Р. - Общественото мнение.С., 1969.
8.Пнайотова,Л.- Влиянието на взаимоотношенията между треньора и спортистите при формирането на спортния колектив.-Психология,1975, кн.3.
9.Първанов,В.- Психологически проблеми на спортните игри, С., 1976.
10.Такев, А. - Същност и значение на традициите в спортния колектив. "За ярки комунистически добродетели", 1976, кн.7.

ПСИХИЧЕСКАЯ ГОТОВНОСТЬ К СОСТЯЗАНИЮ В ЕЕ СВЯЗИ С ТИПОЛОГИЧЕСКИМИ ОСОБЕННОСТЯМИ УЧАСТНИКОВ СОРЕВНОВАНИЙ ПО СПОРТИВНОЙ СТРЕЛЬБЕ

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По ходу целостной подготовки спортсмена, при усвоении необходимых действий, в адаптации к требованиям спортивной деятельности создаются и предпосылки возникновения состояния готовности.

Многие психологи спорта считают главным моментом в определении готовности наличие у спортсмена соответственного состояния, являющегося крайним продуктом психической деятельности. Причем, основные усилия, по их мнению, должны быть направлены на овладение со стороны спортсмена способностью саморегулирования своего эмоционального состояния. Состояние психической готовности появляется и существует временно, поэтому должно быть включено в понятие "спортивной формы" в качестве компонента. Экспериментальные исследования состояния готовности к состязанию показывают, что для большинства психологических показателей этого состояния характерен широкий диапазон, обусловленный индивидуальностью спортсмена.

Исходя из прикладного значения проблемы и из нашего понимания готовности как возможности для успешного выступления спортсмена на основе стабильного протекания психических процессов, мы поставили перед собой задачу изучить: 1. Изменения, которые наступают в психических процессах участников соревнований по спортивной стрельбе перед состязанием по сравнению с этими же изменениями перед тренировкой. 2. Корреляционные зависимости между: а) достигнутым в состязании результатом и исследованными перед состязанием показателями, б) между исследованными перед состязанием показателями и показателями типологических особенностей высшей нервной деятельности, в) между достигнутыми в состязании результатом и показателями типологических особенностей высшей нервной деятельности участников соревнований.

Для того, чтобы выявить эти изменения мы исследовали десять высокоразрядных участников соревнований по спортивной стрельбе в отдельных периодах их подготовки, которая была частью общей подготовки к участию в Олимпийских играх. Применялись следующие методики для исследования отдельных показателей:

1.Внимание. Исследование проводилось при помощи теста Шультце, причем лучшее время из четырех проб информировало нас о концентрации внимания, а сумма времен четырех проб - об его продуктивности.

2.Эмоциональная устойчивость. Мы устанавливали ее путем измерений тремометром за 10 секунд и релаксометром за 15 секунд при моделированной стрельковой позе.

3.Зрительно-двигательную координацию мы исследовали крестовым аппаратом при темпе 50 сигналов в минуту. Отчитывалось число правильных ответов.

4.Быстрота двигательных реакций измерялась реакциомером в м/сек, при чем исследовались простая и сложная двигательные реакции.

5.Исследования типологических особенностей высшей нервной деятельности участников соревнований проводились в лаборатории с помощью комплексной электронной аппаратуры:

- для силы нервных процессов использовалась модифицированная методика, разработанная в лаборатории В.С.Мерлина;
- для подвижности нервных процессов исследование проводилось по методике В.Д.Небилицина;
- для уравновешенности нервных процессов по силе в качестве основного показателя преобладания процесса возбуждения использовалось количество ошибок при дифференцировке двигательных реакций - положительных и тормозных, а также и критическая частота слияния световых сигналов.

По ходу исследований проводились и наблюдения, беседы, регистрировалась субъективная оценка самочувствия, настроения, состояния и сна. Было установлено, что занятия спортивной стрельбой связаны с воздействием на организм спортсмена таких неблагоприятных факторов, как шум выстрелов, загрязнение воздуха при закрытых помещениях, неотопленность, неосвещенность, продолжительная и в основном статическая работа для поддержания стрельковой позы, которой спортсмен подготавливается к ожидаемому спортивному действию. Она является выражением готовности двигательного аппарата совершить предстоящее движение. Стрельковая поза сопровождена большим напряжением мышц. Ее продолжительное сохранение показывает, что спортсмен контролирует себя и наоборот - неустойчивость, расслабленность позы говорит о недостаточном самоконтроле. Движение, которым занимается поза, обычно является ритмичным, плавным, гармоничным и сопровождается чувством удовольствия. Если перепутает ритм спортсмен дезорганизуется, его движения расстраиваются. При прочих равных условиях ритмичная стрельба более продуктивна и менее утомительна - вероятно из-за того, что в этом случае основное место занимает автоматизм, при котором напряжение снижается.

Такие состояния как: волнение в связи с занятием удобной позы, захват оружия, радость при удачном начале, разочарование при неудачном начале, угнетенность при продолжительной неудаче, напряженность в связи с ожидаемым результатом, сомнение, беспокойство, общее напряжение, страх и др. часто являются причинами плохих результатов на соревнованиях. Преодоление возможных трудностей необходимо непрерывно упражняться во время тренировок. Участники соревнования должны быть в состоянии точно оценять ситуации перед состязанием, правильно прогнозировать ее развитие, своевременно реагировать на изменение условий, быстро принимать и перерабатывать информацию.

Результаты сравнения исследованных показателей перед состязанием с показателями перед тренировкой показывают, что имеется повышенная психическая активность и более высокая эмоциональная устойчивость.(См.фиг.1). Спортсмены, у которых имеется больше опыта и стажа, дают лучшие показатели перед состязанием по сравнению со спортсменами меньшего опыта и стажа в состязательной деятельности. Для участников соревнования меньшего опыта контрольное состязание имеет относительно более высокая психическая значимость и они не успевают целенаправленно активизировать свою психическую деятельность. Слишком большое возбуждение мешает их правильной саморегуляции и они не могут контролировать своих эмоций, о чем свидетельствуют ухудшенные данные показателей эмоциональной устойчивости перед состя-

занием. Отчитывание результатов, значение контрольного состязания (для участия в Олимпийских играх), организация и порядок, все это образует общий комплекс дразнителей, который вызывает указанные изменения.

Корреляционная зависимость между достижением на состязании и показателями, исследованными перед ним, показывают надежность отдельных методик с учетом специфики состязательной деятельности при спортивной стрельбе. Самой существенной является зависимость между достигнутым результатом и эмоциональной устойчивостью спортсменов - R = 0.57, зрительно-двигательной координацией - R = 0.47, концентрацией и продуктивность внимания - R = 0.39. Следовательно, эти исследованные психические показатели являются страной целокупной психической деятельности участников соревнований по спортивной стрельбе и по их изменениям можно судить об изменениях в психической деятельности и о том, что состояние готовности может иметь прогностическую стоимость для ожидаемого результата.

Корреляционная зависимость между данными, полученными в исследовании типологических особенностей и показателями перед состязанием показывает относительный вес каждого отдельного показателя по отношению к силе, уравновешенности и подвижности нервной системы спортсменов. (Табл.1). Существенная зависимость существует между силой нервных процессов и показателем концентрации внимания R = 1,38, между уравновешенностью нервных процессов и показателем эмоциональной устойчивости R = 0.48, концентрацией R = 0.31, и продуктивностью внимания R = 0.48, подвижностью нервных процессов и быстротой сложной двигательной реакции R = 3.46.

Индивидуальные данные исследования типологических особенностей высшей нервной деятельности стрельков показывают, что все они имеют сильные и уравновешанные нервные процессы, а 5 из всех 10 показали высокую подвижность протекания нервных процессов. Если принять положение, поддерживаемое некоторыми авторами о том, что оптимальный уровень возбуждения зависит от индивидуальных особенностей человека и от значимости деятельности, то наше исследование показывает, что у участников соревнований по спортивной стрельбе налицо индивидуальные особенности, которые могут вызвать оптимальный уровень возбуждения и единственно значимость деятельности становится причиной вариативности этого уровня. Поэтому необходимо воспитывать у спортсменов способность приспосабливаться к отрицательному влиянию ряда условий и факторов неожиданно возникающих в процессе состязания, т.е. воспитывать умение управлять своими процессами и состояниями.

Корреляционная зависимость между результатом состязания и типологическими особенностями ВНД и обстоятельство, что большинство испытуемых показали близкие данные по отношению к силе, уравновешенности и подвижности нервных процессов показывают тенденцию силы и подвижности установиться как необходимое условие достижения высоких результатов в спортивной стрельбе, хотя и ведущее значение имеет уравновешенность нервных процессов спортсменов , R = 0.33. При уравновешенных участниках соревнования состояние готовности развивается более равномерно, достигает оптимального уровня в большинстве случаев перед состязанием, тогда как при неуравновешенных продолжительное пребывание в состоянии готовности приводит к перевозбуждению и они не могут контролировать динамику своих эмоций.

Комплексный анализ данных, также как и наши многолетние наблюдения участников соревнований по спортивной стрельбе показывают, что не существует прямая зависимость между индивидуальными типологическими особенностями и неблагоприятными предстартовыми состояниями, регистрированными на отдельных состязаниях. Это дает основание сделать вывод, что характер психической готовности и предстартовые состояния находятся в прямой зависимости не только от степени подготовки, но также и от контрактной мотивации сообразно с наличными потребностями созданной ситуации. Этот факт будет темой наших будущих исследований.

Таблица 1 - КОРРЕЛЯЦИОННАЯ ЗАВИСИМОСТЬ МЕЖДУ ИССЛЕДОВАННЫМИ ПОКАЗАТЕЛЯМИ ДО КОНТРОЛЬНОГО СОРЕВНОВАНИЯ И ПОКАЗАТЕЛЕЙ ТИПА ВЫСШЕЙ НЕРВНОЙ ДЕЯТЕЛЬНОСТИ

Типа высшей нервной деятельности / Исследованные показатели	Сила	Подвижность	Уравновешенность
Концентрация внимания	1.38	0.14	0.31
Продуктивность внимания	0.01	0.01	0.48
Эмоциональная устойчивость -			
релаксометрии	0.08	0.03	0.48
тремометрии	0.01	0.48	0.24
Зрительно-двигательная координация	0.12	0.01	0.01
Быстрота двигательной реакции			
- простая	0.06	0.01	0.20
- сложная	0.04	3.46	0.22

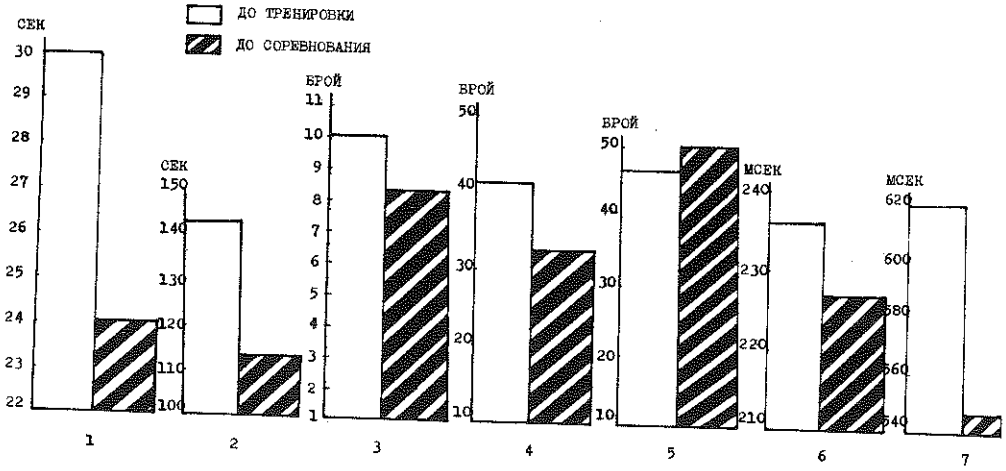


Рис.1 СРАВНЕНИЕ МЕЖДУ ИССЛЕДОВАННЫМИ ПОКАЗАТЕЛЯМИ

1 - КОНЦЕНТРАЦИИ ВНИМАНИЯ
2 - ПРОДУКТИВНОСТЬ ВНИМАНИЯ
3 - ЭМОЦИОНАЛЬНАЯ УСТОЙЧИВОСТЬ - ТРЕМОМЕТРИИ
4 - ЭМОЦИОНАЛЬНАЯ УСТОЙЧИВОСТЬ - РЕЛАКСОМЕТРИИ
5 - ЗРИТЕЛЬНО-ДВИГАТЕЛЬНАЯ КООРДИНАЦИЯ
6 - БЫСТРОТА ДВИГАТЕЛЬНОЙ РЕАКЦИИ - ПРОСТАЯ
7 - БЫСТРОТА ДВИГАТЕЛЬНОЙ РЕАКЦИИ - СЛОЖНАЯ

SPORTLICHE AKTIVITÄT UND AGGRESSIONSMINDERUNG UNTER DEM ASPEKT UNTERSCHIEDLICHER ZIELERREICHUNG

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Positive soziale Wirkungen der sportlichen Aktivität auf die Persönlichkeit des Sportlers sind eine häufig und gern gebrauchte Behauptung. Insbesondere wurde immer wieder die Ansicht von der Kompensation oder Befreiung von negativen Affekten (z.B. von Aggressionen) durch sportliche Tätigkeit in der öffentlichen Meinung tradiert. Diese in der wissenschaftlichen Forschung als Katharsis-Hypothese bekannte Fragestellung gilt aufgrund empirischer Untersuchungen heute allgemein als widerlegt.

In der ursprünglichen Form besagte sie, dass aggressive Äusserungen eine Minderung der Aggressionsbereitschaft zu Folge hätten. Diese vor allem triebtheoretisch begründete Auffassung wurde dann auf der Suche nach sozial ungefährlichen Abreaktionsformen auf den Sport übertragen, dessen kampfbetonte Aktionsweisen als "ritualisierte" und damit entschärfte Aggression interpretiert wurden (LORENZ). Seither galt sportliche Aktivität als Kompensations- und Abbaumittel für überschüssige Aggressionsenergien. Die Rede vom "Aggressionsventil Sport", vom "Dampfablassen", vom "Abreagieren" bestätigen noch heute vielfach diese vorwissenschaftliche Auffassung.

Kein Wunder, dassdie wissenschaftliche, insbesondere sportpsychologische Forschung sich dieser Frage annahm. Die Ergebnisse waren im grossen und ganzen negativ, d.h. die Katharsis-Hypothese konnte aufgrund empirischer Daten bisher nicht eindeutig bestätigt werden. Die Sportpsychologie wandte sich daher wieder eher anderen Fragen zu.

Weshalb nun eine neue empirische Untersuchung zu diesem Thema? Das vorliegende Experiment will versuchen, die bisher nur pauschal behandelte Frage besser zu differenzieren (so wurden bisher z.B. kaum kathartische Langzeit- und Kurzzeiteffekte voneinander unterschieden!) und - gemäss den Forderungen von SCHILLING/PILZ - auf eine multikausale Erklärungstheorie zu beziehen.

Die hier zugrunde gelegte Motivationstheorie geht über triebtheoretische Erklärungen und behavioristische S-R-Modelle hinaus und erklärt Verhalten unter Einbeziehung von kognitiven Faktoren wie Erwartung, Interpretation von Situationen und Steuerung durch antizipierte Handlungsziele. Für die vorliegende Untersuchung ergab sich die Frage, wieweit unterschiedliche Zielerreichungen im Rahmen sportlicher Tätigkeit aggressives Handeln verändern (vermindern) konnte. Hier wird Katharsis also nicht mehr als Triebreduktion verstanden, sondern als Desaktivierung eines Aggressionsmotivs durch Zielerreichung.

In einem Experiment mit 192 männlichen Schülern im Alter von ca. 15 Jahren wurden die weiter unten dargestellten Hypothesen geprüft. Die aggressiven Tendenzen wurden mit verschiedenen Messinstrumenten erfasst: Dem Aggressions-TAT von KORNADT, ergänzt durch Verhaltensbeobachtung und Nachgefragung. Die statistische Beredhnung erfolgte mit dem t-Test, einer Varianzanalyse und verschiedenen nichtparametrischen Tests. Der Versuchsplan ergab sich, wie in Abb. 1 ersichtlich, aus drei verschiedenen Bedingungskonstellationen: Frustration vs. Nicht-Frustration, Kraft vs. Geschicklichkeit, Aggressionszielerreichung (AZ) vs. Leistungszielerreichung (LZ) vs. neutrale Behandlung. Hierbei durchliefen die 8 Experimentalgruppen das Experiment in 8 Phasen.

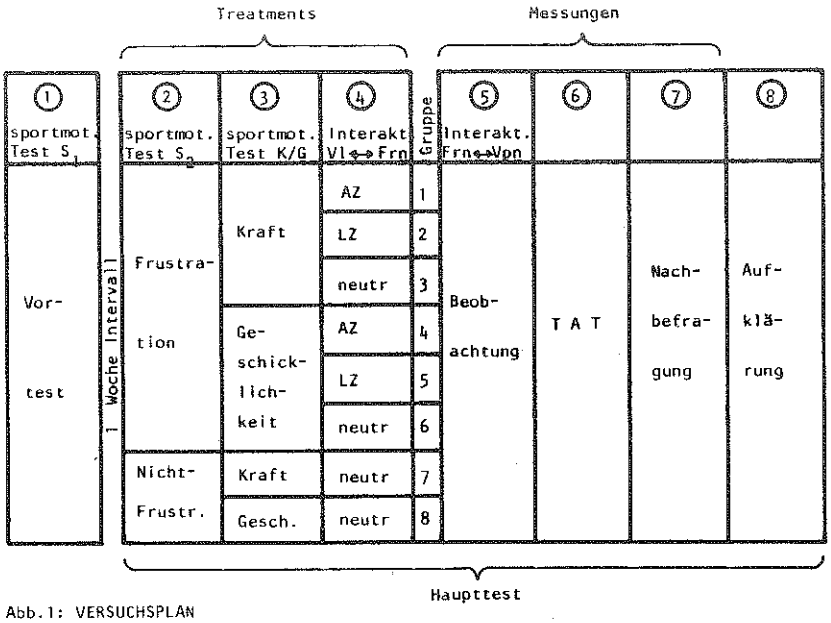


Abb.1: VERSUCHSPLAN

Der Vortest (helferabhängige Ballspielsituationen aus Handball, Fussball, Basketball, Volleyball) diente dabei der Bildung von Gütemassstäben (Anspruchsniveausetzung). Derselbe Test wurde in Phase 2 unter Frustrationsbedingungen wiederholt. Der "Kraft-Test" und der "Geschicklichkeits-Test" in Phase 3 bestanden aus je anderen sportlichen Aufgaben.

Hypothesen und Ergebnisse:

Hypothese 1: Die Wahrscheinlichkeit des Auftretens von aggressiven Verhaltenstendenzen in nicht-frustrierten Gruppen (Kontrollgruppen) ist geringer als in frustrierten Gruppen. - Die Hypothese behauptet zunächst nur die Wirksamkeit der Frustration im sportlichen Zusammenhang als einer Voraussetzung für die eigentliche Fragestellung. Sie konnte hochsignifikant über alle Messinstrumente bestätigt werden.

Hypothese 2: Die Wahrscheinlichkeit des Auftretens von Residualaggression in Gruppen mit motorischer Kraftentfaltung ist geringer als in Gruppen mit Geschicklichkeitsaufgaben. - Diese Hypothese, die der konventionellen Form der Katharsis-Hypothese am nächsten kommt, konnte nicht bestätigt werden. D.h. für die vielzitierte "Ventilfunktion" des Sports konnte kein Beleg erbracht werden.

Hypothese 3: Die Wahrscheinlichkeit des Auftretens von Residualaggression in Gruppen mit Zielerreichung ist geringer als in Gruppen ohne Zielerreichung. - Diese Hauptfrage der Untersuchung wurde durch den TAT hochsignifikant (0,01 % - Niveau) bestätigt. D.h. Gruppen mit Zielerreichungen und damit mehr oder weniger zufriedengestellten Erwartungen zeigten weniger Restaggression als Gruppen ohne Zielerreichung.

Hypothese 4: Die Wahrscheinlichkeit des Auftretens von Residualaggression in Gruppen mit (stellvertretender) Aggressionszielerreichung ist geringer als in Gruppen mit Korrektur des Leistungsergebnisses (ersatzweiser Leistungszielerreichung). - Diese zusätzliche Differenzierung zu Hypothese 3 liess sich nicht voll bestätigen. AZ bedeutete jedoch eher eine Aggressionsminderung als LZ.

Das Hauptziel der Untersuchung, Nachweis der Bedeutsamkeit von Zielerwartungen im Auf- und Abbau von aggressiven Handlungsintentionen, konnte damit auf einer motivationstheoretischen Basis erreicht werden: "Katharsis" (hier im Sinne von Desaktivierung aggressiver Tendenzen bei Erreichung eines Aggressionsziels!) konnte bestätigt werden. Die triebtheoretisch herleitbare Hypothese von der "Abreaktion vermittels Sports liess sich dagegen nicht erhärten. Es scheint, als seien kognitive Komponenten wie Handlungsintention und Zielerwartung, Situationsinterpretation und Zielerreichung die bedeutsameren Variablen für die Erklärung aggressiver Verhaltenstendenzen innerhalb kognitiv und affektiv bestimmter motivationaler Handlungsgefüge.

УМСТВЕННАЯ РАБОТОСПОСОБНОСТЬ СТУДЕНТОК СЕЛЬСКОХОЗЯЙСТВЕННОЙ АКАДЕМИИ ИМЕНИ Г.ДИМИТРОВА ВО ВРЕМЯ УЧЕБЫ, ЭКЗАМЕНАЦИОННЫХ СЕСИЙ И ЛЕТНИХ КАНИКУЛ

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Проблема повышения работоспособности студенческой молодежи была всегда актуальной. За последние годы работоспособность учащихся исследовалась многими специалистами и в разных аспектах: Н.В.Чернишевский - 1962 г., Г.Леман - 1967 г., М.В.Антропова - 1968 г., М.Я.Виленский - 1963 г. и другие.

По умственной утомляемости студентов во время учебы и экзаменационного периода у нас были проведены исследования: Т.Гоцевым, Б.Яневым, Н.Шипковенским, П.Милевым, К.Карагеновой и др.

Известно, что напряжение, связанное с односторонним умственным трудом во время учебы в ВУЗе, лишенным двигательной активности создает предпосылки к снижению уровня общей умственной работоспособности. Это отражается на понижении обмена веществ и смущениях в двигательной, середечнососудистой, пищеварительной и других системах организма, а также и психических процессах и состояниях. Посредством физической культуры и спорта, которые являются мощным фактором симулирования умственной работоспособности студентов, возможно противостоять влиянию одностороннего умственного труда.

Цель предлагаемого исследования - установление умственной работоспособности студентов Сельскохозяйственной академии во время учебы, экзаменационного периода и летних каникул и влияние на нее занятий физической культурой и спортом.

Исследование мы провели пятью десятью студентками Сельскохозяйственной академии, занимающимися физическим воспитанием два часа дважды в неделю. Для установления изменений в умственной работоспособности исследованных лиц использовались следующие психологические тесты:

1.Устойчивость внимания

Здесь мы приложили цифровой тест Бурдона. Каждой из студенток была поставлена задача обвести кружочком два соседних числа, дающие в сборе девять из строчек таблицы с 1200 одновначными арифметрическими знаками.

Для выявления происшедших перемен, мы посчитали правильно обведенные знаки, число допущенных ошибок и время исполнения задания.

2. Мышленно-ассоциативную активность студенток исследовали применяя метод конструирования логического мышления, который состоит из шести слов, сообщенных вразброд. Чтобы установить скорость операции мышления, при которых слова упорядочивались логически, мы определяли скорость, выраженную во времени потраченном на составление предложения. Время измерялось секундомером, до сотых долей секунды.

3. Быстроту словесных реакций и характер ассоциативных связей установили посредством свободного ассоциативного эксперимента. Эксперимент предлагает тридцать слов-сигналов, пять из которых названы критическими и связаны с понятиями, дающими информацию об учебном процессе и другие 25 не связанные с ним. Полученные результаты дают нам информацию об особенностях подкорковых нервных процессов, связанных со второй сигнальной системой.

Латентное время словесной реакции измеряли секундомером, до сотых долей секунды. При обработке полученных материалов мы использовали вариационный и альтернативный анализы.

Полученные данные о времени исполнения задания дают информацию о наступивших переменах в устойчивости внимания, конструирования логического мышления и быстроте словесных реакций после летнего отдыха, во время учебы, после экзаменационной сессии. и представлены в 4 таблицах.

В первой таблице - изменения во времени при выполнени задания по методу Бурдона дано среднее время в минутах в различные периоды учебного года, потраченное на выполнение задания из 1200 знаков, ошибка осредненного времени и достоверность данных в течение изучаемых периодов. (таблица 1)

Во второй таблице представлены данные о числе ошибок, допущенных студентками в различные периоды учебного года при исследовании внимания по методу Бурдона.(Табл.2)

Третья таблица показывает перемены во времени для составления предложений в различные периоды учебного года, при мыслительно-ассоциативном эксперименте. (Табл.3)

Четвертая таблица дает нам возможность установить изменения в латентном времени в секундах словесных реакций при свободном ассоциативном эксперименте.(Таблица 4)

При анализе таблиц, мы исследовали результаты, полученные в ходе трех психических экспериментов и сделали выводы о следующих изменениях в психических процессах:

1.Во время каникул - тогда студенты имели возможность полноценно отдохнуть и правильно провести режим питания, сна, свежего воздуха и ряд других культурных мероприятий. Мы замечаем, что после каникул устойчивость внимания повысилась, сократилось время совершения умственной работы и улучшилось качество работы, выраженное в уменьшении числа допущенных ошибок.

2.Во время учебы - наблюдалось снижение психической активности у студенток. Их основная деятельность известна - целенаправленный умственный труд на усвоение знаний, чтобы стать настоящими специалистами в любых областях науки.

В результате исследований мы установили, что умственная работа и умственная нагрузка очень высоки и они могут быть нейтрализованы физическими занятиями, проводимыми дважды в неделю по два часа. Вследствие этого понижается устойчивость внимания, мышленно-ассоциативный процесс затормаживается.

3.Экзаменационная сессия - характеризуется самым большим умственным напряжением, увеличен объем умственной работы, нарушены режим сна, питания, отсутствуют чистый воздух и активные движения, которые необходимы в этот период. Эти факторы неминуе-

мо ведут к появлению усталости у исследованных лиц. Это в свою очередь, оказывает неблагоприятное влияние на весь организм. Происходят изменения в психической деятельности. Устойчивость внимания самая низкая более продолжительное время, что дает нам информацию о более высокой степени усталости. При мышленно-ассоциативном процессе и при свободно-ассоциативном эксперименте наблюдаем те же явления.

Таблица № 1 - ИЗМЕНЕНИЯ ВО ВРЕМЕНИ ПРИ ВЫПОЛНЕНИИ ЗАДАНИЯ ПО МЕТОДУ БУРДОНА В РАЗЛИЧНЫЕ ПЕРИОДЫ УЧЕБНОГО ГОДА У СТУДЕНТОК СЕЛЬСКОХОЗЯЙСТВЕННОЙ АКАДЕМИИ

Момент исследования	Среднее время в минутах, использованное на определен. работу из 1200 знаков и ошибка ср.врем.				
	$\bar{X}$	X	P 1-2	P 1-3	P 2-3
После каникул	10,4	0,22	0,99	0,99	0,99
Во время учебы	12,8	0,28			
После экзам.сессии	13,2	0,29			

Таблица № 2 - ИЗМЕНЕНИЯ В КОЛИЧЕСТВЕ ОШИБОК, ДОПУЩЕННЫХ СТУДЕНТКАМИ В РАЗЛИЧНЫЕ ПЕРИОДЫ УЧЕБНОГО ГОДА ПРИ ИССЛЕДОВАНИИ ВНИМАНИЯ ПО МЕТОДУ БУРДОНА

Момент исследования	Средний брой ошибок, допущенных при опред.работе из 1200 знаков				
	$\bar{X}$	X	P 1-2	P 1-3	P 2-3
После каникул	8,9	0,43	0,99	0,99	0,99
Во время учебы	14,5	0,45			
После экзам.сессии	16,6	0,38			

Таблица № 3 - ИЗМЕНЕНИЯ ВО ВРЕМЕНИ ПРИ СОСТАВЛЕНИИ ПРЕДЛОЖЕНИЙ В РАЗЛИЧНЫЕ ПЕРИОДЫ УЧЕБНОГО ГОДА ПРИ МЫШЛЕННО-АССОЦИАТИВНОМ ЭКСПЕРИМЕНТЕ В СЕКУНДАХ

Момент исследования	X	X	P 1-2	P 1-3	P 2-3
После каникул	13,6	0,28	0,99	0,99	0,99
Во время учебы	17,5	0,04			
После экзам.сессии	20,9	0,34			

Таблица № 4 - ИЗМЕНЕНИЯ В ЛАТЕНТНОМ ВРЕМЕНИ СЛОВЕСНЫХ РЕАКЦИЙ ПРИ СВОБОДНОМ АССОЦИАТИВНОМ ЭКСПЕРИМЕНТЕ В СЕКУНДАХ

Момент исследования	Среднее время словесных реакций для основ.и критическими сигналами				
	X	X	P 1-2	P 1-3	P 2-3
После каникул	1,56	0,02	0,99	0,99	0,99
Во время учебы	1,75	0,02			
После экзам.сессии	1,92	0,02			

UN EXPERIMENT D'ÉTABLIR LE STANDARD DES DONNÉES PÉRIMÉTRIQUES DÉPENDANT DE L'ÉTAT - DANS UN BUT PSYCHODIAGNOSTIQUE

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En outre des constatations durables faites au cours des siècles sur la perception visuelle, nous devons également enregistrer le fait que les instruments et les découvertes les plus récents rendent nos connaissances classiques sur la perception visuelle toujours plus univoques, tout en les modifiant.
On peut constater dans la littérature de la perception visuelle l'apparition toujours plus fréquente des "catégories dynamiques reflétant le mécanisme d'effet", c'est-à-dire "l'interprétation des données experimentales obtenues, comme des caractéristiques dynamiques" /Táncos-6-/. Ce principe se trouve justifié aussi dans les travaux de /Macarigh -3-, Gavriyszky -1-, Müller -4-, Horváth - 2-/. Ces études rendent compte du phénomène que le degré de la sensibilité visuelle change sous l'influence de certains effets - tels que la fatigue physique, les stimulants,etc.
Déjà la littérature classique avait tenu compte de certains facteurs expliquant les changements du seuil de sensibilité des organes de perception, mais ils n'avaient pas examiné les changements intervenus dans le processus des effets d'entraînement.
Mes résultats obtenus dans le domaine de la vue périphérique et de la distinction périphérique des couleurs avaient également signalé d'une façon homogène les changements dynamiques intervenus dans la perception visuelle sous l'effet du procès d'entraînement.
Nous avons constaté qu'il existe un seuil inférieur et un seuil supérieur pour le degré de sensibilité des cônes et des bâtonnets. Dans la zone limitée par les deux seuils, le seuil sensoriel varie en fonction des charges d'entraînement.
Dans nos publications précédentes nous avons démontré que le volume de la vue périphérique et de la distinction périphérique des couleurs est un des paramètres psychophysiologiques généraux - indépendant des sports concrets - du niveau d'entraînement sportif. Le volume de ses changements est en fonction du niveau actuel de l'entraînement.
Nous avons prouvé par des mesurages en séries que les changements produits dans l'état d'entraînement pouvaient bien être caractérisés par des méthodes psychologiques aussi, ils peuvent être poursuivis et diagnostiqués. A la base des données de perception on peut se faire une opinion sur la capacité de rendement actuelle des sportifs. Tout cela est non seulement d'une importance théorique, mais il permet un contrôle rapide du degré d'entraînement dans la pratique aussi.
La conception dynamique des données de perception pose également le problème de la dynamique de leur interprétation.
En établissant les standards actuellement en usage pour la vue périphérique et la distinction périphérique des couleurs on avait négligé tout effet provoquant des changements de la sensibilité chez la même personne.
C'est à cause des changements du niveau d'entraînement que la pratique du sport exige que l'on soit en possession de chiffres-signaux - de standards - contenant les seuils inférieur et supérieur de la perception. Il en résulte que des standards différents doivent être définis pour saisir le bon procès d'entraînement /psychophysiologique/ et celui faible.
Lors de notre examen nous avons utilisé un périmètre sphérique de type Carl Zeiss Jena. Les signaux de mesurage blancs, rouges et verts ont été exposés pour les

deux yeux dans la méridienne horizontale, puis sous un angle de 15° en dessous et en dessus de celle-ci. Six données ont été enregistrées pour chacune des couleurs chez 213 joueurs de football de première division.
A la base du standard traditionnel on ne peut donner que peu d'informations sur un sujet d'experiment. Ce standard reste insensible à la définition de l'état d'entraînement des sportifs.
C'est pourquoi il a paru nécessaire de définir un standard à la base des données extrêmes des flottements de la perception au cours des entraînements.
Les données des niveaux d'entraînement "bon" et "faible" ont été représentées les unes en face des autres - comme une image réflechie - en diagramme de colonnes. Les données des deux diagrammes montrent un décalage considérable les unes par rapport aux autres. Ainsi les hystogrammes des deux fonctions examinées pouvaient être départis en trois parties à la base de la dispersion de fréquence, c'est-à-dire, on a cherché dans cette image réfléchie la limite où l'on ne trouve en face des données du bon état d'entraînement en entraînement faible aucune donnée, ou l'on n'en trouve que très peu.

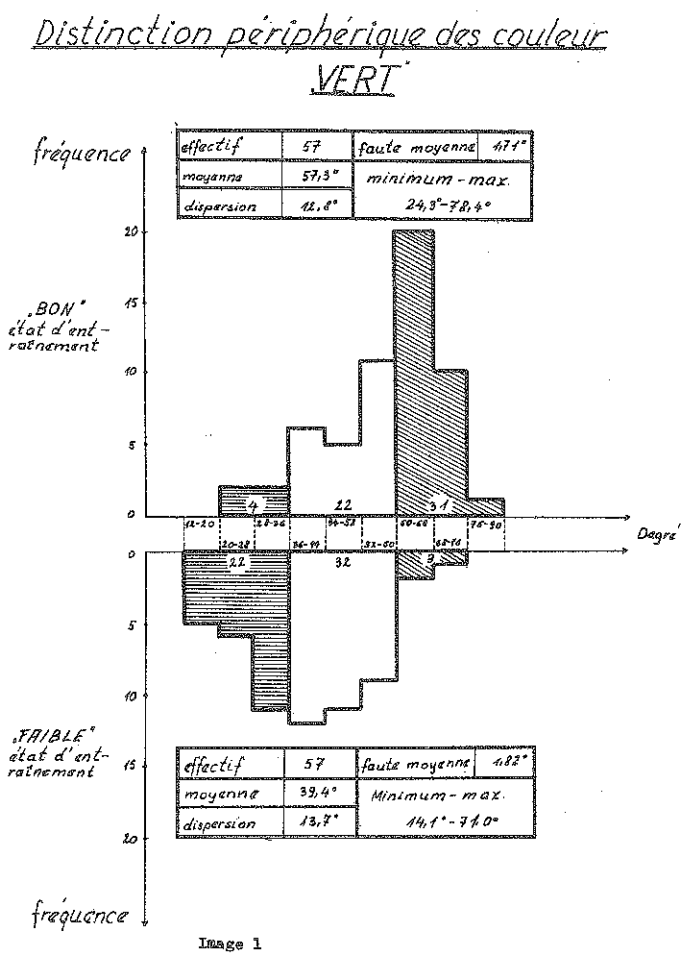


Image 1

Dans la zone centrale de cette départition en trois, les paramètres de dispersion des données du bon état d'entraînement et de celui faible sont presque identiques, on n'en peut pas donner un résultat diagnostique. Les deux autres zones de donnéss marquent par contre sans équivoque les changements distingués dans la perception, ce qui rappelle les différences du procès d'entraînement.
Faute de temps je n'expose ici que les données de la couleur verte - en tant que paramètre le plus sensible - dans la distinction périphérique des couleurs.
En bon état d'entraînement: moyenne 57,3°; dispersion 12,8°; dispersion de la moyenne 1,71°; volume 24,3-78,4°.
En état d'entraînement faible: moyenne 39,4°; dispersion 13,7°; dispersion de la moyenne 1,8°; volume 14,1-71,0°.
Au-dessus de 60°, en cas de bon état d'entraînement, ce dernier peut être signalé à la base de la répartition de fréquence avec une probabilité de 94%.
Un résultat de mesurage au-dessous de 36° porte à supposer avec une probabilité de 82% un mauvais état d'entraînement.
Ces standards contenant la dynamique de la sensibilité permettent de diagnostiquer des états d'entraînement "bon", "moyen" et "faible" , ce qui peut fournir une contribution importante à la pratique.
Cette méthode pourra être rendue plus exacte par l'augmentation du nombre des données.

Littérature

1/ Gavriyszky V.: Les couleurs et la vision des couleurs dans le sport /The colours and colour vision in Sport/
The Journal of Medicina and Physical Fitness 1969/1 p 49-53

2/ Horváth L.G.: Aptitude et réalisation dans la circulation d'automobiles
/Alkalmasság és beválás az autóközlekedésben/
Entreprise de Documentation du Transport
Budapest, 1960. p 101-103

3/ Macarigh F.: Activités physiques et champ visuel
Cahiers Scientifiques en Education Physique,
1966. N.5. p 12

4/ Müller S.: Tests moteurs en tant que moyens psychodiagnostiques dans le sport
/Motorische Teste als psychodiagnostische Mittel im Sport/
Theorie und Praxis der Körperkultur
1972/6 p 548-551

5/ Pilvein M.: Définition de la condition par l'examen du champ visuel et la distinction des couleurs
/Kondició meghatározás látótér és szinfelismerés vizsagálatokkal/
These de doctorat - 1972. p 82

6/ Táncos Z.: Quelques problèmes théoriques de l'examen de l'organisation de la perception
/Az érzékleti szervezödés vizsagálatának néhány elvi kérdése/
Etudes Psychologiques
XII. Akadémiai Kiadó - Budapest 1970. p 45-50

AGGRESSION UND GESCHLECHT IM SPORT - AUSWIRKUNGEN DER BETEILIGUNG DER FRAUEN AM SPORT AUF IHRE PERSÖNLICHKEITSSTRUKTUR

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Verfolgt man die neuere Entwicklung im Sport, so lässt sich zeigen, dass nach einer Anfangsphase, in der Sport vornehmlich als spezifisch männlicher Betätigungsbereich galt, zunehmend auch Frauen beteiligt sind. Im Laufe dieser Entwicklung wuchs sowohl die Zahl der beteiligten Frauen als auch die Möglichkeit, sich vermehrt an neuen Disziplinen zu beteiligen, die zunächst als männliches Privileg galten (vgl. SMITH 1972). Versteht man diesen Prozess als einen sozialen Entwicklungsprozess, so stellt sich die Frage, welche Auswirkungen dies für die Frauen und die sozial gebilligte Rolle der Frau hat.

In diesem Referat wird der Versuch gemacht, Abweichungen in bestimmten Bereichen der Persönlichkeitsstruktur zwischen der weiblichen Population generell und sporttreibenden Frauen, insbesondere wettkampfsporttreibenden Frauen, zu untersuchen. Auffällig - und in der Literatur auch schon beschrieben (vgl. SMITH 1972; HARRIS 1973; EAST 1974) - ist die Tatsache, dass weibliche Sporttreibende höhere Aggressionswerte aufweisen,als ihre Geschlechtsgenossinnen allgemein. Diese Werte sind z.T. sogar höher als die der männlichen Gesamtpopulation. Zumindest lässt sich sagen, dass die Differenz hinsichtlich der Persönlichkeitsvariablen zwischen Leistungssportlerinnen und -sportlern geringer sind, als zwischen am Sport nicht partizipierenden männlichen und weiblichen Gruppen, insbesondere bei verschiedenen Aggressionsformen (vgl. SMITH 1972; HARRIS 1973; KRÖNER 1976; KRAWCZYK 1973). Wir sind der Auffassung, dass es zwar notwendig ist, solche Merkmale mit Hilfe individualpsychologischer Verfahren zu erheben und soweit möglich zu diagnostizieren. Allerdings meinen wir auch, dass der Rückgriff auf individualpsychologische Verfahren nicht zureicht, dass es notwendig ist, aktuelle Merkmale der Persönlichkeitsstruktur als Antworten auf umfassendere soziale Konstellationen zu sehen, d.h. längerfristige Entwicklungstendenzen ebenfalls zu berücksichtigen. Wir folgen hier einem theoretischen Grundkonzept, wie es von ELIAS (1977) beschrieben wurde, dass zur Interpretation von Persönlichkeitsstrukturen die Berücksichtigung des sozialen Kontextes und die Berücksichtigung geschichtlich gewordener Entwicklungen unentbehrlich ist.Persönlichkeitsstrukturen und Sozialstrukturen sind nicht unwandelbar, sondern vielmehr sich wandelnde Strukturen, interdependente Aspekte der gleichen langfristigen Entwicklung (ELIAS 1977 a, XIII). Die "Wandlung der gesellschaftlichen Verhaltensmassstäbe, also dessen was sozial erlaubt, was geboten und verboten ist", geht einher bzw. führt auch zu einer Wandlung der gesellschaftlichen Persönlichkeitsstrukturen. In jeder Gesellschaft gibt es spezifische "Muster und Balancen des Verhältnisses von Trieb- und Affektstrukturen", sowie deren gesellschaftlichen Regulierung und individuellen Selbstregulierung, wobei der Trend in Richtung einer Vergrösserung des Gewichts der Selbstregulierung geht (ELIAS 1977, b, 144).

Wenn die Untersuchung sich dem entsprechend nicht darauf beschränken will, im Sinne von Querschnittsanalysen Phänomene zu beschreiben, so ist es erforderlich, sozialwissenschaftliche Kategorien und die historische Dimension in die Fragestellung einzubeziehen, was in diesem Rahmen nur bedingt möglich ist. Zur Erfassung von Aggressionsfaktoren benutzten wir den Fragebogen (FAF) von

HAMPEL/SELG, weiterhin verwendeten wir das Freiburger Persönlichkeitsinventar (FPI) von FAHRENBERG/SELG/HAMPEL sowie ein semantisches Differential zur Selbst- und Fremdeinschätzung.

Tabelle 1: Aggressionsfaktoren (standard sten scores FAF): Vergleich zwischen Studentinnen (N=69), Sportstudentinnen (N=47) und Handballspielerinnen (N=14)

	Studentinnen		Sportstudentinnen		Handballspielerinnen	
	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
spontane Aggression (FAF 1)	4,5	3,0	4,5	1,7	4,9	2,0
reaktive Aggression (FAF 2)	2,9	2,4	4,1	1,9	4,2	2,3
Erregbarkeit (FAF 3)	4,8	2,9	5,6	1,5	6,4	1,7
Selbstaggression (FAF 4)	4,5	2,8	4,9	1,6	5,9	1,7
Aggressionshemmung (FAF 5)	5,3	2,3	3,3	1,6	3,3	1,9
Summe der Aggressivität (FAF 1+2+3)	4,1	2,3	4,8	1,5	5,7	1,9

Sportstudentinnen weisen gegenüber Studentinnen höhere Aggressionswerte bei den Faktoren reaktive Aggression, Erregbarkeit, Selbstaggression und Summe der Aggressivität auf, während sie eine erheblich geringere Aggressionshemmung als die Studentinnen aufweisen. Die Handballspielerinnen weisen in allen Aggressionsfaktoren - mit Ausnahme der Aggressionshemmung, wo sie zusammen mit den Sportstudentinnen die niedrigsten Werte aufweisen - die höchsten Werte auf. Diese Ergebnisse decken sich auch mit Ergebnissen anderer Untersuchungen (vgl. MORRIS 1975). Da die vorliegende Untersuchung als Voruntersuchung zu verstehen ist, die zu begründeten Hypothesen führen sollte, die dann ihrerseits zu einem umfassenden Untersuchungsplan weiterentwickelt werden können, beschränken wir uns hier auf Trendaussagen. In diesem Kontext halten wir auch die Ergebnisse des semantischen Differentials für wichtig. Vergleicht man die Selbsteinschätzung und Einschätzung der "typischen" Frau, so fällt auf, dass sich die Sportstudentinnen als egoistischer (3.0/3.3), unordentlicher (2.2/3.6), kämpferischer (3.1/3.7), härter (2.8/3.6), aggressiver (3.4/4.1) und risikofreudiger (2.8/3.5) einschätzen als die typische Frau.

Diese Ergebnisse sind deshalb bemerkenswert, als sie deutlich machen, dass die Sportstudentinnen sich ihrer persönlichen Aggressionswerte insofern bewusst sind, als sie durchaus konstatieren, dass ihr Selbstbild von dem der traditionellen Frauenrolle abweicht.

Nun sind solche Ergebnisse nicht sehr erstaunlich, wenn man sich vor Augen führt, welche Qualifikationen erforderlich sind, um insbesondere am Wettkampfsport

erfolgreich teilnehmen zu können. Wichtig hierfür sind Faktoren wie Risikobereitschaft, hohe Leistungsmotivation, Aggressivität, Dominanzstreben usw. Die mit Hilfe des FPI erhobenen Werte bestätigen dies im grossen und ganzen. Das besondere Problem für die Frau ergibt sich jedoch aus der Tatsache, dass dies Persönlichkeitsstrukturen sind, die traditionell dem Mann zugestanden werden und üblicherweise als unweiblich gelten. Daraus folgt, dass die Frau, wenn sie am Sport teilnimmt und dies auch erfolgreich tut, dies um den Preis des Abweichens von zentralen Merkmalen der traditionellen Frauenrolle tut. Dies bleibt nicht ohne Konflikte. Untersuchungen, insbesondere in Amerika, weisen nach, dass (sowohl im Beruf als auch) im Sport erfolgreiche Frauen typische Symptome aufweisen wie: hohe Angst- und Nervositätswerte, erhöhte emotionale Labilität und schliesslich nicht nur Angst vor Misserfolg, sondern auch Angst vor Erfolg (vgl. EAST 1974; ZOBLE 1976; PILZ/SILBERSTEIN/ZIPPRICH 1977).

Dorothy HARRIS (1973, 413) schreibt zurecht:

> "Im allgemeinen weisen die Beobachtungen darauf hin, dass die sporttreibende Frau die Rolle eines Chamäleons annehmen muss: sie muss feminin sein und im Alltag ein der Gesellschaft annehmbares Bild bieten. Hat sie den Wunsch, im sportlichen Wettkampf erfolgreich zu sein, so sieht sie sich zugleich als ein aggressiveres, dominanteres, leistungsorientierteres, seelisch robusteres Individuum mit grösserer Ausdauer und Risikobereitschaft. Dies sind Merkmale, die traditionsgemäss den Mann charakterisieren".

Die Analyse der von uns erhobenen Werte in bestimmten Teilaspekten des FPI bestätigen die Aussage von HARRIS.

Lässt sich eine Prognose für die weitere Entwicklung geben? Der Sport ist ein gutes Beispiel für die Tendenz, die sozial vermittelte Ungleichheit der Geschlechter partiell aufzuheben und zu einer stetigen Angleichung beizutragen (vgl. SMITH 1972). Dieser Trend lässt sich nicht zuletzt auch am Beispiel der Verringerung der Differenzen der sportlichen Leistungsfähigkeit belegen. Offen bleibt allerdings, ob dem eine generelle Veränderung der Frauenrolle langfristig folgt und welche Auswirkung dies auf die Persönlichkeitsstruktur der Frauen hat.

Literatur

East, E.: Experiences and Observation of a Student-Athlete. In: AAPHER (Ed.), Development of Human Values through Sports. Washington 1974.

Elias, N.: Über den Prozess der Zivilisation - Soziogenetische und psycho-genetische Untersuchungen. Erster Band. Baden-Baden 1977a, 3. Aufl.

Elias, N.: Zur Grundlegung einer Theorie sozialer Prozesse. In: Zeitschrift für Soziologie 6, 1977b, 2, 127-149.

Harris, Dorothy V.: Involvement in Sport: A Somato-Psychic Rationale for Physical Activity. Philadelphia 1973; hier zitiert nach: HARRIS, D.V., Die Persönlichkeit "im Sport" und die allgemeine Persönlichkeit von Sportlerinnen. In: GRUPE, O. (Ed.), Sport in unserer Welt - Chancen und Probleme. Berlin 1973, 411-413.

Krawczyk, Barbara: The Social Role and Praticipation in Sport: Specific Social Features of Women's Sport. In: International Journal of Sportsociology 3-4, 1973, 47-62.

Kröner, Sabine: Sport und Geschlecht. Eine soziologische Analyse sportlichen Verhaltens in der Freizeit. Czwalina 1976.

Morris, L.D.: A socio-psychological study of highly skilled women field hockey players. In: International Journal of Sport Psychology 6, 1975, 3, 134-147.

Pilz, G.A., SILBERSTEIN, W. & ZIPPRICH, Christa, Socio-psychological Characteristics of Students in the Field of Physical Education. In: Proceedings of the ICHPER Congress in Mexico City, 18.-23.7. 1977 (im Druck).

Smith, M.D.: Aggression and the Female Athlete. In: HARRIS, Dorothy V. (Ed.), Women and Sport: A National Research Conference. Penn State HPER Series No. 2.
The Pennsylvania State University 1972, 91-114.

Zoble, Judith: Femininity and Achievement in Sports. In: YIANNAKIS, A. et al. (Eds.), Sport Sociology - Contemporary Themes. Dubuque 1976, 185-194.

ZUR SOZIALEN UND SPORTLICHEN BIOGRAPHIE VON SPORTSTUDIERENDEN

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Untersuchungen über die Lehrerrolle schliessen in der Regel die Frage nach der sozialen Rekrutierung ein. Dahinter steht die Annahme, dass die persönliche Biographie des einzelnen Lehrers wesentlichen Einfluss nimmt auf Wertdispositionen, auf das Verhalten und auf Anforderungen, die den Lehrer selbst bestimmen, die er für sich akzeptiert und die er auch an die Schüler weitergibt. Gründlichere Untersuchungen über die soziale und sportliche Rekrutierung von Sportstudierenden liegen unseres Wissens bislang kaum vor (vgl. BLUMENTHAL 1974; DAMBROWSKI 1971; JOCH 1974; SCHUSTER 1976). Unser Interesse gilt den Einstellungen und Vorerfahrungen, welche Sportstudierende beim Eintritt ins Studium mitbringen. Wenn diese Daten bekannt und dem Studierenden selbst bewusst gemacht worden sind, ist es möglich, in offene Diskussion über die Möglichkeit einzutreten, bestimmte Erwartungen und Wünsche, die sich mit dem Sportstudium verbinden, weiterzuverfolgen, sie zu realisieren oder aber neue Orientierungen zu erarbeiten.

Anhand eines ausführlichen Fragebogens wurden 80 Sportstudenten und 49 Sportstudentinnen der Technischen Universität Hannover - alles Studierende der ersten vier Semester - untersucht. Ziel der Untersuchung war, Erstbefunde zu erheben, um

über Vermutungen hinaus zu begründeten Annahmen zu gelangen. Diese Annahmen beziehen sich auf die Eingangsbedingungen von Sportstudierenden beim Beginn eines Studiums. Unser Interesse richtet sich jedoch darüber hinaus auf die Frage, in welchem Ausmass es möglich ist, Wertdispositionen und Präferenzen bezogen auf Sport und Sporttreiben zu beeinflussen. Die Überprüfung dieser Frage ist sicherlich nur in Form einer Längsschnittuntersuchung möglich. Die vorgelegte Untersuchung hat daher - als pilot-study - die Funktion, Eingangsdaten für eine solche Längsschnittuntersuchung zu sichern und die Instrumentarien zu überprüfen.

Die Ergebnisse seien im folgenden ausschnittweise kurz dargestellt:

1. Zur sozialen Rekrutierung:

Es bestätigte sich der allgemeine Trend innerhalb des Sports (vgl. LÜSCHEN 1969; GRUNEAU 1975), d.h. Sportstudierende gehören überwiegend der mittleren und oberen Mittelschicht an. Die Überrepräsentiertheit im Vergleich zur Gesamtbevölkerung der mittleren und oberen Mittelschicht ist bei den Sportstudentinnen erheblich stärker ausgeprägt als bei den männlichen. Der oberen Mittelschicht - Messgrösse ist hier der soziale Status der Eltern - gehören 10.7 % der Sportstudenten und 19.6 % der Sportstudentinnen an; zur mittleren Mittelschicht gehören 62.7 % der Sportstudenten und 69.7 % der Sportstudentinnen; zur unteren Mittelschicht 26.7 % der männlichen und 10.9 % der weiblichen Sportstudierenden.

2. Zur sportlichen Biographie der Eltern:

Es besteht ein enger Zusammenhang zwischen Studenten, die Leistungssport treiben, und leistungssportlichen Vorerfahrungen sowie der leistungssportlichen Orientierung der Eltern. Dies gilt in besonderem Masse für die Väter. 43.8 % der Väter leistungssporttreibender Sportstudenten haben selbst Leistungssport betrieben und nur 23.3 % treiben keinen Sport. Demgegenüber treiben 43.9 % der Väter breitensportorientierter Sportstudenten keinen Sport und 28.9 % sind leistungssportlich orientiert.

3. Zur sportlichen Biographie der Studierenden:

Sportstudierende weisen in der Regel wettkampfsportliche Vorerfahrungen auf, der Entschluss, Sportlehrer zu werden, stützt sich auf die positiven Erfahrungen, die der Studierende beim eigenen Sporttreiben gemacht hat. Wesentliches Beurteilungskriterium scheint dabei die Leistungsfähigkeit zu sein. Dabei gibt es einen geschlechtsspezifischen Unterschied: 65 % aller Sportstudenten haben wettkampfsportliche Erfahrung, bei den Sportstudentinnen sind es 42.9 %, wobei sich die Wettkampferfahrung auf regionale bis internationale Meisterschaften bezieht. Zum Sporttreiben selbst kamen die meisten Studierenden durch Eltern oder peers. Die Einflüsse von Vorbildern (Sportidole, Sportlehrer) sind verhältnismässig gering und spielen lediglich bei den Sportstudenten noch eine gewisse Rolle.

4. Gründe für das Sportstudium:

Motive, die zum Sportstudium geführt haben, liegen einmal im Beruf selbst, die Sportstudierenden streben die Berufsrolle des Lehrers an, um pädagogisch wirken zu können. Weitere Motive liegen in Erfahrungen, die die Sportstudierenden aus dem Sporttreiben mitbringen: sie suchen die dem Sport spezifische Kamerad-

schaft und Geselligkeit. Hiermit ist auch die Hoffnung verbunden, als Sportlehrer einen engeren Kontakt zu den Schülern zu bekommen. Ein weiteres Motiv liegt in der Möglichkeit, weiterhin intensiv Sporttreiben zu können. Das Sportstudium wird hierbei zur Möglichkeit der Fortsetzung der sportlichen Karriere. Insbesondere Sportstudenten betonen auch leistungsbezogene Gründe und streben die eigene Leistungsverbesserung an.

5. Einstellungen zum Sport - Gründe für das eigene Sporttreiben:

Sport bietet die Möglichkeit und die Erfahrung von Kameradschaft, Gesundheit und Leistung. Dabei ist auch hier beim Sportstudenten eine leichte Präferenz zugunsten leistungsbezogener Kriterien nachweisbar. Insgesamt zeigt sich ein starker Trend zu einer mehr breitensportlichen Orientierung, der jedoch keine Ablehnung des Wettkampfsports bedeutet.

6. Vergleich von semantischen Differentialen:

In Form von gleichlautenden semantischen Differentialen waren die Studierenden aufgefordert, folgende Stereotypen zu erstellen: "typische" Frau; "typischer" Mann; Sportlehrer; Freizeitsportler; Leistungssportler; Nichtsportler und schliesslich das Selbstbild. Folgende Ergebnisse sind dabei bemerkenswert (Tabelle 1).

Tabelle 1: Summenwerte der semantischen Differentiale (Mittelwertvergleich)

	Frau	Mann	Sport-lehrer	Selbst	Leistungs-sportler	Freizeit-sportler	Nicht-sportler
weiblich (N=49)	74,4	88,8	73,2	73,3	101,1	70,3	90,9
männlich (N=80)	75,3	90,3	75,7	76,0	103,7	73,0	91,7
insgesamt (N=129)	75,0	89,9	74,8	74,7	102,9	71,7	91,3

Die Stereotypen zeigen in allen Kategorien bei weiblichen und männlichen Studierenden ein relativ hohes Mass an Homogenität. Der Vergleich der Stereotypen untereinander zeigt jedoch erhebliche Abweichungen. Nahezu gleiche Summenwerte ergeben sich für die Einschätzung der Stereotype "Frau", "Selbst" und "Sportlehrer"; die Einschätzung des Mannes und "Nichtsportlers" ist ebenfalls sehr ähnlich. Am positivsten wird der "Freizeitsportler", am negativsten der Leistungssportler eingeschätzt.

Besonders bemerkenswert erscheint uns die starke Annäherung des Selbstbildes an das angestrebte Berufsziel, den Stereotyp des Sportlehrers. Dies ist insofern auffällig, als die Sportstudierenden trotz ihrer wettkampfsportlichen Vorerfahrungen und Praxis sich in der Selbsteinschätzung klar vom Leistungssportler distanzieren und sich mit dem Sportlehrer identifizieren. Die geringe Streuung (S=9.5) verstärkt diesen Eindruck. Der Unterschied ist hoch signifikant ($p < .001$).

Von Interesse ist darüber hinaus die Einschätzung des Nichtssportlers in Abhängigkeit zur sozialen Rekrutierung. Sportstudierende aus der oberen Mittelschicht schätzen den Nichtsportler signifikant ($p < .05$) positiver ein als Sportstudierende aus der mittleren Mittelschicht ($\bar{x}$: 85.4/93.4).

Bedenken gegen die traditionelle Mittelschichtorientierung des Lehrers und der daraus resultierenden Konsequenzen für Erziehungskonzepte lassen sich auch auf spezifische Fragestellungen des Sportunterrichts beziehen. Wenn es gelingt, dies bei der Konzeption der Sportlehrerausbildung in Kenntnis solcher Sachverhalte gezielter zu berücksichtigen, so müsste es möglich sein, Ausbildungskonzepte der Sportlehrerausbildungsgänge zu verbessern. Dies ist sicherlich noch ein weiter Weg. Man darf sich aber nicht durch die Schwierigkeit der Aufgabe entmutigen lassen, erste Schritte zu versuchen.

Literatur

Blumenthal, E.: Motivation zum Sportstudium an Pädagogischen Hochschulen. In: Sportunterricht 23, 1974, 12, 423-426.

Dambrowski, O.: Motivationen zum Studium an der Deutschen Sporthochschule Köln. In: ADL (Ed.), Motivation im Sport. Schorndorf 1971, 319-322.

Gruneau, R.S.: Sport, Social Differentiation and Social Inequality. In: BALL, O.K. + LOY, J.W.C. (Eds.), Sport and Social Order: Contributions to the Sociology of Sport. London 1975, 121-184.

Joch, W.: Sportlehrerberuf und schulische Sozialisationsprobleme. In: ADL (Ed.), Sozialisation im Sport. Schorndorf 1974, 99-107.

Lüschen, G.: Soziale Schichtung und soziale Mobilität bei jungen Sportlern. In: Kölner Zeitschrift für Soziologie und Sozialpsychologie 15, 1963, 1, 74-93.

Schuster, A.: Motivation zum Sportstudium an Pädagogischen Hochschulen. In: Sportunterricht 25, 1976, 10, 335-337.

PARENTS' INFLUENCE ON CHILDREN WHO DO SPORT

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A child is part of a family and the family is part of him. This concept, expressed by ACKERMANN (1958) and taken up by CACCIAGUERRA (1968), is the main task on which the present research is founded. We think, in fact, that the behaviour of children who do sport is partially determined by family environment, and by the influence exerted by parents.
The purpose of this study is to analyse the following:

- the behaviour of the whole family with regard to the phenomenon of sport;
- parents' influence on sports training of children perceived by fathers, mothers and children.

Two ways were used to collect information to show the former hypotheses:

I) direct questions to illustrate the real sporting dimension of a family environment, and
2) sporting stimulus sentences to show how parents, (by means of this perceptual and projective filter) would behave if faced with any difficulties similar to those proposed in the scenes.

The concordance between the two ways allowed us to check the conformity of the answers. We could, therefore, proceed to compare all the "significant" results provided by each of the three investigated categories (fathers, mothers and children) and could value, through a series of simple and crossed comparisons, the main similarities and differences existing within the family environment.
The sample was composed of 50 families (including fathers, mothers and ten-eleven years old children). The children, (25 boys and 25 girls) all attending the last course at a primary school in the centre of Milan are practising sport.
From the analysis of the results, we could observe:

1) <u>From the direct questions, with regard to the parents:</u>

- a positive judgement about sport is shown: they believe in the validity of sport as a determinant role in the growth of an individual, they recommend sports training for every age. The practising of physical activity is necessary during childhood in order to promote the most harmonical psychophysical development;

- they are interested in their child's sports training: they say they follow the child's sporting activities which has never interfered with the management of the home, or been the cause of quarrels between husband and wife;

- sport in family conversation: the topic of sport is a useful means of talking with children but is not generally the most important one in family conversation;

- no discrimination between sexes: thay do not think they make any distinction between boys and girls when directing their children towards a sporting activity, because sport also suits femininity;

- early age for the first approach: they consider it is advisable for children of five or six years old to begin a sporting or physical activity;

- a satisfactory socio-economic level is necessary to enable their children to practise sport: they would not consider taking up sport if it was too expensive.

2) <u>From the illustrated sporting stimulus scenes parents are:</u>

- open to dialogue, to sacrifice, to renunciations of personal wishes and expectations;

- they try to understand child's sporting problems, and for the child's happiness, overcome economic obstacles, parental questions, professional and familiar engagements, giving up expectations, mastering disappointment;

- assistance and support to sporting difficulties: they are not frightened by child's accident or failure, but stimulate and encourage in case of need the child to take up again sporting activities;

- to bring back to reality excessive enthusiasm: by experience they give useful advice to avoid disappointment, they are anxious about the future and they are also afraid of false moves which could be costly;

- no interest in common sense: they do not mind rumours, they let child go on practising sport, even if it appears unseemly to people, for the child's wellfare;

- justice and authority: they give no preference among children, reject unjust requests, look for equilibrium, require respect and frankness.
It is a kind of authority that reproaches but does not punish, conscious of needs and difficulties that tend to put the child's positive side in evidence, believing in the maturity;

- capability of self criticism: they are ready to admit their mistakes, they try to remedy these, they reject any exploitation of children's sporting activity

- participation and joy of sporting success: they are proud and satisfied with prestige achieved independently by the child, they believe in the right of independence and they think to interfere with the child's development, keeping him tied to the family.
Considering the children we can remark as follows:

- they show a great deal of interest in sport: they would miss sport if it was not available, even if they admit spending most of their free time playing;

- they admire sporting champions;

- they admit, physical state verified, sports training may be very useful for development and health; it is a moment of amusement, joy and freedom;

- they are favourable to go on with a sporting activity even if it requires many sacrifices;

- they affirm to have found, during sporting life, many friends and therefore they diversify sporting children from their contemporaries;

- they confirm their autonomy and liberty of choice: they say they have voluntary chosen the type of sport they practise without parental advice or pressure;

- they maintain that both the parents must be interested in their sports training, confirming in such a way their availability, their participation and their role of encouragement in moments of difficulty;

- they acknowledge that their parents have never reproved or conditioned their sports training, if parents should prohibit their activity they would rebel ;

- they think parental consent derives from belief that sports training may produce beneficial results on maturity development;

- they often talk about sport: sporting arguments is fit for family conversation, especially with fathers;

- they prefer to train themselves than to go out with parents: they place before sporting activity than the possibility of a trip with the family;

- they express positive opinions about father and mother: they confirm their parent's valid conduct in sporting matters and they are inclined to choose the same behaviour;

Boys' and girls' perception of parental behaviour towards their children's sporting choices and situations, shows a synthetic picture of the role parents exert also in this particular field.

Sporting children express more frequently the following feelings:

- they are sure they can rely on their father's and mother's help and support: they admit they have overcome difficulties and have been able to remove painful situations on account of assistance and encouragement of parents;

- they perceive reprimands and impositions: when they disobey given directions or neglect hygienical rules, they are reproached and compelled to parents will, giving up, unavoidably, personal needs and wishes;

- they think they enjoy scarce authonomy; they are subject to parental protection, they cannot face, by themselves, risks and dangers;

- they think they are not easily satisfied: even if they persist in their requests, their expectations are denied;

- they confirm parity of rights: males and females are equal with regard to sport, therefore a mother is unfair if she denies to a daughter what she grants to a son;

- they underline parental agreement in the decisions: mother's action receives assent by father;

- they believe in father's firmness of opinion: in a difference between husband and wife, father would not accept wife's unfavourable advice;

- they know parents have confidence in the socialising power of sport: to win a child's solitude and timidity they would enrol him as a member of a sports club.

The series of comparisons allow us to comment:

1) Substantial agreement exists between parents about sporting activity: we may so define a sporting mentality of family that influences children's behaviour.
2) Children feel the influence exerted by parents in conformity to the positions expressed by fathers and mothers.
3) A favourable predisposition facilitates children's sporting insertion. " Sporting" parents correspond to "sporting" children.
4) Father are more sensible than mothers in sporting matters, they try to make children responsible, to grant confidence and autonomy respecting their freedom.
5) Males are more similar to fathers, females to mothers. Boys show more interest to sporting activity than girls. The after-effect, offered by parents, proceed through sex similarity.
6) Sons are more critical towards parents than daughters.
7) Father plays a determinant role in children's sporting training, his educative action is more evident than mother's and determines the most of child's behaviours. Father guides, mother helps and supports.
The most contrasting points between parents and children are:

- the disposition to offer explanation, to clear up situations, to keep promises;
- the capability to understand children's sporting needs;
- inclination to sacrifice, to renunciation, for assenting to child's desire;
- respect for child's opinions and personality;
- research of yielding solutions;
- firmness of intentions;
- rigorous behaviour towards child's action that parents think unrighteous.

Final issue of our investigation, that is only one part of a larger work, after having put in evidence concrete family behaviour towards sporting situation and towards roles parents show in this peculiar area, we underline importance of family environment in investigations on sporting children's behaviour, to make clear psychological structure in which needs of young athletes develop.

References.

Ackermann, N.V., The psychodynamics of family life, Basic Books, New York, 1958.

Cacciaguerra, F., I sentimenti del fanciullo nell'ambito familiare, Vita e Pensiero, Milano 1968.

Cacciaguerra, F., Cancini, F., La figura e la funzione paterna, Franco Angeli, Milano 1974.

Droppleman, L.F., Schaefer, E.S., Boys'and Girls reports of maternal and paternal behaviour, J.Abn.Soc.Psychol., 1963, 67, 648-654.

Helper, M., Parental evaluation of children and children's self-evaluation. J.Abn.Soc.Psychol., 1958, 56, 190-194.

Kagan, J., Lemkin J., The Child's Differential Perception of Parental Attributes, J.Abn.Soc.Psychol., 1960-61,440.

Kagan, J., Hosken, B., Watson S., Child's symbolic conceptualisation of parents, Child Development, 1961, 32, 625-636.

Lidz, T., La persona umana: suo aviluppo attraverso il ciclo della vita, Astrolabio-Ubaldini, Ed. 1971.

Maxwell P.H., Connor R., Walters J., Family Member Perception of Parent Role Performance, Merril Palmer Quart., 1961, 7, 31.

Osterrieth, P., L'enfant et la famille, Ed. du Scarabée, 1957.

Pocoroba, L., Comportamenti di padri e figli in prove di Livello di Aspirazione: l'influsso esercitato dalla figura paterna, Arch.Psicol.Neurol. Psichiat., 1977, 38, 77-98.

Pocoroba, L., L'intervento psicologico nella ricerca applicata alle attivita sportive: spunti per una riflessione, Atti del convegno di studio su: Stato attuale, finalita e prospettive della ricerca medico-biologica applicata alle attivita sportive, Roma, 13-15 gennaio 1977.

Porot, M., L'enfant et les relations familiales, P.U.F., Paris 1963.

Serot, N.M., Teevan, R.C., Perception of the parent-child relationship and its relation to child adjustement, Child Development, 1961, 32, 373-378.

Tasch, R., Interpersonal Perceptions of Fathers and Mothers, J. Genet. Psychol., 1955, 87, 59-65.

ПСИХОЛОГИЧЕСКИЕ ПРЕДПОСЫЛКИ ДЛЯ ОПРЕДЕЛЕНИЯ КРИТЕРИЕВ СПОРТИВНОГО ОТБОРА

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Осуществление спортивного отбора как процесс достижения соответствия между личностью и спортивной деятельностью, с целью достигнуть одновременно творческого развертывания сил личности и высоких успехов в спорте, обуславливается также и правильным определением и внедрением в практике соответственно необходимых критериев. В этом смысле, предварительное определение критериев отбора в спорте представляет собой существенной частью деятельности научных и руководных педагогических звеньев, от которой зависит развитие спортсмена, его спортивная карьера и его достижения.

В методологических основах для определения критериев спортивного отбора важное место занимают и некоторые основные психологические положения.

Первое. В объективном аспекте спортивная пригодность (приспособленность) в наиболее общем смысле представляет собой связь между состязателем и спортивной дисциплиной, содержание которой сводится к "соответствию между личностью и спортивной деятельностью", к "взаимопроникновению и стимулирующему воздействию спортивной деятельности на личность и личности на спортивную деятельность" (Попов, 1, 43).

Второе. В субъективном аспекте спортивная пригодность представляет собой качество, особенность, состояние личности состязателя, развивающиеся под формой системы, "включенной в метасистеме личности" и содержащей только те ее особенности, "которые в процессе деятельности бывают включены (заангажированы) как соответствующие деятельности, ее требований" (Н.Попов, 2, 188).

Из этих фундаментальных психологических положений об основных характеристиках и о сущности спортивной пригодности, следуют и некоторые выводы относительно определения критериев отбора в спорте.

а) Значительность критериев отбора определяется непосредственно тем:насколько они отражают двустороннюю связь между состязателем и спортивной дисциплиной; насколько они содержат в себе возможность укреплять и обогащать соответствие между личностью и спортивной деятельностью; насколько они являются носителями и представляют собой своеобразные проводники стимулирующего воздействия личности на деятельность и деятельности на личность. Мерой ценности критерия является его полнота, охват "силы притяжения" между двумя компонентами: личностью и спортом. В зависимости от ряда факторов и от конкретной ситуации критерий отбора в спорте, кроме полноценных в указанном смысле, на практике могут быть полуценными и антиценными. Они полуценны в случаях, когда они отражают только одностороннюю связь между личностью и спортом. На основе полуценных критериев обеспечивается развитие спортивной дисциплины, спортсмен достигает высоких результатов в спорте, но спортивная деятельность и спортивные результаты не воздействуют положительно и стимулирующе-обогащающе на личность. Во-вторых, критерии полуценны, когда они отражают на низком уровне, в слабой степени, двусторонность связи между личностью и спортом. Этот вид полуценных критериев отбора не обеспечивает ни высоких успехов в деятельности, ни значительного обогащения и развития личности в деятельности. Антиценными являются критерии отбора в спорте, когда они отражают наряду с положительной односторонней связью от личности к спорту и наличие отрицательной противоположной связи от спорта к личности. Антиценныекритерии являются основой высоких результатов в спорте, сопровождаемых объединением и деградированием личности. Именно поэтому эта их антиценность абсолютная: спортивная деятельность не отвечает интересам личности,она не просто нейтральный фактор по отношению личности, а имеет отрцитаельное воз-

действие на ее развитие. Критерии отбора могут быть, хотя и реже, антиценными в относительном смысле, или мы можем их назвать еще относительно антиценными. Относительно антиценные критерии отбора отражают положительную одностороннюю связь воздействия спорта на личность, сопровождаемую отрицательной связью воздействия личности на спорт. В этих случаях состязатель развивается благоприятно как личность путем упражнения спортивной деятельности. Но сам он представляет собой отрицательный фактор для развития спортивной дисциплины и повышения спортивных достижений. Относительно антиценные критерии отбора утверждают в спорте бесперспективных резервных состязателей команды, а также и состязателей, которые давно уже вышли из зенита своей спортивной карьеры.

Первоосновой психологических предпосылок для определения критериев отбора в спорте сообразно своей ценности как полноценные, полуценные, абсолютно антиценные и относительно антиценные являются самоутверждением личности в высокоразрядном спорте и интересы высокоразрядного спорта, рассматриваемого с позиций значительного социального явления.

б) Определение критериев спортивного отбора сообразно их ценности осуществляется в рамках функционального разреза, т.е. тогда, когда критерии рассматривают "в действии" - когда они "реализуют" соответствующим способом состязателя в спортивной деятельности. Если их рассматривать в генетическом разрезе, критерии отбора раскрываются как первичные и вторичные, как низшие и высшие. Генетическое направление для определения значимости критериев связано с тем, какие структурные элементы личности из иерархии подструктур они отражают; какое место занимают в системе спортивной пригодности, в метасистеме личности; как и в какой степени они включены в развитии личности. Мерой значимости критерия в генетическом разрезе является двустороннее превращение элементов личности в пригодность к спорту и элементов пригодности в метасистему личности. Критерии отбора, которые принадлежат спортивной пригодности, именно потому, что они принадлежат личности, а принадлежат личности именно потому, что они принадлежат спортивной пригодности, мы условно называем включенные критерии. Включенные критерии являются результатом и выражением единого процесса связанного с тренировкой и обучением воспитания спортсмена и спортивного развития. "Воспитание включается в самом процессе развития....., а не только надстраивается над ним." Включенные критерии отбора утверждают гармонию, внутреннее единство между развитием личности и спортивным развитием состязателя. Это их положительная форма. Теоретически, также как и на практике, может существовать и отрицательная форма включенных критериев, когда уродливая спортивная пригодность и деградирующая личность взаимно дополняют друг друга: в случаях антиспорта. Критерии отбора, которые принадлежат спортивной пригодности, но не принадлежат к личностной системе, мы условно обозначаем термином "исключенные критерии". В случаях, когда эти критерии утверждают спортивную пригодность и спортивное развитие, не утверждая или утверждая в недостаточной степени личностную метасистему и ее развитие, они представляют себя под формой положительно исключенных критериев. В случаях, когда отбор не утверждает спортивного развития, а спортивная пригодность развита в недостаточной степени на фоне утверждения развития личности, критерии отбора представляют себя под формой отрицательно исключенных критериев.

В основе психологических предпосылок, которые определяют критерии отбора с точки зрения взаимоотношений между спортивной пригодностью и личностью, лежит объективный процесс гуманизации спорта, в том числе и высоко разрядного спорта. Гуманизация спорта, самоутверждение личности, социальные потребности большого

спорта объективно-исторические факторы психологической обосновки и внедрения в спортивной практике только полноценных и положительно включенных критериев отбора.

ЛИТЕРАТУРА:
1. Попов,Н.- Спортен подбор и ориентация (теоретико-методологически въпроси), София, МиФ, 1976.
2. Попов,Н.- Психологическата подготовка в спорта и личността, сп.Въпроси на физическата култура, 4, 1977.
3. Рубинштейн,С.Л.- Проблемы общей психологии, "Педагогика", Москва, 1973.

КРИТЕРИИ ОЦЕНКИ ВЗАИМООТНОШЕНИЙ В АЛЬПИЙСКОМ КОЛЛЕКТИВЕ

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Альпийская группа, в том числе и альпийская связь, являются элементами микросреды, в которой альпинисты выполняют определенные функции. В альпийском коллективе осуществляются учебно-воспитательная, спортивная, научная и другие деятельности; удовлетворяются важные и основные интересы и потребности; формируются качества и способности личности, которые необходимые в производственной и общественно-политической жизни.

Для правильного проведения технически сложных и высотных альпийских проявлений существенным является контроль и регулирование взаимоотношений между альпинистами. Изучение междуличностных отношений находится в непосредственной связи с альпийским успехом, а также с воспитанием альпинистов. Проблемам социально-психологического климата в коллективах и междуличностных отношений посвящены исследования ряда авторов - А.В.Петровский, В.Н.Шубкин, А.В.Барабанщиков, В.В.Кучевский, И.Т.Левыкин, С.Симеонов, А.Г.Ковалев, и др.

Задачей исследования является раскрытие и применение критериев оценки взаимоотношений в альпийском коллективе и в связи с этим: установление характерных особенностей альпиниста во время спортивной и тренировочной деятельности, в свободное время и в трудных условиях; установление отношения к партнерам и выбор партнера для экспедиции или подъема (путем раскрытия предпочтительных качеств личности); установление отношения к качествам тренера, от которых зависит подготовка и безопасность альпиниста.

Мы провели исследования с 150 альпинистами при помощи следующих методов: теоретический анализ, социометрический метод, анкета, педагогическое наблюдение во время альпийский экспедиций и подъема в Памире, на Кавказе и в болгарских горах. Исследование охватывает период с 1970 по 1973 г.

Приложенный нами комплекс методов дал возможность разделить критерии при оценке взаимоотношений в альпийском коллективе на следующие группы:

1. Критерии внешней связи: причины отсутствия постоянного партнера; причины расставания с партнером; частота встреч с партнерами; отношение к постоянному и случайному партнеру в связи с безопасностью; способ выбора партнера в связи с подготовкой, трудностями и безопасностью.

II. Критерии внутренней связи: мотивы общения между партнерами; характер конкретных взаимоотношений в свободное от тренировки время; степень честности и откровенности во взаимоотношениях между партнерами; ценностное отношение к особенностям характера партнера.

III. Критерии несовместимости: неприемлемые стороны характера партнера; неприемлемые качества партнера, которые являются или могли бы быть причинами несчастного случая; число и характер неудачных случаев между партнерами при подъеме.
IУ. Критерии отношения к успеху: уверенность в успехе; качества, определяющие успех; факторы, противодействующие полному успеху.
Полученные данные раскрыли существование двух форм взаимоотношений в альпийском коллективе: положительную и отрицательную, которые непосредственно обусловлены необходимостью благоприятного и успешного завершения альпийского проявления, а также внутренними социально-психологическими условиями.
Отрицательная форма взаимоотношений в альпийском коллективе основана прежде всего на несовместимости между партнерами, которая со своей стороны обусловлена: общей неприемлемостью характера или отдельных характерологических особенностей и специфической неприемлемостью характера или отдельных его качеств, которые очень значимы в отношении безопасности и несчастных случаев.
Отрицательные взаимоотношения являются результатом следующих характерологических особенностей, констатированных при первом, втором и третьем выборе партнера: неуравновешенность, неповоротливость, вспыльчивость, самонадеянность; надменность, отсутствие чувства товарищества, нескромность; непостоянство, а также отсутствие сознательности, волевой подготовки, знаний и опыта, внимания и др.
Специфическим фактором при определении положительной формы взаимоотношений в альпийском коллективе, а вместе с тем и благоприятного социально-психологического климата является совпадение осуществленного выбора партнера с соответственным ценностным отношением к качествам партнера. Исследования раскрыли различия в отношении при выборе партнера для подъема по стене и для экспедиций. Качества партнера для подъема по стене, указанные при первом выборе, это: осторожность, техническое мастерство, интеллект, уверенность, дисциплинированность, опытность, выносливость, а для высотной экспедиции: дисциплинированность, предусмотрительность, сила, интеллект, рассудительность, стремление к высоким горам, выносливость.
Положительная форма взаимоотношений в коллективе альпийцев определяется и ценностным отношеним альпиниста к качествам тренера. При первом выборе предпочтительны следующие качества: интеллект, спокойствие, человечность, хорошая спортивная форма, скромность, чувство товарищества, широкие знания по специальности, откровенность, умение понимать и объединять коллектив, требовательность, беспристрастность, опыт. Определяющим является также ценностное отношение к волевым качествам, от которых в большой степени зависит и успех конкретного альпийского проявления. Для экспеции "Кавказ - 1973" они сводятся к следующим: дисциплинированность, упорство, самообладание, решительность, смелость, терпеливость, инициативность.
Исследования показали, что сформированные и формирующиеся взаимоотношения в альпийском коллективе можно оценить в четыре направления: а) внешняя конкретная реализация в процессе спортивной деятельности; б) внутренняя специфическая реализация; в) реализация в проявлениях неприемлемости; г) реализация в проявлениях отношения к успеху. Самое большое значение для положительной формы взаимоотношений в альпийском коллективе имеет внутренняя специфическая реализация, а для отрицательной - их реализация в проявлениях несовместимости. Фактор, способствующий положительной форме взаимоотношений это и тренер со своими специфическими качествами личности.
Установленные критерии оценки взаимоотношений в альпийском коллективе обладают большой значимостью при каждом отдельном восхождении или высотной альпийской экспедиции в связи с увеличением требований безопасности и предостережения от несчастных случаев и они окажут практическую помощь при отборе, подготовке и комплектовании альпийской группы.

ЛИТЕРАТУРА:

1. Барабанщиков,А.В. и др. - Проблемы психологии воинского коллектива, под редакцией В.В.Шеляба, ВИМО, М., 1973.
2. Кучевский,В.Б.,- Спортивные отношения и личность, сб.Спорт и личность, ФиС, М., 1975.
3. Петровский,А.В. - К построению социально-психологической теории коллектива, "Вопроси философии", 12, 1973.
4. Попов,Н., Маринов,Б. - Социално-психологически критерии за спортен подбор на алпинисты, сп."Въпроси на физическата култура", 2, 1973.
5. Симеонов,С.- Социален климат и производителност, "Партиздат", С., 1976.

AGONISME ET EMOTIVITÉ DANS L'ATHLÈTE: SIGNIFICATION ET IDÉES OPÉRATIVES

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Agonisme, charge agonistique, concentration, "trac" du pré-compétition, tension psychique, émotion: l'abondance des termes employés pour définir le soin de l'athlète dans le niveau psychique montre combien de route il faut parcourir pour comprendre jusqu'au fond la signification du soin même et pour comprendre aussi les équivoques suscités par ces définitions. Avec des autres paroles, les effects de simplisme et d'empirisme déterminés par les attitudes prises par la plupart en affrontant les problèmes du sport et de l'athlète, souvent évalués avec des considérations antithétiques autant que partiales, semblent très clairs: d'une côté l'opinion publique, peut-être aussi bien qualifiée, juge le sport une affaire et une réalité presque secondaires dans la vie d'un homme et la même opinion publique juge l'athlète un modèle presque anormal d'homme; de l'autre côté les personnes affectées aux travaux tendent à privilégier le sport comme affaire et réalité prééminentes, en hypertrophiant ces choses, et elles tendent aussi à faire de l'athlète un mythe comme un modèle supérieur, en le orientant uniquement à l'expression agonistique.

Je n'entends pas analyser motifs et intérêts qui déroulent directement ou indirectement un rôle provocant et déterminant dans cette situation: mais ce-ci suggère et impose une tentative de clarification sur l'action d'agonisme et d'émotivité dans l'athlète, de clarification aussi des inter-actions entre l'un et l'autre: sur ces bases il est possible d'établir les nécessités et les types d'intervention.

Pour ce motif, il semble très utile de placer des simples prémises, et précisément:

1 - La psychologie moderne considère le mouvement comme un composant vivant de la personnalité et aussi comme expression de la conduite d'un centre d'intérêt qui dérive dès motifs très profonds: ce-ci implique une participation affective /Canestrari/,

2 - il semble, de conséquence, surpassée la théorie selon que l'apprentissage sportif il y aurait seulement par l'action - learn by doing- : l'activité sportive, en réalité, est, avec les paroles d'Antonelli, "un moyen d'expression de la pensée par l'action, c'est-à-dire une action guidée par la pensée,

3 - de conséquence, on ne peut pas parler de motricité, mais de psychomotricité, qualifiée par Canestrari en trois composants fondamentaux:
   a - psychomotricité expressive: le mouvement exprime des tensions et des réactions et dès ces éléments le mouvement naît,
   b - psychomotricité exécutive: le mouvement est action extérieure adressée vers un but qu'il faut atteindre,
   c - psychomotricité empreinte: le mouvement paraît un vécu sous les plus différentes formes d'impressions du sujet.
4 - Tout ce-ci appelle en cause motifs, contenus, significations, réactions, c'est-à-dire toute-chose que Hull définit les "drives", les lignes de nécessité, de la ligne de l'activité à la ligne de la curiosité explorative jusqu'au surmontement des "drives" acquéris, comme , par exemple, l'anxiété,
5 - ainsi on trace l'idée de l'activité sportive configurée comme self-actualisation, selon le schéme de Marlowe: l'homme qui agit avec des motifs bornés aux eux-mêmes après avoir satisfait aux motifs des besoins fondamentaux.

L'agonisme agit auprès et par effect de ces composants: en réalité, il exprime le besoin culturel de l'homme de se mesurer et de ne se comparer avec ses pareils, besoin que s 'effectue dès l'enfance jusqu'à l'âge mûre avec les différents et propres modalités.

Psychologicament l'agonisme dérive dès un sens d'insuffisance vitale et dès la conséquente nécessité de compensation par des épreuves qui rassurent l'homme: ce-ci indique comme l'agonisme répond à une rationalité bien précisée avec une signification compensative et défensive, en répresentant un moment de déviation et de décharge qui gratifie de sa propre aggressivité.

Mais il y a plus: l'arrivée de la professionnalité sportive, quoi qu'il en soit masquée hypocritement, pour beaucoup d'athlètes tend à transformer le sens de INSUFFISANCE VITALE dans un sens d'INSUFFISANCE EXISTENTIELLE et l'agonisme arrive à signifier, avec autant de rationalité, le moyen de la tentative de résoudre ou de modifier sa propre existentialité à un niveau majeur de la moyenne. Il arrive alors que l'expression agonistique du sport, insérée dans la dynamique de la personnalité au lieu d'agir comme élément de tutelle ou de rétablissement d'un sain équilibre affectif se transfère dans le domaine de l'émotivité , de la tension et de la formation individuelle de la personnalité et des ces perspectives sociales et social-économiques; et c'est bien possible de deviner quelles et combien de possibilités d'interférence et de déviation dès le but peuvent dériver.

En omettant les discussions thériques que l'émotivité, nous pouvons dire qu'elle est, en substance, une réaction de l'organisme entier, réaction psychique et somatique au même temps, à une situation intérieure ou extérieure exceptionnelle: réaction innée et complexe, avec un caractère affectif accentué et avec des formes de désorganisation et, en conséquence, avec un degré d'adaptation peu élevé qui implique une expérience émotive /façon de sentir/ et une conduite émotive /façon d'agir/.

L'expérience émotive est constituée par un composant affectif et par un composant de connaissance , c'est-à-dire un composant avec des inter-actions entre sentiment et pensée: la prise de conscience entre état affectif et état de connaissance demeure à la base de l'équilibre émotif.

La conduite émotive est constituée par l'intégration de la pensée et du corps qui souligne l'unité de l'individu: pour comprendre l'expérience émotive d'un homme il faut comprendre ce qu'il sent mais il faut aussi évaluer ce qu'il fait.

Ce-ci explique la signification soit des réactions psychiques aux émotions /excitation, anxiété, dépression, angoisse, instabilité, caducité/, soit des réactions

somatiques /respiratoires, circulatoires, digestives, sécrétoires, musculaires/.
On peut, à ce point, synthétiser ainsi les éléments fondamentaux de notre discours:

- la complexité des problèmes de l'athlète au sujet de l'exécution de son moment sportif et de sa prestation,
- la tromperie de considérer le moment athlètique ou technique ou agonistique séparables ou séparés de la personnalité de l'individu et de sa réalité existentielle: ce-ci est possible seulement à condiction d'accepter l'idée d'athlète-robot, que je personnellement n'accepte pas.

Dans le moment agonistique, l'athlète porte une somme de composants, de motifs, de réactions, d'intérêts qui souvent ne sont pas clairs pas même à lui et qui, de toute façon, le pressent avec des façons différents et contrastantes, rapportées non seulement à sa position d'athlète mais aussi à sa dimension et perspective d'homme et de personne, dépendents des réactions de l'individu, des inter-actions avec le group, des influences du milieu, des vécus personnels et de ses projections sur le demain.

En conséquence, quelques conclusions viennent logiques:

- l'étude et l'assistance psychologique de l'athlète limités et adressés uniquement au moment agonistique réprésentent une partialité très dangereuse car ils peuvent porter à scotomiser les formes plus profondes et completes de sa réalité d'homme et de personne: ce-ci arrive à représenter et à favoriser une dycotomie souvent en conflit entre réalité agonistique et réalité de l'existence,
- beaucoup des difficultés et des problèmes de l'athlète ,surtout les difficultés et les problèmes qui se vérifient au niveau psychopatologique, dérivent de cette dycotomie; mais, en même temps, dérivent aussi de ces vécus extra-sportifs et extra-agonistiques et de réactions émotives réunies aux ces-là,
- il semble, alors, que il faut donner la première assistance à ce niveau, pour clarifier les situations existentes et/ou les perspectives futures: et seulement après , on pourra concentrer notre assistance avec efficacité sur les problèmes agonistiques.

Il semble ainsi qu'on souhaite un retour au pragmatisme et à l'empirisme que nous avons critiqué au débout: en réalité, il faut propre les éviter, au contraire, en rappellant qu'aussi l'athlète, quel que soit le niveau auquel il travaille ou auquel on veut le faire travailler, succombe et répond aux lois , aux nécessités et aux réactions de l'homme.

Bibliographie

Alemà, G. : Sport e sistema nervoso-in T.Lucherini e C. Cervini "Medicina dello Sport" - ed. Universo, Roma, 1960

Allport, W.G.: Personality, a psychological interpretation - ed. Constable e Co., London , 1955

Ancona, L.e coll.: Nuove Questioni di Psicologia-ed. La Scuola, Brescia, 1973

Antonnelli, F.: Psicologia e psicopatologia dello sport-ed. scientifiche Leonardo, Roma, 1963

Antonnelli, F.: La valutazione psicologica dell'atleta-ed. scientifiche Leonardo, Roma, 1963

Freud, S. : Mourning and melancholia, in "Collected papers", ed.Hogarth, London , 1950

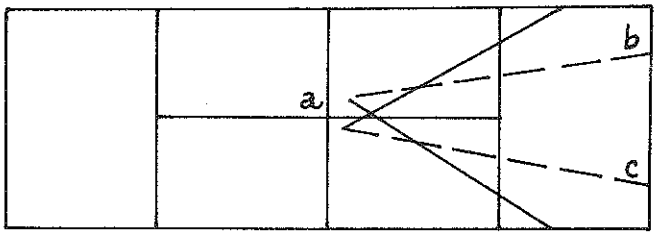
Gozzano, M.: Commpendio di psichiatria-ed. Rosenberg e Tellier, Torino, 1965
Jaspers, C.: Psicopatologia general -ed. Beta, Buenos Aires, 1955
Pozzi, U.: Agonismo e emotività nell'atleta-I° meeting AIPS, La Spezia , 1974
Pozzi, U.: Prospettive di comunicazione nel rapporto allenatore-atleta-Atti 3° Congresso mondiale ISSP, Madrid, 1973
Pozzi, U.: Introduzione allo studio dei fattori determinanti lo stato psichico di un atleta-Atti Convegno Nazionale Coni, Roma , 1977
Rohracher, H.: Elementi di caratterologia-ed. Universitarie, Firenze, 1965
Schneider, K.: Die psychopatischen Persönlichkeiten-ed.Deuticke, Wien, 1946
Venerando, A.: Psicologia e psicopatologia dello sport-in Medicina dello Sport, ed. S.E.U., Roma, 1974

INCIDENCE DE LA FATIGUE MENTALE SUR LA PERFORMANCE ATHLETIQUE: EXPERIMENTATION SUR UN GROUPE DE JOUEURS DE TENNIS

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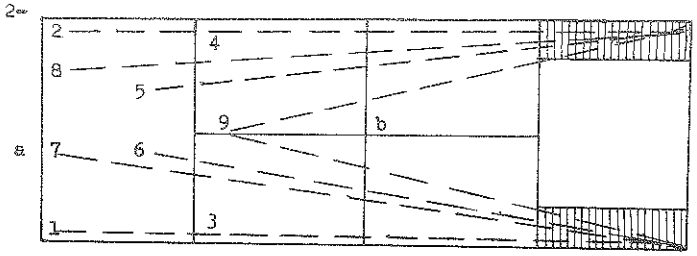
La fatigue mentale peut-elle avoir incidence sur la performance d'une épreuve sportive? La réponse paraît évidente: certainement la fatigue mentale implique des retentissements à niveau de performance, surtout lorsque la prestation athlétique exige le maximum de perfection technique et, pour cela, d'attention.
Dès cette conviction, nous avons éprouvé à recherche telle incidence sur les performances d'un group d.'étudiants-joueurs de tennis, voir une activité sportive qui exige un maximum d'automation du geste, en les soumittant à des épreuves techniques standardisées immédiatement après un travail mental suffisament engagé.
Le groupe: 24 joueurs de tennis âgés de 18 à 26 ans.

Les épreuves técniques:
I-



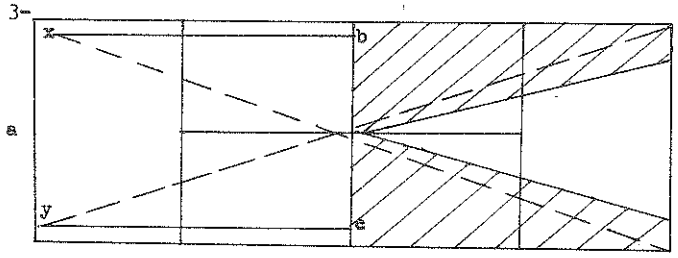
b et c tirent alternativement mais en suite très rapide 40 balles vers a qui doit exécuter des volées; temps: 50";évaluation du nombre de balles qui a ne renvoye pas exactement dans le demi-court opposé

2-



b tire vers a 30 balles selon la numeration et en la repétant 3 fois (les trois dernières balles iront à 1,2,9);du fond du court a doit renvoyer toujours au centre;temps: 1'25";évaluation du nombre de balles que a ne renvoye pas dans les coins opposés et soulignés du court.

3-



b et c tirent alternativement 15 balles chacun vers les coins x et y du court;temps:1'20";évaluation du nombre de balles qui a ne renvoye pas dans les coins opposés et soulignés du court.

Les épreuves ont été espacées par une pause de 1'30".
Les épreuves mentales:
deux problèmes mathématiques /de difficulté à niveau d'école supérieure-lycée/ à résoudre en une heure.
Méthodique:
1er jour: exécution des épreuves techniques à repos,
2e jour: exécution des épreuves techniques immédiatement après l'heure de travail mental pour la résolution des problèmes. Toutes les épreuves ont été exécutées à 9 heures du matin /2 heures après la levée/ et sur des courts couverts, c'est-à-dire dans les mêmes conditions.
Résultats et premières considérations:
le pourcentage d'erreurs est augmenté dans les épreuves du second jour, voire après le travail mental, du 16%, mais avec une distribution caractéristique, c'est-à-dire:

maximum d'augmentation pour la Ie épreuve et surtout pour les Ies 9 balles /13-14%/ et pour la 2e épreuve /9-10%/ et surtout dans la Ie série de balles, minimum /2-3%/ pour la 3e épreuve:
d'une côté, donc, un pourcentage significativement augmenté, de l'autre côté une augmentation tout à fait normale et pas significative.
Cette distribution des pourcentages d'erreurs s'explique en considérant les caractéristiques des épreuves:
la Ie exige un maximum d'attention et d'automation du geste parce que le joueur est "bombardé" des balles tirées très rapidement par deux autres joueurs: l'augmentation des erreurs dans cette épreuve et notamment pour les premières balles souligne, selon nous, une lenteur des mécanismes réfléchis; une telle lenteur s'améliore successivement à mesure que la répétition rappele le schème moteur du geste,
la 2e épreuve présente 9 variations qu'exigent une adaptation rapide qui paraît environ la moitié de la seconde série et s'améliore dans la troisième série:
l'augmentation des erreurs souligne, selon nous, une difficulté des mécanismes de concentration, compréhension, élaboration et adaptation.
Une validation de cette interprétation est donnée du fait:

1-que les joueurs qui n'avaient jamais exécutée une telle épreuve ont démontré plus de difficultés à s'adapter au rythme et même les joueurs qui avaient déjà exécutés des pareils exercices ont démontré un même pourcentage d'erreurs,
2-que le pourcentage d'erreurs a été minimum dans la troisième épreuve qui présentait seulement deux variations possibles /droit croisé ou renversé, long line/ et, pour cela, était la plus schématique.

Conclusions:

En considérant la concentration et la distribution des erreurs on peut hypotiser d'une côté que la fatigue mentale a réduit la performance initiale dans les épreuves qu'exigeaient plus d'attention, d'adaptation et d'automatisme, voir une demande nerveuse et mentale majeure et plus prompte; de l'autre côté, que l'exercice physique, dans des limites contrôlés, favorise la rédition voire l'élimination des effects de la fatigue mentale. Ces observations confirment les résultats déjà obtenus par plusieurs auteurs: mais nous retenons de les souligner encore une fois parce que croyons qui ce soient très importants dans l'école, où très souvent ces influences réciproques, tantôt favorisant et tantôt endomageant, ne sont pas considérées ou elles le sont en mesure insuffisante.

Bibliographie

Antonelli: Psicopatologia dello sport ed. scientifiche Leonardo, Roma 1964
Cerretelli: Fisiologia fel lavoro e dello sport-ed.SEU, Roma, 1973
Convegno Naz.: "Lavoro e Fatica Mentale"-Atti, Pavia, giugno 1962
Dal Monte: Il dispendio energetico nell'eta évolutiva-Riv. Medicina dello Sport, 26, 178, 1973
Magnoni: La fatica muscolare-Riv.Medicina dello sport, 27, 145, 1973
Pappenheimer: Il fattore del sonno- riv. Le Scienze, 100, 1976
Pavlov: I riflessi condizionati-ed. Boringhieri, Torino, 1970
Pozzi: Fatica mentale et orari scolastici-COSI,Brescia, 1974
Teodori: Trattato di patologia medica-ed.SEU, Roma,1974.

HELP TO THE LEARNING OF PHYSICAL-SPORTING ABILITIES AMONG CHILDREN AND TEEN-AGERS

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Psychomotor education represents an essential moment of the harmonic development, both motor and intellectual, in children and teen-agers. Picq and Vayer have long been studying the recovery of handicapped children and their educational problems.
The proper movements of psychomotor education have been long examined, too, and they can be resumed as follows:

- Coordination and eye-hand or visual-motor organisation
- Coordination and time-space organisation
- Coordination and static-dynamic organisation /equilibria and postural and motor settlements/
- Definitions of the dominances in laterality
- Definition and utilisation of the body-image.

Accepting, in the main, the importance of these definitions and organisation, on the specific plane of the introduction to a sports discipline and to the learning of its fundamental movements at the age of school and particularly between eleven and twelve, we may note two prevailing situations with regard to the fundamental aspects mentioned above.
First we often note that, introducing the execution of fundamental exercises, for instance: tackling, souplesse movements and so on, the boys are, in part, contracted and stiff, the muscles and the muscle groups which should decontract, appear, on the contrary, hypertonic or, at least, paratonic.
This is due, only in part, to the normal paratony that is characteristic of the voluntary movements at this age: generally it seems in relation, instead, with the incapacity to decontract because of tension which follows the learning /how to learn, or sting of learning that is, wish to learn quickly and better than the fellow/.
Afterwards we may note a difficulty to recognize in the globality one's own body, chiefly with relation to the static and dynamic condition, that is, difficulty of relation among the different parts one another and between these and the surrounding / space and objects/; in short, a difficulty of the body-image.
This is due to the fact that the somatognosis is not a starting factor, that is a physical or physiologic size but an acquisition that slowly develops from the child to the boy up to consolidate among eleven and thirteen.
If we stop on these two situation it is plain that, in itself, they are enough to determinate difficulties and delays in pre-sporting and sport learning of the boys an so to be an handicap for introduction to the sport as it gets easy both to the boy and, sometimes to the coach, to misunderstand this difficulty as inability or want of aptitude.
So a basic situation, that curtail the restrictive effects of this situation, helping the learning from the beginning, must be determined.
Under this point of view we have carried out some positive experiments taking in the physical-sporting education of the boy the precocious teaching of the Autogenic Training of Schultz.

The teaching is carried out starting from seven that is within the Primary School, /correct fundamentals for track race, jump, throw and reception of the rubber ball, at rest and in motion/.
The reasons for this choice are easily comprehensible and they can be so summed up and synthetized:

I - The psycho-physiologic relaxation induced by the A.T.S. represents a passive exercise that resolves the contractions and equilibrates the anxious state.

2 - The progressive and regular realisation of the A.T.S. helps and determines a more complete knowledge of one's own body and thus of the body-image and gets a better control over it.

3 - The autoconcentration effect in the relaxation supports and helps the correct learning ability.

Particularly, as we speak of boys, A.T.S. utilisation is helped by the fundamental tendency to the relaxation, when introduced at the right moment, that still exists at this age and then reduces itself progressively by interference of greater tensions and physical resistances: on this subject the fundamental experiences carried out by Luthe and Coll. at the Quebec University by applying A.T.S. in the primary school, are very significant.

The results of our experiment took place as below mentioned:

I - Reduction of the tension during pre-learning and learning.
2 - A greater capacity of attention and quick understanding.
3 - A greater precision and smoothness in the execution of movements and proposed exercises.
4 - Lower tiredness, duration and intensity of work being equal, because of decrease of the unnecessary or disproportionate movements.
5 - Acquisition of confidence and security.

The result was a reduction of the learning times and difficulties and an aid to a better propension to the theme teaching and to the training; at equal age, in completing physical movements or learning exercises, the dealt groups spent about 40% sittings less than control groups to reach a correct and relaxed execution, the same groups appeared, successively, more stimulated to continue the learning of the more specific fundamentals.
By way of hypothesis, we think, at least, that by means of A.T.S. we may overcome, from psycho-physic point of view, the simple determination of motor automatisms, to begin a real ability and, consequently, as much consciously modificable motor programming, also in the moment in which it is carried out. We predispose, thus of an excellent /or more than good/ condition to realize a conscious representation of the successive actions of the exercise, in relation with the situation and the execution conditions.
In the conclusion, we think that the facilitation possibility of the physical-sports learning enabled by the precocious introduction of A.T.S. is not a negligible element in order to promote physical-sporting education among boys and teenagers.
An adequate physical-sporting education, beyond the agonistic simple finalities, is, by itself, an important leading finality in an age in which the hypokinetic desease tends, more and more, to spread.

Bibliography

1) Antonelli, F., Psicologia e Psicopatologia dello Sport Ed. Leonardo, Roma, 1964

2) Calderaro, G., Il Training Autogeno di Schultz nello Sport. - Meeting AIPS La Spezia, 1974

3) Invernici, A., Metodologia e Didattica dell´Educazione Fisica e Sportiva. Ed. La Scuola - Brescia, 1968

4) Luthe W. & Coll. Application of Autogenic Training in Elementary School Centre de Developpement en Environnement Scolaire, Université du Quebec a Trois Rivieres, 1975

5) Picq L, - Vayer, P., Educazione Psicomotoria e Ritardo Mentale Ed. Armando, Roma, 1969

6) Pozzi, U. - Calimeri, G., Per una psicopedagogia dell´Educazione Fisico-sportiva, Atti Conferenza Scient. Internazionale di Varna (Bulgaria), 1973

7) Pozzi, U. - Calimeri, G., Preparazione remota quale presupposto allo sport per tutti. Rivista Medicina dello Sport, vol. 27, No 8 pagg. 303-307, 1974.

8) Schultz, J.G., Il Training Autogeno Ed. Feltrinelli, Milano, 1971

9) Wollon, H., De l´acte à la pensée. Ed. Flammarion, Paris, 1942

10) Vayer, P., Le dialogue corporel Ed. Dion, Paris, 1971

SOME SOCIAL ASPECTS OF SPORT

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Man´s bodily development and his psychic maturation are positively influenced, if not quite directly determined, by sporting activity because on one side it is reached to a perfection and precision of the movements and to harmonious structure of muscular masses, on the other side the individual joins the acquisitions of his personological identity and the certainty of his own self. Sport in fact, by means of continous training puts man to the test exhorting him to draw out his best, and stimulating him to refine his motor cleverness, to improve the control of the several parts of his body, to overcome with resistence and will power the mental barrier of his limits or such presumed, contributes to satisfy those basic psychic necessities of security and critical self-valuation that take part potently to his forming and realization.

Acquisition of this new condition determines the passage from the individual to the group as moment of pursuit of a clearer self-definition and of realization and affirmation of one's own personality in the comparison with the others i.e. against the others or with the others i.e. together with other individuals driven by equal purposes and aiming at pursuing them with similar means, causing thus a reciprocal incentive to each one's efficiency improvement.
For these reasons it would be necessary, to our mind, that practising sports activity would be considered as an essential constituent able to mould the psycho-physical identity of everybody, i.e. it should be a constant practice, just because highly formative, at first of the whole youth and then of grown up people, on one side as moment of meditation about themselves and on the other side as revalueing stimulus towards exterior reality.
In the present modern society such deep sport's worths and significances are sometimes confused and changed in consequence of contingent situations and exigences.
From this point of view we have certainly to insert the economic and technological transformations that on one side have improved life conditions of mankind, but on the other side have also created some problems and dangers for health and psychic equilibrium; in fact it is necessary to emphasize that:

a) evolution of industrial processes requires a new kind of ability and skill but also, often, a fragmentary and monotonous job and a remarkable nervous strain;

b) industrialization process stretches into urban areas, giving rise in its turn to considerable changes of the environment and the way of life: estrangement from nature and respective urbanization, estrangement from surrounding and from domestic traditions, influence of the civilization of consumings, anonymity of society of mass;

c) the free time at everybody's disposal seems to increase but parallely there is also an increase of the amusements that require a passive presence or quite cause alienation from social problematic by stopping the possibility of development of personal and social ideas and enterprises.

At this level therefore sport acquires often quite unnatural meanings as way of flight from reality instead of penetration into it, as went to one's neurosis or as therapy of these often in heavy and inadequate doses rather than as a structuring moment of a personality that is mature and psychologically sound - i.e. able to face the reality without, on the contrary, suffering it - , as research of that personological identity perhaps lost or perhaps never really possessed, torn with the contrast of a plurality and heterogeneity of exterior stimuli that, lacking the adequate psychophysic substratum, instead of enriching it, depauperate and discourage it.
We may find another aspect /that is very diffused too in the deformation of meanings of sport to terms that depreciate and transfigure the fundamental worths of it) in that phenomenon which, though showing itself in manifold forms, may be resumed with the term of professionalism which implies every condition that, by means of sport, lets everybody gain a profit, whatever may be the kind, also a modification of the own role in front of oneself as well as in front of the whole society.
In this way the educational purpose of sport not only falls, but, moreover, also its function of development at every level and its maturing aim fall since it becomes an instrument of another purpose and so sectorial, alienator, element for top people only.

In this way, in fact, own personality's affirmation, natural necessity and goal of an individual that is realized, does not become a way of existing but only a way of being that exhausts itself at the end of the agonistic activity. In fact, it cannot be forgotten the substantial difference between "to be" and "to exist": as well Pozzi emphasized in one of his works, "to exist does not mean only to be, but to be in the world", i.e. to be in the own full identity, in the own spirituality, in the putting into action of own self, in its omnicomprehensive and not sectorial realization.

In light of these simple considerations, it seems today necessary that sport, started like discipline of a few people, becomes cultural phenomenon of large extent, opened therefore to everybody, and reaffirms nowadays its role uf studying subject, of formative criterion, of fundamental element of the education and development of every man.

In conclusion we consider that it is necessary to remeditate the social and cultural modalities which we propose sport to young people with. because modalities today employed only apparently are different from the criticized ones: in reality, in our mind,they repeat only with other words the same concept of élite and deism and,therefore, of a sport instrumentalized to the prestige and in reality margining for the mass. In these conditions we do nothing but repeat the already above mentioned, i.e. to predetermine by means of sport a flight from reality.

At this point it might get into another aspect that cannot be omitted, and it is the aspect of freedom: a sport that is conditioned to the above mentioned purposes, nor allows a freedom of choice nor allows a choice of freedom.

Bibliography

Antonelli, F., Psicologia e psicopatologia dello Sport Ed. Leonardo - Roma 1964

Danziger La Socializzazione - Ed. Molino, Bológna, 1972

Guidicini Problemi di sociologia urbana - Ed. La Scucla, Brescia 1972

Laloup, J. Il tempo dell' ozio - Ed. SEI, Torino, 1966

Magnane, G., Sociologia dello sport - Ed. La Scuola, Brescia, 1972

Ortega y Gasset Le Spettatore, vol. 2° - Ed. Bomniani, Milano, 1969

Picq L. Vayer P. Educazione psicomotoria e ritardo mentale , Ed. Armando, Roma, 1969

Pozzi, U., La malattia psicosomatica come sofferenza esistenziale - Relazione al 2° Congresso Internazionale CISSPAT, Jesolo, 6-8 Maggio 1977

Pozzi, U. Calimeri, G., Per una psicopedagogia dell' educazione fisico-sportiva, Atti Conferenza Scientifica Internazionale di Varna /Bulgaria/ 1973

Regazzoli, T. - Pozzi, U., Calimeri, G., Ruolo delle aspettative professionali e della scala di valori individuale all' interno di un gruppo sportivo non professionistico. International Journal of Sport Psychology vol. 6, N. 3 - 1975

Vayer, P., Le Dialogue Corporél - Ed. Dion, Paris, 1971

DIE KOHÄRENZ UNTER GEWISSEN PERSONENMERKMALEN AM GEBIET DER PSYCHISCHEN STABILITÄT

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Die psychische Stabilität -abhängig von externen Wirkungen- ist im Grunde genommen immer von internen Faktoren festgelegt. Diese sind erstens in Personenmerkmalen und in Verhaltensformen determiniert. Die Feststellung deren, ob welche Personenmerkmalen das repräsentieren, ist ein fast unlösbares Problem,

- weil erstens es notwendig wäre, alle Personenzüge und organische Faktoren genau zu messen, vielmehr: longitudinal zu registrieren
- weil unsere gegenwärtigen Verfahrungsweisen sich als unzureichend erweisen.

Wir haben ja vielerlei solche Züge, wofür wir doch keine Messtechnik haben. Unsere vorhandene Testbatterie ist aber eine -überwiegend aus dem Requisitenlager der klinischen Psychologie ohne jede nötige Adaptierung und Standardisierung genommene- Methode, im wesentlichen
also Methode, die eigentlich inadaequat benützt wird.

Der obigen wegen müssen wir uns zur Zeit mit kleinen, atomistischen Prüfexperimenten begnügen, die für einige spätere integrative Prüfexperimente mit weiter Produktionsfläche nützlich sein können.

Solcheine von dieser Partialexperimente habe ich mitmeinen Wasserballspielern durchgeführt. (N=17, Durchschnittsalter von 16,59 Jahren).

Es diente zur sicheren Basis,

- dass eine von meiner geprüften Mannschaften seit 4 Jahren zusammenarbeitete
- dass meine Spieler allein von mir erzogen wurden
- dass bei Analysen getrost auf die Erfahtungen von meinen 17jährigen Trainerschaften basieren konnte
- dass für die Abklärung meiner Subjektivität ich die Kontrolle einer Kommission von Sportspezialisten benützen konnte.

Von der Praxis her strebte ich der Theorie zu. In meinem Fall war die Einheit der Theorie und der Praxis gesichert.

Eine von meinen trainerschen Beobachtungen ist -also von Seite der Praxis- dass der einbildungsreiche, kreativ-denkartige Sportler sich mehr labil verhält:

1) Er ist weniger zuverlässig, unsicherer, als ein Durchschnittspieler, weil sich seine Leistung sehr und oft ändert
2) Er toleriert das Startfieber schwerlich, die Reizschwelle seiner Gefühle liegt viel niedriger, er ist durch rasches Reagieren gekennzeichnet. Er ist einbilderischer, sensitiver und im allgemeinen ängstlicher, furchtsammer, als seine Gefährten von niedriger Kreativität.

Um diese Erfahrungen zu prüfen und zu beweisen, habe ich die Leistung gemessen, welche die Spieler in verschiedenem Masse kritischen Situationen dargeboten

haben. Der Leistungsunterschied charakterisierte die Verlässlichkeit der Personen. D.h. : je kleiner der Leistungsunterschied war, desto stabiler sich der Spieler erwies. So wurde die hier erlangte Rangordnung zum Massstab der Verlässlichkeit.

Um die Leistungsdifferenz zu bestimmen, habe ich in zwei Relationen, in je 2-2 Situationen die Leistung verglichen.
Die Ermessungen wurden mit grosser Assistenz aufgenommen.

Erste Relation: da habe ich den Leistungsunterschied in zwei wichtigsten Situationen der Sportart gemessen: an achtzehn Meisterschafts- und an achtzehn Trainingspielen die offensive Leistung.

Wer und wievielmal solche Aufgabe unternommen hat, was für eine, in Grade der Schwierigkeiten, zur Durchführung solcher wievielmal gezwungen war, auf welcher Art sie durchführte und wie währenddessen sein Verhalten war.

Zweite meine Relation: in drei technischen Lösungen, im Torschuss stellte ich pro Person die Leistungsdifferenz in der Prüfungssituation, beziehungsweise in Übungssituation fest.
Meine -da- optimal motivierten Spieler führten die Übungen immer an den Trainingе aus.

Der Leistungsunterschied pro Person ermöglichte die Stufung einer Hierarchie. Die Kreativität der Spieler habe ich -nach M. Tyson, Guilford, Barkóczi-Klein und Salamon - in den Viereck-zusammengestellt und in der Verwendung der Figuren (z.B. Verwendung der Ringe in Papier-Bleistift-Test) getestet. Davon habe ich folgende drei Komponenten verwertet: fluency, flexibility und originality.

Auf Grund von kontinuierlichen psychologischen Beobachtungen, praktischen Erfahrungen und der Anamnese mit weiter Produktionsfläche habe ich genügend von Informationen pro Person für Typ des Startfiebers, fürs Niveau der Gefühle, für Sensitivitätsgrad und für Niveau der Einbildung (d.h.: spontane Sinnes-vorstellungs-Strömung, die nur teilweise von Bewusstsein kontrolliert wird) erhalten. Damit konnte ich die Spieler differenzieren.

In Bezug auf Einbildungsniveau und Kreativität habe ich auch Zeittaxation geprüft, und zwar

- in einer Situation von indirekten Interessiertheit (wobei der Spieler beim Wettkampf der ihm gehörigen Mannschaft, als Zuschauer Zeit abschätzte),
- respektive, als die Spieler die Zeitdauer in reizkarger Situation abschätzten.

Anxietas-Furchtniveau habe ich mit dem MMPI-TAylor Test gemessen und verglich meine Resultate mit meinen psychologischen Beobachtungen. All dies bearbeitete ich mit der Korrelationsrechnung von Spearman.

Für die Gesamtheit der Mannschaften ist zur Gewissheit geworden, dass der Durchschnitt der Wettkampfleistungen der Spieler, an Meisterschaftsspielen niedriger als an Trainingspielen ist. (Wertproportionalität = 508,8 : 384,9 2,51 $p < 0,05$).
Die Durchschnittleistung ist zur einfachen Übungslage ins Verhältniss gestellt, auch in Examensituation stark verdorben. (0,778 $p < 0,001$).

Die Rangordnung der auf Grund der zwei Prüfungen festgesetzten pro Person Leistungsdifferenz verglich ich zu der in Kreativität erreichten Rangordnung.

Das Resultat der Relation bewies, dass kreativere Personen in kritischeren Situationen eine niedrigere Leistung gewähren. Die Leistung in kritischeren Situationen korreliert sozusagen in vernachlässiger Weise niedrig mit der Kreativität der Person ($r' = 0{,}1226$).

Die Rangordnung der Schätzung in reizkarger Situation stellte ich auch der Rangordnung der Kreativität gegenüber. Es scheint so, dass man zwischen den zwei Stufenfolgen keinen Zusammenhang findet. ($r' = 0{,}027$).

Die Zuverlässigkeit der Spieler und ihr Anxietasniveau stehen hingegen in enger Beziehung zueinander ($r' = 0{,}608$).

Die Meinungen des Fachausschusses und der Spieler standen überwiegend in Einklang mit dem Resultat meiner Beobachtungen, d.h. die jede Gegenüberstellungen der Wertabstufungen zeigten -leider- deutlich, dass nicht der stabilste Spieler der nützlichste und erfolgreichste war. ($r' = 0{,}201$).

Die Auswertung der Ergebnisse zeigt, dass in meiner Population die Kreativen, die auch sehr viel phantasieren, in kritischeren Situaticnen - in Vergleich zu ihrer Fähigkeiten - durchschnittlich niedrigere Leistungen erfüllen. Gesammthaft sind sie aber nicht die Letzten! Zwischen Zeitschätzen und Kreativität fand ich keinen Zusammenhang. Die Furcht der Kreativen ist im wesentlichen grösser, als diejenige der stabile Sportler.

Die in Sportleistung dargebotene Labilität ist mit der Labilität des Nervensystems und Personalität selbstverständlich nicht identisch, auch nicht aequivalent, ist jedoch deren bedeutender Faktor. Die Zahl der labilen Personen ist im Spitzensport sehr hoch. Mit jener Persönlichkeit zu beschäftigen, ist nunmehr auch ihrer Anzahl wegen zu begründet. In meiner 17köpfigen Gruppe erkannte ich 7 Spieler für labil an, der 8 Stabilen gegenüber.

Endlich will ich noch einige Beobachtungen erwähnen. Einer von meinen labilpsychischen Spielern mied womöglich die offensiven Aufgaben... (die Zuverlässigkeitsnummer: 16, Nützlichkeitsrangnummer: 3!) präferierend die viel kritischeren, deffensiv-Aufgaben. Sein ausgereifter und mentalisch gut bearbeiteter Standpunkt war folgender: er im allgemeinen wagte sich bei der Vollführung das eventuelle Risiko einer offensiven Aktion, eines Fehlschusses nicht eingehen. Er dachte viel mehr, in Verteidigungsposition erfolgreicher sein, er fürchtete nicht dafür, dass die Aktionsmöglichkeit erst selten ihm gehört, weil er seiner Fühlung nach, für seine Mannschaft immer alles mögliche wird tun können. Am defensiven Aufgabengebiet fühlte er wenigere Verantwortlichkeit, als am offensiven!!! Obwohl seine Fähigkeiten zu beiden Gebieten vorhanden waren. Sein Standpunkt aber war exceptionell.

Für meine weiteren labilen Spieler war hingegen bezeichnend, dass sie die ihr Leistungsniveau anscheinend überstiegende Aufgaben präferieren, die Aufgaben jedoch deren Leistungsniveau entsprechend oder unterliegend sind, im allgemeinen ablehnen.

Unter meinen 8 stabilen Spielern fand ich 2, die dem Niveau unterliegende Aufgaben nicht gern übernehmen.

Aufgaben von überhohem Niveau nehmen sie gewöhnlich an, Aufgaben aber von entsprechendem Niveau im allgemeinen nehmen sie gern über.

Im Standhalten bei kritischen Situationen zeigte sich keine Differenz unter Personen mit stabilen und labilen Leistungen.

Im Hintergrund dieser Relationen wirken immer die Kohärenz des Leistungs- und Anspruchsniveau, Dependenz, der Erfolgsorientiertheit, der misserfolgvermeidenden Tendenz, innere-äussere Kontroll... usw.

Der Entfaltung der psychischen stabilität schreibe ich die entscheidende Rolle der Verhältnisse von Gravidität bis ungefähr 4.te Lebensjahr zu. Im Laufe meiner Anamnese fand ich, dass in der Rangordnung der Zuverlässigkeit unter den letzten 7 Spielern fünf gewesen sind, die in frühsten Kinderjahren dauernde Traumatisiertheit gehabt haben. In dieser Rangordnung bei 4 von an ersten 5 Plätzen stehenden, erscheint die Mutter-Säugling -Symbiose in der Frühkindheit als wahrscheinlich ungestört zu sein.

Ohne, hier mit der Herkunft der labilen psychischen Konstitution zu beschäftigen, ist es angezeigt festzustellen, dass die bis zu frühesten Zeiten zurückgreifende Klarlegung der Vorgeschichte, der Antezedenzen, für den Sportpsycholog ebenso, wie den Trainer, ein Primärbedürfniss ist.
Der Anlass eines jeden unerwarteten Misserfolges ist gesetzmässig auf dem Gebiet der Psychischen zu suchen.

SPORT MIT BEHINDERTEN UND SONDERPÄDAGOGISCHEN GRUPPEN - EIN NEUES AUFGABENFELD DER SPORTPSYCHOLOGIE

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Überblicke und Zielstellung

Der in den letzten Jahren zu verfolgende Prozess, den Sport mit neuen Möglichkeiten in immer neue Lebensbereiche zu tragen, neue Teilnehmergruppen zu erschliessen und zu motivieren, hat auch die Lebens- und Lernumwelt der behinderten Menschen verstärkt erfasst. Der Sammelbegriff "sonderpädagogische Gruppen" will alle jene Gruppen umfassen, die erst durch eine vertiefte Pädagogik einen wirksameren Betreuungs-, Erziehungs- oder Veränderungseffekt erfahren. Auf der Basis von je unterschiedlichen Sonderbedingungen, die etwa den Rekonvaleszenten, den Krankenhauspatienten, den Strafgefangenen, den geistig Behinderten, den Körperbehinderten, den Sonderschüler und Mehr - fachbehinderten charakterisieren, werden auch andere Erlebnis- und Verhaltensweisen wirksam. Sie schliessen psychologisch und sportpsychologisch relevante Fragen mit ein wie jene der Erfahrungsbildung, der psychomotorischen Wechselwirkung, der Einstellungsänderung, des Zusammenhangs von Intelligenz und Motorik im Frühkindesalter, des Aktivitätsniveaus und seiner Beeinflussung, der Gruppendynamik, der Gesundheitsstabilisierung und der positiven Veränderung der Lebensqualität- und Lebensbewältigung.

Wir können nicht global vom Behinderten sprechen, sondern müssen die grosse Zahl und die Sonderumstände von Gruppen sowie den Ausprägungsgrad der Behinderung eines Individuums beachten.

Das angedeutete Forschungsfeld wurde bisher von der Sportpsychologie kaum aufgegriffen, sondern mehr aus rein psychologischer, pädagogischer oder therapeutisch-medizinischer Sicht gesehen. Der Gedanke wirkt aber bestechend, dass die mit Akribie im Hochleistungssport ausgearbeiteten Trainingspläne, die Kenntnisse über psychologische Stabilisierung des Sportlers und die differenzierten Analysen aus der Sportmotorik mit ähnlicher Intensität und modifiziert auf den Behindertenbereich übertragen werden könnten.

Fassen wir den sonderpädagogischen Bereich so weit, dass auch der motorisch leistungsschwache Schüler mit einbezogen wird (LUTTER 1976), dann treten wesentliche humane und anthropologische Dimensionen noch mehr in den Vordergrund.

Welchen Sonderbedingungen unterliegen Behinderte?

Es scheint, dass über alle Gesellschaftsordnungen hinweg vielfach ganz persönliche Bedingungen der Isolation, der Entmutigung, der Lebensphilosophie, der Minderwertigkeitsgefühle, des Misstrauens und der Depression vorliegen. Die Verarbeitung von Einschränkungen und Nachteilen, die durch die Behinderung gegeben sind, gegenüber der Norm gelingt nur teilweise, mühsam oder gar nicht und häufig begegnet ein regressives Verhalten, das die eigenen Möglichkeiten gerade im Bereich der Psychomotorik weitaus tiefer einschätzt und deshalb so realisiert, als es objektiv notwendig wäre.

Die aufgetretene Differenz eines Ist- zu einem möglichen Sollzustand zu vermindern, dies ist das Ziel aller Förderungsmassnahmen. Die vermeintliche oder wirkliche soziale Dissonanz zur Durchschnittsbevölkerung zu überwinden ist ein Anfang der Einwirkung, die auf Verhaltensänderung im weitestens Sinne zielt.

Sie sollte zu einer realistischen Einschätzung eigener Möglichkeiten führen, zu einer Ausweitung des fast immer eingeschränkten Aktions- und Handlungsspielraums, aber auch zu einer Annahme von irreversiblen Einschränkungen ohne zwangsläufige Verminderung des Lebensgefühls.
Das Mittel des Sports dafür heisst nicht Gesprächstherapie, Verhaltenstherapie oder Kontemplation, sondern Aktivität, Steigerung des Antriebs, Kommunikation, Erfolg und Befriedigung durch sichtbare Ergebnisse eigenen körperlichmotorischen Bemühens. Der Sport soll die einzelnen Stationen des Behinderten begleiten und führt also von

a) der Sporttherapie im klinischen Bereich
b) zur Sportbehandlung im ambulanten und schliesslich
c) zum Sport als Freizeit- oder Leistungssport.

Somit ist auch das Spektrum definiert, in dem sportpsychologische Betreuung, Beratung und Forschung stattfinden muss.

Zum Verhalten Behinderter gehört, dass sie den Bewegungsfachmann und Sportpsychologen nicht rufen. Wir können nur über Eigeninitiative mittels Institutionen, Kliniken, Schulen, Rehabilitationszentren und den Behinderten-Sportverband an diese Adressaten herankommen. Am Anfang stehen aber eher Misstrauen, vorbehalte oder Scheu gegenüber Neuem, das die eingeschliffenen Lebensablaufsformen beeinflussen will. Das Anfangsproblem ist also jenes der Kommunikation, der Kontaktauf-

nahme und -pflege, des persönlichen Bezugs, wobei die aktivere Rolle dem Nicht - Behinderten zufällt.

Möglichkeiten und Aufgaben des Sportpsychologen

Zusammengefasst bestehen sie in

1. der Erfassung psychologischer Determinanten zur Lage des Behinderten, im Verstehen von und dem Abbau von stereotypen Verhaltensweisen,

2. in der Aufklärung des Sports generell und der Öffentlichkeit über Sonderbedingungen von Behindertengruppen. Im Bemühen, die mannigfaltigen Probleme der Lebensumstände Behinderter kennenzulernen und für sachgerechte Hilfe zu sorgen,

3. in der Erarbeitung diagnostischer und prognostischer Verfahren über psychomotorische Fähigkeiten, Fertigkeiten und Handlungsweisen,

4. in der Erstellung von Therapie- und Übungsprogrammen zusammen mit den Sportexperten des jeweiligen Sondergebietes,

5. in mittel- und langzeitigen Forschungen zur Überprüfung der Effektivität von Sportprogrammen und ihrer Weiterentwicklung,

6. in der Mitarbeit an der Grundlagenforschung über Ätiologie, Koordination, neuromuskuläre Prozesse, Kompensationsmöglichkeiten sowie in der Beratung.

Die forschungskonzeptionelle und organisatorische und auch sportpolitische Initiative kann dabei nicht ausgeschlossen bleiben.

Weitere Aufgaben, wo der Sportpsychologe mehr als Helfer mitwirkt, sind die Ausbildung von Übungsleitern und Fachkräften für den Behindertensport, der Bau behindertengerechter Übungsstätten und Geräte, die Erschliessung und Modifikation von Sportarten. Um jene Fragestellungen herauszufinden, die am unmittelbarsten bearbeitet werden müssen, weil sie die brennenden Probleme dieser Gruppe und existentielle Fragen berühren, müssen wir von der sozialpsychologischen Basis ausgehen. Gegenüber Fragen der Befindlichkeit, des Wohlbefindens und der Motivation, der Bewältigung kurzzeitiger Probleme mit situativen Bedingungen treten also solche der Persönlichkeits- und Leistungspsychologie zurück. Ich möchte mich auf 3 Beispiele konzentrieren:

1. Die Lage Behinderter ist durch Defizite, dadurch grössere Bedürfnisspannen und häufig einen labilen Gesundheitszustand gekennzeichnet. Die Verordnung von Sport und Bewegung als ärztlichem Heilmittel ist daher weniger wirksam und die Trainingswirkung immer wieder rückgängig. Die Motivation von Erwachsenen zu einer Daueraktivität erweist sich als schwierig und bedarf ständiger Anstösse. In Gruppen erfasste Behinderte aus Schule, Klinik, Verein sowie der Nachbehandlung sind jene mit dem grösseren Antrieb, die deshalb auch im Sport Fortschritte machen und eine befriedigende Entwicklungsprognose erhalten können. Sobald der organisierte Sport aber aufhört, ist auch die sportliche Aktivität grossteils vorbei. Grösser als die organisierte Gruppe ist die Millionengruppe der nicht erfassten und Erfassbaren. Deshalb muss die Sportpsychologie sich um motivationsfördernde Erklärungen und Leitsätze bemühen, um Begründungen, und so die Zusammenhänge von Bewegung - Gesundheit - Langzeiteinwirkung und Wohlbefinden plausibel machen: Werbepsychologie! Die spätere organisatorische Umsetzung kann sie

freilich nicht leisten. Behindertensport, in steter Rückkoppelung mit dem Mediziner, darf nicht begründet sein als Rezept und Auflage des Arztes, um die Gesundheit bis zu jener Schwelle zu steigern, die den Eintritt oder Wiedereintritt in den Arbeitsprozess garantiert. Ziel muss vielmehr die mögliche Wirkung des Sports auf das Wohlbefinden und zur Steigerung der Lebensqualität sein, als Entspannung, Muse, Freude, Selbst- und Körpererfahrung, Erholung. Dies erfordert neue Bewusstseins- und Erfahrungsprozesse beim Behinderten, die behutsam aufgebaut werden müssen. Die oft naheliegenden Aufgaben sind freilich of dominant-therapeutischer Art, nämlich, verlorene Funktionen wieder zu erlangen, zu kompensieren, Funktionen zu erhalten und zu verbessern oder die vor einer Krankheit oder Behinderung vorhandene Leistungshöhe wieder zu erreichen. Der Sportpsychologe wäre aber auch hier in der Lage, eine Wertskala von sportlichen Betätigungen zu präsentieren, die dabei zu erwartende Erlebnisskala auf die Belastungsabstufung abzustimmen und ein ganzes System von Verstärkungen, Gesprächs- und Motivationshilfen in Gang zu setzen.

2. Die Ausarbeitung spezifischer psychomotorischer Tests für bestimmte Behinderungsformen ist über ein Anfangsstadium noch nicht hinaus gekommen. Abgesehen von der Schwierigkeit prognostischer Ziele ist auch der Istzustand durch eine punktuelle Diagnose schwer zu erfassen und zu beschreiben, da häufig Mehrfachbehinderungen und überlagernde motivationale und kognitive Einschränkungen unüberwindbare Grenzen sehen. Nach wie vor werden Test-Ergebnisse aber zu wenig von der individuellen Entwicklungsgeschichte her gesehen mit ihren psychomotorischen Individuations- und Sozialisationsbedingungen, werden Ereignisse und Lernbedingungen zu wenig hinterfragt und damit die Dynamik des Entwicklungsprozesses, bezogen auf das Lebensalter, vernachlässigt. MORRIS und WHITING haben 1971 Tests beschrieben und es ist bekannt, dass die Psychometriker und Testkonstrukteure seit langer Zeit an diesem Problem mit wechselndem Erfolg arbeiten, - allerdings noch nicht unter ausreichender Beteiligung der Sportpsychologen. Die Kenntnis der Lernvorgänge bei sinnes- oder geistigbehinderten Kindern etwa oder die Kompensationsbewegungen von körperbehinderten Kindern - ich denke an Dysmelie-Kinder - eröffnen ein weites Spezialfeld, das Rückwirkungen auf die Grundlagenforschung und eine bessere Kenntnis psychomotorischer Lernvorgänge eröffnen könnte.

3. Damit komme ich zum entscheidenden Ansatzpunkt eines mittel- und langfristigen Forschungskonzeptes, um in den nächsten 10 Jahren etwas mehr in dieses emotionsbesetzte Gebiet eindringen zu können. Solche Langzeitplanungen, dies wissen wir aus der über 10jährigen Entwicklung von ISSP und FEPSAC, sind kaum zentral, nur mit Einschränkungen national und auch sehr schwer universitäts- oder institutsintern zu verwirklichen. Also sind die grossen Kongresse das Forum, wo sich durch gleiche Interessenrichtungen verbundene Sportpsychologen aus der ganzen Welt treffen können, um ihre Ergebnisse auszutauschen. Der Kongressbericht von KENYON 1970 enthält ein Kapitel über das atypische Kind, jener des olympischen Kongresses von München über Bewegungserziehung mit geistig behinderten Kindern. Die speziell sportpsychologischen Ansatze fehlen aber.

Forschungsplanungen sind, wenn sie Aussicht auf relevante Ergebnisse haben wollen, im Kontext zu jenen anderen Disziplinen, meines Erachtens in folgender Richtung nötig:

a) Längsschnittstudien. Nur mehrere Mess- und Beobachtungszeitpunkte lassen die interne Dynamik von Einstellungen und Motiven erkennen, von Lernprozessen und Veränderungen. Die Ursachen von möglichen Veränderungen müssten dann weniger nur vermutet werden, sie liessen wenigstens parallele Schlüsse auf gleichgelagerte Fälle zu.

b) "Übungsprogramme" heisst das Zauberwort des Behindertensports. Infolge zu wenig reflektierter Inhalte sind diese oft rein praxeologisch und rein zufällig. Die Effektivitätsüberprüfung hat aber nicht nur 2 Messpunkte motorischer Fertigkeiten zu vergleichen, eine Fülle von Verhaltensvariablen und situativer Bedingungen gehen mit ein. Die Arbeit beginnt deshalb schon bei der Erstellung von 3- 40wöchigen durchgeplanten Anwendungsvorlagen von Sport - Spiel und Bewegung.

c) Arbeiten zur besseren Kenntnis der psychologischen Umstände einzelner Behinderungsbilder. Notwendig wäre eine Spezialisierung einzelner Forscher auf 5 - 10 Jahre, um über die Probleme etwa bei "minimalen cerebralen Dysfunktionen, bei Querschnittgelähmten, Spastikern oder Lernbehinderten" bessere Daten zu erhalten.

d) Untersuchungen auf breiter Basis über das Erleben und Verhalten der Betroffenen, ihre Ängste, Befürchtungen und Vorbehalte, etwa in der breit angelaufenen Rehabilitation von Herz-Kreislauf Patienten. Befragungen und Interviews von Behinderten, Betreuungspersonen und Sportfachleuten werden eine bessere Basis für synoptische Planungen ergeben.

Wenn ich die vorliegende umfangreiche Literatur, die Aktivitäten zum Behindertenproblem, zu den sonderpädagogischen und Randgruppen überblicke, zeigen sich in vielen Ländern beachtenswerte Anstrengungen, mit der sportlichen Betreuung von Sondergruppen voranzukommen. Mannigfaltige Erfahrungen aber sind noch ungeschrieben und neue müssen gemacht werden. Der Austausch etwa von wissenschaftlichen Projektberichten und Informationen über Modellmassnahmen und Aktivitäten über die Grenzen hinweg steht erst am Anfang.
Behindertensport ist noch weniger als im Freizeit- und Leistungssport eine schöne, aber eigentlich entbehrliche Nebensache. Notwendig ist, dass noch sehr viel mehr Sportpsychologen ihr Wissen in dieses Gebiet einbringen. Das sportpsychologische Defizit im Bereich der Behinderten und Benachteiligten muss sobald als möglich abgebaut werden.

Literatur

Cratty, B.J.: Motor Activity and the Education of Retardates. Philadelphia 1969.

Eggert, D. u. Kiphard, E.J.: Die Bedeutung der Motorik für die Entwicklung normaler und behinderter Kinder. Schorndorf 1972.

Grupe, O. et.al.: Sport in unserer Welt - Chancen und Probleme. Berlin, Heidelberg, New York 1973.

Kenyon, G.S. and Grogg, T.N. (Eds.): Contemporary Psychology of Sport. Proceedings of the 2nd International Congress of Sport Psychology, Washington 1968, Chicago 1970.

Morris, P.R. u. Whiting, H.T.A.: Motor Impairment and Compensatory Education. London 1971.

Heese, G.(Hrsg.):Rehabilitation Behinderter durch Förderung der Motorik. Berlin 1975.

Rieder, H.: Sport als Therapie. Berlin 1977 ^{2}.

Rieder, H./Buttendorf, TH./Rolf, G./Witt, H.: Sport. In "Freizeit und Behinderung" (Hrsg.) H.P. TEWS, Stuttgart 1976, 114 - 145.

Rarick, G.L./Dobbins, F.H./Broadhead, G.D.: The Motor Domain and its Correlates in Educationally Handicapped Children. Englewood Cliffs 1976.

Simri, U.(Ed.): Sport as a Means of Rehabilitation. Netanya 1971.

Tews, H.P.: Freizeit und Behinderung. Schriftenreihe des Bundesministers für Jugend, Familie und Gesundheit, Bd. 47, Stuttgart 1976.

Mellerowicz, H. u. Meller, W.: Training. Berlin, Heidelberg, New York 1972.

Lutter, H.: Der leistungsschwache Schüler im Schulsport. In RAUSCH, E. (Hrsg.), Orthopädie und Sport, Bruchsal 1977, 323 - 330.

SOZIALIZATIONSMÖGLICHKEITEN DURCH DIE NEUE SPORTART VOLTIGIEREN

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1. Sozialisation und Sport. Sportgruppen können aus sozialpsychologischer Sicht auch als eine aufeinanderbezogene Anzahl sozialer Rollen beschrieben werden. In jeder Rolle werden primär Fertigkeiten und Fähigkeiten der betreffenden Sportart verlangt, sodann die Kenntnis ihrer Regeln, Normen und Techniken sowie eine Motivationsstruktur und Leistungsbereitschaft (Heinemann 1976, 4). In den Mannschaftssportarten wird Leistungsfähigkeit dem gemeinsamen Ziel ein- und untergeordnet. Versteht man unter Sozialisation einen lebenslangen Prozess, in dem Orientierungsmuster und Fähigkeiten erworben werden, in sozialen Situationen sinnvoll zu handeln und eigene Vorstellungen, Meinungen und Erwartungen mit jenen anderer Personen zu verbinden, so sind gerade Lernmöglichkeiten im Kindes- und Jugendalter dafür wichtig. Im Sport lassen sich Muster sozialen Verhaltens und der Kommunikation vorüben. Sozialisation und Persönlichkeitsentwicklung greifen ja eng ineinander und die Möglichkeit wächst, wie im Kinderspiel generell soziale Beziehungen und Wertgeltungen in einer Sportart zu üben und zu erproben (Cachay-Kleindienst 1976; Örter 1971). Bei der Bedeutsamkeit, die eine Sportart für hochmotivierte Kinder haben kann und in der sie ihre Bezugspersonen und Bezugsgruppe finden, handelt es sich um keine nebensächlichen Vorgänge. Mir scheint, dass die Wichtigkeit und Bedeutung einer Sportgruppe, die zur Bezugsgruppe gewählt wurde, unterschätzt wird, wenn wir uns den Eifer und das Engagment vergegenwärtigen, die der Sportart eine ausserordentliche persönliche Wichtigkeit verleihen und lange Bindungen über die aktive Zeit hinaus bewirken.

Die besondere Attraktion des Voltigierens ist für die Kinder das Pferd. Die Tierliebe und beinahe - Verrücktheit auf Pferde, vor allem bei Mädchen, ist eines der tragenden Motive für diese Sportart, weswegen gerne Verpflichtungen und Belastungen in Kauf genommen werden, wie die Pflege des Pferdes, sparen, um die Voltigierstunden bezahlen zu können, Anmarschwege zur Reitanlage, Warten bis man dran ist, regelmässige Teilnahme. Krönung ist das Voltigierturnier, in dem jede Gruppe aus 8 Kindern in 15 Minuten die 6 Pflichtübungen jedes einzelnen und eine Gestaltung von Übungskombinationen zu zweit oder zu dritt auf dem Pferde vorführen muss.

2. Anforderungen des Voltigierens

Voltigieren wird mit Bewegungsfertigkeiten in turnerischgymnastischer Form auf dem galoppierenden Pferd definiert. Das Anforderungsprofil dieser Sportart vom einfachen Sitz bis zur Gruppengestaltung der Kür umschliesst ein Bündel von Fertigkeiten und Fähigkeiten:

1. Ein hohes Gleichgewichtsgefühl in konstanter Antizipation und Reaktion auf die Bewegungen des Pferdes.

2. Sprungkraft und Stützkraft für Aufgänge, Abgänge und den Wechsel von Positionen.

3. Spreizfähigkei ,Gewandtheit + Beweglichkeit und Reaktionsschnelligkeit.

4. In Verbindung mit dem labilen Gleichgewicht und der geforderten Präzision in Haltung und Bewegung eine aussergewöhnliche Anpassungsfähigkeit.

Zu diesen mehr motorischen Eigenschaften kommen noch höher zu gewichtende:

1. Eine Leistung kann nur im Zusammenwirken zwischen dem galoppierenden Pferd, das eben kein Turngerät ist, dem Longenführer und dem Voltigierer entstehen. Eine ständige flukturierende Aufmerksamkeit muss sich mit Reaktions- und Anpassungsbereitschaft verbinden.

2. Zwischen Risikoeinschätzung und Risikobereitschaft muss das Handeln gelernt und verbessert werden. Dabei verlangen die differenzierten Interaktionsvorgänge bei 2er und 3er Übungen ein hohes Mass ar Einfühlungsvermögen.

3. Über die vorgeschriebenen Feinformen der Pflichtübungen hinaus bieten die Gestaltungsmomente bei der Kür eine Vielfalt von Bewegungskombinationen. So werden Kreativität und die Bewegungsfantasie herausgefordert und ermöglichen schon bald eigenständiges Erproben und Planen.

Der Erlebniswert ist infolge dieser vielen Anforderungs- und Unsicherheitsfaktoren besonders hoch.

3. Sozialisationsaspekte beim Voltigieren

Die bekannten gruppendynamischen Prozesse bei Kleingruppen im Sport können auch im Voltigieren beobachtet werden. So zeigen die Soziogramme enge Bindungen der Kinder zueinander. Dies betrifft die 8 für einen Wettkampf ausgewählten ebenso wie 3-5 Ersatzleute, die für viele Hilfen beim Transport, der Pferdepflege und der Vorbereitung eingesetzt werden.

Die überschaubare Zahl an Kinder gestattet einen angestrebten persönlichen Kontakt zum Voltigierlehrer, Übungsleiter oder Longierer, dessen kleine Aufträge Selbstwertgefühl und Rangreihenposition verstärken. Da das Alter von 8 - 16 Jahren schwankt und die Gruppen selten homogen sind, in der Leistungsstufe C, B und A aber keine Alters- sondern Güteeinteilungen getroffen wurden, sind Vorbildwirkungen und Identifikationsvorgänge einerseits - Hilfeleistungen, Lehrervorgänge andererseits möglich - die natürlicherweise zu Bindungen von Freundschaften führen, je länger eine Gruppe besteht.

Obwohl es Meisterschaften gibt und ein Voltigierabzeichen erworben werden kann, ist der Wettbewerbsgedanke nicht so vordergründig. Das Spielerische ist noch kennzeichnend. Durch die Bewertung der Einzelnoten, einer Kürnote der Gesamtnote, der Plazierung innerhalb der Klasse eröffnen sich mehrere Bezugssysteme für eine individuelle und Gruppenbewertung.

Positiv wirkt auch, dass viele Eltern infolge eines gewissen Aufwandes dieser Sportart ihre Kinder begleiten und so die Familienatmosphäre das Gruppenklima ergänzen kann. Der Aufwand bedeutet aber nicht, dass Voltigieren eine Exklusivsportart ist, zugängig nur für finanzkräftige Schichten. In einer explosionsartigen Ausweitung, wie im breiten Zeitsport überhaupt, haben in den letzten 15 Jahren ca. 500 Vereine Voltigiergruppen eingerichtet und betreuen je. zwischen 10 bis 120 Kindern.

4. Zusammenfassung

Zusammenfassend lässt sich feststellen, dass sich Sozialisationsmöglichkeiten aus der Summe günstiger Faktoren ergeben, die durch die Tier- und Naturliebe erwachsen, die Kooperationsnotwendigkeiten und Kommunikationsmöglichkeiten der Kleingruppe, die vielseitigen Anforderungen der Sportart in einem Alter von entscheidender Bildungsfähigkeit. Wichtige Anforderungen des menschlichen Zusammenlebens werden so spielerisch provoziert, Zusammenarbeit und Vertrauen herrschen vor - nicht Gegensatz und Kritik (Prenner 1975).

Dieser kurze Aufriss reflektiert, was eine Sportart gleichsam nebenbei an Sozialisationseffekten eröffnen kann, vom sozialen Lernen zur Rollenübernahme, vom Erlebnis zur Erfahrungsbildung, vom Können zum Aufbau von Bindungen und Werten - obwohl die sportlichen Ziele primär angestrebt werden: Einzelkönnen und Kürgestaltung.

Literatur

Cachey, Kl., u. Kleindienst, Chr.: Soziale Lernprozesse im Sportspiel, Sportwissenschaft 3/1976, 291 - 310.

Heinemann, Kl.: Soziale Determinanten des Sportengagment, Sportwissenschaft 4/1976, 374 - 384.

Örter, R.: Moderne Entwicklungspsychologie, Donauwörth 1971[7].

Prenner Kl.: Sportunterricht und Sozialisation. In: Taschenbuch des Sportunterrichts, (Hrsg)W. Günzel, Baltmannsweiler 1975, 33 - 58.

Lehrfilm Voltigieren, Heidelberg 1975, 16 mm Farbfilm Licht-Ton, 27 Min. Laufzeit. Ausleihe und Verkauf durch FN = Deutsche Reiterliche Vereinigung in Warendorf.

MOTRICITÉ ET APPRENTISSAGES SCOLAIRES

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La nécessité de faciliter les acquisitions spécifiques aux apprentissages scolaires de base, écriture, lecture et mathématiques, jointe aux études sur l'évolution de l'intelligence chez l'enfant, a conduit à l'introduction d'activités psychomotrices dans les apprentissages scolaires. La diversité des programmes d'éducation psychomotrice témoigne de l'engouement des professeurs pour les activités qu'ils comportent et qui servent souvent de point de départ concret aux acquisitions abstraites.

Malgré cela, l'étude de l'impact véritable de ces programmes sur les résultats scolaires n'a jamais été faite de façon exhaustive. Le plus fréquemment l'influence d'une ou de quelques composantes du développement psychomoteur était envisagée sur un seul apprentissage scolaire.

Pour pallier ces différentes lacunes il était nécessaire de respecter les points suivants:

1. Evaluer les apprentissages scolaires fondamentaux, écriture, lecture et mathématiques.
2. Evaluer les différentes composantes du développement psychomoteur par les tests les plus objectifs disponibles.
3. Retenir pour l'étude les enfants des quatre premiers niveaux scolaires de l'élémentaire.

C'est dans cette optique que se situe l'étude que nous avons entreprise.

Processus expérimental

1. Sujets

De la première à la quatrième année, 32 enfants par groupe d'âge ont été retenus par tirage au sort parmi une population scolaire de près de 2,500 élèves. Leur âge variait de 6 à 9 ans. Chaque groupe comprenait autant de garçons que de filles.

2. Tests

2.1 Apprentissages scolaires

2.1.1 écriture: la composante vitesse a été évaluée par l'épreuve de Gobineau et Perron /1954/ consistant dans la reproduction d'une phrase et par celle de l'écriture du prénom trois fois de suite. Cette dernière épreuve a été faite des deux mains.

2.1.2 lecture: test de l'Alouette /Lefavrais, 1967/.

2.1.3 mathématiques: sous-test de mathématiques du WISC et épreuve de mathématiques du Ministère de l'Education du Québec.

2.2 Développement psychomoteur

2.2.1 efficience manuelle: une batterie de 5 épreuves évaluant la stabilité de la main, la coordination oculo-manuelle, la rapidité du mouvement du doigt, la dextérité digitale et la force a été administrée à chaque enfant, pour les deux mains.

2.2.2 latéralité: une adaptation de l'épreuve de Harris a permis d'évaluer les dominances manuelle, oculaire et podale.

2.2.3 organisation temporelle: Seashore Measures of Musical Talents /1960/ et épreuve d'intégration audio-visuelle /Birch et Belmont, 1964/.

2.2.4 organisation spatiale: les épreuves de Benton /1968/ et de Piaget /Zazzo, 1969/ ont servi à déterminer le niveau de maîtrise de l'orientation droite-

gauche. Le test de développement de la perception visuelle de Frostig et le test visuo-moteur de Bender ont permis de mesurer d'autres aspects de l'organisation spatiale.

2.2.5 schéma corporel: dessin du Bonhomme /Goodenough, 1957/ et épreuve de connaissance des parties du corps.

Résultats

1. Ecriture et développement psychomoteur

Parmi les épreuves d'efficience manuelle, seules la coordination oculo-manuelle et la dextérité digitale montrent des relations significatives avec la vitesse d'écriture à différents âges.[1/] La vitesse d'écriture dépend de l'acquisition d'automatismes qui résultent de la répétition d'actes moteurs volontaires provoquant des rétro-actions. Celles-ci forment des modèles de mouvements qui serviront par la suite d'éléments de contrôle lorsque l'acte moteur s'effectuera rapidement. Force, stabilité et rapidité du mouvement du doigt n'entrent que pour une part minime dans l'habileté graphique. En outre, pour des raisons de fréquence d'entraînement la différence de la vitesse d'écriture entre les deux mains augmente régulièrement avec l'âge, le rapport doublant de la première à la quatrième année. La vitesse de copie dépend également du niveau du sujet en lecture.

2. Lecture et développement psychomoteur

Les relations mises à jour entre le développement psychomoteur et les résultats en lecture s'avèrent généralement faibles ou non significatives.[2/]
L'orientation droite-gauche, qui est généralement mentionnée comme un facteur influençant l'apprentissage de la lecture ne joue qu'un rôle secondaire. Si elle facilite la discrimination perceptive de certaines lettres au début pour améliorer le rendement en lecture, avec l'âge ces notions ne suffisent plus et d'autres facteurs comme la richesse du vocabulaire, l'entraînement et l'intelligence vont prendre le pas sur les références à l'orientation droite-gauche.
De façon générale, une bonne organisation spatiale se traduit par des résultats élevés en lecture en début d'apprentissage. Il existe une similarité entre la discrimination des formes et celle des lettres. Au fur et à mesure que l'apprentissage progresse la relation diminue, d'autres facteurs supplantant l'organisation spatiale dans la vitesse de lecture.
La dominance latérale franche, reflétant une dominance hémisphérique marquée, considérée longtemps comme primordiale dans l'acquisition du langage, ne joue pas un rôle prépondérant en lecture. La comparaison des notes en lecture de sujets ayant une latéralité homogène ou hétérogène fait ressortir que les deux groupes obtiennent des résultats semblables. Les retards en lecture résultent plus souvent d'une immaturité générale de l'enfant que de problèmes de dominance latérale.
Organisation temporelle et résultats en lecture présentent des relations significatives à tous les âges. Ces relations qui décroissent avec l'âge peuvent résulter du fait que les épreuves utilisées apprécient un élément commun: la facilité à différencier deux stimuli non identiques, les épreuves de rythme ressemblant à la discrimination auditive de phonèmes.

1/ Tableaux 1 et 2

2/ Tableau 3

3. Mathématiques et développement psychomoteur

L'efficience manuelle globale[3/] en 1ère année montre une corrélation positive avec le rendement en mathématiques. Acquisition et conservation du nombre se font à partir de manipulations d'objets qui reposent sur l'habilité manuelle et l'association des différentes **sensibilités visuelles, tactiles et kinesthésiques.**
Une organisation spatiale développée, en particulier la perception figure-fond, la conservation de la forme et la perception spatiale, intervient en début d'apprentissage sur les résultats en mathématiques. Ces différents aspects permettent à l'enfant de reconnaître, classer, ordonner et comparer des objets entre eux ce qui l'emmène à la numération et aux opérations arithmétiques de base par les jeux sur les ensembles. L'activité sensori-motrice du sujet et la répétition de situations identiques jouent en effet un rôle fondamental dans l'acquisition de l'identité des formes.

A tout âge la relation entre l'organisation temporelle et les mathématiques est positive. La comparaison de deux structures rythmiques nécessite l'établissement d'une correspondance terme à terme entre les deux structures pour le nombre de frappes et pour l'intervalle séparant deux frappes successives. En plus des mécanismes intuitifs, le comptage des frappes peut constituer un moyen privilégié de comparaison.

Conclusions

Les relations partielles qui existent entre le développement psychomoteur et les apprentissages scolaires ne décroissent pas significativement avec l'âge; ceci indique que le développement psychomoteur sert de point d'appui aux apprentissages scolaires et ce, à tous les âges. L'activité psychomotrice, à partir de situations objectives vécues par l'enfant, favorise l'actualisation de ses possibilités. Un déficit général dans le développement psychomoteur peut constituer un signe précurseur de difficultés scolaires.

Tableau 1

Coefficients de corrélation entre le développement psychomoteur et les résultats en écriture pour les quatre groupes

	GROUPES															
	I				II				III				IV			
VARIABLES	Vitesse normale	Vitesse accélérée	Phrase mots préférés	Phrase mots non préférés	Vitesse normale	Vitesse accélérée	Phrase mots préférés	Phrase mots non préférés	Vitesse normale	Vitesse accélérée	Phrase mots préférés	Phrase mots non préférés	Vitesse normale	Vitesse accélérée	Phrase mots préférés	Phrase mots non préférés
O.D.G.: Besten sur sol	.09	.09	.03	.13	.11	.17	.19	.14	-.13	.08	.03	.07	.18	.16	.22	-.27
O.D.G.: Besten sur autrui	-.03	-.07	-.09	-.18	.29*	.21	.09	.25	.16	.22	.10	.09	-.07	-.03*	.06	.16
O.D.G.: Besten assel	-.07	-.02	-.07	-.11	.24*	.26	.21	.25	.07	.19	.10	.10	-.06	-.02	.18	.11
O.D.G.: Piaget objets	.25*	.28*	.15	.08	.35*	.04	.19	.02	.04	.32*	.48**	.34*	.08	.28	.04	-.05
Perception: Frostig I	.13	.19	.29	.32*	.07	.18	-.20	.27	-.03	.43**	.52**	.19	-.14	-.18	-.47**	-.31*
Perception: Frostig II	.19	.21	.14	.20	.48**	.19	.01	.39*	.08	.14	.28	.07	.11	.13	.07	-.03
Perception: Frostig III	.18	.21	-.09	-.17	.05	.08	.24	.31*	.41*	.49**	.42**	.01	.17	.21	.01	.13
Perception: Frostig IV	-.02	.09	.13	.11	.01	-.01	.11	-.04	.08	.29	.31*	-.01	.31*	.23	.18	.22
Perception: Frostig V	-.11	.01	.04	.03	.24	.05	.31	.05	.15	.38	.42**	.06	.22	.24	.01	.24
Perception: Frostig Total	.20	.23*	.19	.23	.26	.28	.28	.33*	.26	.56***	.66***	.19	.11	.21	-.23	-.05
Bender-Koppitz	.18	.07	.18	.08	-.18	-.31*	-.30*	-.45**	-.35*	-.27	-.14	-.25	-.28	-.08	-.15	.01
Bender-Santucci	.00	.01	.05	.00	.06	.05	.07	.23*	.16	.23	.18	.20	.18	.15	.11	.04
Seashore: rythme	.13	.09	.20	.28	.27	.09	.32*	.27	.29	.26	.15	.31*	.48**	.41*	.19	-.02
Seashore: durée	-.16	-.12	.07	.04	-.18	-.04	.17	.12	-.10	.00	-.18	.28	.28*	.16	-.06	.08
Intégration audio-visuelle	.17	.21	.08	.15	.26	.09	.18	-.04	.32*	.47**	.28	.22	.36*	.07	.02	.18
Schéma corporel: Goodenough	-.06	-.09	-.16	-.19	.23	.18	-.11	.18	.19	.38*	.23	.22	.08	.17	.07	.21
Schéma corporel: C.P.C.	.23	.26	.08	.13	.28	.23	.08	.04	.25	.41*	.34*	.26*	.23	.19	.19	.06
Efficience manuelle: P	.18	.41*	.35*	.44**	.46**	.31*	.24	.24	-.04	.14	.28	-.15	-.09	.04	-.09	-.17
Efficience manuelle: MP	.07	.28	.16	.23	.35*	.31*	-.01	.26*	-.07	.16	.18	.33*	.02	-.04	-.07	.05
Efficience manuelle: P + MP	.13	.35*	.25	.34*	.46**	.34*	.12	.24*	-.07	.25	.25	.14	-.02	.00	-.09	-.07
Efficience manuelle: P - MP	.11	.02	.13	.14	.03	-.05	.22	-.25	.03	.06	.01	-.31**	-.14	.13	-.02	-.17
Bentons rétention visuelle	-.06	-.06	-.07	.06	-.36	-.36*	.09	-.01	.04	.24	.24	-.01	.21	.36	.44**	.21

* p<.05; ** p<.01; *** p<.001

Groupe I : première année
Groupe II : deuxième année
Groupe III: troisième année
Groupe IV : quatrième année

3/ Tableau 4

Tableau 2

Coefficients de corrélation entre les résultats aux épreuves d'efficience manuelle et les résultats en écriture pour les quatre groupes

VARIABLES	GROUPES I				II				III				IV			
	vitesse normale	vitesse accélérée	préhens main préférée	préhens main non préférée	vitesse normale	vitesse accélérée	préhens main préférée	préhens main non préférée	vitesse normale	vitesse accélérée	préhens main préférée	préhens main non préférée	vitesse normale	vitesse accélérée	préhens main préférée	préhens main non préférée
Force P	.16	.11	.27	.37*	-.15	-.02	-.28*	-.16	.10	.25	.11	.04	-.28	-.24	-.14	-.31*
Force NP	.10	.01	.05	.14	-.19	-.03	-.37*	-.01	.12	.16	.05	.18	-.37*	-.31*	-.22	-.28
Tapping P	-.29*	-.16	-.08	.00	.50**	.19	.23	.29*	-.27	-.10	-.15	-.17	.01	.07	-.06	-.04
Tapping NP	-.26	-.06	.01	.03	.42*	.14	.20	.46*	-.35*	-.15	-.08	-.16	.22	.24	-.00	-.03
Pointillage P	-.21	-.44**	-.27	-.32*	-.34*	-.35*	-.48**	-.38	-.11	-.27	-.25	.00	-.03	-.24	-.09	-.09
Pointillage NP	-.10	-.32*	-.01	-.15	-.37*	-.33*	-.15	-.35*	.04	-.04	-.05	-.40*	-.30*	-.23	-.15	-.37*
Stabilité P	-.12	-.24	-.15	-.02	-.16	-.12	.12	.03	.12	.04	-.11	-.13	-.15	.08	.10	-.31*
Stabilité NP	-.07	-.12	-.09	-.03	.03	-.05	.27	.06	.01	-.09	-.13	-.26	.04	.31*	.10	-.20
Manipulation P	-.31*	-.42*	-.36*	-.48**	-.30*	-.26	-.42*	-.28	-.17	-.43*	-.47**	.25	.00	-.20	.04	.20
Manipulation NP	-.15	-.22	-.28	-.36*	-.44**	-.36*	-.58*	-.34*	-.09	-.30*	-.38*	-.32*	-.15	-.14	.11	.00

* p<.05; ** p<.01; *** p<.001

Note: pour les épreuves de pointillage, stabilité et manipulation, un score élevé indique une performance faible. Les coefficients de corrélation négatifs entre ces trois épreuves et les tests d'écriture doivent être interprétés comme étant la preuve d'une interdépendance positive.

Tableau 3

Coefficients de corrélation entre le développement psychomoteur et les résultats en lecture pour les quatre groupes

Variables	Groupes			
	I	II	III	IV
O.D.G.: Benton sur soi	-.05	.37+	.10	.12
O.D.G.: Benton sur autrui	-.14	.18	.16	-.15
O.D.G.: Benton total	-.15	.32+	.18	-.14
O.D.G.: Piaget objets	-.03	.22	.33+	.27
Perception: Frostig I	.09	.24	.43+	-.08
Perception: Frostig II	.04	.47++	.27	.12
Perception: Frostig III	-.15	.43+	.21	.23
Perception: Frostig IV	.07	.37+	.30+	.16
Perception: Frostig V	.24	.31+	.28	-.15
Perception: Frostig total	.01	.60+++	.46++	.11
Bender-Koppitz	.14	-.51++	-.12	.13
Bender-Santucci	.07	.50++	.18	-.09
Seashore: rythme	.38+	.48++	.29+	.40+
Seashore: durée	.32+	.37+	-.11	.14
Intégration audio-visuelle	.29+	.17	.51++	-.02
Schéma corporel: Goodenough	-.07	.29+	.24	-.07
Schéma corporel: C.P.C.	.31+	.05	.32+	.24
Efficience manuelle: P	.36+	-.04	.15	.04
Efficience manuelle: NP	.23	.23	.21	-.09
Efficience manuelle: P + NP	.30+	.12	.11	-.02
Efficience manuelle: P - NP	.04	-.29+	-.07	.18
Benton: rétention visuelle	.06	.14	.25	-.01

\+ p< .05 ; ++ p< .01 ; +++ p < .001

Tableau 4

Coefficients de corrélation entre le développement psychomoteur et les résultats en mathématiques pour les quatre groupes

Variables	Groupes I		II		III		IV	
	W.I.S.C.	Ministère Education	W.I.S.C.	Ministère Education	W.I.S.C.	Ministère Education	W.I.S.C.	Ministère Education
O.D.G.: Benton sur soi	.13	.15	.28	.07	-.22	-.01	.29+	.23
O.D.G.: Benton sur autrui	-.02	-.08	.32+	.52++	.23	.42+	-.06	.17
O.D.G.: Benton total	.02	-.01	.36+	.54+++	.13	.37+	-.04	.19
O.D.G.: Piaget objets	.28	.34+	-.07	-.41+	.01	.15	.25	.08
Perception:Frostig I	.34+	.52++	.17	-.01	-.01	.20	-.33+	-.28
Perception:Frostig II	.03	.15	-.03	.49++	.14	.19	.23	.30+
Perception:Frostig III	.36+	.45++	.30+	.35+	.23	.23	.03	.45++
Perception:Frostig IV	.27	.32+	.17	.23	-.13	-.01	.16	.32+
Perception:Frostig V	.25	.35+	.22	.51++	.16	.36+	.37+	.15
Perception:Frostig total	.40+	.62+++	.25	.47++	.17	.31+	-.19	.22
Bender-Koppitz	-.22	-.44++	-.40+	-.47++	-.36+	-.34+	-.37+	-.14
Bender-Santucci	.25	.49++	.56+++	.50++	.11	.19	.56+++	.31+
Seashore:rythme	.49++	.45++	.35+	.32+	.24	.30+	.49++	.49++
Seashore:durée	.12	.02	.17	.15	-.05	.30+	.31+	.39+
Intégration audio-visuelle	.21	.44++	.36+	.48++	.35+	.45++	.43+	.38+
Schéma corporel:Goodenough	.23	.48++	.23	.44++	-.03	.29+	.10	-.07
Schéma corporel: C.P.C.	.34+	.46++	-.04	.06	.20	.39+	.46++	.20
Efficience manuelle: P	.37+	.47++	-.08	.20	.16	.14	.28	.20
Efficience manuelle: NP	.56+++	.49++	.32+	35+	-.06	.30+	.27	.28
Efficience manuelle: P + NP	.51++	.51++	.16	.33+	.04	.27	.30+	.26
Efficience manuelle: P-NP	-.47++	-.24	-.41+	-.18	.19	-.14	.01	-.09
Benton:rétention visuelle	.11	.36+	-.18	.02	-.05	.06	.65+++	.51++

+ $p < .05$; ++ $p < .01$; +++ $p < .001$

Bibliographie

Bender, L. : Instructions for the use of a visual motor gestalt test. New York: American Orthopsychiatric Association, 1946

Benton, A.L. : Right-left discrimination. Pediatric Clinics of North America, 1968, 15, 747-758

Birch, H.G. et L.Belmont : Auditory-visual integration in normal and retarded readers. American Journal of Orthopsychiatry, 1964, 34, 852-861

Frostig, M., Maslow, P., Lefever, D.W. et J.R.B. Whittlesey : The Marianne Frostig Developmental Test of Visual Perception. Perceptual and Motor Skills, 1964, 19, 463-499

Gobineau, H. et R. Perron : Génétique de l'écriture et étude de la personnalité. Neuchâtel: Delachaux et Niestlé, 1954
Goodenough, F.L. : L'intelligence d'après le dessin. Paris: Presses Universitaires de France, 1957
Lefavrais, P. : Test de l'Alouette. Test d'analyse de la lecture et de la dyslexie. Paris: Editions du Centre de Psychologie Appliquée, 1967
Seashore, C.F., Lewis, D. et J.G. Saetveit: Seashore Measures of Musical Talents. /2nd rev./ New York: The Psychological Corporation, 1960
Zazzo, R. : Manuel pour l'examen psychologique de l'enfant. 3e éd. Neuchâtel: Delachaux et Niestlé, 1969.

LE PROBLÈME GERONTOPSYCHOLOGIQUE ET LES ACTIVITÉS PHYSIQUES RÉCRÉATIVES

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Tout demeure éphémère et tout s'épuise dans la seule force de son maintien. L'homme n'échappe pas à la règle et ne vit qu'en se consumant. Vieillir, c'est avancer en âge selon un processus global qui se développe de la naissance à la mort et c'est aussi changer selon un ensemble de modifications anatomiques, physiologiques et psychologiques liées à l'action du temps.

Cependant, tandis qu'il existe chez l'animal une concordance absolue entre le processus du vieillissement biologique et psychologique, chez l'homme, par contre, les possibilités d'une activité intellectuelle tardive et prolongée correspondent à la longue maturation physique et au lent vieillissement du corps. Tandis que l'animal se comporte, l'homme agit; il se pense, se reconstruit et se sanctionne; en lui, les aspects biologiques, psychologiques et sociologiques se lient les uns aux autres par un jeu d'interférences et d'actions réciproques. Mais, la conscience n'est pas toujours sourire de l'esprit et la personne qui avance en âge demeure le plus souvent en remorque de situations déficitaires qui assombrissent même la sérénité des vrais sages. Peu d'êtres peuvent vivre l'ascétisme stoïque d'Epictète ou le paradoxe d'Epicure pour qui la douleur ne nous concerne pas.

La vieillesse n'est pas maladie, mais étape normalement structurée d'une existence dont la longévité augmente avec les progrès de l'hygiène alors que la mortalité précoce diminue avec les découvertes de la thérapeutique médicale. Elle se distingue surtout par la diminution de la vitalité et la modération progressive des fonctions. Ces modifications significatives d'une perte se traduisent surtout par le ralentissement des rythmes vitaux et tout particulièrement de l'agileté motrice. Elles changent le sens de la vie et transforment l'image de soi qui se profile alors de plus en plus sur un sentiment de dévalorisation, d'inutilité et, parfois, de dégoût.

De tous temps, en tous pays, la littérature générale énumère sous la forme de contes, de proverbes ou de poèmes, ce qui caractérise l'avance en âge, en soulignant les inquiétudes, les plaintes, les regrets et même les révoltes, car, si vieillir c'est perdre ses cheveux, ses dents, c'est perdre aussi ses amis, ses illusions, ses forces, sa mémoire et parfois même , la tête.

Mais, si tous les hommes vieillissent, ils ne vieillissent pas tous de la même façon: certains se détériorent vite, d'autres se maintiennent longtemps, d'autres encore s'épanouissent tardivement, certains vieillissent bien, d'autres mal. Les différences

génétiques n'expliquent pas complètement la variété des allures. Interviennent encore le tempérament, le caractère, la manière dont chacun mène sa vie et subit les conditions du climat; interviennent aussi la nourriture, l'hygiène, les formes de travail, l'éducation, les modes de vie. Dans cette perspective, la vieillesse est un produit.

L'homme garde constamment un maintien à l'égard de lui-même et une attitude à l'égard de la durée; il sait bien qu'il ne peut pas quérir de son âge et qu'avec chaque saison, qu'avec chaque heure, le temps s'écoule inéluctablement d'une vie qu'il ne vivra qu'une fois. Cependant, si la vieillesse conduit à l'usure, à la flétrissure, puis, à la cassure, elle peut aussi préserver une certaine sérénité et même un certain enjouement qui rejoint la fraîcheur des débuts de la vie. L'homme doit lutter contre la pathologie qui accompagne l'avance en âge et maintenir une réelle harmonie existentielle dans les limites des possibilités offertes à chacun.

L'intérêt suscité par la spécificité physique et psychique de la vieillesse remonte à la plus haute antiquité. Les classiques Grecs et Romains, s'expriment dans des pensées et des observations, et les philosophes du Moyen Age en font autant. On connaît, par exemple, les propos de Platon et le magnifique "De Senectute" de Ciceron; on sait que Térence et Sénèque traduisent leur pessimisme dans les célèbres formules "Senectus ipsa est morbus" et "Senectus insanabilis morbus"; on sait encore que Galien définit l'âge comme un état de l'organisme et que Roger Bacon essaye de retarder les symptômes morbides de la vieillesse qui fait peur. Au Moyen Age les représentations picturales ridiculisent le vieillard; on l'associe au diabolique, à la sorcellerie. On espère en la pierre philosophale pour maintenir la jeunesse; le vin devient le premier elixir de vie; préconisé par Hippocrate, Plutarque et Galien, il sera suivi plus tard par des injections d'extraits glandulaires, le culte des vitamines et des "aliments naturels". Parallèlement aux elixirs, on prodigue les conseils de vie. Roger Bacon recommande de bien doser les facteurs qui conservent le corps dispos : l'air, les aliments, l'exercice et le repos, la veille et le sommeil, les passions de l'esprit. Avicenne recommande le thermalisme.

Au début du 19e siècle, ce sont surtout les cliniciens qui comprennent la nature des transformations psychiques de la vieillesse, comme par exemple, le psychiatre américain Benjamin Rusch. Au milieu du 19e siècle ce sont Quetelet et Galton qui évaluent statistiquement les phénomènes de vieillissement. Dans la seconde moitié du 19e siècle, les chercheurs s'intéressent particulièrement à l'aspect physique de la sénescence comme Rubener et Charcot etc. Le problème du vieillissement trouve finalement un développement beaucoup plus grand après la fin de la seconde guerre mondiale.

Au cours de l'Histoire des civilisations, le vieillard est vu surtout sous deux angles opposés, selon le moment. Aux époques de surestimation de la force et de la beauté, on le rejette; il devient inutile; il ne mérite que mépris et se trouve parfois systématiquement éliminé selon une extermination rituelle, ou parfois, dictée par les besoins de la lutte pour l'existence. Aux époques culturelles, on lui attribue des qualités de sagesse, de prudence, d'intelligence. A Sparte, il y avait le Conseil des Gérontes; l'Eglise chrétienne comportait le Conseil des Anciens; dans la République de Venise les chefs étaient presque tous âgés. L'espérance de vie, alors beaucoup moins élevée qu'aujourd'hui, faisait du vieillard un être exceptionnel auquel on attribuait des forces secrètes; le grand âge prouvait une vitalité extraordinaire qui forçait l'admiration.

A notre époque, le souci devient une maladie de la vieillesse parce que la production, l'expansion, impliquent la concentration urbaine et son cortège de difficultés matérielles et morales. On vit à une vitesse telle que les personnes qui déclinent paraissent encore plus lentes. Confrontées à un monde de plus en plus différent de celui qu'elles ont connu, à un mode qui privilégie des valeurs qui ne sont pas les leurs, elles sentent, de plus en plus, le poids de la vieillesse: elles espéraient le respect et la dignité, elles découvrent l'indifférence et parfois le mépris; elles croyaient trouver dans le regard des autres une reconnaissance bienveillante, elles découvrent, au contraire, que leur spectacle offre à chacun l'image redoutée et anticipée de son propre vieillissement.
Bien souvent, la mise à la retraite se révèle choc difficile à supporter. Cesser de travailler, c'est quitter un rôle social défini qui a tenu une grande place dans la vie quotidienne, c'est quitter un ensemble de contraintes parfois pénibles et mutilantes mais qui apportaient aussi satisfaction et parfois fierté; être mis à la retraite, c'est perdre tout un réseau de relations familières, c'est cesser d'apporter sa contribution à la communauté, et, pour beaucoup, c'est subir une diminution très sensible, c'est parfois être mis au rebut comme une voiture branlante qui a cessé de plaire. Isolé de lui-même et des autres, le vieillard passe alors le temps sans l'utiliser: il s'ennuie. Pour échapper à l'isolement, les personnes âgées se réunissent entre elles; mais, se réunir n'est pas nécessairement s'unir, et, la camaraderie ne fait que tromper l'isolement. Seule, l'amitié, quête en commun de la vérité personnelle, pourrait combler le vide social qui produit le vertige de la solitude. Mais, peut-on découvrir la valeur absolue de l'autre dans un repliement sur soi collectif? De l'ennui à l'angoisse il n'y a qu'un pas. Assailli de doutes envers lui-même, l'homme âgé vit la crise d'identité de la vieillesse; il ressent l'impossible fidélité à soi-même, parce que son passé, estime-t-il, avait trop de sommets pour qu'il puisse les atteindre à nouveau.
Cependant, il dépend de l'homme de consentir à son déclin, il dépend de l'homme de le précipiter ou de le conjurer. Certes, notre Société est fondée sur l'idée de jeunesse et la personne âgée pense qu'elle n'est pas elle-même toujours séduisante; il lui arrive même de mentir sur son âge et de gâcher ainsi toute la richesse de son passé, mais, plus une personne avance en âge, plus elle dépend de sa propre sagesse; en vieillissant elle a sûrement moins, mais ce moins vaut davantage, parce qu'au fur et à mesure la vie se concentre et se charge de sens. L'homme qui avance en âge doit prendre conscience de sa responsabilité; il doit choisir et sanctionner une visée de valeur positive du temps qui lui reste à vivre pleinement. Le temps de la vieillesse ne doit pas forcément être un temps de rupture et de délabrement. Le premier devoir est de le comprendre et de l'admettre; le second d'essayer de continuer de se ressembler. Confucius écrit au second livre des "Entretiens": "A quinze ans, je m'appliquais à l'étude de la sagesse. A trente ans, je m'y affermis. A quarante ans, je n'avais plus de doute. A cinquante ans je saisis l'ordre du ciel. A soixante ans il n'y avait plus rien qui puisse me choquer dans le monde. A soixante-dix ans, je pouvais suivre les désirs de mon coeur, sans transgresser la morale." Humbold commence à rédiger son "Cosmos" à l'âge de soixante-quatorze ans et il publie le dernier tome un an avant sa mort à quatre-vingt-dix ans. Cervantès, de son côté, publie "Don Quichotte" à soixante-dix-huit ans. A plus de soixante-dix ans, Chichester, grand malade, est encore capable de réaliser le tour du monde à la voile en solitaire!
Etre malade ne doit pas devenir une manière d'exister, une façon de se protéger du néant. L'effort doit devenir mode de subjectivité, la nature de chacun déterminant le style du dépassement et la qualité des exigences. Dans la crise de viel-

lesse, il faut se reconquérir, retourner à soi et déployer son être. Il faut parvenir, avec l'entraînement bien adapté, au niveau de ce qui, auparavant, n'était que possible. L'épreuve devient preuve et permet de se dépasser et de repartir, chaque jour, d'un coeur neuf.

Il est possible, par les activités récréatives, de retrouver une attitude profondément sereine, une attitude arrachée par-delà les difficultés d'une vie qui écorche parfois. En libérant l'énergie, elles permettent d'exprimer des comportements jusque-là inhibés au niveau de la vie quotidienne; elles permettent d'acquérir, chaque jour plus profondément, cette connaissance de soi-même dont Socrate affirmait qu'elle est la forme la plus haute et la plus difficile de la connaissance. Avec les activités récréatives, l'homme garde un esprit d'enfance, et l'esprit d'enfance, c'est de s'attendre continuellement à ce qu'il peut y avoir d'aventure, d'inattendu, de nouveau chaque jour.

La notion de vie s'identifie à la notion d'existence à exister, c'est se projeter hors de soi, s'arracher à son état, dans une action toujours nouvelle, se dépasser. Le corps révèle alors un monde insoupçonné de pouvoirs. Le mouvement devient ouverture, offre au monde dans l'être en soi, avec unité du sentir et du se mouvoir, le mouvement devient expression d'un sujet en prise directe avec le monde. L'intériorité devient manifestation phénoménologique de l'espace dynamisé par le mouvement; vivre pleinement le mouvement c'est alors retrouver l'unité immanente de l'être, se révéler à soi-même sans distance.

La pratique régulière d'activités récréatives dans le troisième âge, rompt la solitude et le repli sur soi, maintient en éveil le goût d'aller toujours plus loin. Le plus difficile ne réside pas dans l'apprentissage technique, mais dans l'accès à des dispositions intérieures propres à un accord. Nous laisserons de côté les vétérans sportifs de soixante à quatre-vingt-dix ans qui approchent les limites supérieures de l'homme vieillissant en réalisant des performances exceptionnelles, leur longévité athlétique se trouve liée au respect strict de règles d'hygiène et de diététique accompagnant un entraînement soutenu, nous nous intéresserons surtout ici aux personnes âgées "tout venant". L'activité de type sportif récréatif leur permet de se rendre compte directement de leurs progrès, tout en se livrant à une agréable et saine distraction; elle leur permet de cultiver l'esprit d'équipe au sein d'une collectivité, en développant leur sens social, elle leur permet de créer une juste émulation sans verser dans la compétition, émulation indispensable pour la découverte d'une meilleure estime du vieillissement; elle leur permet enfin de récupérer certaines qualités physiques dont l'involution est souvent précoce et rapide, comme la vitesse d'exécution, la détente, l'adresse, la coordination motrice. Pour cela, s'impose le respect du goût de chacun et de ses possibilités du moment.

Conserver en permanence un esprit ludique dans une ambiance euphorisante, pour retrouver le plaisir des muscles en mouvement, pour retrouver naturellement la beauté du geste en s'approfondissant soi-même, voilà l'idéal à poursuivre, car tout être est beau autant qu'il est lui-même.

Une atmoshpère ailée transforme totalement les données ordinaires de la vie; la joie rayonnante s'élance avec des accents de triomphe au-devant des difficultés proposées et même recherchées. L'homme peut alors faire siennes les paroles du poète Saint John Perse: "Grand âge, nous voici. Rendez-vous pris et de long temps avec cette heure de grand se ...

Grand âge, vous mentiez, route de braise et non de cendres!"

PSYCHOLOGICAL STRUCTURE OF SPORT ACTIVITY

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The psychology of physical training and sport relates to a specific human activity area. In a way it is the psychology of a personality engaged in sport activity. This interpretation is of paramount significance in determining its structure, main trends of research into physical training and sport, techniques of study and in formalising it into a streamlined system of gradually accumulating facts and knowledge.
The Soviet psychology of sport has two main development trends

1) the psychology of physical training and mass sport, and
2) the psychology of high-performance sport.

The first trend has a longer history, its emergence and subsequent development being determined by the real requirements of physical training which is of a nationwide character in the USSR. Engaged in this trend of research and field work are over 150 psychologists representing 21 institutes of physical culture, psychological research units of Research Institutes of PhysicalCulture and institutes of the USSR Academy of Pedagogical Sciences and also of the Departments of Physical Training of Pedagogical Institutes. The following main problems of the first trend should be mentioned :

1. Socio-psychological questions of personality and group development in physical training and sport;

2. The impact of physical training and sport on the development of valuable qualities and capabilities in humans;

3. Psychological aspects of P.T. at school and of sport for juveniles.

This communication deals with the psychological peculiarities of sport activity with special reference to high performance sports.
The object of investigation in the high performance sport psychology is sport activity with its psychological regularities and specific features determined, in a wide sense, by the conditions of training and competitions, and in a more narrow sense by the specifics of the type of sport under investigation; the subject of investigation is the personality of the athlete with all its individual peculiarities which is determined by the orientation, system of attitudes, general and specific properties and traits, adaptational peculiarities as related to the loads in training and competitions.
The fulfilment of personality's intents and requirements in the conditions of sport activity takes place during training sessions or competitions always against the background of the athlete's specific state /form/. Thus, alongside the study of the social aspects of the psychological principles of sport activity and the athlete's personality, the fundamental task of sport psychology is the integrated study of the state of athletes and the regularities governing its changes.
Since the result achieved in sport / which determines the objective of engagement in sport/ is a function of the athlete's state, it follows that the attainment of the athlete's optimal state under the stress of competitions is an important practical task of sport psychologists and psycho-hygienists.

Accordingly, the main objectives of research into the psychology of sport cover the following:

1. Elaboration and standardization of techniques, determination of statistically valid indicators - relevant to successful activity in specific sports. Identification of psychological criteria of athlete's sport specific model characteristics;

2. Elaboration of ways and means of diagnosing personality properties, features of sport groups, psychic states of athletes in training and contest.

3. Elaboration of tecnniques of psychological instruction of athletes, enhancing their effectiveness in training and competitions.

4. Elaboration of psychological principles of a system of guidance for the build up of high-performance athletes in training and competitions; elaboration of psychological principles of instruction in training.

One of the objectives in the study of the general characteristic of sport activity is the decoding of psychogrammes of specific types of sport. It is expedient to proceed here from the peculiarities of interaction between oponents and the basic features of material environment of the place of competition, as it is suggested by A.P. Puni /1970/. This approach makes it possible to single out, so to say, the main sets of interrelated processes and properties in the entity of psychic activity, which bear on the athlete's achievement of success. In concrete cases, decoding the psychogramme of individual types of sport, priority is given to the psychological mechanisms of work operations, requirements presented to the performer, the specifics of difficulties or obstacles, the peculiarities of psychic states while being active, the degree of influence on the development level of individual psychic functions. A practical outcome of such studies should be the models of an "ideal" representative of an individual specialization with typical standard indicators and the most probable possibilities of a compensation for the "faulty" links. Indicators are differentiated by narrow roles within a given sport.

Speaking of the high performance sport, there are certain features distinguishing it from general sport which is not prestige oriented. First of all the high-performance sport is geared to satisfy one's interest in a definite sport, it is oriented to achieve high results which are recognized by society, to enhance the prestige of a team rather than one's own, and at the highest level - the prestige of one's country.

High results in modern sport, unlike in physical training and in the so-called mass sport, are achieved through great physical and psychic strain, regular training with a large load of intensive general and specific exercises, through struggle involving the resistance of a strong competitor and own shortcomings, physical and psychic limitations.

Important for a psychological characteristic of activity in high performance sport are the principles of general psychology elaborated by a prominent Soviet scholar A.N. Leontiev /1975/.

First of all, in distinguishing the object of activity he considers that there is a real motivation. The notion of action is of necessity bound up with the notion of motivation; it may be material or ideal, given in perception or only existing in imagination, in thinking. The important thing is that it is always traced to a need, that it always corresponds to a definite requirement.

An athlete of high performance feels the need of showing a high result in a sport competition. Hence, the motivation is success oriented.
The high performance motivation incorporates a number of components - the desire to increase the country's prestige, the feeling of responsibility to the country and the desire to surpass oneself and achieve the ideals not merely of a high class athlete but of an athlete-patriot.
Naturally, the desire of locomotor activity, of proving one's high standard of physical and psychic potential also have a part to play in a high class athlete's motivation. The leading motivation, however, is success which in social terms is comprehended as the fulfilment of a task set by society.
Unlike the case of physical training and mass sport, the desire of physical action is relegated to the background in high performance sport. Hence the attention to motivations of success shown by psychologists who work with high performance athletes. No doubt, the attention given in our country to high performance athletes greatly intensifies their success motivation, and in a way lends it a definite social colour.
Motivation in high performance sport involves a psychic strain which is caused by a disproportion of the main activity trends and is directed towards their elimination. / V. Hošek, M. Vaněk, B. Svoboda, 1973/. Unlike the case of most other activities, in sport an individual does not seek to avoid a considerable strain; to the contrary he regards it as a positive aspect of the competitive struggle.
If the object of activity is the motivation, then the "components" of activity are actions. According to A.N. Leontiev, an action is a process governed by a concept of the result to be achieved, i.e. a process governed by a conscious objective. An action has a specific property, a specific "formative", namely the techniques of performing it. The techniques of performing an action are called operations.
Unlike psychology, the concepts of "action" or "operation" in sport practice are not distinguished.
For instance, in basketball we distinguish such actions as dribbling or shooting, a psychologist will treat them either as actions or operations. An operation is determined by the technique of performing an action subject to the conditions obtaining in the attainment of the goal.
A characteristic of sport activity would be incomplete without a special mentioning of the training and competitive activity of the contestants. For reasons that are well understood, most psychological studies are devoted to competitive athletes.
At the level of high performance sport, however, training is inseparable from competitions. Moreover, the loads of considerable volume and intensity, the strain of physical and psychic functions put the athlete into extreme conditions event at the training stage. This is particularly true of sport games, since many forms of training in this case are the game proper differing but slightly from a competition.
A.F. Wendrich /1972/ studies the specifics of counteraction and cooperation between opponents or partners in a game during a competition or training. He showed that this specifics influences the dynamics of psychic functions - it may either be identical in training and in a competition or it may be opposite oriented /the so called inversion of meaning/, i.e. the changes of functions in a training differ from those in a competition; in this case the diagnosis of a player's preparedness, if this factor is not taken into consideration, may prove to be faulty. The differences are due to the specifics of the motivational sphere of the athlete in training or in a competition, and also due to the attitude to some exercises or forms of training.
It should be emphasised that the applicative character of many of the mentioned works does not relegate into the background the theoretical studies, such as the

personality structure of a high-class athlete, the psychological structure of sport activity, the psychological tolerance of heavy loads, socio-psychological mechanisms of the stress in high performance sports. There is further specialisation and cooperation of research work; coaches-instructors, specialists in the theory of physical training, physiologists, biochemists and physicians are invited for collaborative studies with psychologist. This cooperation augurs well for further progress in the theory of the psychology of sport and for a scientifically based practical assistance to high-performance sport.

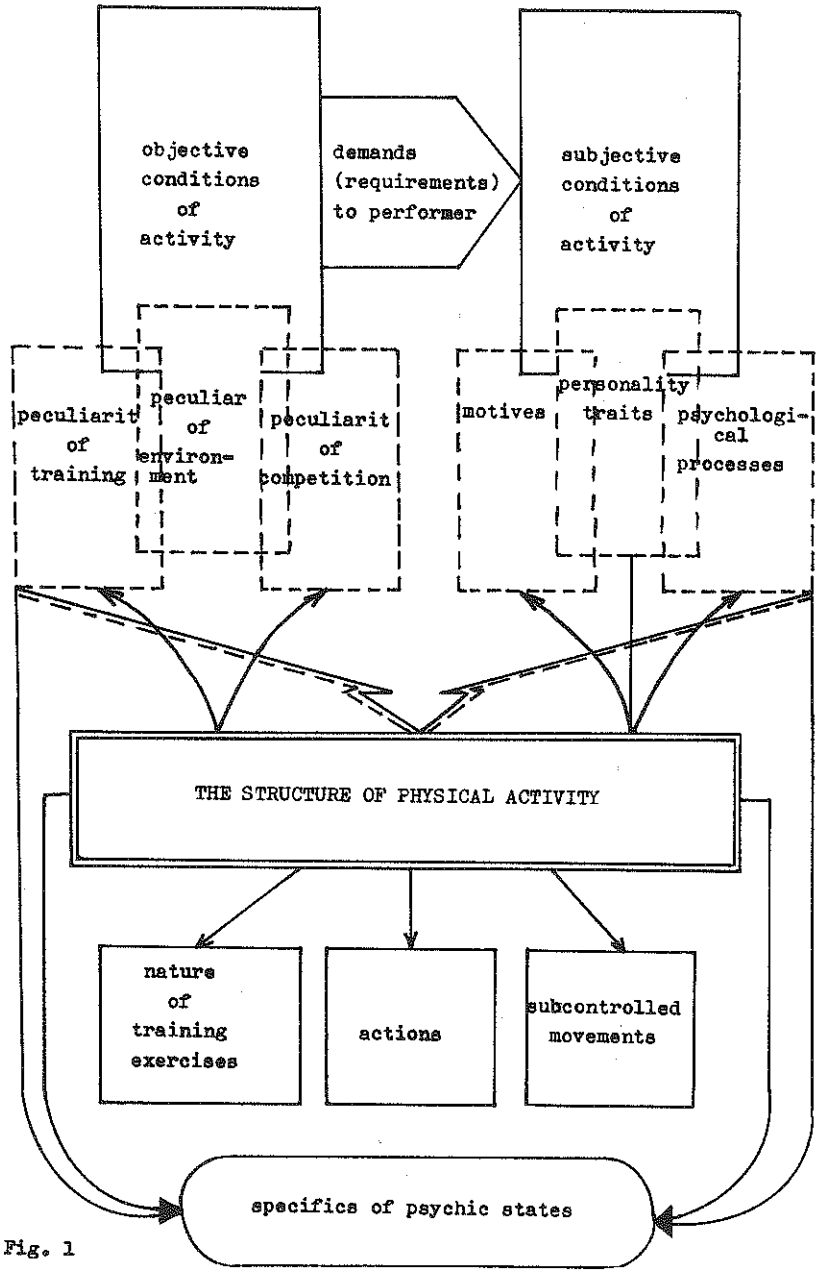


Fig. 1

PROBLEME DER PSYCHOLOGISCHEN ANALYSE DER SPORTTÄTIGKEIT

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Die psychologische Analyse der Sporttätigkeit ist für die Entwicklung der Wissenschaft Sportpsychologie, wie auch für die Sportpraxis von zentraler Wichtigkeit. In den sportpsychologischen Forschungen ist es nicht nur theoretisch begründet, dass man aus der Analyse der Tätigkeit ausgeht, sondern es hat auch methodologische Folgen. Wenn wir es anerkennen, dass sich im Sport die Umwelt/Persönlichkeit Interaktion durch die Sporttätigkeit realisiert, dann ist es auch klar, dass man durch die Analyse der Tätigkeit nicht nur die Tätigkeit selbst (deren Ablautgesetzmässigkeit)erkennen kann, sondern auch die Persönlichkeit des Sportlers und seine für die Tätigkeit relevante Umwelt. Umgekehrt: wenn wir das Prinzip der Tätigkeitzentriertheit zur Geltung kommen lassen, dann bringt uns auch das Aufdecken der Struktur und der funktionellen Gesetzmässigkeiten der Persönlichkeit, aber auch die Untersuchung der Umweltswirkungen näher zum Erkennen der Voraussetzungen der Tätigkeit. Die Tätigkeit ist also nicht nur Objekt, sondern auch zentrales Interpretationsprinzip der psychologischen Untersuchung.

Die grundlegende Zielsetzung der sportwissenschaftlichen Forschungen ist vom Anfang an die Optimierung der Sporttätigkeit, anders gesagt: die Steigerung der Sportleistungen. Zu gleicher Zeit - aber mit unterschiedlichem Akzent - gibt es auch eine andere Zielsetzung: die Gestaltung der Persönlichkeit des Sportlers.

Die psychologischen Analysen richteten sich bisher in den sportpsychologischen Forschungen auf zwei Gegenstände: auf die Sporttätigkeit und den Sportler. Die theoretische und praktische Effektivität dieser Analysen hing von der Auffassung ab, auf deren Grundlage sie durchgeführt wurden. Die verschiedenen Auffassungen bezogen sich in erster Linie auf das psychologische Wesen der Sporttätigkeit und auf die Bestimmung des Gegenstandes der Sportpsychologie; aber sie bestimmten die Methoden der Analyse, wie auch die psychologische Interpretation der Ergebnisse.

Die Problematik der Analyse der Sporttätigkeit ist sehr reich. So können wir in diesem kurzen Einleitungsvortrag die wichtigsten Problemenkreise nur aufzählen. Diese sind:

- Eine jede psychologische Analyse hat eine konzeptionelle Grundlage: ein Modell der Sporttätigkeit, der Sporthandlung, das zu gleicher Zeit auch das Bezugssystem der Interpretation der Analysenergebnisse bestimmt.
- Die richtunggebenden Zielsetzungen der Tätigkeitsanalyse.

Aus deren

- Konkretisierung ergeben sich die Aufgaben. Die Aufgaben und die Zielsetzungen
- bestimmen gemeinsam die verschiedenen Arten der Analyse, die auch schon die Anwendungsgebiete bezeichnen.
- Schliesslich bestimmen all diese zusammen die Methoden der psychologischen Analyse der Sporttätigkeit (methodische Probleme). Um den Reichtum der Problematik zu veranschaulichen, wird hier - unserer eigenen Konzeption entsprechend - nur eine mögliche Gliederung (und ihre Zusammenhänge) der Zielsetzungen und der

Aufgaben dargestellt, mit gleichzeitiger Formulierung der generalisierten theoretischen Zielsetzung (Abb.1.). Von den aufgezählten Problemen werden hier nur die konzeptionellen Grundlagen dargelegt.

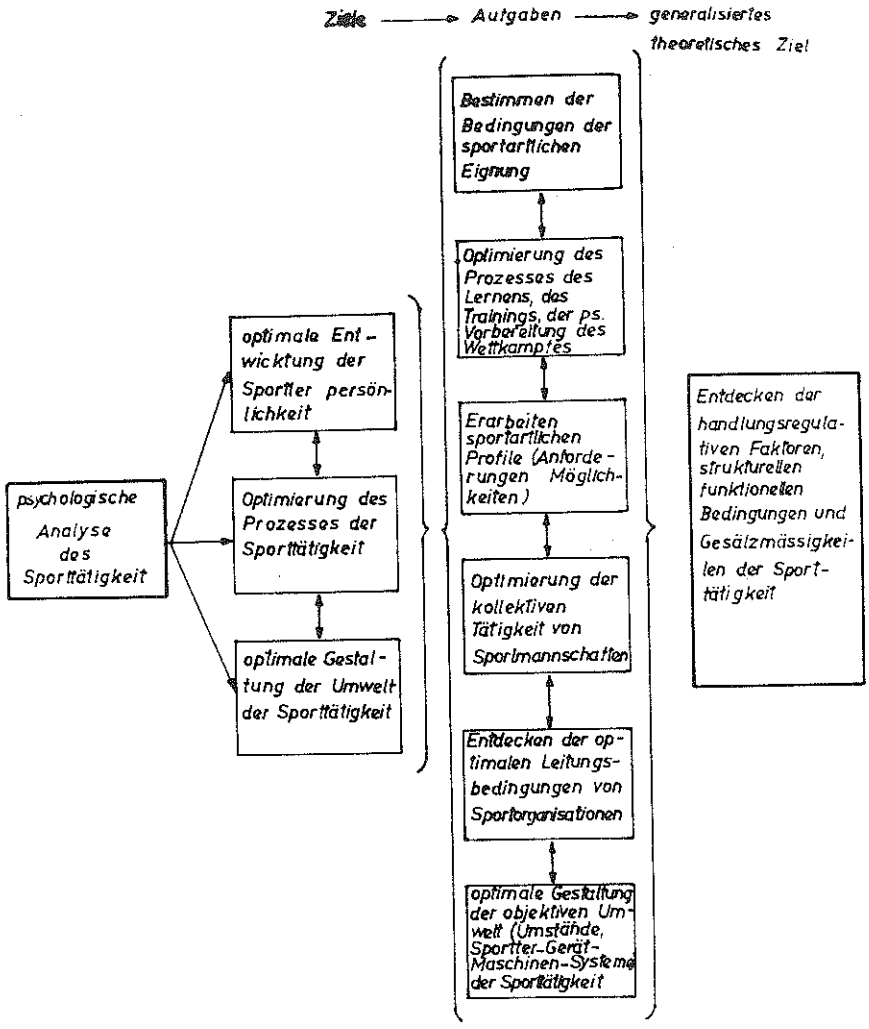


Abb. 1 *Ziele und Aufgaben der psychologischen Analyse der Sporttätigkeit*

Die Entwicklungsgeschichte der Sportpsychologie ist von mehreren Gesichtspunkten aus aufschlussreich.

1) Die Interpretation des Wesens der psychologischen Analyse veränderte und entwickelte sich den verschiedenen psychologischen Theorien und Richtungen entsprechend. Eine jede Theorie, eine jede Richtung hatte ihre Mängel, hat aber auch dauerhafte Werte. Die introspektive Psychologie z.B. betrachtete die Analyse der Erlebnisse als grundlegend. Obwohl die Selbstbeobachtung in ihrer reinen Form

auf dem Gebiet des Sportes kaum verwendbar ist, ist ihre retrospektive Variante heute noch unentbehrlich. Der Gegenpol, der Behaviorismus hielt die Analyse des Verhaltens für seine Aufgabe. Zwar ist die simplifizierte "S-R" Formel aus der Anfangsperiode des Behaviorismus in den komplizierten Sportsituationen kaum zu verwenden, die Analyse des auch äusserlich begreifbaren Verhaltens bietet auch in den heutigen Forschungen einen Ausgangspunkt. Die Verdienste der Psychotechnik in der Einführung der auf Messungen zu gründenden Eignungsuntersuchungen sind auch für die Sportpsychologie von grosser Bedeutung. In dieser Auswertung kann höchtens die auf Fähigkeitsfaktoren begrenzte mosaikartige Betrachtung kritisiert werden. Dieser Fehler wurde durch die totale Annäherung der Gestaltpsychologie beseitigt, mit der Einführung des -auch in der Sportpsychologie gut verwendbaren - Begriffes der Situation. Zu gleicher Zeit kann aber eben das abstrakte Symbolsystem der Feld-Theorie in der Situationsanalyse heutzutage nicht mehr zu konkreten, auch in der Praxis nützlichen Ergebnissen führen.

2) Der zweite Gesichtspunkt: in welchem Masststabe, in welchem Zusammenhangssystem die Analyse der Tätigkeit durchgeführt wurde? (Damit beschäftigen wir uns ausführlicher in unserem Vortrag zum Problemenkreis B.L.5. des Kongresses). Am Anfang war - auch auf anderen Gebieten der angewandten Psychologie (z.B. in der Arbeitspsychologie) - die isolierte Analyse von elementaren Prozessen (z.B. Bewegungen, Bewegungsoperationen) vorherrschend. Die Effektivität der Analysen wurde durch die Untersuchung grösserer Zusammenhangssysteme erhöht, mit gleichzeitiger Beachtung der differenzierten funktionellen Interaktionen.

Unserer Meinung nach: 1) soll die psychologische Analyse der Sporttätigkeit die Persönlichkeit des Sportlers und die - in der aktuellen Sportsituation greifbare - objektive und soziale Umwelt umfassen.
2) Innerhalb dieses dreifachen Umwelt -Tätigkeit-Persönlichkeit-Zusammenhangsystems ist der entsprechende Massstab, die Grundeinheit der psychologischen Analyse die Handlung.

Im weiteren werden wir die handlungspsychologische Konzeption dieser Analyse darlegen.

In unseren Tagen wird die Bedeutung der Handlung und die Notwendigkeit der Ausarbeitung einer Handlungspsychologie wieder von mehreren Verfassern betont, z.B. in allgemeiner Beziehung von Raum, H. (1973), in der Arbeitspsychologie von Hacker, W. (1973), in der Sportpsychologie von Thomas A. (1974) und Nitsch, J.R. (1975). Wir haben "wieder" gesagt, weil der Gedanke nicht neu ist. Einerseits geht nämlich ein Teil der erwähnten Verfasser aus der Arbeit von Rubinstein S.L. (1958) aus,in der er folgendes schreibt: "Die Anerkennung der Handlung als Grundeinheit der Psychologie bedeutet, dass die psychologische Analyse in der Handlung die Keime aller Elemente der Psychologie aufdecken kann". Anderseits blickt die Handlungspsychologie auch in Ungarn auf eine ernste - und vielleicht noch Ältere - Vorgeschichte zurück. Várkonyi, H.D. hatte schon 1935 in seinen Aufsatz "Die Analyse der Handlung" betont, von welcher produktiven Wirkung das Herangehen an die ganze Problematik der Psychologie aus einen handlungstheoretischen Aspekt sein kann. In einen späteren Aufsatz ("Leitgedanken der Handlungspsychologie, 1947) analysiert er die Struktur des Handlungsprozesses, und ordnet den "strukturellen Elementen" die verschiedenen psychischen Prozesse des Menschen bei. Ein anderer ungarischer Psychologe, Schiller, P. hatte 1944 eine handlungstheoretische allgemeine Psychologie geschrieben. Deshalb können wir mit der Feststellung von Nitsch,

J.E. nicht völlig einverstanden sein, demnach: "Die Psychologie stellt nicht in hinreichenden Masse die Grundlagen zur Verfügung, die zur theoretischen psychologischen Erschliessung des Gegenstandes Sport erforderlich wären". Wir selbst haben -hauptsächlich mit Beachtung der Arbeiten von Vérkonyi und Rubinstein - unsere "Sportpsychologie" (Rókusfalvy, P./1974) a)als eine spezielle Handlungspsychologie ausgearbeitet. In dieser konzeptionsbestimmenden Arbeit war es zweifellos notwendig, die Leitgedanken der frühen Handlungspsychologie vom Aspekt der Systemtheorie und der Regulation aus neuzuinterpretieren (Rókusfalvy, P. 1974) b). In dieser Annäherung halten wir die Konzeption von Nitsch, J.R. aus verschiedenen Aspekten uns verwandt.

Die erfolgreiche psychologische Analyse der Sporthandlungen ist unmöglich ohne Beachtung der systemtheoretischen Aspekte und der regulativen Funktionen. Die Interaktion Umwelt-Sportler ist die Interaktion von Systemen verschiedener Kompliziertheit und verschiedener Stabilität. Die Interaktion selbst (die aus einen Handlungssystem bestehende Sporttätigkeit) ist ein gesteuertes und geregeltes Prozess--System. Die Geregeltheit dieses, die durch die Persönlichkeit zur Geltung kommt, besitzt in entscheidendem Masse psychologischen Charakter. Andererseits ist es aber auch wohlbekannt, dass die Handlung überhaupt eben durch ihre Geregeltheit zum psychologischen Problem geworden ist. Die Systemtheorie-orientierte Handlungstheorie wird also nur durch die Einführung des Elementes der psychologischen Regulation, nur durch das Aufdecken der Struktur und der Funktionen der Regulation zu einer Handlungspsychologie.

Das Problem der Regulation wurde in der Psychologie nicht nur von Rubinstein, sondern auch von mehreren Anderen als eine wichtige Frage behandelt; z.B. von Kovač, D. (1971) aus der Tschechoslowakei und vom Deutschen Hacker, W. (1973). Unsere eigene Auffassung haben wir mit ihr auch schon in früheren Aufsätzen verglichen (Rókusfalvy, P. 1963, 1974) b).

Die erfolgreiche psychologische Analyse der Sporthandlungen setzt in jedem Falle irgendeine Konzeption über die strukturelle und funktionelle Differenziertheit der Regelung voraus, und erfordert zu gleicher Zeit auch die Beachtung der biochemischen und physiologischen Gesetzmässigkeiten. Die hierarchisch strukturierte Differenziertheit der Regelung kann durch die Analyse des Regelungsniveaus, während die funktionelle Differenziertheit durch die Analyse der Phasen des Handlungsprozesses aufgedeckt werden. Um die funktionelle Differenziertheit korrekt zu interpretieren, müssen wir die psychischen Prozesse der Persönlichkeit und deren Antriebs-Organisierungs- und Ausführungs-regulierende Rolle konsequent voneinander unterscheiden. Die Regelung der Handlung differenziert sich nämlich nicht den Arten der psychischen Prozesse, sondern ihrer regulativen Rolle nach (Rókusfalvy, P. 1974) a-b).

Wir geben also unserer Konzeption entsprechend eine handlungspsychologische Bestimmung des Objektes der psychologischen Analyse, der Sporttätigkeit. Die Sporttätigkeit ist

- ein durch die ganze Persönlichkeit strukturell und funktionell differenziertes Verhalten,
- das als ein leistungsorientiertes und aus physischen, physiologischen und psychosozialen Komponenten bestehendes motorisches Handlungssystem
- einen ideellen-moralischen Wert zu Stande bringt.

Zum Schluss möchten wir kurz einige Ergebnisse einer komplexen experimentalen Untersuchungsserie interpretieren. Mehrere Jahre lang haben wir Forschungen in Themenkreis Leistungsmotivation durchgeführt (unser Buch darüber ist im Druck). Da wurden verschiedene Arten direkten und indirekten Type der psychologischen Analyse der Sporttätigkeit verwendet: einfache Modellierung der Sporttätigkeit, Entscheidungsprozess-Analyse, Situationsanalyse, vergleichende Untersuchung von Sportlern, Leistungsanalyse, usw. Auf Grund unserer Ergebnisse ist es einerseits klar geworden, dass was wir traditionell Leistungsmotivation nennen, nicht nur eine Motivation ist, sondern sie nimmt ausser der Antriebsregelung der Sporttätigkeit auch an ihrer Organisierungs- und Anführungsregulation teil. Andererseits ist es uns gelungen, auch die genauere regulative Funktion einiger Teilfaktoren zu bestimmen, und damit in einem Gebiet einen ganz kleinen Schritt zur experimental begrundeten Entdeckung der funktionellen Differenziertheit der psychologischen Regelung zu machen.

Heute scheint es uns - eben vom Aspekt der Analyse der Sporttätigkeit aus - dass aufgrund unserer systemorientierten und regulativ interpretierenden handlungspsychologischen Auffassung selbst die Zielsetzung der Sportpsychologie neu definiert werden soll. Dementsprechend ist die Zielsetzung der Sportpsychologie:

- alle strukturellen und funktionellen psychologischen Voraussetzungen aufzudecken,
- die für die Persönlichkeit des Sportlers, für das System Sportler-Mittel/Maschine, für die Sportmannschaft und für die aus obigen bestehenden komplexe Sportorganisation
- das dynamische Funktionsgleichgewicht aufrechterhaltende
- optimal geregelte Sporttätigkeit
- in einer bestimmten Umgebung sichern.

Literaturverzeichnis

Hacker, W., 1973, Allgemeine Arbeits- und Ingenieurpsychologie. VEB Deutscher Verlag der Wissenschaften, Berlin.

Kovač, D., 1971, Theses on a regulatory comprehansion of mental functions in behaviour. Documentation of the Institute of Experimental Psychology, Slovak Academy of Sciences, Bratislava.

Nitsch, J.R., 1975, Sportliches Handeln als Handlungsmodell, Sportwissenschaft, No -1.

Raum, H., 1973, Zu einigen Aspekten einer psychologischen Handlungstheorie. In: Hacker-Quaas-Raum-Schulz (Hrsg): Psychologische Arbeitsuntersuchung: VEB Deutscher Verlag der Wissenschaften, Berlin.

Rókusfalvy, P., 1963, Über einige Probleme der Regulation der menschlichen Tätigkeit. (Az emberi tevékenység regulációjának néhány problémájáról) Magyar Psychologiai Szemle, No -4.

Rókusfalvy, P. 1974 b), A regulative view of sport-activity from the aspect of the action-psychology. Studia Psychologica No -4.

Rókusfalvy, P. 1974 a), Sportpsychologie (Sportpszichológia). Sport, Budapest.

Rubinstein, S.L., 1958, Grundlagen der allgemeinen Psychologie. Volk und Wissen Volkseigener Verlag, Berlin.

V.Schiller, P., 1944, Bevezetés a lélektanba. A cselekvés elemzése. (Einführung in die Psychologie. Analyse der Handlung). Pantheon Kiadás, Budapest.

Thomas, A., 1974, Die Entwicklung handlungspsychologischpsychomtorischer Verhaltensanalysen in ihrer Bedeutung für Sport und Leibeserziehung No -3.

Várkonyi H.D., 1935. A cselekvés elemzése (Analyse der Handlungen) Magyar Pszichológiai Szemle No -3-4.

CONCEPTUAL BASES OF TYPOLOGY, REQUIREMENTS - SYSTEM OF SPORTBRANCHES AND PSYCHOLOGICAL FITNESS OF ATHLETES

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On the actual level of experimental research possibilities the sportpsychology has arrived to its turning-point from more aspects. Requirements increased in this field because of the simultaneous differentiation and interdisciplinary integration of scientific activity. On the basis of new results in research the examination of several psychological problems has to be renewed according to the new interpretations. This type of complex problem is represented by questions of typology of sportbranches, the requirement-system and the psychological fitness among others.

It was the typology of sportbranches /classification/, which served as the global starting point to determine the factors of requirement-system /as one aspect of profile of sportbranch/ and psychological fitness untill now. Our opinion however explains us this road has to be completed in both direction, not only "there", but also "back". The elaboration of final typology of sportbranch representing the scientific value from the side of psychology and practical side of sport at the same time is possible only after the comparative analysis of sportbranch-profiles and longitudinal control-tests of psychological fitness of sportsmen. It is undoubtfull, that this general systematisation of the results in empirical and experimental way - the road of "direction back" - is long and more difficult, but this is more successful. At the same time it is worth while parallel with it to re-examine the basic conception of the global approach to the problem.

Basic importance in the solution of problems in this field has, the choice of adequate scalerate for the psychological analysis. Analysis with small scalerate /for example the motion-study/ has aptitude only to the physiological level /Farfelj/. Analysis with too big scalerate /for example the whole process of the

sportactivity/ leads, also in case of psychological character only to general statements. Adequate starting-point for the scalerate creates the action, as the smallest psychological regulated unit, which is always specific regarding the sportactivity. Specificity means here from one side the specific character of environmental system and of individual, and from other side the specific character of psychological regulatedness.

Wellknown sportbranch-typologies with psychological aim /for example Hepp, F., 1973. Kodym, M., 1967. Puni, A.C., 1971. Vanek, M., 1968./ are based on correct observations with summing up rich experiences, but at the same time-just because of the too big scalerate - the basis of the classification is not homogeneous, which means the appearance of sportbranches with different psychological character in the same class /typ./, or there is a certain overlap among different types.

In our own typology represented by 11 classes /Rókusfalvy P., 1973/ the basis of classification is the psychological regulation of sportactions /controlling and regulating effects realised in environment-personality interaction/. However, as according to our actual knowledge we esteem our conception as a proper one, we know, the further development of it is possible and sooner or later it is going to be corrected.

Same conception - introduced in the principal report - means the basis of the action-analysis determining the factors of requirement-system of sportbranches and of psychological fitness.

In favour of the optimalisation of sportactivity we have to know exactly the requirements-system. At the same time, as long as the physiological regulating factors of optimalisation - offering better information about its mechanism - can be measured more exactly, the problems of psychological factors are more complicated. Even in case of most exact items from the tasks /physiological, psychological/, requirements and performances in a certain sportbranch, it is impossible to derive direct conclusions to necessary psychological regulation of the activity. A determined task of sport /sport-situation/ prescribes directly at best only a determined action and not the determined psychological process and determines even more less the regulative function of the latter. At the same time this is required for the optimalisation of sportsactivity /achievement/ for the dynamical functional stability of the sportman's personality as a selfregulating system. /Therefore it is unsatisfactory for example to enumerate the esteemed necessary personality traits in itself/. This problem is more complicated by considering 2 other facts: 1. /The same sportachievement can be executed in different ways calculating with unnumerous ways of individual's possibility for compensation. 2./ All objective elements of the environment manifested in actual sportsituations and of sport-activity executed in the former state not only present the requirement, but offer at the same time a motivating possibility too.

Nevertheless, the regulating effect of these is also transmitted. /This scarcely studied problem has a great importance also from the point of view of development of personality./

Consequently, for the optimalisation of sportactivity the forming of an optimal psychological regulation, being in accordance with both requirements and possibilities is necessary, which means at the same time optimal personality, too.

The sportbranch-profile creates the starting point for optimalisation of such type.

Detailed examinations were made by Bulgarian scientists of sportpsychology to elaborate sportbranch-profiles - sure merely from aspect of the requirements-system.

The structure of their "psychosportogram" is very differentiated /Geron, E., Dimitrova, S., Kovatshew, I., 1970/ and is valuable from the point of view of the analysis of specific problems in competitions. However, our opinion says in this connection, that the mixing of objective and inventorylike enumerated personality-factors in the psychosportogram may bring difficulties in the regulative interpretation. Our colleagues Nitsch, J., Udris, I. and Allmer, H. /1976/ published a very valuable monography from an other aspect and with excellent research documentation. Their system theoretical-oriented action-psychological conception stands very close to ours. However, in the interpretation of the regulation of sportaction our opinion is different /for example in the problems of relation between phasestructure and regulative functions/. It is sure, that the loading has the effect of destabilisation, but the motivation is only one regulative function - although very important - of the restabilising sportaction. Total restabilisation needs adequate organising and executing regulation too, and this fact has to be reflected also in the sportbranch-profiles. Therefore in elaboration of the sportbranch-profile it is aimfull to use a multiphased process, as follows: 1. /The registration of objective factors in structural and homogeneous way on basis of analysing the sportactions in determined situations. 2. /The detection of the structural system of the necessary personality factors on basis of psychological interpretation of objective factorial data. 3. /To determine the total psychological regulating system of the actual sportbranch-activity - which may be assumed in a determined personality-profile on basis of a regulative interpretation in personality factors.
In this last phase of elaborating the sportbranch-profile we determined already also the differentiated personality factorial-system of the sport-specific fitness. The essence of fitness means namely - according to regulative section - psychology: optimal regulatedness being in accordance with requirements and possibilities of the actual sportbranch.

References

Farfelj, W.S., 1968. A járulékos információk szerepe a mozgásmüveletek oktatásában. Roczniki Naukowe, AWFW. 8. köt. Varsó /TFKI dokumentáció/

Geron, Dimitrova, Kovatshew, 1970. Psichosportogramata - uslovije za psichologičeskata diagnostika na sportista. sp. "Voprosy na fizitsheskata kultura ". II.

Hepp F., 1973. A mozgásérzékelés kisérleti vizsgálata sportolókon. Akadémisi Kiadó, Budapest

Kodym, M., 1967. A sport pszichológisi tipológiája. Sport Wycznowy, 1. sz. /TF dokumentáció/

Nitsch, J., Udris, I., 1976. Beanspruchung im Sport. Limpert Verlag, Bad Homburg

Puni, A.C., 1971. A versenyzés pszichológisi sajátosságsi különbözö sportágakban. Magyar Pszichológisi Szemle, 3. sz.

Rókusfalvy P., 1973. A sportmozgás mint cselekvés tulajdonságai és pszichológisi osztályozása. Testnevelés Tanitáss, 1. sz.

Vanek, M., 1968. Psychodiagnostische Methoden im Sport. Schweizerische Zeitschrift für Sportmedizin, 4.

ОБРАЗОВАНИЕ ПРЕПОДАВАТЕЛЕЙ ФИЗИЧЕСКОГО ВОСПИТАНИЯ В ВЕНГЕРСКОМ УНИВЕРСИТЕТЕ ФИЗИЧЕСКОЙ КУЛЬТУРЫ

РОКУШФАЛЬВИ,П., Будапешт, Венгрия

В образовании преподавателей физического воспитания известны различные модели обучения психологии. В 1972 году в спорт-психологическом симпозиуме в городе Маглингена например Эггер, К. (1974) на основе лекций, прозвучанных в данной тематике, различает 4 разных модели: 1. модель, ориентированная на учебную цель; 2. модель, ориентированная на спортивную цель; 3. модель, ориентированная по задачам спорт-психологии и 4. учебная действие-регулятивная модель. Естественно, что кроме этих возможны и многие другие модели и упомянутые типы являются не чистыми как и наш тип не чистый. Наша модель характеризуется следующим образом: его принципиальная концепция является действие-регулятивной а ее содержание является детерминированной учебной целью.

В системе образования Венгерского Университета Физической Куллтуры предметы психологии имеют особенную посредническую роль ("функция/моста") между естественно-научными и общественно-научными предметами (например, физиология и педагогика, биомеханика и теория физического воспитания).

Психологическое образование имеет три целевых установки: 1. освоение современной системы знаний о личности человека (взрослых и детей различного возраста), его развитии и воспитании, которые имеют основную важность с аспекта увеличения спортивных достижений. 2. формирование современного взгляда, который сделает преподавателя способным к правильной интерпретации и решению психологических проблем, возникающих в физкультуре и соревновательном спорте. 3. Информация о практическом применении психологии и формирование основных методических умений.

Новое содержание и программу психологического образования мы разработали начиная с 1970 года из совокупности знаний общей, педагогической и спортивной психологии и также психологии развития. Единой концепциональной основой психологических предметов, строящихся друг на друга является: психология действия регулятивного толкования, которая направляется на комплексную систему.

Концепция и структура предмета (и учебника) общей психологии отличается от традициональной концепции и структуры. Хотя в ней содержатся все основные знания, которые находятся в учебниках по общей психологии в других вузах, педагогических институтах и университетах, однако в качестве организационного принципа она осуществляет психологическую регуляцию действия. Со знанием отдельных психологических функций или проблем личности мы стремимся не только к описанию явлений и закономерностей и не к механической спортивной адаптации, а студентам следует научиться: человек (личность) как психологическая регулятивная система с различными психологическими функциями каким образом может урегулировать свои действия, поведение и всю свою жизнь на оптимальном уровне достижения. Значит, обучение общей психологии сознательно подготовливается к психологическому анализу специальных вопросов спорта и также вопросов о воспитании к спорту и посредством спорта.

Психология развития и педагогическая психология являются центричным к действию. Развитие личности показывается в ее взаимосвязи с внешней окружностью и в развитии единой регулятивной системы познания и действия. Педагогическа психология также положит в центр деятельности, деятельность педагога (учебную и воспитательную) и ученика (учебную и самовоспитающую) и их психологические закономерности.

Об учебной концепции спорт-психологии и ее системе знаний, дающей относительную полность уже сообщили на разных местах (Рокушфальви,П.)1972, 1974/а-б).Мне хотелось бы повторно подчеркнуть лишь то, что мы обучаем спорт-психологию как специаль-

ную психологию действия регулятивного толкования, которая направляется на комплексную систему и которая одинаково помогает школьному физическому воспитанию и соревновательному спорту. В программу всех психологических предметов однако встроятся кроме диагностических знаний и социально-психологические знания (для наглядной демонстрации этого в приложении показываем тематику спорт-психологию на немецком языке).

Формы и методы психологического образования в Венгерском Университете Физической Культуры характеризуются следующим: 1.Лекции во всех предметах дополняются семинарными занятиями с небольшими группами студентов. На этих занятиях студенты в первой очереди освоивают применение инструментальных и тестовых методов. Курсовые работы с темой по психологии принимаются лишь тогда, если они основываются на своих эмпирическом или экспериментальном собираниях данных.

2. До сих пор упомянутые учебные формы в психологии развития и педагогической психологии дополняются наблюдениями на уроке физического воспитания в школах. На основе своих протоколов наблюдений студенты составляют сравнительные рисунки личности с педагогической целью.

3. Талантливые и любознательные студенты могут участвовать в работе Научного Студенческого Общества по Психологии. Здесь они выбирают тему - либо из области школьного физического воспитания, либо из соревновательного спорта.

Мы считаем совершенствование обучения нашей постоянной задачей. Комплексное учебно-психологическое исследование распространяется на студентов, на отношение между преподавателем и студентом, и также на содержание и методы обучения. Его цель - между прочим - : обеспечением беспрерывных обратных связей разрабатывать измерительные методы эффективности обучения, экзамены с предметными тестами и подготовить - в отдельных тематиках - программированное обучение.

ЛИТЕРАТУРА:

Egger,K.1974, Unterricht in der Sportpsychologie.In: Schilling, G, und Pilz,G.(Eds.) Sportpsychologie - wofür? Psychologie sportive - pourquoi? Birkhauser Verlag, Basel. 118-128.

Rókusfalvy, P.,1972, Sportpsychologie im System der Sport- und Körpererziehungswissenschaften. Sportwissenschaft N° 2, 366-381.

Rókusfalvy,P., 1974/a, Sportpsychologia. Sport. Budapest, 200 p.

Rókusfalvy,P., 1974/b, Importanta conceptiei moderne in cercetarea si practica psihologiei Sportului."Ars poetica" de psihologia Sportului. In: Epuran,M. (Ed.), Psihologia si sportul Contemporan (Antologie). Editura Stadion, Bucuresti,67-84.

ÜBER DIE BEDEUTUNG DER ZEITWAHRNEHMUNG FÜR DIE BEWEGUNGSPRÄZISION

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Bei sportlichen Bewegungen und Alltagsbewegungen lässt sich beobachten, dass wir in der Lage sind, Bewegungen überraschend genau zu wiederholen und darin eine zeitliche und räumliche Präzision entwickeln, die so gross ist, dass Abweichungen kaum noch festgestellt werden können. Die Abstimmung der Erregungs- und Hemmungsprozesse bei solchen präzisen Willkürbewegungen setzt eine erstaunliche zentral-

nervöse Zeitabmessung voraus, durch die es beispielsweise einem Chellisten gelingt, innerhalb ganz kurzer Zeiten Griffspannen von mehr als 40 cm millimetergenau durchzuführen, oder durch die der Turmspringer vom Absprung bis zum völlig gestreckten Eintauchen ins Wasser mehrfache Salti und Schrauben vollführen kann und diese Bewegungen in einer nahezu hundertprozentigen Zeitgenauigkeit auszuführen vermag. Beobachtungen solcher Phänomene, die wir bei weniger komplizierten Bewegungen, besonders bei zyklischen Abläufen machen, sind Anlass einer Untersuchung gewesen, in der mit Hilfe einiger Parameter Bedingungen dieser Präzision herausgestellt werden sollten. Im besonderen sollte der Frage nachgegangen werden, inwieweit psychische Faktoren die Wiederholgenauigkeit beeinflussen, ob es intraindividuelle Präzisionsmaxima bzw. -minima gibt, ob sich die Präzisionsmasse durch Vorgabe von Metren erhöhen lassen, ob sich intraindividuelle Unterschiede der Bewegungspräzision durch simultane Bewegungsausführung in Gruppen nivellieren lassen.

Fragen dieser Art verweisen unmittelbar auf Probleme der Sportpraxis, die etwa beim Lernen motorischer Fertigkeiten, beim variierten bzw. differenzierten Anwenden solcher Fertigkeiten oder bei motorischen Anpassungsvorgängen auftreten. In besonderem Masse mag dies für rhythmische Vorgänge von Bedeutung sein, weil in diesen die Abstimmung von zeitlichen und energetischen Prozessen der Bewegung eine wesentliche Rolle spielt und eine höhe Bewegungspräzision vermutet wird.

Die Organisation des Bewegungsverhaltens ist im wesentlichen von Zeitwahrnehmungen bzw. Zeiterfahrungen abhängig. In unserem menschlichen Bewegungsverhalten und darüberhinaus in unserem gesamten leiblichen In-der-Welt-sein gewinnt die Zeit gewissermassen ihren Bestand dadurch, dass sich leibliches Verharren und Bewegen nicht innerhalb einer irgendwie gearteten objektiven Zeit vollziehen, sondern ihrem Wesen nach selbst zeitlich sind. Zeit ist also eine Kategorie des Leiblichen und der Bewegung. "Wo Handeln ... bewusst vollzogen, aber nicht ausdrücklich reflektiert wird, (wie das in vielen unserer sportlichen Handlungen der Fall ist) bleibt die zeitliche Struktur eingeschmolzen in (die) konkreten Möglichkeiten, Gegebenheiten und Verhältnisse, ohne sich von ihnen abzusondern und als formale Zeit zu erscheinen," (Kümmel, F.: Über den Begriff der Zeit. Tübingen, 1962, S. 147). D.h.: Zeit wird für uns durch und mit Bewegungen erlebbar und erfahrbar.

Mit dieser durch die Bewegungen erlebten und erfahrbaren Zeit entwickelt der Mensch gewissermassen seine Beziehungen und sein Verhältnis zur Aussenwelt. Das beim Menschen über Lern- und Erfahrungsprozesse entstandene Zeitgefühl, die Zeitmuster, die im Handeln verfügbar sind, entstehen überhaupt erst durch motorische Aktionen, durch die Verfeinerung, Automatisierung, Stabilisierung von Bewegungen, wodurch sich gleichsam die subjektive Fähigkeit zur Zeiterfahrung und Zeitanalyse herausbildet. Das Gefühl für schnell oder langsam, beschleunigen oder verzögern, hastig oder ruhig sowie die jeweils aktuelle Differenzierung und konkrete Ausstaffelung dieser polaren Zeitgefüge, entsteht durch das komplexe Mit- und Nacherleben von Ablaufzeiten der Bewegungshandlungen.

Buytendijk, von Weizäcker, Erwin Strauss, u.a. bezeichnen diese Erlebniszeit als die "vitale Zeit" (gelegentlich auch bei Portmann als sog. "biologische Zeit" charakterisiert) und gehen davon aus, dass für den Menschen die Zeit als Phänomen gar nicht auftreten würde, wenn es keine Fremdbewegung oder Selbstbewegung gäbe.

Wie können nun die Probleme der Zeiterfahrung im menschlichen Bewegungsverhalten konkret dargestellt werden? Ein wichtiges Ergebnis empirischer Arbeiten zu diesem Thema ist zweifelsohne das Faktum der sog. "Konstanz der Figurzeit". Es wurde

festgestellt, dass zwischen der Dauer und der Form einer Bewegung offensichtlich ein funktioneller Zusammenhang besteht. Ein bestimmter Bewegungsablauf prägt auch eine bestimmte Realisierungszeit und diese bleibt relativ konstant auch dann, wenn sich die Bewegungsfiguration ändert. Wenn man beispielsweise unterschiedlich grosse Kreise mit dem Zeigefinger in die Luft zeichnet, so besteht die Tendenz, dass bei der Variation der Bewegungsfigur die energetischen Impulse so abgestimmt werden, dass etwa gleiche Bewegungszeiten beibehalten werden.

In vielen sportlichen Bewegungsformen, beispielsweise in bestimmten Fertigkeiten beim Turnen (etwa das Bock-, Kasten-, Pferdspringen, die Rollen und Salti am Boden, die Abgänge vom Reck, Barren oder von den Ringen) oder in der Leichtathletik in den Sprüngen und Würfen, der Korbwurf im Basketball, das Wedeln mit den Skiern auf einem freien Hang, in den gymnastischen Bewegungen und Tanzformen, in sehr vielen sportmotorischen Abläufen also lässt sich das Phänomen zeitkonstanter Abläufe erkennen. Dieses Prinzip ist freilich nun kein starres Muster, keine funktionelle Fixation auf einen bestimmten Bewegungsautomatismus sondern eben nur eine zu beobachtende Tendenz, von der wir gar nicht so genau wissen, wovon sie abhängig ist und wodurch sie eigentlich verursacht wird. Die Meinungen darüber gehen in der Bewegungsforschung auseinander. Es gibt mehrere Autoren, die davon ausgehen, dass für die konstanten Grössen in unserem Bewegungsverhalten ein sog. "persönliches Tempo" verantwortlich ist, (Frischeisen-Köhler, Wachholder, Enke u.a.). In Anlehnung an die Konstitutionstypologie von Ernst Kretschmer wurde durch Willi Enke und Mitarbeitern ein sog. "konstitutionelles Tempo" ermittelt, das in Abhebung vom "persönlichen Tempo", welches als ein subjektiv angenehmes Tempo interpretiert wird, Bedingungen der Körperbauformen unterliegt und dadurch konstitutiv wird. Rüttimann bezweifelt allerdings, dass die methodologischen Verfahren, mit denen man die Existenz eines sog. "persönlichen Tempos" nachzuweisen versuchte, überhaupt für einen solchen Nachweis ausreichend sind.
Er schlägt deshalb vor, von einer "intraindividuellen Ähnlichkeit" des Tempos zu sprechen.

Die Ergebnisse unserer Untersuchungen bestätigen allerdings, dass sich im Erlernen und Anwenden von Bewegungen bestimmte Tempokonstanzen herausbilden. Dadurch erreichen wir eine Stabilität bezüglich der zeitlichen Dimensionen im motorischen Verhalten, die wir als eine habitualisierte Stabilität interpretieren können, d.h., dass ein Zeitempfinden und Zeitgefühl entwickelt wird, das einerseits als Regulativ in der motorischen Aktion wirksam wird, gleichzeitig aber deren Variation zulässt und andererseits als eine angenehme, sympatische Ablaufzeit erlebt wird. In einer Pilotstudie über das Gehen konnten wir beispielsweise feststellen, dass ein enger Zusammenhang zwischen der Präzision der Bewegung und dem als angenehm empfundenen Bewegungstempo besteht.
Das Maximum der Bewegungspräzision fiel mit dem als sympatisch empfundenen Bewegungsablauf zusammen. Dieses zunächst keineswegs überraschende Ergebnis vermittelte zusätzlich einige interessante Hinweise. Es ist keineswegs so, dass wir in einem bestimmten Bewegungsablauf nur ein Präzisionsoptimum hätten. Solche können sich, wenn auch nicht immer in gleicher Weise, in den langsamen, mittleren und höheren Tempobereichen ausbilden. Zwischen den jeweiligen Präzisionsgipfeln - beispielweise zwischen dem als sympatisch empfundenen langsamen Gehen und der angenehmen mittleren Gangart - liegt ein Bereich relativ hoher Abweichungen innerhalb unserer Bewegungsausführungen.

Um die Steuerung der Wiederholgenauigkeit in ihrer Abhängigkeit vom Zeitparameter genauer untersuchen zu können, haben wir eine Testbewegung benutzt, die nicht den Alltagsbewegungen – wie das Gehen – zuzuordnen ist und deshalb auch weniger stereotypisierte Effekte besitzt. Als Testbewegung wurde der gymnastische Hoch-Tief-Schwung gewählt und in unterschiedlichen Versuchsanordnungen untersucht.

Wenn Intensität und Reproduzierbarkeit eines solchen Bewegungsablaufes ohne grossen Materialaufwand objektiv erfasst werden sollen, so muss ein Verfahren herangezogen werden, das wesentliche Parameter der Bewegung erfassen kann. Das dynamometrische Messverfahren entspricht diesen Anforderungen, weil in die gemessene Stützkraft (das heisst die Zeitfunktion der zwischen Fuss und Boden wirkenden Kraft) die Bewegungen aller Körperteile einfliessen. Nach unseren Untersuchungen sind mit Hilfe des Dynamogramms Intensität und Reproduzierbarkeit von Hoch-Tief-Schwüngen eindeutig beschreibbar.

Folgende Problemstellungen wurden in die Untersuchung einbezogen:

- Bestehen zwischen den als angenehm empfundenen Bewegungstempi und den Reproduktionsoptima Zusammenhänge?
- Wird durch die Vorgabe von Ablaufzeiten (etwa durch Metronom oder elektronische Taktgeber) die Reproduzierbarkeit erhöht?
- Beeinflusst die Änderung im Bewegungstempo die Wiederholgenauigkeit einer Bewegung?
- Kommt es durch die Ausführung der Bewegung in einer Gruppe (Gruppenrhythmus) zu einer Nivellierung interindividueller Unterschiede?

Die Ergebnisse unserer Untersuchungen über den Hoch-Tief-Schwung, die wir an 16 Versuchspersonen mit insgesamt ca. 6.000 Schwüngen durchgeführt haben, lässt folgende Aussagen zu:

Je geübter eine Versuchsperson ist, umso grösser ist der Variationsbereich der Bewegungstempi, die als sympatisch empfunden werden. In Abb. 1 wird deutlich, dass bei Ungeübten dieser Bereich gegenüber der geübten Versuchsperson wesentlich enger ist. Hinsichtlich des Zusammenhangs von angenehmen Bewegungstempo und Wiederholgenauigkeit lässt sich (wie aus Abb. 2 ersichtlich) feststellen, dass solche Verbindungen zweifellos bestehen. In der überwiegend als angenehm empfundenen Taktdauer liegen auch die besten Benotungen der Ausführungen durch die Versuchsleiter, die mittlere Intensität der Bewegung und der niedrigste relative Fehler. Die als sympatisch erlebte Bewegungsausführung ist demnach auch die genaueste.

Das Problem der Adaption der Bewegung an vorgegebene Takteinheiten wird durch Abb. 3 illustriert. Vom ersten (rot) bis zum vierten (grün) Bewegungszyklus lässt sich die Tendenz der Anpassung des Intensitätsmaximum an den schweren Schlag des Taktes (in der Abb. durch die dicken farbigen Balken gekennzeichnet) erkennen. Die durch die akustischen Vorgaben eingetretene Bewegungsregulierung setzt sich bei den weiteren Wiederholungen fort. Wir können deshalb festhalten, dass es bei der Übereinstimmung von energetischem Optimum der Bewegung mit der Akzentuierung im Taktmass zu einer hohen Reproduzierbarkeit der Bewegungsausführung kommt.

Der mögliche Einfluss, der durch die Änderung des Bewegungstempos auf die Wiederholgenauigkeit entsteht, hängt im wesentlichen vom Auftreten unterschiedlicher Kräfte ab. Wie aus Abb. 4 zu erkennen ist, entstehen bei schnellen Bewegungen wesentlich höhere Kraftverläufe, in denen bei Wiederholungen natürlich auch mehr Fehler auftreten können, als bei langsam ausgeführten Bewegungen. Die Diagramme in Abb. 5 bestätigen diese Tendenz. Sogar der relative Fehler bei den schnellen Bewegungen liegt wesentlich höher als bei Bewegungen im mittleren bzw. langsamen Tempo. Hier zeigt sich, dass die Intensität, mit der Bewegungen ausgeführt werden, einen deutlichen Einfluss auf die Wiederholgenauigkeit besitzt. Aus den Kurven der relativen Fehler bei unterschiedlichen Bewegungstempi ist zu erkennen, dass die geringsten Fehler zwischen den Bereichen von mittlerer und geringer sowie mittlerer und hoher Intensität liegen, während bei der eigentlich mittleren Intensität entgegen den Erwartungen, ein Bereich mit relativ geringer Reproduzierbarkeit auftritt. (s. auch Ganguntersuchung Röthig/Nicol, 1976). Die Tendenz der Nivellierung interindividueller Unterschiede der Bewegungsausführung durch die gemeinsame Realisierung der Bewegung in der Gruppe wird in Abb. 6 verdeutlicht. Die Kraftverläufe von 4 Versuchspersonen, die am Vormittag den Hoch-Tief-Schwung einzeln und ohne Sichtkontakt zum Partner durchführten, zeigen bei der Gruppenbewegung am Nachmittag ein geradezu harmonisiertes Bewegungsbild.

Zeiterfahrungen haben - wie wir sehen konnten - einen erheblichen Einfluss auf die Bewegungsausführung. Die Dimension der Zeit dürfte ein wesentliches Kriterium der Gestaltung und Strukturierung unserer Alltagsbewegungen und sportlichen Bewegungen sein. Es liess sich herausstellen, dass für die Ablaufgenauigkeit und Präzision der Bewegung im Sport und Alltag subjektive Erfahrungen der zeitlichen Dimension des Bewegungsablaufes, mit denen gefühlsbetonte Erlebnisse der Sympathie einhergehen, ausschlaggebend sind. Das bedeutet für das Erlernen sportlicher Bewegungen, dass

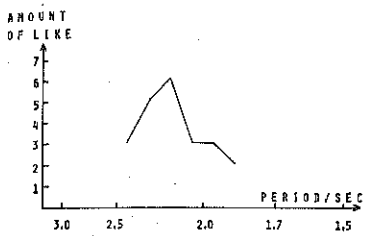
1. dem Lernenden für die Ausgestaltung seiner Bewegung auch die ihm angemessene Realisierungszeit belassen und gewährt werden muss. Unterrichtsszenen, in denen aufgrund äusserer Bedingungen der Schüler zu schnellen und plötzlichen Bewegungsausführung genötigt wird, sind nicht dazu angetan, ein Tempogefühl zu entwickeln, das zur Stabilisierung der Bewegung beiträgt;

dass 2. durch die Rhythmisierung der motorischen Lernvorgänge ein Zeitempfinden für motorische Abläufe vermittelbar ist, das für den Aufbau von Ordnungs- und Strukturmuster der Bewegung wichtig ist;

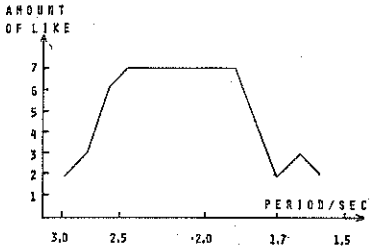
dass 3. durch Rhythmustraining (Tempotraining) die Variabilität innerhalb der Bewegungsausführung gesteigert werden kann, was zu einer Erweiterung der Sympathiebereiche führt;

dass 4. die Entwicklung der zeitlichen Ordnungs- und Strukturmuster für das lustvolle und ästhetische Innewerden der Bewegung ausschlaggebend ist;

dass 5. eine wichtige Aufgabe von Schulsport auch in der subjektiven Ausgestaltung von Bewegungen gesehen werden muss. Ein einseitig auf externe Normen - wie Sekunden, Meter, Kilogramm, Punkte, Tore - gerichtetes motorisches Verhalten wird dem Ziel der Entfaltung der Individualität nicht gerecht werden können.



TEST PERSON IS STUDENT



TEST PERSON IS GYMNASTIC TEACHER

Abb. 1

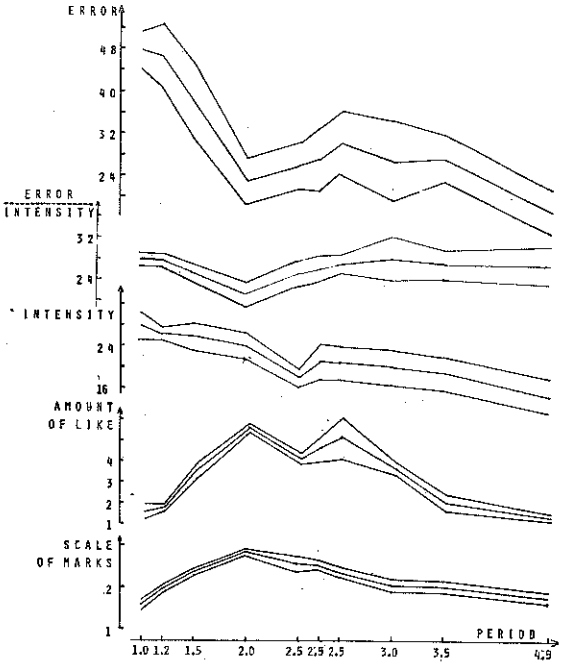


Abb. 2

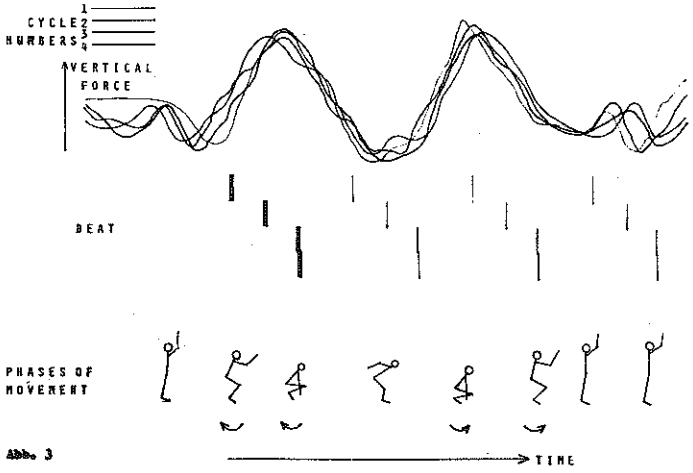


Abb. 3

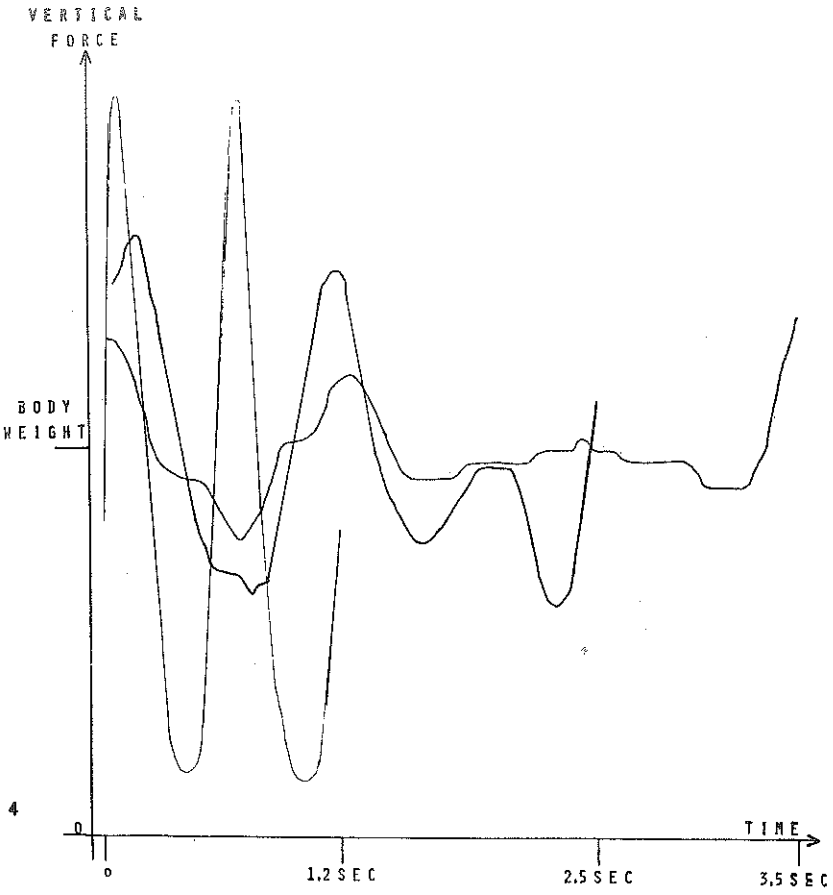


Abb. 4



Abb. 5 TEST PERSONS, RANKED TO INTENSITY

LOW INTENSITY HIGH

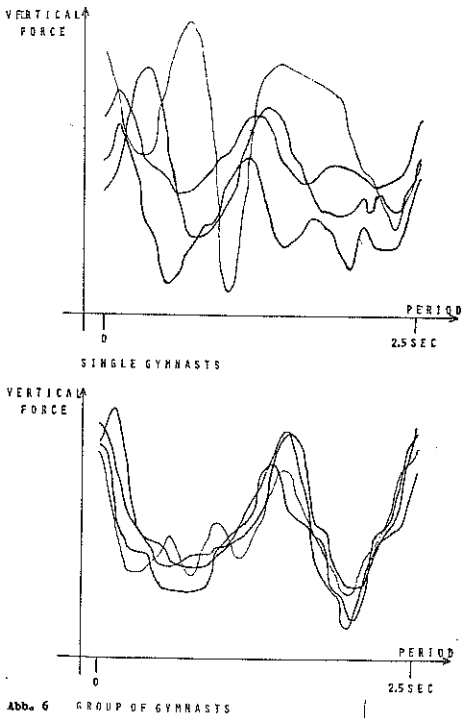


Abb. 6

Literatur

Buytendijk, F.J.J.: Allgemeine Theorie der menschlichen Haltung und Bewegung, Berlin/Göttingen/Heidelberg 1956.

Derwort, A.: Untersuchungen über den Zeitablauf figurierter Bewegungen beim Menschen, in: Pflügers Archiv, Bd. 240, 1938.

Enke, W.: Die Psychomotorik der Konstitutionstypen, Leipzig, 1930.

Fetz, F.: Bewegungslehre der Leibesübungen, Frankfurt, 1972.

Kümmel, F.: Über den Begriff der Zeit, Tübingen, 1962.

Meinel, K.: Bewegungslehre, Berlin 1976.

Röthig, P./Nicol, K.: Zum Problem der Entwicklung lokomotorischer Grundmuster, in: Rieder/Hahn (Hrsg.) Psychomotorik und sportliche Leistung (Festschrift Karl Feige), Schorndorf, 1976.

Rüttimann, P.B.: Experimentelle Untersuchung über das Tempo in Motorik, Wahrnehmungsakten und Denkprozessen, Freiburg/Schweiz 1966.

Sobotka, R.: Formgesetze der Bewegungen im Sport, Schorndorf, 1974.

Weizsäcker, V.: Der Gestaltkreis, Stuttgart 1950[4].

LATERÁLNO-PREFERENČNÍ UČENIE AKO ZVLÁŠTNY PRÍPAD MOTORICKÉHO UČENIA MLÁDEŽE

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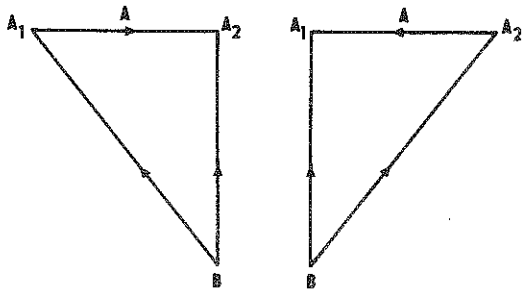
Pre súčasný stav poznatkov o laterálne-preferenčných javoch je charakteristická diskrepancia medzi genotypickou a fenotypickou štruktúrou, tj. medzi vrodenými dispozíciami a pôsobením prostredia. Pôvodné rozloženie pravej a ľavej strany bolo pravdepodobne racemické, no údaje, ktoré máme k dispozícii naznačujú súčasnú prevahu pravej strany. Vysvetlenie možno nájsť v pôsobení environmentálnych premenných. Vplyvu pravostranne zameranej civilizácie odoláva len asi 4 % jedincov ľavostranne orientovaných. Z toho vyplýva, že v protiklade s genotypickými dispozíciami sa značná časť jedincov v procese ontogenézy preorientuje na pravú stranu. Čoraz väčšiu váhu získavajú argumenty prívržencov endogenných príčin formovania laterálnej preferencie. Na ilustráciu možno uviesť zistenia Dawsona /1972/, ktorý zistil medzi Eskymákmi - lovcami 11,3 % ľavoručných jedincov a medzi čínskymi domorodcami Hakka v Hong Kongu, ktorí sa živia poľnohospodárstvom iba 1,5 % ľavoručných. Penfield a Roberts /1959/ nenašli v genetickej literatúre presvedčivé dôkazy o tom, že smer preferencie je dedičný.

Pozoruhodné je, že práve v psychológii sa lateralita tešila záujmu oddávna. Porta už r. 1593 v diele "De refractione" referoval o očnosti a koreloval očnosť s ručnosťou. J.Mac Keen Cattell zaradil r. 1896 do "Physical and Mental Tests" viacero laterálno-preferenčných meraní. Avšak až v šesťdesiatych rokoch nastávajú významné zmeny v tradovaných názoroch, ktoré sa prejavili najmä v pedagogickej oblasti. Zmenu priniesla spolupráca najnovších neurofyziologických poznatkov so závermi psychologických výskumov. Máme na mysli akcentovanie horizontálneho nervového systému a faktov o laterálnej špecifičnosti spracovania informácií. Horizontálny nervový systém predstavuje protiklad vertikálnej nervovej regulácii /Ananiev 1969/. Podľa Kováče /1973/ vertikálny systém je hierarchický a reguluje činnosť organizmu podľa princípu spolupôsobenia funkčne rôzne vybavených oblastí. Horizontálny systém je integračný a reguluje podľa princípu rovnako vybavených oblastí, pričom dochádza k spolupráci oboch hemisfér najmä prostredníctvom corpus callosum a celého radu comissúr.

Laterálna špecifičnosť spracovania informácií operuje s lokalizáciou a špecializáciou párových analyzátorov. Zistilo se, že niektoré senzomotorické aktivity boli kvalitnejšie ak sa stimulovali pravé mozgové hemisféry, prípadne naopak /Bradshaw 1972/.

Motorický výkon, najmä ak je zložitý a jemne koordinovaný je výsledkom centrálnej mozgovej regulácie. Kvalita výkonu teda závisí nielen od samého efektora, ale aj od štrukturálnej kvality príslušných kôrových centier; zvýšenou aktivitou efektoru sa spätne ovplyvňuje aktivita kôrových centier a tým sa spätne zdokonaluje funkcia. Podľa Ananieva /1969/ laterálna preferencia nie je vrodená, ale je produktom životných podmienok, získava sa v individuálnom živote. Možno to ilustrovať na počiatočných vývinových stupňoch. Novorodenec v situácii v ktorej sa vyžaduje určitá motorická odpoveď, napr. uchopenie, dá prednosť tej končetine, ktorá v súlade s princípom kompatibility a ekonomizácie povedie k účelnému zásahu. Postupom času nadobudne určitú skúsenosť, tj. preferuje sa. Avšak preferencia má isté hranice. Ak sa zvýši tak, že naruší spolupráci medzi párovými funkciami, dokonalejšia strana podnieti činnosť submisívnej tak, aby s ňou mohla spolupracovať. Avšak spätnoväzobne podriadená končetina provokuje nadradenú k vyšším výkonom, čo síce nevedie k vyrovnaniu oboch častí, no systém ako celok sa zdokonaľuje.

Podľa Kováča /1973,1977/ dochádza k zvláštnemu druhu nešpecifického učenia nazývanému ako laterálne preferenčné učenie. Charakteristické pre tento druh učenia je, že vedúca končatina dokáže využiť nahromadenú skúsenosť svojej spolupracujúcej funkcie. Tým, že vedúca funkcia využíva nahromadenú skúsenosť podriadnej, vzniká tým kvalitatívne nový, vyšší funkčný výkon. Kováč /1977/ schématicky znázorňuje integráciu uskutočňovanú vedúcou zložkou párového systému (obr. 1):



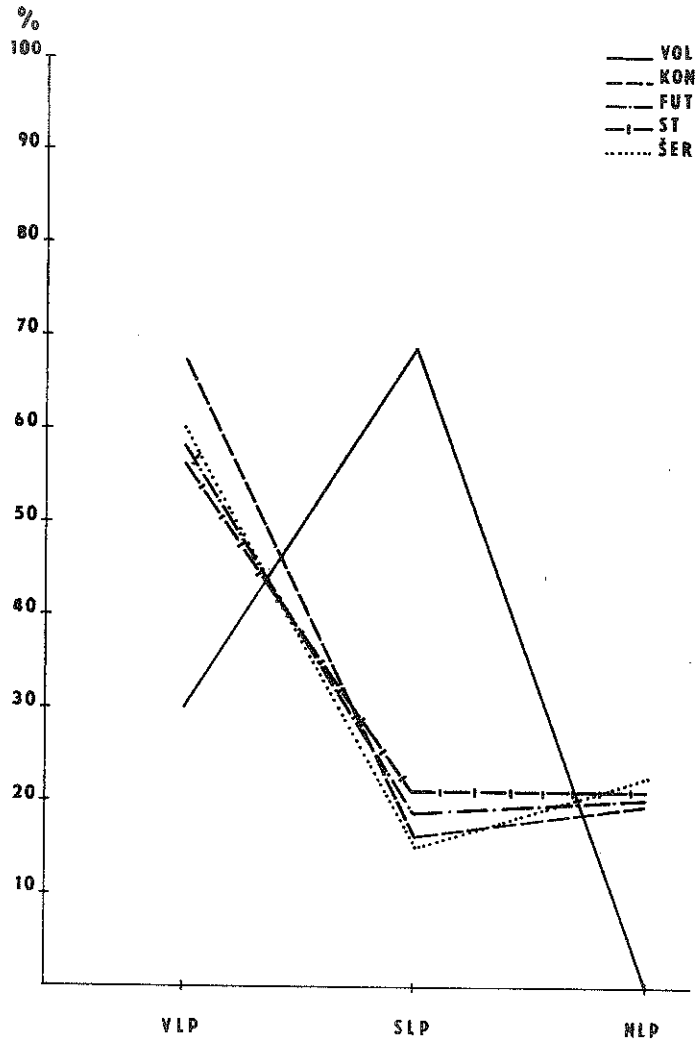
obr. 1

Schématické znázornenie integrácie uskutočňovanej vedúcou zložkou párového systému.

Pri predpokladanej rovnocennosti ľavej /A_1/ a pravej /A_2/ zložky párovej funkcie /A/ vzniká vytvorením vedúcej funkcie nová vyššia spôsobilosť príslušného párového systému /preto B; pričom B=B /A_1,A_2/. K integrácii však možno dôjsť len za podmienok aktívneho spolupôsobenia /kompetenčného vzťahu/ oboch zložiek v procese fungovania párového systému. Na podporu týchto záverov možno uviesť aj dôkazy z neurofyziologických výskumov, v ktorých sa zistilo, že prenos motorických schém je väčší z dominantných do nedominantných oblastí ako opačným smerom /Černáček 1968/. Popri argumentoch, ktoré v prospech laterálno-preferenčného učenia uvádza Kováč /1977/ pokúsili sme sa aj o ďalšie výskumné podporenie platnosti týchto princípov pri formovaní motorických prejavov laterálnej preferencie.

Výskumu sa zúčastnilo 257 probandov vo veku 14 - 16 rokov rôznych športových špecializácií a kontrolnej skupiny nešportovcov, /25 volejbalistov, 35 futbalistov, 26 stolných tenistov, 20 šermiarov a 151 nešportujúcich učňov/. Tréning športových činností trval minimálne 2 roky. Administroval sa anamnestický dotazník Orientácia v laterálnej preferencii OLP - b /Kováč, Horkovič 1973/, ktorí tvoria anamnestické škály, ktoré sa týkajú vývinu a súčasného stavu laterálnej preferencie v rôznych párových funkciách a systémoch.

Pre aplikácii dosiahnutých výsledkov sme vychádzali z predpokladu, že pre orientáciu v optimálnych laterálne preferenčných vzťahoch je nevyhnutné okrem zistenia smeru laterálnej preferencie poznať stupeň laterálnej preferencie. Probandov sme podľa dosiahnutého skóre v OLP - b rozdelili do troch skupín : s výraznými, strednými a nevýraznými laterálne preferenčnými vzťahmi. Z hľadiska optimality nevýrazné laterálne preferenční vzťahy možno považovať za nežiaduci typ laterálnej preferencie, ktorý sa prejavuje slabou preferenciou v jednotlivých párových funkciach a smerove rôznou preferenciou v samotných párových systémoch.



obr. 2
Distribúcie jednotlivých skupín probandov podľa skóre v OLP – b.

Na obr. 2 sú znázornené distribúcie jednotlivých skupín probandov podľa skóre v OLP – b. Optimálne laterálno preferenčné vzťahy sa zistili vo výbere volejbalistov, kde sa takmer neobjavili nevýrazné typy laterálnej preferencie. Napriek pomerne malému počtu probandov našej sondy sme konštatovali, že simultánne používanie horných končatín v jemne koordinovaných úkonoch volejbalistov je pre vyhranenie laterárnej preferencie formatívnejšie, než napr. vyhranené ale alternatívne používanie končetín napr. u šermiarov alebo stolných tenistov.

Ďalším rozpracovaním princípov laterálne preferenčného učenia možno očakávať rozšírenie niektorých našich poznatkov nielen o motorike človeka ale aj na ľubovoľnom stupni prijímania resp. spracovania informácií človekom.

Literatúra :

ANANIEV, B.G. : Čelovek kak predmet poznanija, Leningrad LGU, 1969.

BRADSHAW, J., GEFFEN, G., NETTLETON, O. : Our two brains. New Scient, 1972, s. 628 - 631.

ČERNÁČEK, J. : Lateralita hemisfér, Brat.lek.listy, 46, 1966, s. 389 - 410.

DAWSON, J.L. : Temne-Arunta hand-eye dominance and cognitive style, Intern. J. Psychol., 7, 1972, .s. 219 - 233

KOVÁČ, D., : Manuál k OLP, Bratislava, ÚEP SAV, 1973

KOVAČ, D., : Laterálna preferencia : 5 rokov sústredeného štúdia v Ústave experimentálnej psychológie, Čs. psychol., 21, 1977, s. 37 - 55.

PENFIELD, W., ROBERTS, L., : Speech and brain mechanisms, Princeton : Princeton University Press, 1959.

ODOLNOST VÔČI ZAŤAŽI U ROZHODCOV HÁDZANEJ

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Rozhodovanie je zložitou aktivitou, ktorá kladie značné nároky na znalosti, skúsenosti, fyzickú pripravenosť a v neposlednom rade aj na osobnosť rozhodcu. Situační variabilita zorného poľa predpokladá vysokú úroveň optického postrehu, ktorý je determinovaný stupňom a koncentráciou pozornosti, odpoveďovou pohotovosťou, zameranosťou, stavom krátkodobej a dlhodobej pamäti, veľkostou zorného poľa, funkčným stavom zrakových orgánov apod. Úroveň rozhodovania je okrem toho ovplyvnená aj osobnostnými predpokladmi: intelektovými schopnosťami, typom nervovej sústavy, sebaovládaním, emočnou stabilitou, dominanciou atď. Okrem toho sa vyžaduje aj vhodné sociálne správanie pri riešení konfliktových situácií. Do popredia tiež vystupujú charakterové vlastnosti ako čestnosť, rozhodnosť, nekompromisnosť. Kvalita rozhodnutia môže byť do značnej miery ovplyvnená aj rozným fyzikálnymi alebo sociálnymi vplyvmi. Značný význam sa pripisuje aj odolnosti voči psychickej zátaži, ku ktorej dochádza posobením fyzikálnych /teplo, hluk, zima, nedostatok fyzických síl/ alebo sociálnych /správanie obecenstva, hráčov, dôležitosť stretnutia, spolupráca s partnerom/ vplyvov. Matoušek, Růžička, Hladký /1972/ presadzujú systémové chápanie, ktoré integruje všetky dielčie aspekty /tj. stimuly, reakcie vo vonkajšom správaní a vnútornom prežívání/ a chápe človeka ako systém v rámci určitého metasystému. Každá záťažová situácia, ktorá je pre organizmus novým podnetom, je porovnávaná so subjektívnymi hodnotami v rámci kognitívnej štruktúry. Daniel /1975/ a Kostolanský /1975/ pokladajú schopnosť znášať psychickú záťaž, resp. kompenzovať jej vplyvy za jednu z významných charakteristik osobnosti.

V predloženej informácii sa posudzujú niektoré premenné, ktoré môžu významne ovplyvniť odolnosť vôči psychickej záťaži. Výskumu sa zúčastnilo 43 rozhodcov hádzanej I. ligy v priemernom veku 39 rokov. Na zisťovanie úrovne spracovania záťažových situácií v prežívání a vo výkonovej sfére bola zostavená batéria skúšok:

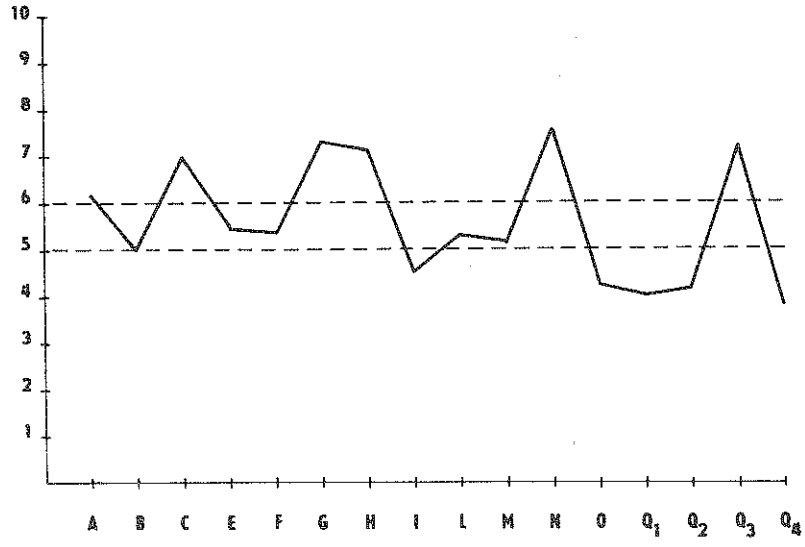
1. Dotazník odolnosti voči záťaži /DOZ, Mikšík 1973/, zisťujúci hladinu stimulácie a tendencie k riziku, účinnú integrovanosť osobnosti, sebaistotu, adaptabilitu a flexibilitu, zodpovednosť a feminitu - maskulinitu.

2. Škála subjektívneho vnímania experimentálnych postupov /SVEP, Farr, Seaver 1975, slovenský preklad Sarmány, Zelman/, zachytáva prežívanie somaticky nepríjemných situácií, psychologicky nevhodných zážitkov a zásahov do súkromia.

3. Stroopov test interferencie /v modifikácii Daniela 1968/ predstavujúci špecifický typ percepčnej záťaže vo formách : I - menovanie slov, II - menovanie farieb, III - farebné slová, IV - farby/ slová + slová.

Okrem toho sa administrovali osobnostné skúšky 16 PF /Cattell/, PEN /Eysenck/, CF 2A /Cattell/, KSAT /Kondáš/, INR 70 /Brengelmann, Böttcher/. Tachystoskopickú skúšku percepcie a rozsahu krátkodobej pamäti tvorilo 6 obrázkov so špecifickými hernými situáciami z hádzanej, z ktorých každý sa exponoval 1 sekundu. Stroopov test interferencie a tachystoskopická skúška sa aplikovali bezprostredne po fyzickej záťaži, ktorú tvorili skúšky telesnej pripravenosti. Komentovanie týchto výsledkov však presahuje obmedzený rozsah tejto informácie.

Výsledky a diskusia



Obr. 1
Osobnostný profil rozhodcov hádzanej podľa 16 PF /n = 43/

Podľa dotazníka osobnosti 16 PF bolo možné bližšie popísať osobnostné vlastnosti charakterizujúce daný výber rozhodcov (obr.1). Sú to faktory A^+ /spoločenský, prispôsobivý/, C^+ /sila ega/, G^+/sila superega alebo charakter/, H^+/parmia/, I^-/harria, huževnatý, realista/, N^+ /sofistikovanosť/, O^-/kľudná sebadôvera/, Q_1^-/konzervatívna povaha/, Q_2^-/závislosť na skupine/, Q_3^+/ veľká sila selfsentimentu/, Q_4^- /nízka ergická tenzia/. Skúška intelektu potvrdila dostatočnú úroveň intelektových schopností, ktoré sa pohybujú v priemere. Podľa skóre PEN, KSAT a INR 70 možno usudzovať, že parametre charakterizujúce emočnú labilitu sú v norme.

Dimenzia extra - introverzie naznačuje prevládajúcu extraverziu podobne ako u väčšiny športujúcej populácie. Vek kladne koreloval s fyzickou pripravenosťou a s faktorom Q_4/flegmatický, pokojný/. Výsledky v dotazníku DOZ naznačujú /v porovnání s normou/ zvýšené hodnoty v dimenziach účinná integrovanosť osobnosti /I-G/, sebaistota /P-1/ a zodpovednosť /P-3/.

Podľa Mikšíka /1973/ účinnú integrovanosť osobnosti možno považovať za premennú vyjadrujúcu schopnosť vyrovnať sa s určitým druhom záťaže mobilizáciou fyzických síl, dynamičnosťou aktivácie, hladinou rezistencie voči rušivým podnetom atď. Šarmány /1976/ zistil signifikantne kladné korelácie medzi touto dimenziou $^aC^+$, Q_3^+, a Q_4^-. Dimenzia sebaistoty vyjadruje prežívanie istoty - neistoty ako mieru spoliehania na seba, na možnosť samostatne riešit zátažové situácie. Dimenzia zodpovednosti predstavuje pohotovosť konať v záťažových situáciach podľa požadaviek a noriem, ktoré majú spravidla charakter určitej povinnosti. Z korelačných vzťahov možno upozorniť na signifikantné korelácie medzi účinnou integrovanosťou, sebaistotou a zodpovednosťou /$P < 0,05$, tab. 1./.

Tab. 1.

Korelačné koeficienty medzi dimenziami DOZ

	S + R	I - G	P - 1	P - 2	P - 3	P - 4
S + R	-.165	-.165	-.022 =	.061	-.829^{++}	.246
I - G		-	.836^{++}	.066	.341^{+}	.459^{++}
P - 1			-	.143	.192	.365^{+}
P - 2				-	.192	.219
P - 3					-	-.140
P - 4						-

Škála subjektívneho vnímania experimentálnych podnetov /SVEP/ zistovala stupeň nepríjemnosti v hypotetických experimentálnych procedúrach. V našom výskume sme SVEP modifikovali s prihliadnutím na očakávanie, že hypotetické záťažové situácie sa odrážajú v prežívání ohrozenia integrity osobnosti a to vo forme somaticky nepríjemných situácií, psychicky nevhodných zážitkov alebo zásahov do súkromia. Z korelačných vzťahov medzi jednoltivými časťami SVEP vyplývá, že probandi skórujúci vyššie v určitom type situácií skórovali vyššie aj v ostatných častiach, napr. v somaticky nepríjemných situáciach a psychologicky nevhodných zážitkoch. /$P < 0,01$, tab. 2/.

Tab. 2.

Korelačné koeficienty medzi dimenziami SVEP.

	A	B	C
A	-	.548^{++}	.186
B		-	.218
C			-

Modelované zisťovanie odolnosti voči psychickej záťaži reprezentované Stroopovým testom interferencie naznačilo značnú variabilitu medzi jednotlivými probandami a súčasne sa zistilo, že rezistencia voči interferencii pozitívne korelovala s účinnou integrovanosťou osobnosti a sebaistotou z DOZ. To naznačuje všeobecnú súvislosť medzi jednotlivými ukazateľmi signalizujúcimi spracovanie záťažových situácií, predovšetkým medzi výkonovými a prežitkovými výstupmi.

Na základe komentovaných výsledkov sa nazdávame, že nami zostavená batéria skúšok je citlivá na diferencovanie odolnosti voči psychickej záťaži predovšetkým s prihliadnutím na ostatné osobnostné premenné. Podľa týchto meraní bolo možné zostaviť osobnostný profil každého vyšetrovaného rozhodcu a podľa toho vysloviť odporúčania rešpektujúce osobnostné špecifiká predovšetkým pri optimálnej spolupráci s partnerom vo dvojici, pri prideľovaní náročných stretnutí apod.

Literatúra :

DANIEL, J., : Niektoré koreláty Stroopovho testu interferencie, Čs. psychol., 12, 1968, s. 282 - 287.

DANIEL, J., : Psychologická analýza činnosti operátora v automatizovanej výrobe a problémy psychickej záťaže, In: J.Daniel /Ed/, Psychologická analýza činnosti operátora, Veda, Bratislava 1975.

FARR, J.L., SEAVER, W.B., : Stress and discomfort in psychological research - subject perceptions of experimental procedures, Amer. Psycholog., 30, 1975, s. 770 - 773

KOSTOLANSKÝ, R., : Odolnosť voči psychickému stresu a parametr veku, Správy ÚEP SAV, č. 218, 1975.

MATOUŠEK, O., RŮŽIČKA, J., HLADKÝ, A., : Člověk a práce, Svoboda, Praha 1972

MIKŠÍK, O., : Metodologie, koncipování a vývoj testů ke zjišťování subjektivních předpokladů odolnosti vůči zátěži, Zprávy VÚP, č. 25, 1973.

EDUCATION AS PERSONALITY DEVELOPMENT FACTOR OF TOP ATHLETES

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I. Introduction.

One of the important factors shaping man´s personality is education. A significant meaning is attributed to education because it provides man with knowledge on the world which surrounds him, permits a better understanding of changes which occur in the nature and society. Man´s effective and creative activity depends to a large extent on his knowledge and abilities which he acquires through education.

In sport, education also plays an important role; among outstanding athletes there are more and more frequently students or university graduates. Having

carried out observations of behaviour of athletes with various level of education, we are inclined to believe that those with higher level of education demonstrate a slightly different personality structure. In order to test this hypothesis we have undertaken these studies. We would like to answer the question: what are the differences in personality of top-level athletes with different level of education?

II. Method and Subjects

R.B. Cattell's 16-factors personality questionnaire, A and B versions, was used in the study. It measures 16 independent and determined personality factors, giving a relatively complete description of man's personality /1, 2/.
In this report we would like to present a part of the author's more comprehensive paper on investigations of relationships between top athletes' personality and age, duration of their sports career and level of education /3/.
Two groups of athletes were selected for statistical analysis; the groups differed only as regards the level of education, with no difference in age and duration of sports career. The first group consisted of 98 athletes /25.7% of the total number of subjects/ who had had a basic vocational training or incomplete secondary education. Mean age was 21.27 years, standard deviation = 3.64/; mean duration of sports career = 5.86 years, standard deviation = 2.45.
The second group consisted of 79 athletes /20.7%/, students of various academic schools. Mean age was 21.94 years, standard deviation = 2.45; mean duration of sports career = 6.11 years, standard deviation = 2.73.
In both groups there were representatives of the following sports: basketball, volleyball, handball, rugby, swimming, yachting, weight lifting, tennis, table tennis, 100 m run, boxing, speed skating, cycling and sledging. The athletes studied were not a representative sample of the whole of Polish top athletes.

III. Results

Table 1 presents mean scores /M/ and standard deviations /SD/ for both groups I and II. Values of Student "t" test and level of significance of differences /p/ between the means of both groups are also presented.
The subjects of the group II /students/ had significantly better scores than those of the group I in the following factors: B /intelligence/, C /emotional maturity/, H /parasympathetic resistance/, N /rationalism/, Q_1 / radicalism/, Q_2 /self-support/ and Q_3 /self-evaluation and will power/. On the other hand, in O factor /depressive anxiety and sense of blame/ significantly better scores were obtained by the subjects of the group I with lower level of education. No significant differences were found in the other personality factors. However, the group II scored better in the following factors: E /domination/, F /surgency/, G /strength of character/, I /sensitivity/, L /suspiciousness/, M /unconventionality/. The group I scored better only in A factors /cyclothymia/ and Q_4 /ergic tension/.

IV. Discussion

While undertaking our studies we have not expected to find such significant differences in personality structure of top athletes with different level of education. It appeared that out of a total number of 16 Cattell's factors, statistically significant differences were found in as many as 8 factors. Thus the level of education differentiated the two groups as regards the level of

personality factors. Since education was the only independent variable measured by us, it may serve as explanation of the personality differences observed. Therefore, the initial hypothesis on differences in personality of athletes with different level of education has been confirmed in our studies. Discussing the results obtained it may be said that athletes-students, as compared to athletes with lower level of education, showed a generally better personality structure, from the point of view of adaptation to sports situations. If follows that higher level of education is accompanied by a more integrated personality. Education, as an important factor of personality development, must not be omitted nor neglected in all studies on high-level athletes personality. By raising the level of the athletes' education we can willfully affect the development of their all-round and complex personality.

Table 1

	I		II			
	M	SD	M	SD	t	P
A	17,28	5,28	15,89	5,92	-	-
B	16,50	4,31	21,21	2,68	9,597	0,001
C	29,88	5,10	32,09	5,00	2,137	0,05
E	22,44	4,60	23,86	6,35	-	-
F	28,65	6,50	29,87	6,65	-	-
G	26,27	4,77	27,44	4,65		
H	27,83	8,40	30,42	8,75	2,909	0,01
I	15,35	3,97	16,68	4,47	-	-
L	19,90	3,98	10,16	4,77	-	-
M	21,39	5,01	22,57	5,60	-	-
N	22,67	3,98	24,97	3,89	3,332	0,001
O	19,28	9,08	15,69	8,22	3,289	0,01
Q_1	22,78	4,95	26,85	4,17	4,719	0,001
Q_2	21,26	4,83	23,86	5,95	3,128	0,01
Q_3	24,55	5,30	25,75	4,76	3,324	0,001
Q_4	20,89	8,72	19,38	8,42	-	-

M - mean scores
SD - standard deviations
t - values of Student "t"
p - level of significance of differences

References

1. Cattell, R.B.: Personality and motivation structure and measurement; World Book Company, New York, 1957.

2. Handbook for the Sixteen Personality Factor Questionnaire, IPAT, Champaign 1957.

3. Rychta, T.: Wiek, staż i wykształcenie a osobowość zawodników wysoko kwalifikowanych. /Age, duration of sports career, education, and personality of top-level athletes/ Roczniki Naukowe AWF w Warszawie, Vol. XXII, 1977.

PSYCHOLOGICAL ASPECTS OF SPECIALIZED PHYSICAL EDUCATION AT SCHOOL

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One of the questions concerning both school, and hobby physical education, that has not been so far satisfactorily answered, is the evaluation of the pertinence of specialized syllabuses and their influence on youth of post-pubescent age. The objectives of physical education do not include only the development of physical aspects among which the most important ones are represented by the creation of positive attitudes of adolescents to physical education that means a potential creation of values of a more permanent character than achievement of certain performance standards. The forming educational elements of the physical education process itself are represented by the teacher's personality, by a group influencing an individual by means of socio-psychological relationships but also by the syllabus itself. Our study deals particularly with this last aspect.

From the ontogenetic point of view the adolescents - with respect to smaller stability of their psychology - need such a structure and contents of syllabus that would subjectively as well as objectively reflect the increase of their performance and skills that contributes positively to the development of their self-confidence and at the same time helps to complete the forming of personality that cannot be considered at this age stable and finally developed.

This objective can be achieved - apart from using other pedagogical and psychological approaches - by means of a specialized form of physical education as is shown by the results of various investigations /Kostková, Janouch, Rychtecký, 1976/. We can assume that at this age physical education of this kind will strongly influence adolescents' subsequent motivation concerning especially their physical education out of school. This moment is quite important both from the educational point of view, and from the point of view of the fulfilment of the basic tasks of physical education.

Apart from these factors the concept of specialized physical education is supported also by the fact that it can apply some well known regularities of motor learning shown by general curves of motor skills learning.

The advantages of specialized physical education will become more apparent in comparison with existing multidimensional syllabuses, if we point out some negative influences of wide-range syllabuses that are still predominant at secondary schools. These "versatile concepts" of physical education show relatively low effectiveness of the evaluation of results of learning and thus also a generally lower effectiveness of the process of physical education, as will be proved later.

There are four widely known generalized types of learning curves. A negatively accelerating curve is characterized by the greatest progress in the initial stages of learning and the smallest progress in the final stages of learning process. Opposite type is represented by a curve positively accelerating. Another type is represented by a line proving a direct dependance in learning. In fact this type of curve can be found quite rarely, mainly in those cases, when a certain part of the motor learning process is measured. Curve in a form of a letter S shows both negative, and positive acceleration in learning and thus it is the most typical example of motor skills.

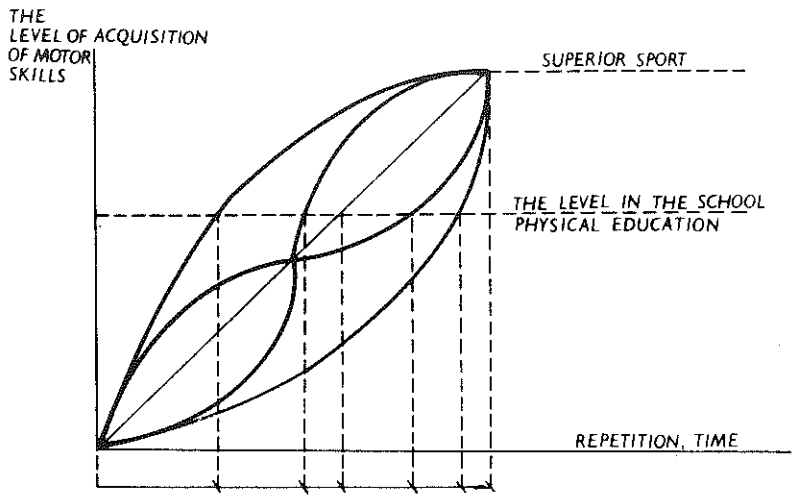


Figure 1 The process of acquiring motor skills in dependance on the type of a learning curve

Figure 1 shows these curves together in dependance on time or number of repetitions necessary for acquiring a certain level of a motor skill. Practise also shows that the training of various motor skills goes on in harmony with different learning curves. We can see on the figure that these dynamic factors of motor learning /repetition, time/ show in different phases of training a different quality of an acquired motor skill.

Taking into account a number of time limitations existing within the framework of a wide syllabus /varying of the training different motor skills/, we come to the conclusion that physical education both at schools, and in sports clubs, would require at least twofold number of lessons for trained motor skills to bring their expected merits. These goals must be achieved especially in school conditions where physical education belongs to compulsory subjects. However, great diversity of a wide basis of the syllabus does not allow the application of cognitive processes representing a necessary part of motor learning during its course. Time limitation is one of the reasons. Without including these processes motor learning becomes little effective both from the point of view of physical education, and from the point of view of education. With respect to motor skills acquired by set standards without sufficient activation of cognitive processes we cannot talk about their being fully acquired. We can refer to them as to a motor level of acquiring them without intellectual - verbal generalization. This condition gives much a greater space to the application of the processes of forgetting which decreases the effectiveness of the process of education.

Another aspect that cannot be left aside is a psychological experience and knowledge that a process of physical education which is carried out with little inner identification of participating individuals and which is not completed successfully /a motor skill is not acquired fully/ does not contribute to the development of their interest in physical education. With respect to those

individuals who can be supposed to identify themselves with the syllabus, their identification is often internally damaged chiefly from these reasons. In this kind of a physical education process which is not aimed at achieving the goals of more permanent values physical education becomes a means contributing actually to the development of physical fitness but suppressing the educational aspect and influence to a great extent.
Unlike this, well selected physical education specialization /e.g. basket-ball, track-and-field events, gymnastics/ can help the adolescents to achieve a higher level of an acquired skill, including intellectual - verbal generalization.
Apart from that, based on the above mentioned facts, specialized physical education provides an individual with a much greater space for his identification with the syllabus. This identification is re-inforced by the increase on his performance, it develops an individual's self-confidence and it rebuilds his attitudes towards physical education which has a great latent, as well as potential, significance.
The question of specialization in the field of recreational physical education does not represent such a burning issue for it can be constituted here on the basis of individuals' interests /there exists a motivation pre-requisite, motivation homogeneity/ and in fact it is a voluntary activity. In the sphere of school physical education that is very closely connected with voluntary and recreational physical education this question has to be dealt with very carefully with the use of the principles of inner, as well as outer, differentiation and with the use of other up-to-date effective approaches. This, however, is rather a problem of didactics than of psychology.

Literature:

1. Cratty, B.J.: Movement Behaviour and Motor Learning. Philadelphia, 1967.
2. Hošek, V., Rychtecký, A.: Motorické učení. SPN, Praha 1975.
3. Kostková, J., Janouch, V., Rychtecký, A.: Příspěvek k modernizaci tělovýchovného procesu mládeže dorostového věku. Metod. dopis ČSTV, Praha 1976.

EINSTELLUNG ZUM SPORT UND SELBSTKONZEPT BEI SCHÜLERINNEN

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I. Ausgangspunkt der Untersuchung

Der derzeitige Stand der sportwissenschaftlichen Forschung berechtigt einerseits zu der Annahme, dass zwischen Selbstkonzept und Einstellung zum Sport ein direkter Zusammenhang besteht, andererseits zu der Notwendigkeit, unter geschlechtsspezifischer Zielstellung mehr Erkenntnisse über den Zusammenhang zwischen Selbstkonzept und Einstellung zum Schulsport zu beschaffen. Dies trifft vor allem für den Bereich der BRD zu. Vorliegende Untersuchung hatte deshalb folgende Zielsetzungen:

1. nachzuweisen, dass bei Schülerinnen ein Zusammenhang zwischen Selbstkonzept und Einstellung zum Sport besteht.

2. aufzuzeigen, dass sich auch bei Verwendung unterschiedlicher Verfahren zum Selbstkonzept der Zusammenhang nachweisen lässt.

3. nachzuweisen, dass unter Berücksichtigung des Kenyon-Konzeptes bei dem Konstrukt "Einstellung zum Sport" eine Differenzierung in überdauernde und situative Aspekte möglich ist.

4. aufzuzeigen, dass der überdauernde Aspekt über Intensität, der situative Aspekt über Richtung von positiver und negativer Einstellung entscheidet.

Die in Anlehnung an die Leistungsmotivationstheorie vorgenommene Unterscheidung in überdauernde und situative Variablen soll gezielte Hinweise zu den Ursachen für positive vs negative Einstellung zum Sport liefern. Einschränkend muss festgestellt werden, dass das Verfahren für den situativen Bereich vorerst nur deskriptiven Charakter hat.

II. Vorgehensweise

Untersucht wurden 42 Gymnasialschülerinnen im Alter von 14 - 15 Jahren. Folgende Verfahren wurden verwendet:

1. Einstellung zum Sport: ATPA, Kenyon (ATPA)

2. Selbstkonzept: Self cathexis scale, Secord/Jourard (SCS)
   Self esteem scale, Rosenberg (SES)
   Semantisches Differential, Sullivan (SD)
   Index of adjustment and values, Bills (IAV)

3. Einstellung zum Schulsport: Fragebogen, Saladin (F -SA)

III. Ergebnisse

1. Zwischen ATPA und SCS besteht ein signifikanter Zusammenhang, nicht aber zwischen ATPA und den anderen Verfahren (SES, SD, IAV).

2. Für die Extremgruppen mit positiver (ATPA+) und negativer (ATPA-) Einstellung ist der Zusammenhang hoch signifikant (99 %).

3. Hinsichtlich der Intensität besteht zwischen ATPA+ und ATPA- ein signifikanter Unterschied (99 %).

4. Zwischen ATPA+ und ATPA- besteht kein Unterschied in der Einstellungsrichtung. Beide bevorzugen folgende Rangfolge der Einstellungskategorien: 1. Sport als Schönheit in der menschlichen Bewegung, 2. Sport zum Abbau von Spannungen, 3. Sport als soziale Erfahrung, 4. Sport für Gesundheit und Fitness, 5. Sport als etwas Aufregendes, aber auch mit Risiko verbunden, 6. Sport als Glücksspiel, 7. Sport als langwieriges und hartes Training.

5. Für den situativen Bereich ergaben sich signifikante Unterschiede zwischen ATPA+ und ATPA-. Nach einer Inhaltsanalyse vorliegender empirischer Verfahren wurden für diesen Bereich folgende Kategorien gebildet:

Bereich 1:

1. Ausgleichs- und Entspannungsfunktion des Sportunterrichts.
2. Bewegungsfreude und - spass als Motiv für sportliche Betätigung.
3. Sportliche Betätigung in ihrer Funktion, die persönliche Lebensqualität zu verbessern.
4. Sport und seine Funktion für die Persönlichkeits- und Charakterentwicklung.
5. Rollenidentifikation und ihre Bewertung für die sportliche Betätigung.
6. Sportliche Betätigung und ihr Beitrag zur Erlangung sozialer Anerkennung.
7. Sportliche Betätigung und ihr Beitrag zum Erwerb sozialer Kompetenz.
8. Der Stellenwert des Faches im Vergleich zu anderen Schulfächern.
9. Erwartete Transferwirkungen sportlicher Betätigung für das spätere Leben.
10. Die Unterrichtsgestaltung im Sportunterricht.
11. Pauschale Wertschätzungen des Faches Sport in der Schule.

Bereich 2:

12. Berücksichtigung unterschiedlicher individueller Voraussetzungen im Sportunterricht.
13. Lehrziele und Unterrichtskonzeption.
14. Leistungsbeurteilung.
15. Selbsteinschätzung im Könnensbereich.

Im Bereich 1 wurden von den Probanden 100 Statements ihrer Bedeutung nach gewichtet. Unter Berücksichtigung der für ATPA+ und ATPA- wichtigsten ersten 10 Statements unterschieden sich beide Gruppen in den 6 folgenden Statements signifikant:

ATPA+:

- Im Sport lernt man es, sich in eine Gemeinschaft einzuordnen. (+)
- Bei Übungen, die ich schlecht kann, schäme ich mich. (+)
- Durch Sport kann man Verständnis für Kunst und Schönheit erwerben. (-)
- Sporttreiben ermöglicht leicht Erfolgserlebnisse, die das Selbstvertrauen stärken. (+)

ATPA-:

- Sport bietet Ausgleich und Entspannung zum Alltag. (+)
- Sport fördert Kameradschaft (-)
- Bei Übungen, die ich schlecht kann, schäme ich mich (+)
- Ich würde es jedem, dem es möglich ist, raten, Sport zu treiben.

Ein ähnliches Bild ergab sich auch für den Bereich 2. Von 26 Statements wiesen 10 Statements signifikante Unterschiede auf.
(+) gibt die Bejahung, (-) die Verneinung an:
Während ATPA+ die Berücksichtigung individuell unterschiedlicher Voraussetzungen im Sportunterricht bestätigt, die Beibehaltung und Objektivität der Leistungsbeurteilung bejaht und eine postive Könnenseinschätzung demonstriert, liegen bei ATPA- die gegenteiligen Ausprägungen vor.

IV. Zusammenfassung

Die vorliegende Untersuchung hat den in der sportwissenschaftlichen Forschung nachgewiesenen Zusammenhang zwischen Einstellung zum Sport und Selbstkonzept für Schülerinnen bestätigen können. Sie hat darüberhinaus aufzeigen können, dass das Kenyon-Verfahren (ATPA) zur Messung von Einstellung zum Sport zwischen positiver und negativer Einstellung differenziert, über Ursachen der Einstellungsrichtung jedoch keine Hinweise liefert. Aus diesem Grunde wurde das Konstrukt "Einstellung zum Sport" in Anlehnung an die Leistungsmotivationstheorie in einen überdauernden und situativen Bereich aufgeschlüsselt. Im situativen Bereich waren durch den Nachweis signifikanter Unterschiede zwischen ATPA+ und ATPA- Hinweise für mögliche Ursachen unterschiedlicher Einstellungsrichtungen zu bekommen.

Literaturangaben

Barrow, H.M., MC Gee, R.: A practical approach to measurement in physical education, Philadelphia 1971.

Harris, D.V.: Involvement in sport: a somatopsychic rationale for physical activity, Philadelphia 1973.

Hellison, D.R.: Effect of physical conditioning on affective attitudes toward self, the body and physical fitness, PH.D. Thesis, Ohio State University, 1973.

Kenyon, G.S.: Values held for physical activity by selected urban secondary school students in Canada, Australia, England and the United States, Washington, D.C., 1968.

Rosenberg, M.: Society and the adolescent self-image, Princeton, 1968.

Schwab, J., Harmeling, J.: Body image and medical illness, in: Psychosomatic Medicine, 30, 51-61, 1963.

Secord, P.F., Jourard, S.M.: The appraisal of body cathexis: Body cathexis and the self, in: J. Consult. Psychol., 17, 343-347, 1953.

Sullivan, P.A.: A comparative study of self concepts and ideal self concepts of femininity between female athletes and nonathletes, Master of Science Thesis, Smith College, 1973.

Zion, L.C.: Body concept as it relates to selfconcept, in: Res. Quart., 36, 490-495, 1965.

A CROSS-CULTURAL ASSESSMENT OF PRE- AND POST-COMPETITIVE BEHAVIOURS OF OLYMPIC GYMNASTS

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The complex images of the rotating gymnast, for a moment, seemingly suspended in the air only to alight with controlled ease has caught the eye of both the spectator and the sport scientist. These performances have undergone close scrutiny so that the different gymnastic components could be classified from pedagogical, biomechanical, and psychomotor points of view /Salmela, 1976/. However, the behaviours that lead up to and immediately follow elite sport performance, while often noted and imitated by young athletes, have not been the concern of much systematic research.

In the competition arena, individual behaviours preceding performance can be considered to be of at least three general types: 1/ those having a personal and direct functional significance related to the task demands of the performance; 2/ those having a social significance related to interactions with team-mates, coaches and adversaries present at the competition; and 3/ those having no apparent functional significance in relation to the task at hand. The first category of behaviours having functional significance to the task at hand would presumably be universal in nature at the elite level for tasks of a stable nature. This type might include acts of physiological preparation, such as activating the cardiovascular and/or muscular systems and the stretching of different articulations. These preparatory behaviours might also be of a psychological nature that modulate the individual emotional or anxiety levels of the athlete so that they are compatible with those requirements of the task. Behaviours that reflect the success or failure of task performance during the post-competitive phase can also be considered. The second category of social behaviours include the types of social interactions that occur between the athlete and team-mates and coaches. The frequency and nature of these behaviours preceding and as a consequence of performance could be related to the concepts of team cohesion or rivalry. From a behaviouristic point of view /Dickenson, 1976/; Rushall and Siedentop, 1972/, these social behaviours might be less universal than the individual preparatory behaviours in that they would be a function of the various social contingencies and reinforcement patterns specific to each team and its particular culture. Finally, the third category of behaviours that would be possible to observe would be those ritualistic or superstitious behaviours that often accompany sport performance and have no apparent functional purpose /Gregory and Petrie, 1973/. This last category will not be considered in this study.

Behavioural assessment techniques have recently been used to code and quantify feedback patterns in natural sport settings of hockey /Brunelle, Talbot, Tousignant, Hubert and Quellet, 1976/, basketball /Tharp and Gallimore, 1976/ and baseball /Smith, Smoll and Hunt, 1977/. Patterns of positive, negative and information feedback have been studied and related to pedagogical and theoretical concepts. These social interactions were observed to vary with the sex, age, activity type and level of proficiency of the athletes /Salmela, Petiot, Hallé and Régnier, 1977/, due probably to differential social contingencies and reinforcements for these groups /Dickenson, 1977/.

In an analogous manner, it could be forwarded that cross-cultural differences would be observed in the competition behaviours of athletes because of these

same variations in social contingencies and reinforcement patterns in each society. As Robert and Sutton-Smith /1966/ point out play, and in this case sport, are cultural inventions rather than biological universals. These cultures would presumably mould the differential functional and social behaviours that occur in elite competition to reflect the prevailing traits, values, expectations and degree of social control particular to the respective societies. Zincher and Meadow /1967/ related these above values to the ritualistic behaviours that accompanied the dominant sports of two different cultures, supposedly as a function of the character stereotypes of these nations.

If it can be assumed that these different cultures do impose particular sport-related traits and values on their athletes, whether voluntarily or involuntarily, these influences would presumably be translated into observable behaviours. Further, it would be assumed that these cultural differences would be less evident for those functional behaviours related to the preparation for, and to the consequences of task performance, than they would for the more variable accompanying social behaviours.

The present paper will attempt to demonstrate that these cultural differences do occur when the pre- and post- competitive behaviours of Olympic gymnasts are observed using behaviour assessment techniques.

Method

Subjects. A total of 159 elite gymnasts, 73 males and 86 females, were observed during six days of competition at the 1976 Montréal Olympic Games. Every competing female gymnast, and 81.1% of the participating male gymnasts were observed for at least one performance, and in some cases, for every performance, so that observations were made on 90.3% of the total gymnastics population competing at this event. Of the 2,153 gymnastic routines performed, 714 or 33.2% of these performances were included in these observations. While all of the females from each of the 18 participating countries were observed, only gymnasts from 18 of the 20 competing nations were able to be studied. Lone gymnasts from Denmark and Israel were not in the observed sample. In the preliminary compulsory and optional routines of Competition 1, a wide variety of gymnasts were chosen to be observed to ensure a broad base of ability levels and nationalities in the analysis. In the all-around finals of Competition 2, the gymnasts were pre-selected to maintain this wide base of observations while the projected winners of the individual events were also included. In the event finals in Competition 3, all performers were observed.

Observation instruments

The observations in this study took place during the period of four minutes immediately preceding the gymnastic performance as well as a period of approximately 30-45 seconds that was required for presentation of the score. The pre-competitive phase had a functional and a social component. The functional component was made up of those individual behaviours that took place while the gymnast prepared himself for competition while the social component related his interactions with teammates and coaches. Similarly, the post-competitive phase was made up of an individual-related component that was concerned with the gymnast's emotional reactions to his performance and its evaluation and a social component related to the feedback that he received from his associated.

All components were broken down and operationally-defined in discrete behavioural terms and recorded on an individualized standardized form /Figure 1/. While full operational descriptions are reported elsewhere /Salmela, Petiot, Hallé and Régnier, 1977/, a résumé of these competition phases, behaviour classifications and specific behaviours is shown in Table 1 .

Table 1

Description of Competition Phases, Behaviour Classifications and Specific Behaviours Observed in Olympic Gymnastic Competition

COMPETITION PHASE	BEHAVIOUR CLASSIFICATION	SPECIFIC BEHAVIOURS
Pre-competitive Preparation	Mental Ideo-motor Motor Instrumental Emotional	fixation on one spot, back turned to competition, concentration rehearsal in part or whole of exercise with respect for rhythm, stretching, running, warming-up of non-specific nature, watching, walking, manipulating of equipment, waiting, nervous tics, pacing, relaxing, self-activing.
Pre-competitive Social State	Co-presence (Team&Coach) Co-action (Team&Coach) Alone	sitting, standing or lying beside another without interaction, talking, touching or interacting with another in close proximity, being at greater than one arm's length from anyone.
Post-competitive Affective Reactions	Positive Negative No reaction	smiling, leaping, clapping of hands, running briskly, crying, frowning, slowly shaking head, pulling of shoulders, stamping feet, maintenance of non-reactive appearance during observation period.
Post-competitive Feedback	Positive (Team&Coach) Negative (Team& Coach) Information (Coach) No feedback	touching, smiling, nodding, winking, hand shaking, kissing, frowning, shaking of head, turning away, scolding, talking unemotionally, gesticulating, touching of body parts, absence of interaction whether verbal or non-verbal.

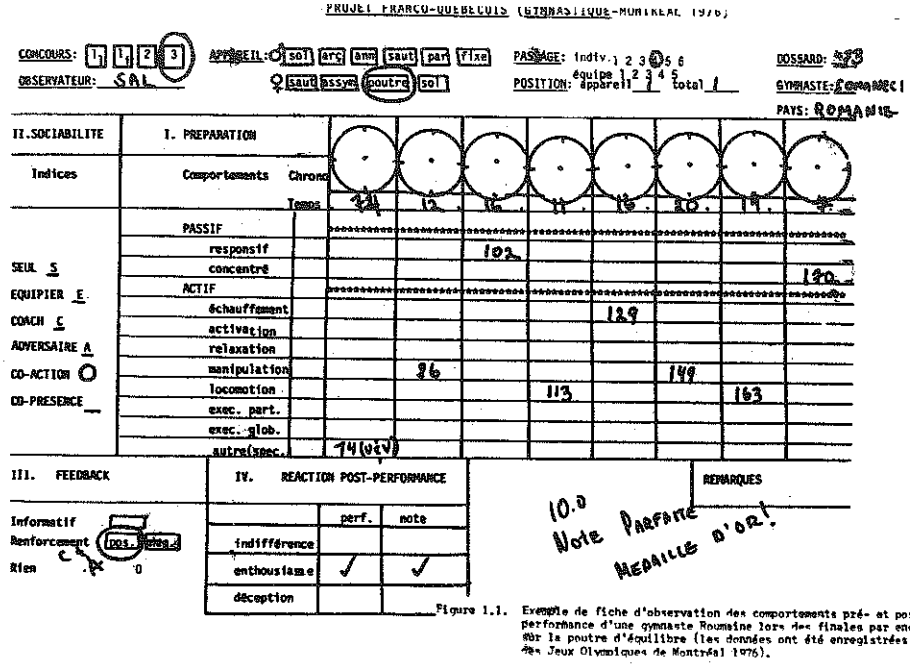


Figure 1.1. Exemple de fiche d'observation des comportements pré- et post-performance d'une gymnaste Roumaine lors des finales par engin, sur la poutre d'équilibre (les données ont été enregistrées lors des Jeux Olympiques de Montréal 1976).

Figure 1. Example of an observation sheet for pre- and post-competitive behaviours of a Romanian gymnast during the finals of balance beam.

Procedure

Five experienced gymnastic specialists, three males and two females, elaborated the observations strategy for the analysis based upon a pilot study using American male gymnasts. The actual instrument used for observation was tested during the pre-Olympic dress rehearsal one week prior to the competition in order to establish consensus reliability between the observers by simultaneously evaluating the same gymnast. Consensus between observers was established through the comparison of evaluations and by the readjustment of operational definitions. No statistics were calculated to evaluate the degree of consensus at this point in the analysis.

During Competitions 1 and 2, a single observer was assigned to each pre-determined gymnast to ensure the largest number possible of observations on different gymnasts. During Competition 3, each gymnast was observed by two experimenters, so that the percent of agreement between the two observations could be calculated /Hall, 1974/. These performances that were observed by two recorders totalled about 11% of the total observations. Prior to the competition, each observer was assigned 6 of the 12 gymnasts from the official event rotation sheets in a manner that allowed every second individual of the order to be efficiently followed throughout the pre- and post-performance periods. All observers had an excellent vantage point throughout the six days of competition as they were seated in the seats of the highest price range within close proximity to each other.

Societies

The 16 participating countries at this competition were regrouped into six societies sharing either cultural affinities, geographical proximities, or both. Considerations were also made in terms of having the same approximate number of gymnasts in each society which resulted in Japan and the Soviet Union being considered as individual societies due to their large number of gymnasts participating throughout the six days from preliminaries to finals. The other societies were classified as being Anglophone /Australia, Canada, Great Britain and United States/; Germanic /German Democratic Republic and German Federal Republic/; western European /Belgium, France, Italy, Netherlands, Spain and Switzerland/; and eastern European /Bulgaria, Czechoslovakia, Hungary, Poland and Romania/. Mexico was included with the western European group in that the affinity with the Latin countries was believed greater than with the Anglophones. All data was coded and computerized so that the appropriate statistical analyses could be made in relation to the cultural variables. Other analyses were made in relation to the sex, the event, the level of proficiency and the importance of the competition /Salmela, Petiot, Hallé and Régnier, 1977/. The dynamic temporal changes in pre-competitive preparatory and social behaviours were analyzed by means of a computerized time-sampling procedure where a cross-sectional slice of all behaviours was made every two seconds within each cultural group.

Results

Percent of agreement. The consensus between the observers for the time-series pre-competitive phases were carried out according to the procedures established by Hall /1974/ and were found to be 75% for the overall preparation behaviours and 98.6% for the social states. The percent of agreement for the post-competitive phases of affective reaction to the performance and to the evaluation, as well as for the feedback behaviours were calculated to be 80.5%, 78.6% and 85.7%, respectively.

Pre-competitive preparation. The dynamic patterns for the five pre-competitive behaviour classifications that occurred during the four minutes that preceded the performance are shown for the Anglophone, Japanese and western European gymnasts in Figure 2 and for the eastern European, German and Soviet athletes in Figure 3. The instrumental behaviours make up the greatest portion of all gymnastic preparatory behaviours from each society, with variations of 51.9% for the Soviets up to 74.6% for the Germans. No differences between societies were found for this variable ($X^2(5) = 5.02$, $p > .05$).

Further, no differences were found between the societies for the behaviour categories of mental, ideo-motor and motor activities which respectively made up 10.5%, 4.4% and 6.7%, of the total observed behaviours. Only the category of emotional behaviours was shown to have differed significantly between societies ($X^2(5) = 313.5$, $p < .01$). The Soviet gymnasts demonstrated by far the greatest percentage of emotional behaviours /25.0%), more than twice the contribution for the closest group, the eastern Europeans (11.8%). The western European /2.6%) and German (4.9%) gymnasts demonstrated the lowest percentage of emotional behaviours.

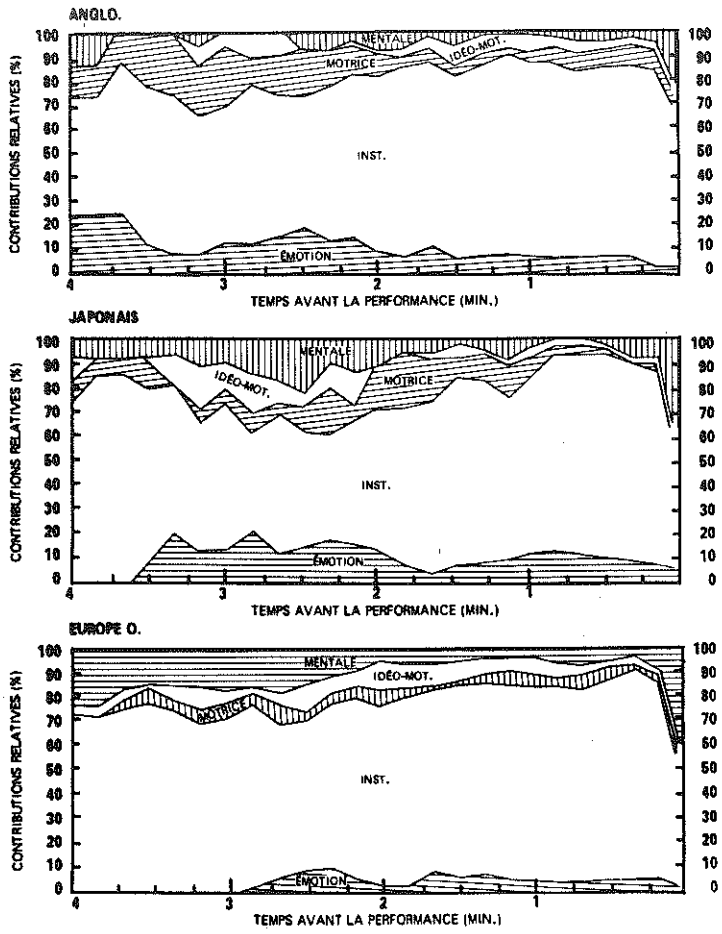


Figure 2. Profile of preparatory activities for gymnastic performance as a function of participating societies (Anglophone, Japanese, Western European);
(mentale) mental activities or concentration;
(idéo-moteur) partial or global execution of routines;
(motrice) general warm-up activities;
(inst.) instrumental activities;
(émotion) emotional activities.

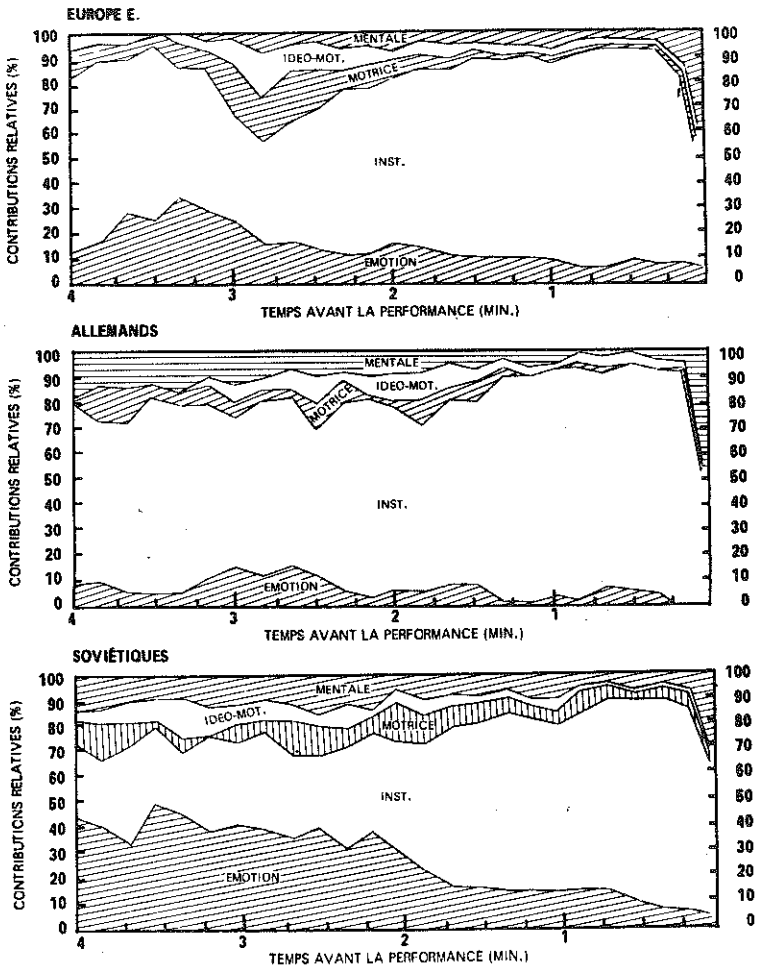


Figure 3. Profile of preparatory activities for gymnastic performance as a function of participating societies (Eastern European, German, Soviet);
(mentale) mental activities or concentration;
(idéo-motoeur) partial and global execution of routines;
(motrice) general warm-up activities;
(inst.) instrumental activities;
(émotion) emotional activities.

Pre-competitive social state. By a very large margin, the social state of being alone was the most dominant with variations in occurrence between 69.1% for the western Europeans /Figure 4) to 97.4% for the Soviets (Figure 5). No overall differences ($X^2(5) = 5.63$, $p > .05$) were found between societies on this variable which occurred on the average of 79.7% across all societies. Team-mates spent generally about 7.9% of their time together in a state of co-presence.

Significant differences occurred between the societies on this dimension ($X^2(5) = 13.31$, $p < .05$) with the western European teams remained in close proximity to one another about 14.2% of the time while the Soviet gymnasts were together for only .5% of the total four-minute duration. The state of co-presence were observed with the western Europeans being together the most (10.3%) and the Soviet athletes (.5%) the least ($X^2(5) = 12.40$, $p < .05$).
Co-action amongst team-mates contributed 3.16% to the overall social behaviours with significant differences occurring between societies ($X^2(5) = 12.43$, $p < .05$). The Anglophones had the greatest percentage of co-action (8.4%) with team-mates while the Soviets had the least interaction with fellow gymnasts (.5%). In terms of co-action with the coach, a situation that contributed to 6.5% of the total social behaviours, differences again were observed between the societies ($X^2(5) = 12.02$, $p < .05$). With this variable the Japanese demonstrated the greatest interaction with the coach /12.2%/ followed closely by the Germans (9.4%) while the Soviet athletes were again at the lower end of the scale (.7%). When summed across individuals, the gymnasts were in co-action about 9.7% of this four-minute period and in copresence with either coaches or team-mates about 12.8% of the time. Further, these gymnasts spent about the same amounts of time with coaches (11.3%) and team-mates (11.1%) irrespective of the social state.

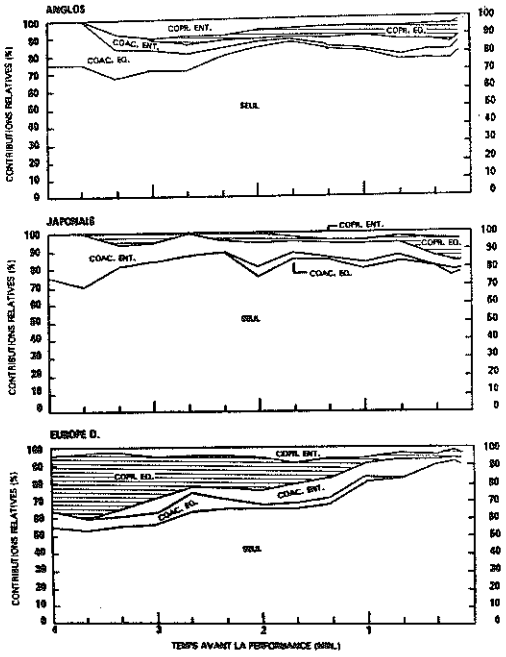


Figure 4. Profile of social states preceding gymnastic performance as a function of participating societies (Anglophone, Japanese, Western European);
(seul) alone; (coac.éq.) coaction with team-mates;
(coac.ent.) coaction with coach;
(copr. éq.) copresence with team-mates;
(copr.ent.) copresence with coach.

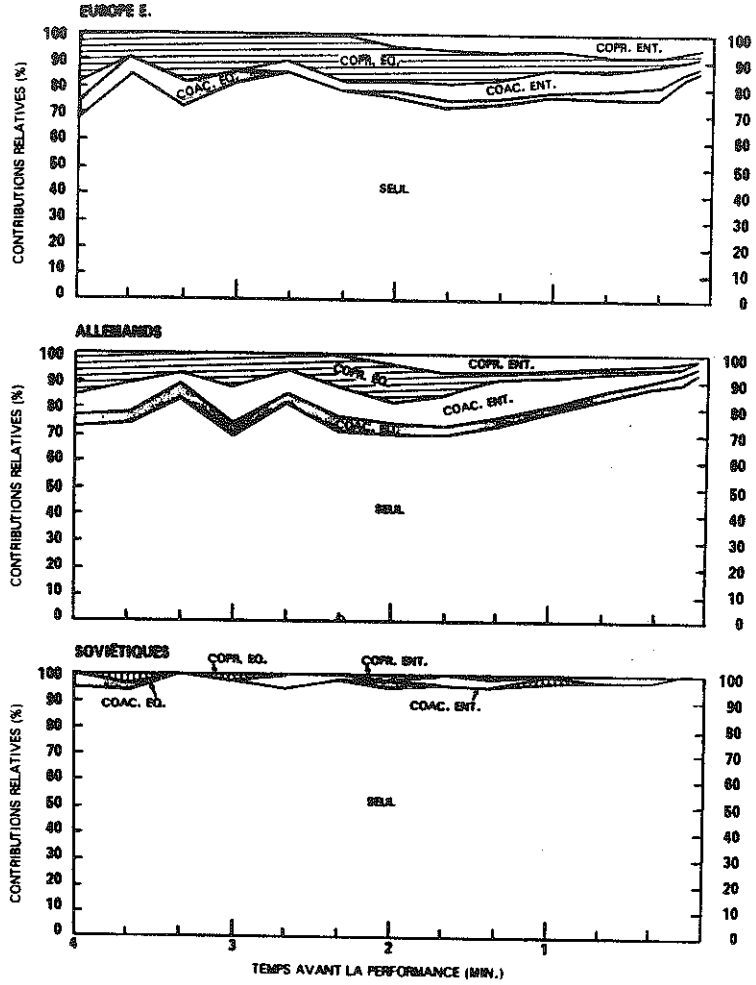


Figure 5. Profile of social states preceding gymnastic performance as a function of participating societies (Eastern European, German, Soviet); (seul) alone; (coac.éq.) coaction with team-mates; (coac.ent.) coaction with coach; copr.éq.) copresence with team-mates; (copr.ent.) copresence with coach.

Post-competitive reactive behaviours. The frequencies of affective reactions to the gymnastic performance and its evaluation for the different societies are respectively shown in Table 2 and the within country distribution of behaviours in Figure 6. The positive reactions to performance are the only measures where significant differences occur between the societies ($X^2(5) = 23.7$, $p < .001$). The Anglophones, made up mainly of Canadians and Americans, and the eastern Europeans showed the greatest positive reactions while the Japanese and Soviet gymnasts showed the lowest incidence of positive emotional reactions. By far, the greatest behaviour observed was that of no visible emotional reaction for both reactions to performance (62.6%) and to the evaluation (85.5%). More emotional reactions were made to the performance than to the evaluation.

Table 2 Frequencies of Observed Gymnasts' Reactions to Gymnastic Performance and its Evaluation as a Function of the Society

Society	Observed Reactions		
	Positive	Negative	NoReaction
	Performance		
Japanese	22	4	44
Anglophone [1]	52	13	57
Germanic [2]	33	4	54
Western European [3]	32	8	106
Eastern European [4]	50	9	106
Soviet	23	9	66
	Evaluation		
Japanese	7	1	42
Anglophone	15	5	54
Germanic	10	2	54
Western European	7	0	116
Eastern European	16	3	99
Soviet	7	1	73

1 Australia, Canada, Great Britain, United States
2 German Democratic Republic, German Federal Republic
3 Belgium, Spain, France, Netherlands, Italy, Switzerland, Mexico
4 Bulgary, Hungary, Poland, Romania, Czechoslovakia

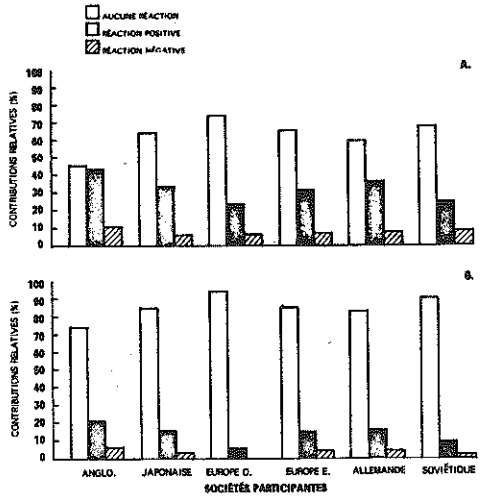


Figure 6. Relative contributions of reactions to performance (A) and reactions to the score (B) as a function of the participating societies; (aucune réaction) no reaction; (réaction positive) positive reaction.

Post-competitive feedback behaviours. The resumed data for the feedback patterns for each society as presented in Table 3 and the within society contributions are shown in Figure 7. Each of the feedback types, except for information feedback, demonstrated significantly different patterns when compared across societies. Positive feedback only from the coach was seen to be most frequent for the Anglophone and Germanic teams while the Soviet team received the least feedback from this source ($X^2(5) = 14.90$, $p < .05$). Feedback from team-mates only was also significantly different across societies ($X^2(3) = 20.14$, $p < .01$) with the western and eastern Europeans receiving the greatest amounts of feedback from their associates while the Japanese and Soviets received the least. Positive feedback from multiple sources was also significantly different across the different populations ($X^2(5) = 12.91$, $p < .05$) with the Anglophones receiving the greatest amount of feedback from team-mates and coaches combined, while the eastern Europeans received the least amount. When all of the sources of positive feedback are summed, within societies, the overall feddback patterns vary significantly ($X^2(5) = 24.06$, $p < .01$). The Anglophones (13.7%) and the western Europeans (12,2%) show the greatest contributions of positive feedback to their gymnasts while the eastern European (10.2%) and the Soviet (6.5%) gymnasts receive the least. Very large statistical differences ($X^2(5) = 87,7$, $p < .05$) were found for the category of "no feedback". The eastern European and Soviet gymnasts had this phenomena occur most often while the Japanese and the German gymnasts went the least without feedback. No instances of negative feedback were recorded in this project.

Table 3 Observed Frequencies of the Source and Type of Feedback Received as a Function of the Gymnast's Society

Feedback	Society of Gymnast					
Type	Anglophone[a]	Japanese	Western European	Eastern European	Germanic	Soviet
Source						
Positive Coach	50 (7.0)	35 (4.9)	35 (4.9)	44 (6.2)	50 (7.0)	22 (3.1)
Positive Team	8 (1.1)	3 (0.4)	28 (3.9)	13 (1.8)	4 (0.6)	0 (0)
Positive multiple[b]	40 (5.6)	21 (2.9)	24 (3.4)	16 (2.2)	24 (3.4)	24 (3.4)
Information multiple	3 (0.4)	0 (0)	15 (2.1)	12 (1.7)	2 (0.3)	7 (1.0)
No feedback	26 (3.6)	12 (1.7)	51 (7.1)	82 (11.5)	17 (2.4)	45 (6.3)

a Numbers in parentheses indicate the relative percentage contribution of each category.

b Refers to feedback from combinations of coaches, team-mates, adversaries and/or accompanying personnel.

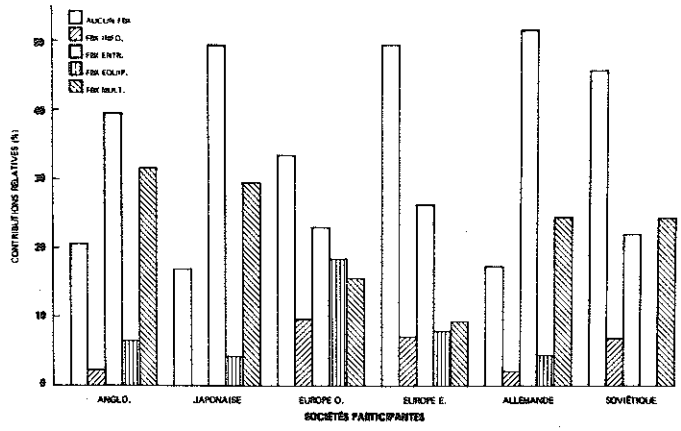


Figure 7. Relative contributions of different types and origins of feedback as a function of the participating society: (aucun FBK) no feedback; (FBK info.) information feedback; (FBK entr.) positive feedback from coach; (FBK équip.) positive feedback from team-mates; (FBK mult.) positive feedback from multiple sources.

Discussion

The observed behaviours that were considered during this brief four and one-half minute of observation period that encapsules Olympic gymnastic performance, can be a source of enlightenment for the spectator in terms of cultural qualities that tend not to be discerned during the actual gymnastic routines. While certain gymnastic experts may profess to be able to recognize a "Japanese" or a "Soviet" movement technique that is identifiable only in degrees of body extension, the cultural attributes of the preperatory, social and post-competition situations seem more readily available for analysis. As can be seen for each category, quite substantial behavioural differences between cultures are evident. However, as Eysenck's (1953) classic book on the Uses and Abuses of Psychology points out, there are inherent dangers in the use of national stereotypes and national character in psychological research. His quote of columnist Walter Lippman is appropriate:

> " for the most part we do not see and then define, we define first and then see. In the great blooming buzzing confusion of the outer world we pick out what our culture has already defined for us and we tend to perceive that which we have picked out in the form stereotyped for us by our culture". (p. 244)

Given these difficulties inherent in unblassed evaluation of another culture, the present data will be only presented for inspection and to a lesser extent subjected to interpretation within a behavioural assessment framework. Fuller interpretations will be left to those more qualified to desl regularly with sport, values and society.

Overall consideration of the four pre- and post-competition categories revealed certain communalities in the nature of the observed behaviours. The pre-competitive social states and the post-competitive feedback patterns both related to the degree of social interaction between the athletes and the coaches at these important movements. While gymnastics is a parallel performance type that does not depend directly upon team unity, other important human dimensions such as the levels of self-worth and sharing, may result with greater team cohesion. On the other hand, the preparatory states and emotional reactions to the performance and its evaluation are behaviours that may be more specific to personal idiosyncracy but may still be culturally influenced. The individual and social behaviours will be treated separately.

As might be expected during the period that immediately precedes competition in gymnastics, a large percentage of the time was spent chalking, adjusting, walking and manipulating within the limited confines. It also follows that the patterns for preparation, whether it be of a mental, ideo-motor or motor nature would tend to be culturally universal, since the task is similar for all concerned. Only the emotional behaviours were found to vary significantly from one culture to another. The Soviets performed the greatest number of acts that operationally-defined as being emotional behaviours such as pacing back and forth, or having continuous nervous tics. Given the overall strength of their performances, these behaviours may have been related to high personal expectancies and resulting anxiety. However, equally successful Japanese and German gymnasts did not demonstrate this same frequency of emotional behaviours. These tendencies then might be due to the reinforcement patterns or social contingencies of the Soviet society which places a premium on doing well at these international competitions (Morton, 1963). Whatever the reason for these behaviour patterns, the differences in magnitude of occurrence of emotional behaviours by the Soviets (25.0%) and the western Europeans (2,6%) at the other end of the scale cannot be ignored.

Of the four behaviour classifications studied, the post-competitive emotional reactions showed the greatest cross-cultural communalities. Only the levels of positive emotional reactions to the performance were shown to vary significantly between the cultures. The Anglophones and eastern Europeans showed the greatest levels of positive emotional responses as compared to the lowest levels displayed by the Soviet and Japanese gymnasts. It is possible that the local support for the North American gymnasts by the large numbers of Canadian and American supporters may have falsely boosted their reactions to their performance. While this ebullience was somewhat translated into positive reactions to the score, there was also some indication that the Anglophone performance proficiency did not warrant all of this support, as evidenced by the highest incidence of negative responses to the evaluations. The high incidence of positive performance reactions by the eastern Europeans may have been less situational in nature and due to intelligent training on their part. Smiling at the end of a performance may have been done to induce the judges to reciprocate this effect by increasing the scores. The low incidence of emotional reactions by the Soviet gymnasts when compared to their high levels during the preparatory phases, would seem to indicate that these behaviours may not have a common psychological base. In all cases, it appeared that emotional reactions were reserved for performance and not its evaluation.

The social states of the gymnasts during their preparatory phase showed great cultural differences. By far, the predominant social state immediately prior to competition is that of being alone, which is to a large part due to the nature of

the individual tasks. The patterns for the other social states, however, seem to systematically repeat themselves for each culture. For example, the western European gymnasts were physically together with team-mates and coaches much more than were the gymnasts from the other cultures while the Soviet gymnasts spend less than 1% of this preparation period with either their coaches or their team-mates. Explanation of this social relationship of the western Europeans may be due partially to greater team cohesion as a result of greater familiarization with athletes within smaller countries. Lack of cohesion or even rivalry, on the team, if this is the case with the Soviets, is not necessarily a bad thing, as Lüschen (1940) points out, especially with these individual sports in which team cooperation is not necessary for success. Particular patterns emerged in terms of co-action with gymnasts and with the coach. The Anglophones carried on the most social intercourse with their team-mates which might have had something to do with the fact that they were at home, relatively at ease, and not really fighting for the medals to any extent. Again the Soviets demonstrated a more serious appearance during this phase interacting very little with team-mates or coaches. From the data on the co-action with the coaches, it seems that some individuals played quite an active counselling role in this pre-competitive period. For example, the Japanese (12,8%) and German (9,7%) coaches were in close contact with their gymnasts as compared to similar measures on the Soviets (.7%). It was obvious that certain cultures emphasized the importance of team "togetherness". These gymnasts seemed to stay in close proximity to one another during most phases of the competition while others did not emphasize these same team structures. The role of the coach varied between that of score keeper, counsellor, equipment adjuster, counsellor or figurehead from culture to culture.

The feedback patterns, especially in terms of their source, has interesting correlates with the data on the social states. For example, the western European gymnasts who received the most feedback from team-mates also spent the most time in their presence prior to competing. Similarly, the German gymnasts who spent a fair amount of time actively exchanging with the coach were positively reinforced to a great extent by the same at the end of their routines. Taken overall, it appeared that the Western societies, whether it be the Anglophone, western European or westernized Japanese gave the greatest amounts of positive feedback and consequently did not often let the gymnast finish without some social reinforcement. The eastern European and Soviet gymnasts, however, were at the other end of the scale in terms of the observed patterns in that they provided this feedback the least. It should, however, be added that these athletes could be seen to be attentive while their companions were competing and often applauded on the completion of the routine, but they very seldom communicated directly with gymnasts, using the behavioural definitions in this study. Overall, the amount of information feedback in this study was much lower than those levels found in learning situations (Brunelle, et al. 1976; Tharp and Gallimore, 1976), as might be expected at this level of performance.

While it is quite clear that large behavioural differences occur for each of the variables across the different societies, the reasons for these differences await interpretation by individuals qualified to deal with societal value systems, social contingencies and appropriate reinforcers. It can be clearly shown that cross-cultural differences are great for the values attributed to rewards (Maehr, 1974). Continuation of similar cross-cultural behavioural analyses when coupled

with interviewing of the athletes may lead to the unraveling of these often times puzzling behaviours. Morton's (1970) statement that:

> " Analysis of a nation at play reveals the stuff of its social fabric and value system, and tells us much about other facets of political and economic life, especially in modern society". (p. 13),

still remains as a challenge to be taken in hand.

References

Ball, D. Structural correlates of olympic success. International Journal of Comparative Sociology, 1972, 13, 186-200.

Brunelle, J., Talbot, S. Tousignant, M., Hubert, M. and Quellet, C. Inventaire des comportements pédagogiques des instructeurs de hockey en situation d'enseignement dans une perspective de supervision. Paper presented at C.I.S.A.P., Québec, 1976.

Dickenson, J. A behavioural Analyses of Sport. London: Lepus, 1977.

Eysenck, J.J. Uses and abuses of psychology. Baltimore: Penguin, 1953.

Gregory, C.J. and Petrie, B.M. Superstition in Sport. Proceedings of Fourth Canadian Symposium in Psycho-Motor Learning and Sport Psychology, Ottawa, 1973.

Hall, R.V. Managing behaviour I: The measurement of behaviour. Lawrence, Kansas: H & H Enterprises, 1974.

Luschen, G. The cross-cultural analysis of sport and games. Champaign, Illinois: Stipes, 1970 .

Maehr, M.L. Toward a framework for the cross-cultural study of achievement motivation. Psychology of Motor behaviour and Sport. Urbana, Illinois: Human Kinetics, 1974.

Morton, H.W. Soviet Sport. New York: Collier, 1970

Roberts, J.M. and Sutton-Smith, B. Cross-cultural correlates of games of chance. Behavioural Science Notes, 1966, 3, 131-144.

Rushall, B.S. and Siedentop, D. The Development and Control of Motor behaviour in sport. Philadelphia: Lea and Febiger, 1972.

Salmela, J.H. The advanced study of gymnastics. Springfield: Thomas, 1976.

Salmela, J.H. Petiot, B., Hallé, M. and Régnier, G. Gymnastique olympique: approche behavioriste. A non-published manuscript, Montréal, 1977.

Smith, R.E., Smoll, F.L. and Hunt, E. A system for the behavioural assessment of athletic coaches. Research Quarterly, 1977, 48, 401-407.

Tharp, R.G. and Gallimore, R. What a coach can teach a teacher. Psychology Today, 1946, 1, 75-78.

Zurcher, L.A. and Meadow, A. On bullfights and baseball: an example of interactions of social institutions. International Journal of Comparative Sociology, 1967, VIII (1).

ACTIVE AND PASSIVE REST FROM A MENTAL AND SOCIAL HYGIENE POINT OF VIEW

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Circadial and other rhythms, as a part of biorhythmical organization of human life, at its best balanced schedule, require alternating periods of work, rest, and recreation, as postulated already by J.A. Comenius.

The importance of rest (sleep, relaxation), and recuperation of physical forces with an activity of a different character is mostly acknowledged, although frequently ommitted in practice, as wittnessed with overdoses of training and contests in sport activities, and lack of active breaks at work.

The situation is complicated with emotional part played in complex strain and stress affecting each human being in any physical or mental activity. Emotional relief at a time of preparation, say for Olympic Games or any other less important occasion, is often underrated, and turned in continuous reinforcing of a fighting spirit etc., which turns in overdoses and exhaustion, and the final effect is an opposite one as desired originally.

Passive rest, namely sleep and relaxation, should be completed with indicated active rest, i.e. solution of emotional and social problems, and absorbing activity of a different character, and that both a predominantly physical and a predominantly mental one. It is often considered to form the main part of force recuperation to indulge in passive rest. Its values are not to be overestimated. Its functions are at their best while inactivity is adequately limited.

Many problems of modern life may be solved with physical exercise which, consequently, is incorporated in all good programs of mental and social hygiene. Both environmental and time schedule conditions of present life stress this necessity: Up-to-date dwellings offer little opportunity for exercise, the rooms are well heated, and even overheated, but often not ventilated enough, and their dimensions are reduced. Work is done mostly in a sitting position, physical exertion is left to machines. People are not willing to overcome these and other obstacles of adequate exercise, as wittnessed with sleeplessness, neurovegetative dysfunctions of various forms, and other signs and symptoms of a lost balance between mental and physical occupation and exertion.

Life in big town agglomerations, and other products of too comfortable conditions of modern life, bring with them not only more or less severe neuroses and psychosomatic illnesses, but also social isolation. "Lemmings" of big towns, with their life of inertia, isolation, estrangement, and disssatisfaction serve as a sad proof of it.

Such feelings are rare in such a degree with people preferring physical exercise which is mostly performed in groups, with common facilities, individual and group interaction, connected with cooperation and competition, but not with feelings of loneliness.

People who share little opportunity of a variability of human contacts (automation being the chief ground of it), tend to deepen their social isolation and

mental inertia with passive recreation habits: Television watching, record listening, etc.

Relying on human interaction, not only on machines, is good for any man. With sporting games, emotional ties are developed adequately, increased blood circulation tends to carry away by-products of former mental and physical activity, fresh blood supplies are distributed to cells all over the body, and chiefly to the brain. Its functions are facilitated, and with them all the functions of inner organs of a human body, and its mental, physical and social function as well, as proved by neurophysiological investigations. More oxygen is supplied with deep lung ventilation, and transported to all bodily organs. Resulting regulation of metabolic processes serves to improve inner conditions of any human organism, in general.

Its contacts with his environment prove to be fostered too: While intelectual performance is facilitated, emotional relations are started and developped on a broader basis, preventing in this way monotony and perseveration of rigid life schedules.

The part of active rest is often misunderstood, starting with older generations. They are anxious lest physical exercise is not noxious to children, and to their school performance, lest catch a cold, etc. Walks under fresh air are based on their own declining physical forces, although even their physical fitness could be preserved and even improved with adequate active rest.

As imitating of emotionally important persons is the most important way of learning, such attitudes of the older and old members of families may interfere severely with forming healthy life habits in the younger and youngest ones. Consequently, it is a task of any mental and social hygiene approach to health education: To win the cooperation of emotionally important persons for introducing active rest habits in the life schedule of so many children as possible. The first degree is to teach parents to cooperate in this task, and not to force them to "sit and keep quiet". Common physical exercise of parents with children, as introduced in our country, is the best of it. The second degree is composed of explaining to teachers that adequate physical exercise is not noxious to learning activity, on the contrary, and securing their cooperation. Next comes the good example of their "ideals" at adolescent age, as dealt with in an other contribution. And then extending this activity to all age groups, in adequate doses and forms.

There are also other possibilities of active rest in group setting, namely such hobbies as ochestra playing, f.i., and also other bodily exercises but sport / gardening, f.i./, but the spirit of healthy contests, and human community may be at its best in a sport group.

Training of international sport stars is less important for the health of the whole nation than providing good opportunities for exercise in suitable environment, adapted for all age groups, the tasks of active rest are namely of equal importance in fostering work effectivity, in neurosis prevention, in rehabilitation of physical and mental illnesses, not only the orthopaedical ones / in diabetes, f.i./, in counterbalancing many noxious factors of modern life, etc., and the same is true for improving family ties, community life etc., the dealing with which problems would require more time and place than alloted to a single contribution.

MENTAL AND SOCIAL HIGIENE IN THE EDUCATION OF SPORT INSTRUCTORS

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Mastery achievement in any human activity is determined with several basic preliminaries: The code of genetic information, antenatal influencies, mental and physical environment in the family, forming of diet and other habits, social relations at school and in any other environment in which a human being growe up. Pupil-teacher relations are as important in a sport setting as in any other one.

Not only mental, but also physical proficiency is based on foundations laid in early childhood, the importance of which is comparatively well understood by our specialists in physical exercise - yet less of it is understood and accepted by many parents. Sport instructors must, nevertheless, take over the training of children, adolescents, and young adults comming to them with all sorts of preceding physical preparation. Understanding of quoted sub-cultural differences is necessary for starting their training programs with due adaptability, and for introducing individual approach modifications in the frame of a general training program.

Not all outstanding sportsmen are good instructors, too. A mere combination of a pedagogical qualification, and that in one or more sport disciplines is not sufficient, neither are results of mere laboratory testing methods satisfactory means for reliable evaluation of personalities, especially indicated for instructor career. Following-up of their attitudes and approaches to children and young people in practice, their ability to solve difficult situations in interpersonal relations, both during a training period and sport contests, is imperatively indicated. An example of it may serve, on an upper level, requirements set on cosmonauts training, and those exacted from their instructors. The situation is easier in this case in the sense that specialized psychiatrists take charge of this task which arrangement would be extremely useful in any sport setting, too: Psychopathic individuals, those with hysterical inclinations before all, f.i., would be eliminated in time, and neurosis fostering in trainees would be prevented. It is sometimes induced by instructors, and proves to undermine their sport career in the trainees, their lifelong attitudes to sports, and has negative influence on their life in general.

Being a stable personality, mentally and emotionally well balanced, with due consideration for moral values, and completed with an ability to teach them with word and example, a good sport instructor has to master his self-centered tendencies as well.

His interests should not be limited to his favourite sport only - more important is his ability of selecting an indicated sport discipline or a combination of them, corresponding to individual personality of his trainees.

Jealousy among instructors, f.i., is most noxious to selection of suitable trainees for any sport discipline, as they are not willing to pass their trainees with special abilities to somebody else, and often refuse cooperation in passing selected ones to a higher level of training, to specialized institutions, to clubs with greater possibilities in developping their trainees to be leading sportsmen, etc.

Jealousy among instructors turns their cooperation to be unsatisfactory in many cases of medium level trainees, as well. With it, the trainees' attitudes to all sorts of sports may be hampered.

As a matter of fact, any instructor is an example who is imitated by his trainees. He must be well aware of them following the whole style of his life as well. It is a false and dangerous hope to imagine that it does not matter any more, as his own sport career is already on its decline or because he will never reach an international level. Alcohol excesses, smoking, promiscuity, not saying the truth, escaping fulfilling one's own duties, etc., etc., - all this is taken by his pupils not as his personal or mere human faults - but as a part of sport efficiency, as the right way to behave in a sport setting, as a condition leading to success, as an example to be followed - while the contrary is true.

The same is the case with any defects in human relations: Fair-play principles should be incorporated in any training schedule, and that since the most tender age, up to members of a national team. It is appreciated with increasing interest on all sport levels, as lack of it leads not only to situations dangerous for sportsmen themselves, but also to disturbing behaviour in the on-lookers, and is propagated to next growing-up generation of trainees. - Fostering of group spirit is an other problem, dealt more in detail in an other contribution of us. All the same, it is necessary to stress the abilities of group managing, as highly desirable for sport instructors: Differentiated approach and attitudes to trainees were already stressed, starting with their coming-in in the group, and going-on all the time, of course. Adherence to the group should be cultigated, and forming of a unified team of all members preferred. Yet not up to a degree, at which individual members are dependent with their views and social contacts on a single group only. Balancing these two tasks is very difficult, of course. Ups and downs of group spirit are to be evaluated, fighting spirit held on a comparatively stable level, with due increase timed to the moment of important contests. Even lost opportunities and defeats should serve for improving both the group spirit and discipline.

An ability to teach discipline chiefly with the instructors' own example, to teach good emotional relations, yet not dependence either of the instructor or of the group members mutually, is another difficult task with which many a complicated situation may be solved - or made even more difficult.

Exhaustion of a group fighting spirit or of the physical powers of the whole team or of its individual members should be prevented at any rate, with due regard to various conditions, and different personality structure.

Appropriate doses of leisure, interest in other hobbies of the instructor himself, of his whole group or of individual members, due regard to other duties in all of them, should turn in a great help for a leader's function and instructor's tasks. This more human approach proves to be more of an efficient help than a rigid discipline, the results of which may lead to decline in interests in sporting activity in general, or to failing of group moral at the most important moments or contests.

Good interpersonal relations in the whole group prove to reinforce any instructor's interest in his work, his emotional stability, and all his good qualities. Their investigations, as performed in industry, are useful in sport setting as well.

MENTAL AND SOCIAL HYGIENE IN PHYSICAL EXERCISE OF ADOLESCENTS IN RECREATION SETTING

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In adolescents, recreation should serve combined purposes of promoting their mental, social and physical health, among other tasks. Nevertheless, in many cases, young people prove to show just opposite inclinations, based on false ideas about last fashion trends, about signs and symptoms of adulthood, or with imitating misunderstood television and film stories, etc. Alcohol drinking, even drug abuse in some cases, wasting of time with listening to records for hours and hours, making as big a noise as possible with their motorcycles, etc.

As a matter of fact, all this serves to undermine the future of their bodily, mental and social health. Physical exercise is namely more compatible with inclinations to fine arts or to scientific interests than with this wasting of forces, with blind imitating of bad living habits, accepting last fashions without using any sound criticism, with abuse of noxious matters, and all this combined with mental inertia, up to social offences.

For starting a way to a modern form of the Hellenic kallokagathia, some obstacles are to be overcome: Lack of physical activity and of systematic training, bad habits of using a single form of recreation, namely just watching television or movies in a recumbent or semi-recumbent position, etc. Active part in life in general and activating of interests should be substituted for them, instead of complaining of monotony and spleen, and indulging in a disinterested approach to life.

This change is not easy to be induced. In puberty and adolescence, family and especially parents' examples are often despised, and not accepted. The same holds true with formal school teacher's admonitions. Other emotionally important persons are needed to lead young people to physical exercise, a recreation time and environment giving the best opportunity for it.

F.i., public functions of important persons, film stars, famous singers, cosmonauts, sportsmen, etc. should serve this purpose. Yet often the necessity of adequate physical exercise is not appreciated and stressed at such occasions. Busy life of prominent personalities is presented, yet their need of adequate recreation is ommitted, or some less important hobby than physical exercise is stressed. Such examples, not well appreciated in their action on young people, prove to exercise negative influence on sport activity in them: The adolescents tend to be satisfied, even as far as sport stars are concerned, with watching television, or collecting signatures, etc., instead of imitating their physically active life.

Recreation time is the best occasion for reversing this unhealthy trend: Young people being unified, for a time being, in groups, and under common living conditions and interests, their suggestibility trends to increase.

Group spirit and competition take on various forms. Parents are mostly absent, as well as teachers of technical and humanistic disciplines. Moral values should be presented with due empathy and an adequate portion of hero worship. Shadows of depression, although not admitted, prove to appear sometimes with increasing distance from home and may be dissipated with fostering of group spirit, and adequate physical exercise.

More or less pronounced "ideal worshipping", as necessary practically for all people during the whole of their lives, must be taken in account in a recreation setting, too. Sport instructors take this function over in many cases. They should be well aware of this, and observe strictly the rules of presenting to the young an example of mentally, socially and physically healthy way of living, adapted to possibilities of different forms of setting and environment, and to other recreation conditions.

More attention should be paid to appropriate choice of sports and introducing of physical exercise in daily schedules.

Recreation time is not a formal training period, either, special courses excepted. The aim is not to overburden unaccustomed young people with it, physical exercise should be included and presented in an amusing manner, winning in this way more easily new fans for various forms of sporting activity.

Recreation time, summer and winter vacances alike, are a topic for discussion all the year round, hence the part played by physical exercise is not forgotten, but forms often the core of cherished stories, discussed and recollected during the whole of a school year, and to the end of life in many cases.

Even new and unexpected talents for individual sports may be detected at such occasions, although this is not the chief function of sporting activity during recreation time. Interest may be aroused even in less popular forms of sport as well, such as fencing, f.i., especially if accompanied with pertaining light literature.

Sport activity, learnt at recreation occasions, may prove to be life saving in the future, such as swimming, e.f. As there are many parts of our country in which possibilities for bathing in free nature are infrequent, and artificial swimming pools not yet constructed, this question is of special importance as illustrated with a high percentage of young men who do not know swimming, as identified at the starting of their military service. Until this time, it is sadly documented with news about bathing accidents, so frequent in journals during summer months.

Any contests at recreation time should be amusing, and such as to leave in all participants a feeling of joy, and of an appreciation of their performance. "Stars worshipping" is a dangerous policy even with leading sportsmen - the more so with adolescents in a recreation setting. With such "small stars worshipping", even gifted youngs are pushed to exaggerate their importance, abilities, and achievements, to turn to be a nuisance to the others, to occupy most of the time of sport instructors in a selfish manner, and to despise the less gifted, or those, the abilities of which are slow to be developped, the shy and clumsy. This may serve as a bad example, undermine the group moral, and spoil all the joy with performing sport activity for the others. Derision is a bad companion, the same as mockery and scoffing.

Consequently, contests should be wisely planned and deftly managed. Cooperation, as well as sporting activity fostering cooperation, should be preferred. All young people may take part in them, and the resulting spirit of collaboration is very useful, and that not only in a sport setting. On sporting grounds, it helps to improve the moral of teams, serving as its foundation, in fact.

Education, fine arts, literature, music, etc. should not be neglected because of sport activity - on the contrary, to be included to form the harmony of any recreation setting.

MÉTHODES ET MOYENS DE DÉVELOPPEMENT DE LA RÉSISTANCE PSYCHIQUE CHEZ LES SPORTIFS DE PERFORMANCE

SERBAN, M., Bucarest, Roumanie

Le développement de la résistance psychique chez les sportifs est réalisable par une certaine stratégie expérimentale, en combinant les modalités d'influence unanimement reconnues dans la psychologie appliquée: a/ par la voie de la personnalité, b/ par les méthodes suggestives, c/ l'exercice des possibilités volitives. La matérialisation de ces tâches est effectuée non seulement par le psychologue sportif mais par une collaboration directe avec le collectif des techniciens /entraîneurs, médecin, méthodologue et le collectif des sportifs/.

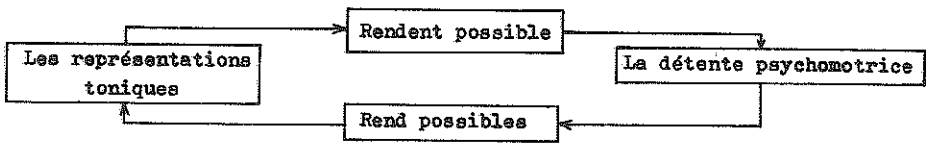
De ce point de vue, on peut considérer /pour des raisons descriptives/ que l'action poursuivie revêt un aspect psychologique, et un aspect psychopédagogique, méthodologique et hygiénique.

Pour les deux aspects on a respecté certains principes de pédagogie /la gradation rationnelle des méthodes, partant de celles simples, jusqu'a celles complexes et subtiles et le respect des particularités individuelles, ayant comme repère les données de psychodiagnostic/.

Les modalités psychologiques de développement de la résistance psychique se réfèrent aux aspects suivants:

A. Par le contact verbal avec le sportif. L'interprétation du comportement - pendant les discussions portées avec celui-ci - met au clair pour lui la démarche qu'il doit parcourir. L'introduction de la méthode de l'apprentissage constitue le stade actif de cette étape.

B. Le déconditionnement par les méthodes suivants: a/ la discipline des représentations, appartenant à Franke et Mayer. Malcuit résume les fondements théoriques de celle-ci par le fait qu'en présence des stimuli qui évoquent l'anxiété, si on émet une réponse inhibitrice, cette réponse faiblira la relation entre les stimuli et l'anxiété. La réponse inhibitrice peut être la relaxation, qui explique la base théorique du phénomène d'impregnation /Wallon/. Entre la relaxation et le tonus musculaire il existe un rapport d'interdépendance ayant un double sens:



A ce stade on a pu aborder le cycle supérieur de l'entraînement psychotone. Le sportif s'est fixé une couleur personnelle de son moi psychique et physique, qu'il contemple - dirige avec lucidité, de manière réaliste et sans peur. Les séances se terminent par un tableau tonique agréablement coloré, en fonction de la capacité imaginative individuelle. On donne des éléments de repère que le sportif utilise à son gré /les images doivent être clairement contourées, lumineuses et avec des couleurs vives/.

Le déconditionnement par l'intention paradoxe, qui a comme principe de revivre la situation conflictuelle/anticipation par représentation/, dans des conditions de protection /relaxation autogène/.

L'anxiété, qui se développe parallélement à la représentation conflictuelle peut être pratiquement solutionnée par l'ambiance thérapeutique.

Le déconditionnement par la modification des expectations, par la suggestion des variantes de comportement toniques, optimisantes, qui puissent permettre au sportif un final agréable, mais aussi possible.
Sur le parcours de cette expérience, les sportifs ont été habitués à exercer systématiquement des exercices psychosomatiques, accompagnés par une respiration et des commandes autosuggestives. Ils sont appliquées surtout à l'assouplissement /avec un but tonique, activateur/, ou avant le coucher/avec un but relaxant/.
En même temps on renforce ou on corrige /suivant le cas/ la conception sur le rôle de l'alimentation, de la réfection après l'effort , de la motivation pour l'entraînement, de la vie sportive, dans le but de former un mode de penser robuste et hygiénique.
Le sujet de cette expérience, les résultats obtenus et les conclusions qui s'imposent, constituent le sujet d'un ouvrage distinct, que nous communiquons ci-joint.

UN EXPÉRIMENT PSYCHOTÉRAPEUTIQUE CHEZ LES SABREURS DE HAUTE PERFORMANCE

SERBAN, M., Bucarest, Roumanie

1. Introduction

Comme tout sport de performance, l'escrime avec le sabre implique exigence, tension, frustration, à côté de la joie du triomphe et de la victoire. En même temps, chaque scrimeur appartient à une famille, à un groupe professionnel, scolaire ou social, distinct de l'activité sportive, auquel il est plus ou moins adapté. Pour aborder des intentions psychotérapeutiques, on a pris comme point de départ certains considérants essentiels. La sélection des sujets et des méthodes de travail a été greffée de manière concrète sur la réalité qui résulte du psychodiagnostic, sur l'expérience dans la manipulation des méthodes unanimement reconnues comme valides, et sur la capacité de compréhension-perception-suggestion que le groupe expérimental possède.

2. Hypothèse de travail

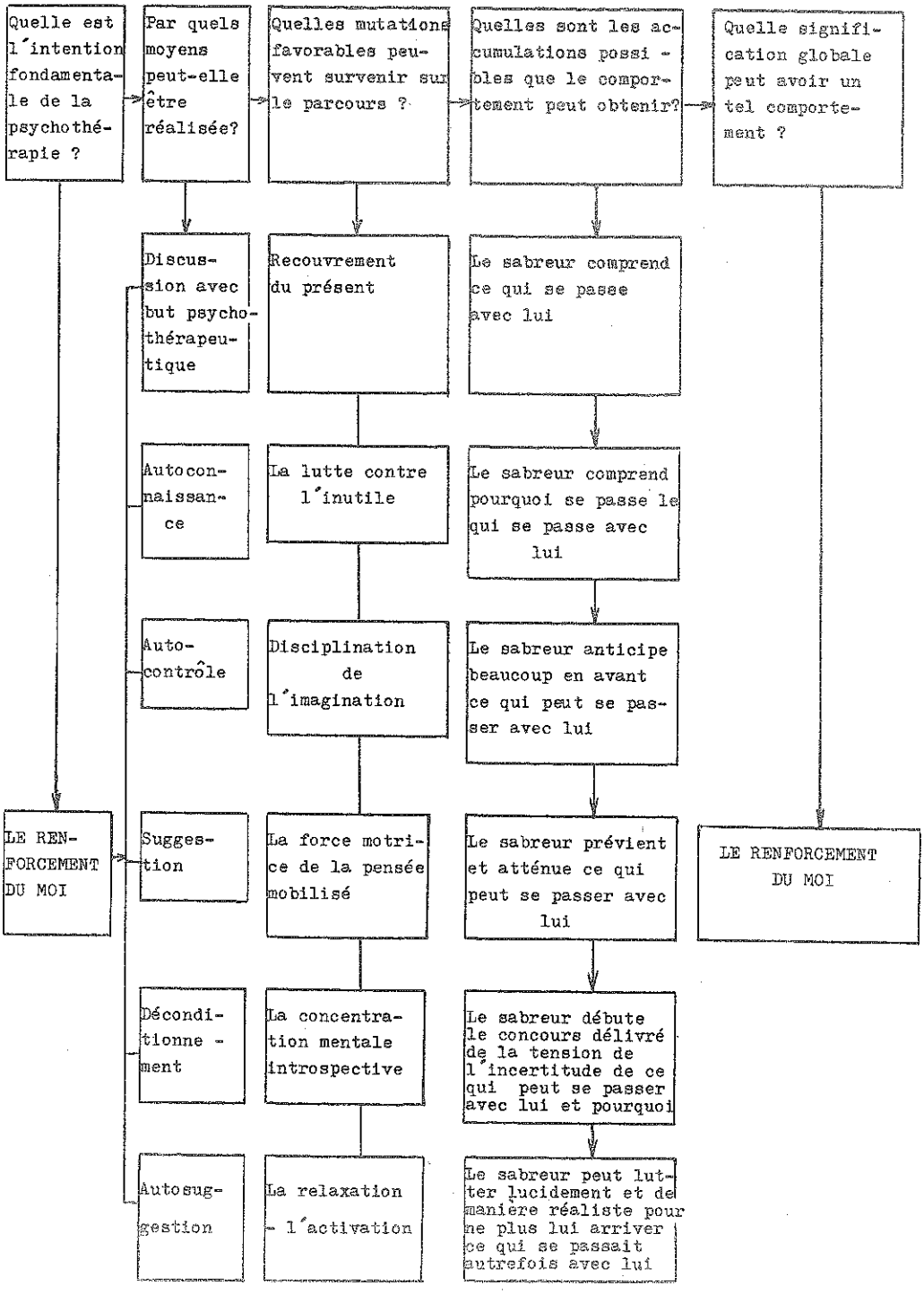
Certaines méthodes de thérapie psychique, exercées systématiquement et de manière rythmique, peuvent contribuer à l'annulation ou à l'atténuation des conflits subjectifs d'origine sportive, extrasportive, ou combinés.En vertu de cette possibilité, le sportif obtient avec une plus grande certitude,des indices de la forme psychique en concours.

3. Tâches de l'expériment

3.1 D'assurer la prévention des échecs survenus à cause des conflits intrapsychiques ou extrapsychiques.
3.2 De combattre l'installation des "nevroses" sportives /asthéniques, obsessives-phobiques, anxieuses, hypocondriques /.
3.3 D'assurer la psychothérapie individuelle ou en groupe, par l'entremise des méthodes dérivées de la psychiatrie et adaptées au spécifique de la performance.
3.4 De contribuer à l'assimilation correcte et durable des méthodes classiques de relaxation ou d'activation.

Nous présentons sous forme graphique la stratégie expérimentale utilisée /tableau no 1/.

STRATEGIE EXPERIMENTALE DE LA PSYCHOTHERAPIE Tableau No 1



4. Résultats obtenus

4.1 Amélioration de certains paramètres physiologiques après l'effort , comme l'expression d'une réfection neurovégétative optimisée /par l'effet cumulé de la relaxation autogène/.

4.2 Un coefficient accru d'autocontrôle ; les réactions impulsives sont plus rares comme fréquence et acuité /les résultats comparatifs des profils Szondi/.

4.3 Un coefficient accru de calme, de lucidité/les résultats obtenus aux épreuves de tremométrie et à toutes les épreuves de tester l'émotivité/.

4.4 Atténuation de la sensibilité en ce qui concerne l'arbitrage /résultats obtenus par les profiles pulsionnels Szondi/.

4.5 Atténuation de l'anxiété /test projectifs: MDZT, Szondi/.

4.6 Amélioration de la concentration de l'attention /résultats aux épreuves d'attention/.

4.7 Une plus grande capacité d'introspection, qui a permis l'autoconnaissance réaliste du MOI.

4.8 Une meilleure adaptation dans le cadre des relations interpersonnelles sportives et extrasportives.

5. Conclusions

5.1 La psychotérapie constitue un moyen adéquat de préparation psychologique, dans la mesure ou les méthodes sont exercées rythmiquement et systématiquement.

5.2 L'entraînement psychotone contribue à l'installation d'un mécanisme de protection hypotétique de grande importance pour une évolution équilibrée et lucide sur la planche.

5.3 La corrélation des méthodes de psychotérapie crée des prémisses favorables à l'atténuation des conflits subjectifs.

5.4 Les méthodes utilisées se sont le mieux prété aux neuroses, de supersollicitation; les états de limite causés par les carences de certains facteurs de préparation se sont avérés résistants tant qu'on n'a pas éliminé la cause primaire qui a déclenché cet état.

5.5 Certains traits de personnalité rendent plus difficile la démarche thérapeutique /le type dépressif, extraverti , labile, maniacal, impulsif /. Les types démonstratifs peuvent influencer le moral de groupe /favorablement au non/. Les mieux intégrés sont :type ambiverti artistique, celui avec un supermoi puissant, ainsi que le type hyperthymique.

5.6 La préparation des sportifs sous ces aspects ne peut suppléer que partiellement la carence d'un facteur de préparation. La psychothérapie dynamisée , les forces latentes et adaptatives du sportif les amenant au maximum qu'il représente dans l'étape respective, correspondant à sa valeur biologique, motrice et d'aptitude.

6. Bibliographie

Antonelli, F.: La psychopathologie du sport, dans "La psychologie et le sport contemporain ", ed. Stadion, 1974

Epuran, M. : "Les états psychiques de limite dans le sport" dans La psychologie et le sport contemporain "

Ghissen , L.D.: "L'état neuropsychique des sportifs avant les compétitions importantes, dans "Teoria i praktika fiziceskoi kulturi", no 4, 1966

Hošek, V.: "Anxiety of top sportsman and how to handle it"in Activitas nervosa superior, 10, no 3/1968

Černikova, C.A.: "La recherche de la stabilité émotionnelle comme indice principal de la préparation psychologique du sportif pour la compétition", dans "Les problèmes psychologiques de l'entraînement sportif", Moskva, 1967

Vaněk, M. et Hošek, V.: "Metodologické problémy psychodiagnostického vyšetření osobnosti sportovců. Dans Psychol. 19, no 1/69.

ZU EINIGEN ERGEBNISSEN DER SPORTARTSPEZIFISCHEN EIGENSCHAFTSDIAGNOSTIK

SCHELLENBERGER, B., Leipzig, Deutsche Demokratische Republik

Die stärkere Berücksichtigung psychologischer Komponenten bei der sportlichen Leistungsentwicklung stellt auch höhere Anforderungen an die Untersuchung der psychischen Eigenschaften, die von Bedeutung sind für die Handlungsregulation der sportlichen Tätigkeit. Neben dem Einsatz von Untersuchungsmethoden, die für diagnostische Zwecke in der Arbeits-, Sozial-, pädagogischen und klinischen Psychologie entwickelt wurden, kommt der Arbeit mit sportartspezifischen Untersuchungsmethoden erhöhte Bedeutung zu, die vor allem in folgenden 2 Faktoren begründet liegt:

1. Auf Grund der dialektischen Einheit von Psychischem und Tätigkeit entwickeln sich psychische Eigenschaften nur in der Tätigkeit, im Prozess der Anforderungsbewältigung. Die Spezifik der Anforderungen in der sportlichen Tätigkeit führt damit zu spezifischen Eigenschaften, die mit allgemeinen psychologischen Untersuchungsmethoden nicht ausreichend erfassbar sind.

2. Eine wesentliche Grundlage für eine reale Einschätzung der Leistungsvoraussetzungen durch psychologische Tests liegt in der positiven Einstellung des Probanden zur Untersuchung. Bei dem Einsatz sportartspezifischer Untersuchungsmethoden ist zu rechnen in der Regel mit einer stärkeren Motivation der Sportler, da sie besser erkennen den unmittelbaren Bezug der geforderten Testleistung zu ihrer sportlichen Tätigkeit und dadurch die persönliche Interessiertheit an realen Untersuchungsergebnissen erhöht wird.

Ausgehend von diesen Überlegungen entwickelten wir für die Untersuchung des Entscheidungsverhaltens im Kanu-Slalom ein sportartspezifisches Verfahren. Wir gingen dabei davon aus, dass bestimmt wird die Qualität der Entscheidung durch ihre Schnelligkeit und Zweckmässigkeit. Sowohl führen zu langsame als auch inhaltlich falsche Entscheidungen zu Fehlverhalten im Wettkampf. Die experimentelle Überprüfung des Entscheidungsverhaltens muss deshalb beide Aspekte als Einheit beinhalten.

Versuchsaufbau

Als Grundlage für die Überprüfung des Entscheidungsverhaltens verwendeten wir einen Film, der sechs Entscheidungssituationen beinhaltete.

Im Film wird die Befahrung von Torabschnitten dargestellt. In einer für die weitere erfolgreiche Bewältigung der Wettkampfstrecke bedeutenden Position des Sportlers wurde ein Standbild eingearbeitet. Die Versuchsperson hat die Aufgabe, die Strecke mit dem im Film dargestellten Sportler gedanklich mitzufahren und bei Unterbrechung der Fahrt durch das Standbild sich so schnell wie möglich für den für eine erfolgreiche Weiterfahrt optimalen Schlag zu entscheiden.

Zur Auswertung wird die Entscheidungszeit - Zeit vom Erscheinen des Standbildes bis zur Auswahl des Schlages - und der Inhalt der Entscheidung erfasst.

Die Auswertung erfolgte getrennt nach Bewertung des Inhalts und der Schnelligkeit der Entscheidung. Zur Beurteilung der Qualität des Entscheidungsverhaltens wurde aus beiden Aspekten ein Index berechnet.

Ergebnisse

Die Untersuchungen zeigten folgende Ergebnisse:

- Sportler unterschiedlichen Trainingsalters unterscheiden sich hinsichtlich der Qualität des Entscheidungsverhaltens.

- Trainingsältere Sportler erreichen höhere Punktwerte als jüngere Sportler. Dabei fällt auf , dass die Unterschiede weniger in der besseren inhaltlichen Entscheidung, sondern vorrangig in der Schnelligkeit der Entscheidung liegen.

  Da sich beide Probandengruppen hinsichtlich der einfachen Reaktionszeiten nicht unterscheiden, liegt dieses Ergebnis offensichtlich darin begründet, dass trainingsältere Sportler über relativ verfestigte Entscheidungsmuster verfügen, die in Entscheidungssituationen aktualisiert werden, ohne dass eine zeitlich länger dauernde Phase des Abwägens der einzelnen Entscheidungsvarianten abläuft.

- Sportler unterschiedlicher Leistungsstärke unterscheiden sich hinsichtlich der Qualität des Entscheidungsverhaltens.
  Wir unterteilten die Sportler des Nationalmannschaftskaderkreises in erfolgreiche (WM-Teilnehmer) und weniger erfolgreiche Sportler und führten den Extremgruppenvergleich durch. Wir erhielten hier keine signifikanten Unterschiede - da es sich bei der Gegenüberstellung dieser beiden Gruppen zwar um Sportler unterschiedlicher Leistungsstärke, keinesfalls aber um echte Extremgruppen handelt, da ja die Sportler beider Gruppen zur Leistungsspitze der DDR im Kanu-Slalom gehören.

  Die ermittelten Ergebnisse weisen jedoch auf eine höhere Qualität des Entscheidungsverhaltens bei leistungsstärkeren Sportlern hin.

- Zwischen einfacher Reaktionszeit und der Qualität des Entscheidungsverhaltens bestehen enge Beziehungen. Die Korrelationen zwischen der in der Überprüfung des sportartspezifischen Entscheidungsverhaltens erreichten Gesamtpunktzahl und der während der gleichen Versuchseinheit gemessenen einfachen Reaktionszeit weisen einen relativ engen Zusammenhang (rho = +0.41 - auf dem 5-%-Niveau statistisch gesichert) aus. Dieses Ergebnis wurde von uns nicht erwartet, da wir zwar hypothetisch angenommen haben, dass die Schnelligkeit der einfachen Reaktion auf die Schnelligkeit des Entscheidungsverhaltens Einfluss hat, dass aber auf Grund des hohen Anteils kognitiver Prozesse während der Entscheidung keine signifikanten Korrelationen zwischen beiden Aspekten bestehen.

  In weiteren Untersuchungen ist zu prüfen, ob der Einfluss der einfachen Reaktionsschnelligkeit auf die Schnelligkeit der Entscheidung grösser als von uns angenommen ist oder ob beide - Reaktionszeit und Entscheidungsverhalten - durch einen 3. Faktor, eventuell den aktuellen psychophysischen Zustand, sehr stark determiniert werden.

Insgesamt ist einzuschätzen, dass sich der Einsatz des sportartspezifischen Verfahrens zur Überprüfung des Entscheidungsverhaltens bewährt hat. Der Vorteil gegenüber allgemeinen Reaktionszeitmessungen ist vor allem darin zu sehen, dass es durch das gleichzeitige Erfassen von Schnelligkeit und Inhalt der Entscheidung besser möglich ist, die Ursache für unbefriedigendes Entscheidungsverhalten zu erkennen und dem Trainer Hinweise zu geben, ob die Verbesserung des Entscheidungsverhaltens vorwiegend durch Erhöhung der Reaktionsschnelligkeit oder durch Verbesserung der kognitiven Voraussetzungen des Sportlers zu erreichen ist.

LEHRERVERHALTEN IM SPORTUNTERRRICHT

SCHILLING, G. - OSPELT, R., Magglingen, Schweiz

1. Problemstellung

Die ersten Versuche, das Verhalten der am Unterrichtsprozess Beteiligten zu beobachten und zu messen, liegen rund 40 Jahre zurück. Vor allem die bekannten Arbeiten von LEWIN, LIPPERT und WHITE (1939) über Erziehungsstile haben dazu beigetragen, dass das Verhalten im Unterricht vermehrt Gegenstand pädagogischer Untersuchungen wurde.

Bei der Durchsicht der diesbezüglichen Literatur lässt sich folgendes feststellen:

- Neben den erwähnten Arbeiten von LEWIN, LIPPERT und WHITE behandeln auch eine Vielzahl anderer Untersuchungen das Lehrerverhalten bzw. den Führungsstil, wobei meistens zwischen direktivem und nicht-direktivem Lehrerstil unterschieden wird.

- Die meisten Untersuchungen beschränken sich auf verbale Aeusserungen des Lehrers und interpretieren das Schülerverhalten als durchwegs abhängige Variable.

- Die bislang bestehenden Theorien sowie die verschiedenen Beobachtungssysteme für das Lehrer-Schüler-Verhältnis beziehen sich - von wenigen Ausnahmen abgesehen - auf den Unterricht im Klassenzimmer.

- Da es fragwürdig erscheint, die im Klassenzimmer gewonnenen Erkenntnisse auf die spezifische Situation im Sportunterricht zu übertragen, müssen Untersuchungen in der Turnhalle vorangetrieben werden. WIDMER (1975) spricht zu Recht von einem "Theoriedefizit" in der Sportdidaktik, weil noch kaum empirisch abgestützte Theorien zum Lehrer-Schüler-Verhältnis im Sportunterricht vorhanden sind.

- Dass die Beobachtung in der Turhalle aufgrund der räumlichen Grösse vor allem wegen der damit verbundenen "Bewegungsfreiheit" der Schüler und aber auch aufgrund der sehr weiten "Aktionsmöglichkeiten" und "Reaktionsmöglichkeiten" des Lehrers und der Schüler wesentlich erschwert wird, ist offensichtlich. Es hat sich denn auch gezeigt, dass die Beobachtungssysteme von FLANDERS, BALES, BELLACK u.a. für den Sportunterricht nur bedingt brauchbar sind. Wir müssen deshalb in naher Zukunft sowohl forschungs- als auch anwendungsorientierte Kategorien bzw. Beobachtungssysteme erarbeiten, wenn wir einen Beitrag leisten wollen an die Aus- und Fortbildung von Sportlehrern.

2. Zielsetzung

Aufgrund des erwähnten "Theoriedefizits" in bezug auf die Erforschung der spezifischen Lehrer-Schüler-Beziehungen im Sportunterricht haben wir in diesem Jahr ein Forschungsprojekt zum Lehrerverhalten im Sport begonnen. Wir möchten mit diesen Untersuchungen erste Erfahrungen sammeln bei der Beobachtung und bei der Analyse von Lehrer- und Schüler-Verhalten im Sportunterricht.

Einerseits schien es uns wichtig abzuklären, wie der Sportunterricht an unseren Schulen erteilt wird, andererseits wollten wir vor allem auch wissen, welche Beobachtungsmethoden, -kategorien und -mittel sinnvoll eingesetzt werden können und wie wir vor allem auch die "technischen" Schwierigkeiten meistern können.

Für unsere Untersuchungen stand uns mit dem ETS-Videocar ein modern ausgerüstetes, fahrbares Farbfernsehstudio zur Verfügung. Das erlaubt uns eine (fast) optimale Erfassung der Reaktionen im Sportunterricht. Aus räumlichen, zeitlichen und finanziellen Gründen mussten wir bei der Auswahl der Klassen für dieses erste Projekt eine Beschränkung in Kauf nehmen. Nach Abwägen verschiedener Vor- und Nachteile entschieden wir uns, die Unterrichtsbeobachtungen an einer Sekundarschule (5. bis 9. Schuljahr) durchzuführen. Es standen uns insgesamt ca. 10 Aufnahmetage zur Verfügung.

Wir setzten folgende spezifische Ziele:

- Für die Analyse des Lehrerverhaltens sowie der Lehrer-Schüler-Interaktionen sollen Beobachtungskategorien gefunden werden, um so schliesslich ein Beobachtungssystem entwickeln zu können, das von Lehrern und Sportlehrerstudenten gehandthabt werden kann. Dabei soll überprüft werden, ob ein solches System in einen Grob- und in einen Feinraster unterteilt werden kann.

- Mit diesem Beobachtungssystem wollen wir in einem zweiten Schritt bestimmte Hypothesen überprüfen, zum Beispiel inwieweit das Lehrerverhalten vom Lehrinhalt oder von der jeweiligen Schulklasse beeinflusst wird.

- Neben diesen quantitativen Analysen möchten wir die Videoaufzeichnungen auch dazu benützen, typische Unterrichtsvorfälle (Problemsituationen) zu sammeln und diese mit Lehrunterlagen zusammen für Kurse zur Aus- und Weiterbildung von Sportlehrern aufzubereiten.

3. Technische Mittel



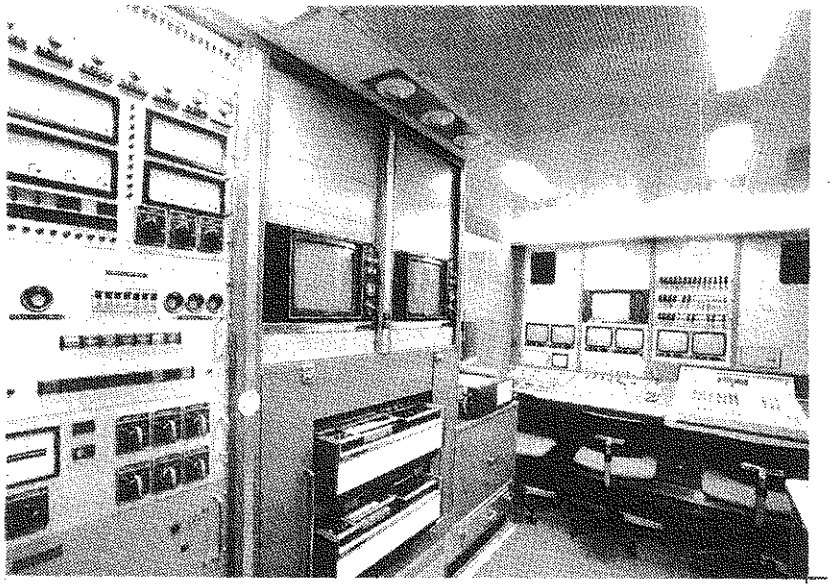
a. Der ETS-Videocar

Mercedes Typ 1213, Gewicht: total 12 000 kg (leer 8 880 kg)
Masse: Länge 7,75 m, Breite 2,0 m, Höhe 3,2 m

b. Einsatz-Möglichkeiten

Mit Hilfe des Videocars können folgende Aufgaben gelöst werden:

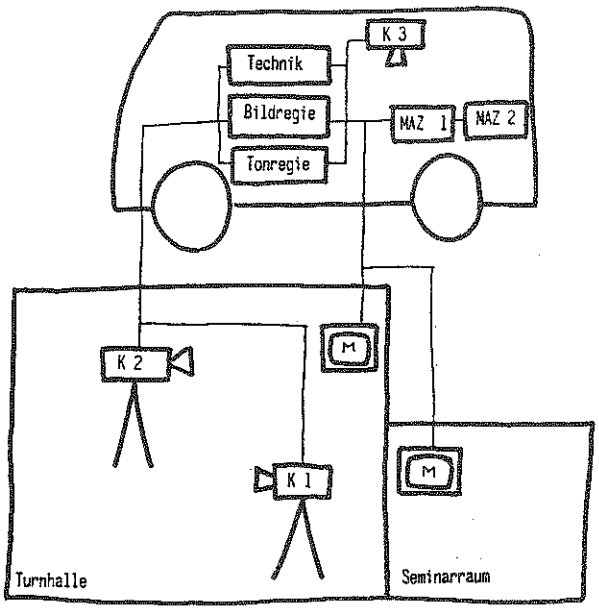
- Aufnahme von Unterrichtsstunden, Sportspielen, von Wettkämpfen und Trainings aus geschlossenen oder offenen Sportanlagen
- Sofortige Wiedergabe der Aufnahme zu Kontroll- und Lehrzwecken
- Spätere Wiedergabe, eventuell in Kombination mit anderen Videoaufnahmen, Filmabspielungen etc.
- Leichte Bearbeitung (Zusammenschnitt, Kommentar etc.)



c. Ausrüstung des Videocars

Die Einrichtung des Videocars sieht folgendermassen aus:

- Zwei elektronische Farbkameras in Studioqualität gewährleisten gute Aufnahmen auch unter ständig wechselnden und erschwerten Betriebsbedingungen.
- Die Kameraleute in der Halle oder auf dem Sportfeld stehen in ständigem Hörkontakt mit dem Regisseur im Wagen und können direkt seine Anweisungen zur Bildführung ausführen.
- Eine schwarz/weiss-Titelkamera nimmt Titel, Grafiken, Tabellen, Namenseinblendungen, Zeiteinblendungen etc. auf. Diese Bilder können elektronisch farbig gestaltet werden.
- In einer komplexen Bild- und Tonregieeinrichtung werden alle Bild- und Tonereignisse kontrolliert und auf Anweisung eines Regisseurs bearbeitet (z.B. Farbeinstellung, Bildtricks, Bild- und Tonüberblendungen, Tonsynchronisation).



K 1, 2, 3 = Kameras
MAZ 1, 2 = Magnetaufzeichnungsgeräte
M = Monitoren

- Die Aufnahmen können im Videocar oder über Monitoren unmittelbar am Aufnahmeort oder in anderen Räumen betrachtet werden.
- Zwei Magnetbandaufzeichnungsgeräte nehmen Ton und Bild von der Regie auf. Die Magnetbandaufnahmen können nachträglich bearbeitet werden.

4. Erste Ergebnisse

Da unsere Videoaufnahmen erst vor drei Wochen abgeschlossen wurden, können wir Ihnen heute noch keine konkreten Auswertungen anbieten. Dies wird Mitte November am Magglinger Symposium über "Audiovisuelle Medien im Sport" möglich sein. Wir möchten heute einige Erfahrungen zusammenfassen und zwar einmal aus technischer und zum anderen aus pädagogischer Sicht.

Doch vorerst noch einige Worte zu den Aufnahmen: wir waren bemüht, den normalen Schulbetrieb so wenig wie möglich zu beeinflussen. Ebenso waren wir darauf bedacht, dass alle Lehrer sich freiwillig an diesem Projekt beteiligten. Wir glauben, dass diese beiden Voraussetzungen grundsätzlich gegeben sein sollten.

Insgesamt konnten wir so während einer Woche 24 Turnlektionen aufzeichnen, wobei 17 Lektionen à 45 Minuten mit Knabenklassen und 7 mit Mädchenklassen erteilt wurden. Die 24 Lektionen wurden insgesamt von 6 verschiedenen Lehrpersonen erteilt; die Klassengrössen schwankten zwischen 9 und 34 Schülern.

Unsere ersten Erfahrungen möchten wir in folgenden Punkten zusammenfassen:

- Wir haben vor und bei den Probeaufnahmen mehrere Turnhallen besichtigt und dabei feststellen müssen, dass zumindest in der Schweiz auch neue Hallen über keine Estrade verfügen. Eine solche wäre jedoch für Videoaufzeichnungen vorteilhaft, weil so für die Kameras ein grösserer Blickwinkel entsteht und zudem der Unterricht weniger beeinflusst oder gar gestört wird.
- Ein Hauptproblem ergibt sich aus den Lichtverhältnissen. Man sollte deshalb vorzeitig abklären, zu welcher Tageszeit die Sonneneinstrahlung aufgrund der vorhandenen Fensterflächen die Aufnahmen erschwert. Als Gegenmassnahme kann mit künstlichem Licht gearbeitet werden oder aber die Fensterflächen müssen abgedeckt werden, wie wir es machten.

- Beim Mikrofon für den Lehrer mussten wir einen Kompromiss eingehen. Das Lehrermikrofon ermöglicht zwar eine gute Erfassung der verbalen Lehreraktionen, behindert den Lehrer jedoch zum Beispiel beim Vorzeigen gewisser Uebungen. Das Erfassen der verbalen Schüleräusserungen erwies sich als praktisch unmöglich. Auch eine "Kanone" erfasst lediglich die Geräuschkulisse.

- Generell sollen den Aufzeichnungen zwei bis drei Probetage vorausgehen, damit das Aufnahmeteam sich einspielen und den Gegebenheiten anpassen kann. Sicher sind solche Probeaufnahmen auch geeignet, Schüler und Lehrer mit den Fernsehkameras vertraut zu machen. Es scheint sinnvoll, während einer längeren Periode (1 - 2 Wochen) in der gleichen Schule (Turnhalle) zu arbeiten.

- Gut bewährt hat sich das Einblenden der Uhrzeit in die Videoaufnahmen. Bei Diskussionen über die Videoaufnahmen und auch bei den Auswertungen der Bänder ist das Auffinden der gewünschten Stellen so um vieles erleichtert.

Aus pädagogischer Sicht ergaben sich folgende Probleme:

- Bei der Auswahl der Schulklassen empfiehlt es sich, die Klassengrösse zu berücksichtigen. Aus aufnahmetechnischen Gründen sind Klassen mit mehr als 20 Schülern nur schwer zu erfassen. Je nach Zielsetzung muss aber auch die Altersstufe der Schüler sowie der Ausbildungsgrad der Lehrer berücksichtigt werden.

- Inwieweit die Videoaufzeichnungen den Unterricht beeinflussen, ist nur schwer abzuschätzen. Nach unseren Erfahrungen hängt dies sehr stark von der Lehrerpersönlichkeit und auch der jeweiligen Klasse (zum Beispiel Altersstufe) ab. Ein Bewertungsblatt, das wir den Lehrern vorlegten, kann uns diesbezüglich einige (subjektive) Hinweise geben. Lehrer und Schüler sollten auf alle Fälle die Möglichkeit haben, zu den Lektionen Stellung zu nehmen.

- Auch mit zwei Kameras ist die Erfassung sämtlicher Lehrer-Schüler-Aktionen nicht möglich. Dies zeigt sich vor allem bei Spielformen und bei Stationentraining oder Gruppenarbeit. Es ist deshalb unerlässlich, dass die Kameraleute je nach Zielsetzung entsprechend instruiert werden, zum Beispiel kann eine Kamera die Totale erfassen, während die andere den Lehrer oder einzelne Schüler bzw. Schülergruppen aufnimmt. Als sehr nützlich für den Aufnahmeleiter und die Kameraleute erwies sich der Lektionsplan, den uns die Lehrer vor

den Stunden abgeben mussten. Dieser Lektionsplan enthält Angaben über das Lernziel, den Lehrinhalt und die Unterrichtsform. Allerdings besteht dabei vielleicht die Gefahr, dass die Lehrer "Musterlektionen" vorbereiten.

- Um die Videoaufzeichnungen zu ergänzen, könnten zusätzliche Beobachter in der Turnhalle eingesetzt werden, so zum Beispiel ein Psychologe, der Problemsituationen, Gruppenbildungen und averbale Interaktionen festhält oder ein Sportlehrer, der seine Beobachtungen auf didaktische und methodische Kriterien konzentriert.
  Jedenfalls muss für das Techniker- und das Beobachterteam, wenn sie effizient arbeiten sollen, eine Schulungszeit eingeplant werden.

5. Ausblick

Nach diesen ersten Erfahrungen, die vor allem denen Nutzen bringen, die selbst ähnliche Projekte in Angriff nehmen wollen, möchten wir abschliessend noch kurz skizzieren, wie unser Projekt weitergeführt werden soll.

Wie bereits erwähnt, werden wir anlässlich des Symposiums "Audiovisuelle Medien im Sport" im kommenden November konkrete Ergebnisse in bezug auf unsere vorher dargelegten Zielsetzungen vorlegen. Anschliessend soll das Projekt in einer zweiten Phase in Form einer Dissertation weitergeführt werden, wobei hierfür die genaue Zielformulierung noch aussteht. Jedenfalls legen wir Wert darauf, dass auch diese Dissertation ein praxisorientiertes Ziel verfolgt, um so nützliche Hilfe bieten zu können für die Aus- und Weiterbildung von Turn- und Sportlehrern. Gleichzeitig möchten wir mit unserer Untersuchung innerhalb und ausserhalb des Sportes aufzeigen, welche Lernmöglichkeiten sinnvoll eingesetzte Videosysteme bieten können.

Gestatten Sie uns, zum Schluss noch drei Wünsche anzubringen:

- Im Laufe dieses Projektes hat sich herausgestellt, dass im deutschsprachigen Raum derzeit einige ähnliche Untersuchungen geplant oder durchgeführt werden. Die internationale Zusammenarbeit in der Sportwissenschaft erweist sich aber auch in diesem Falle als sehr unbefriedigend, weshalb wir an dieser Stelle wieder einmal für einen intensiveren Informationsaustausch und für eine bessere Koordination plädieren möchten.

- Unser zweiter Wunsch betrifft den Sportunterricht in den Schulen, der in der Schweiz, vielleicht auch in anderen Ländern, von der Sportpsychologie zugunsten des Spitzensportes vernachlässigt wurde. Wir möchten mit diesem und weiteren Projekten versuchen, gewisse Akzentverschiebungen zu erreichen. Wir möchten einen Beitrag leisten an eine bessere Ausbildung der Turn- und Sportlehrer, eine Ausbildung, welche den audiovisuellen Mitteln und Methoden im Unterricht mehr Rechnung trägt.

- Die Bedeutung der Videotechnik in der Unterrichtsbeobachtung und damit verbunden beim Lehrerverhaltenstraining ist heute unbestritten . Der diesbezüglichen Forschung und Literatur kommt auch im Bereich des Sportes eine wichtige Rolle zu. Nicht nur die Sportpädagogen, auch die Psychologen, können und müssen dazu einen wichtigen und nötigen Beitrag leisten.

COMPREHENSIVE SCHOOL PUPILS' MOTIVATION FOR SPORT AND PHYSICAL ACTIVITY

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1. Introduction

In 1974 a large-scale study of school physical education was started at the Research Institute of Physical Culture and Health. As the first stage was published a "Plan for a Programme of Research on School Physical Education in Finland in 1975-1979" (Nupponen 1976). It defined the most urgent research topics concerning physical education in schools.
The empirical data collection was started in 1976 with the financial support of the Ministry of Education. The physical functioning ability of 2796 pupils (aged 9-21) was measured by a set of tests designed for the purpose.
Of the other sub-projects the study of sport interests is at the moment in the data collection stage and the investigation of motor functioning ability is in the planning stage.
After a period of basic research (1976-1978) the results of the whole project will be utilized in practical physical education teaching so that on the basis of empirical data evaluation methods will be developed for teachers for the follow-up of the development of pupils' physical functioning capacity and of their sport interests.
The data of basic research are also of use in a study which aims at ascertaining the obstacles to the whole population becoming motivated for physical activity. In recent years this task has been considered one of the priority areas of Finnish research on physical education.

2. The research domain of motivation for sport

Even if the first large-scale survey of pupils' sport interests was carried out in Finland as early as 1929, later research has paid too little attention to the development of physical education in schools and to a reliable investigation of pupils' sport interests since research activities have been dominated by other topics. One aspect of this bias is indicated also by the fact that at one time students were the part of population whose physical condition and physical activities were studied most frequently.
In the light of present research information it appears that relatively much is now known about the physical activities of the school-aged population. International exchange of information also advances rapidly in this area. It is not, however, possible to apply directly research conducted in other countries to Finnish conditions; there is a need of a national research tradition.

An analysis of research on physical activities carried out in different countries reveals a number of similarities, at least the following.

1. In the description of data the differences between boys and girls in physical activities are much the same everywhere. Differences appear, for instance, in the relative preferences of sport events and of the sport events in school physical education (e.g. Macák 1963, Telama 1972, Engström 1975, Steensaasen 1976) as well as in attitudes towards physical education at school.

There seems to be differences between boys and girls also with regard to the experiental basis of physical activities: girls stress the importance of expressiveness while boys emphasize goal-orientation (e.g. Macák 1963, Engström 1975, Steensaasen 1976).

It also appears to be commonly so that boys tend to have more time for active sport interests even at school age, even if the intensity of interest decreases with age in both sexes (Kahl 1970, 1971, Telama 1972, Steensaasen 1976). With age declines also interest in school physical education.

2. In the explanation of causal relationships within data, background variables have included factors such as variables indicative of children's and young people's social environment (parents, friends, family institution), socio-economic variables (parents' education, level of income, social status) as well as type of living environment (urban - rural).

3. Design of interest survey

In the survey of Finnish pupils' physical activity interests, which is in progress at the Research Institute, particular attention has been given to the description of motive structures and to ascertaining, what factors influence them. Thus the survey has not been limited to the quantitative study of activities, of which there already exists a fair amount of data. This approach is believed to yield a deeper understanding of the motivational base of the whole compulsory school aged population and of its variability. By means of some curricular variables (e.g. teaching contents) and variables describing children's leisure time activity-environment it is hoped to be able to explain, among other things, the impact of school physical education on the content and development of the motivational base.
Mail questionnaire as a form of data collection has some inherent limitations. A questionnaire administered to pupils of different age levels may not be equally suitable to all age levels, since the character of physical activity is known to change with age. On the other hand, the survey of real physical activity may remain onesided and inadequate, if measurement, particularly among young children, is limited only to common sport events.

4. Collection of interest data

The survey is based on a representative sample of Finnish comprehensive school pupils. [1] Data collection is done in two ways: interview (pupils in grades 1 and 3) and mail questionnaire (other age levels). The mail questionnaire will be sent out in November 1977 and the interview will be conducted in spring 1978.

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1) In the new Finnish educational system the comprehensive school is the school of compulsory education (7-16 years) and comprises 9 grades. The survey also includes upper secondary school pupils in order to get a wider age distribution. Upper secondary school is a three-year school (16-19 yrs.) and is the main channel of qualification for higher education.

5. Pilot study

The questionnaire was pilot-tested in spring 1977. The sample of pupils was non-random, and thus results are to be interpreted with due reservation. The dry run was carried out mainly in order to be able to have some empirical data for the construction of the final version of the questionnaire.
The questionnaire was presented to 440 pupils, and it was returned by 415 pupils, in other words the ratex of return was 94%. The high rate was mainly due to the fact, that P.E. teachers in different schools undertook to give out and collect the questionnaires.
Motives related to physical interests were asked with 1) the open-ended question "Why do you engage in sport or physical exercise during your leisure time?", to which pupils had produce a personal answer. A number of motives came up, since 86% of respondents presented at least one reason. Data analysis is in progress.

2) Structured questions were used when pupils were asked to estimate their physical activity interests with regard to 28 motive contents.

In the construction of the motive contents account was taken of the categories used by, for instance, Hennig (1965), Ilg, Polakowski & Rohne (1970), Rosenfeld (1973), Biener (1976) and Artus (1973). It was considered important that the questionnaire should contain categories which represent the emotional-affective, cognitive and physiomotor dimensions. The method of presenting the motive contents is shown in Figure 1.

Question: (Motive content)	"Active interest in sport or physical exercise may be a means of meeting friends and enjoy their company"	
Response: (Recognition of motive content and evaluation)	This is not how I have felt	☐
	This is how I have felt but I do <u>not</u> think that it really applies to me	☐
	This is how I have felt and <u>to some extent</u> it is <u>revelant</u> to me	☐
	This is how I have felt and I think that it is <u>highly relevant</u> to me	☐

FIGURE 1. METHOD OF PRESENTING MOTIVE CONTENTS IN THE QUESTIONNAIRE.

6. Some pilot test results

Table 1 shows the order of importance of motive contents among boys and girls.

Table 1. Order of importance of motive contents among boys and girls [1)]

Motive	Order		%	
	Girls N (118)	Boys (119)	Girls	Boys
1. Being out-of-doors and enjoying the nature	1	1	90.7	85.7
2. Health	2	1	87.3	85.7
3. Relaxation and recreation	3	12	83.7	69.8
4. Feeling joy and contentment	4	5	82.2	74.8
5. Healthy habits	5	6	81.3	73.1
6. Knowledge of environment and nature	6	8	77.8	71.8
7. Physical endurance	7	3	75.2	81.3
8. Meeting friends	8	11	73.7	70.4
9. A way of pastime	9	7	73.5	72.3
10. Useful for later life	10	9	70.3	71.4
11. On the side of daily chores (informal physical activity)	11	13	69.2	62.7
12. Physical strength	12	4	66.4	79.9
13. Building of skills and abilities	13	9	65.3	71.4
14. Presence of boys and girls	13	20	65.3	45.4
15. Improvement of school performance	15	18	61.5	50.3
16. Exertion and experience of exhaustion	16	14	58.4	58.5
17. Improving one's figure	17	23	55.1	33.7
18. Making personal plans	18	15	53.4	56.4
19. Independent planning of time expenditure	19	19	51.3	45.8
20. Experiencing new things	19	21	51.3	45.8
21. Approval of peers	21	16	50.8	55.5
22. Expressive movement, self expression	22	22	49.1	36.2
23. Learning skillful performances	23	17	47.5	52.1
24. Knowledge of the significance of physical activity	24	25	40.2	31.9
25. Showing excellence of performance	25	24	24.6	33.6
26. Parental support	26	26	17.8	22.7
27. Civic duty	27	27	16.2	18.5
28. Fad	28	28	13.6	16.0

1) Categories "to some extent relevant" and "highly relevant" have been combined in the per cent frequencies.

"Being out-of-doors and enjoying the nature" is the most frequently cited reason for physical activity among boys and girls. Although the results are suggestive rather than fully representative, we may conclude that the dominance of this motive is explained besides a certain Finnish "outdoor tradition" (skiing, hiking etc) partly by the fact that jogging has increased in popularity among young people, especially girls (e.g. Telama 1977).

The most distinct differences in the motive contents between boys and girls are such that girls prefer relaxation and recreation, give more emphasis to the presence of both sexes and to the improvement of one's figure. Boys, in turn, prefer clearly more than girls developing the functioning capacity of the body (strength and endurance), give more stress to gaining the approval of peers and to learning skilled performances.

A distinct difference from some earlier, mainly Scandinavian studies, (e.g. Engström 1972, 1974, Telama & Kostiainen 1975) is that the competitive motive, particularly among boys, did not obtain a similarly significant position.

Figures 2 and 3 illustrate the weighting of some of the most important motives on different age levels among boys and girls.

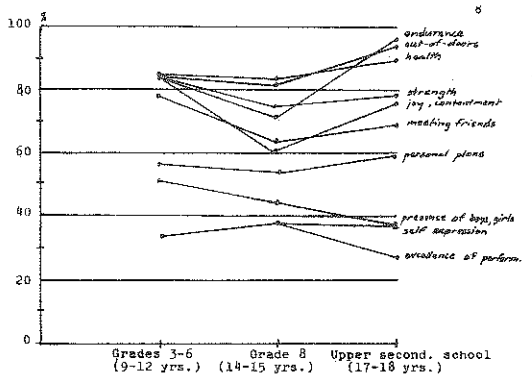


FIGURE 2. THE PREFERENCE OF SOME MOTIVES AMONG BOYS BY GRADE LEVEL[1]

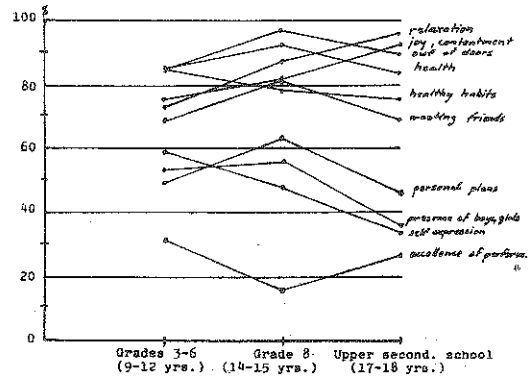


FIGURE 3. THE PREFERENCE OF SOME MOTIVES AMONG GIRLS BY GRADE LEVEL

1) In the distributions the categories "to some extent relevant" and "highly relevant" have been combined in the per cent frequencies.

It can be concluded from Figures 2 and 3 that the differences between boys and girls can be explained not only by age but also by type of school. It would appear, the smallness of the sample notwithstanding that in the upper grades of the comprehensive school (age 14-15) motives become relatively less important among boys whereas among girls the trend is the opposite. Among upper secondary school students (aged 17-18) the opposite holds true. Among girls there is one exception insofar as the rating of the importance of relaxation and recreation shows a consistent upward trend.

A fairly general trait, which is not seen in Figures 2 and 3, appears to be that in almost all motive contents ratings shift from "highly relevant" to "to some extent relevant", and simultaneously increases the number of those pupils who report that they have not recognized or been aware of motives to the same extent as pupils in lower grades have done. For further analyses the fact that motive contents or rather their variability seem to diminish with increasing age is of interest. This finding gives some support to the idea that with increasing age in physical activity there is a shift from activity guided by impulsive motives and needs towards fewer and more stable indirect motives.

7. Concluding remarks

The study on pupils' motives for sport and physical activity is in progress and the results presented above are to be seen as preliminary. There is no point in presenting a long list of motives without giving any reasons for them. The study must be based on a solid conceptual analysis. For instance, it must be decided whether we want to study pupils' physical activity in general and its intensity or interest in typical forms of physical exercise and related needs and motives for activity. Special attention has to be given to the independence of need and motive scales, so that the dimensions they represent can be thought to be real.

The instrument for measuring motives used in the dry run seems to be feasible in the questionnaire technique with the exception of the lowest grades. When the data concerning the comprehensive school pupils has been collected and analysed from all age levels it will be possible to develop test items so that they can also be used by teachers in their practical school work.

Literature

Artus, H.-G. (1973) "Untersuchungen zur Motivation bei Jugendlichen im Breitensport. "Teoksessa Motivation im Sport. V. Kongress für Leibeserziehung 7.-10. Oktober 1970 in Münster. Verlag Karl Hofmann. 192-202.

Biener, K. (1976) "Sportverhalten und Motivation zum Sport." Sozial- und Präventivmedizin. Médecine sociale et préventive 21, 271-274.

Engström, L-M (1972) Indrott på fritid en enkätstudie bland elever i årskurs8. Pedagogiska Institutionen, Lärarhögskolan i Stockholm.

Engström, L-M (1975 Fysisk aktivitet under ungdomsåren. Lärarhögskolan. Pedagogiska institutionen. Stockholm.

Hennig, W. (1965) "Die Motivation des Sportinteresses bei Kindern und Jugendlichen" I-III. Julkaisussa Theorie und Praxis der Körperkultur. Leipzig. Heft 1, 3 ja 9. (ss. 128-137, 227-236, 799-806)

Ilg, H., Polakowski, I. & Rohne (1970) "Zur Objektivierung von Erziehungsergebnissen dargestellt am Beispiel der Motiverfassung." Julkaisussa Theorie und Praxis der Körperkultur. Leipzig, 134-140.

Kahl, E. (1971) "Beziehungen zwischen sportlichen Interessen und sportlicher Leistung. "Körpererziehung. Volk und Wissen Verlag. Berlin.

Macák, J. (1963) "Die Motivation der sportlichen Tätigkeit und der sportlichen Interessen der Schuljugend." Julkaisussa Theorie und Praxis der Körperkultur 7 (1963), 10. Leipzig. 895-904.

Nupponen, H. (1976) Plan for a programme of research on school physical education in Finland in 1975-1979. Abridged version. Reports of Physical Culture and Health 14. Jyväskylä.

Rosenfeld, G. (1973) Theorie und Praxis der Lernmotivation. Ein Beitrag zur pädagogischen Psychologie. Deutscher Verlag der Wissenschaften. Berlin.

Steensaasen, S. (1976) Sport involvement of Norwegian youngsters related to sex, age, social class, cleverness and satisfaction with school. Notater og rapporter fra Norges Idrettshøgskole. nr. 42. Oslo.

Telama, R. (1972) Oppikoululaisten fyysinen aktiivisuus ja liikuntaharrastukset IV. Selittävä osa ja yhteenveto. Kasvatustieteiden tutkimuslaitos 142/1972. Jyväskylän yliopisto.

Telama, R. (1977) Pupils' interest and motivation for sport in Finland. Paper presented at the Scandinavian Conference "Symposium om Idraets adfaerd". Kopenhagen, March 17-19. 1977.

Telama, R. & Kostiainen, V. (1975) Secondary school pupils' sports motivation. Stadion 1: 4-9 (in Finnish, with English summary).

ATHLETIC COMPETITION FOR CHILDREN: MOTIVATIONAL CONSIDERATIONS

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Increasing attention in recent years has been focused on organized sports programs for youth of both sexes. Programs in many countries have become structured more elaborately, involving a great number of participants in a variety of sports representing various age groups, beginning as early as five years. Club sports, community sports, national sports, and school sports programs provide mediums whereby children can gain experiences under adult supervision. In turn, adult involvement has increased along with the participation of young athletes. Parents, educators, coaches, doctors, trainers, and scientists contribute their expertise, depending on the nature and purpose of the particular program.

Many of these athletic programs are oriented to serve as little more than recreation for the participants. Minimal skills are taught and the pressure to win is slight. In other programs, the situation is quite different. Elite athletes are developed, training is long and laborious, and competition is

intense. The ultimate objective might be to develop athletes good enough for world class competition in some countries, for professional sport in other countries.

Familial, social, cultural, and political encouragement and pressures surround the sport world. International sports competition and its outcome oftentimes carries with it far reaching transnational implications (Nafziger, 1971: Singer, 1974, 1975). It is little wonder that the nurture of young athletes until they mature, and their maximal skills are exhibited, is of great concern to many sectors in various countries.

Indications of the growth of youth sports programs throughout the world are located in many sources. For instance, International Sport (1975) reports that in Cuba there are over one million participants in sports who are working, learning, or controlling the growth of the country. The mass interest in sport became evident only recently. This is manifest by the effects of sports exercise upon children and youth, including physical development, health, and intelligence. One cannot gain positive effects without mass participation, so triumphs can be reached only by mass sport. Mass sport must develop so that it regulates and organizes participation and arranges that every competitor has his test of strength on the local level, then at district and provincial levels and finally at the national level. This culminates in international competitions. (p.16)

The German Democratic Republic adopted the "Law on the Participation of Young People in the Organization of an Advanced Socialist Society," and in the publication Youth in the Socialist State (1974), Articles 34 to 38, clearly delineates that country's philosophy about the development of physical culture and sport among youth. It is written that

> It shall be a concern and task of any young person to engage in regular sports activities to develop his individuality . . . . Meritorious achievements in the development of physical culture and sport and great sport performances shall be rewarded with marks of distinction by the state (p. 48)

Furthermore, Universal Sports (1975) reports that "2.4 million members of the Gymnastics and Sports Federation include 957.810 children and youth, that is 29.2 per cent of all children and young people." Competition in Olympic-type sports called Spartakiads are held yearly. Contests take place on a district, county, and national level. Over 4 million boys and girls registered in the Spartakiads in 1974. Universal Sports writes that "many world and Olympic champions who won laurels for GDR sport were discovered through the children's and youth Spartakiad" (p. 44).

In the Soviet Union, Leiken (1974) states that "physical culture and sports have always been considered a subject of state importance" (p. 7). Sports and physical culture are encouraged for all young people.

Although not directed by governmental policy nor philosophy sports programs in the United States have grown remarkably within and outside of school structures. It is difficult to assess the total number of youth involved in sport, but Martens (in press) has made the following estimations based on various sources of data. Of approximately 42.5 million children between the ages of 6 to 16 in the United States, 17 million participate in adult-organized youth sports programs. This figure and the following ones do not include those youth who participate in school programs.

When sports are analyzed according to participation (the same child may participate in more than one sport), 18.94 million boys and 12.46 million girls are represented in the sports. Baseball and softball are the most popular sports in terms of youth participation in the U.S. Of the 4.99 million participants in baseball, 4.2 million are boys. However, in softball programs, there are 2.41 million girls and 1.97 million boys.

Figures could be presented and presented. This is unnecessary, as it is obvious that involvement in and the magnitude of sports programs continue to expand. Countries from all parts of the world show similar patterns of interest in and dedication to youth sport, although emphases, goals, and structures may vary.

With all the emphasis, we may ask what are the effects of competition on children ? Why do they participate ?

How do they feel about their experiences? These and other questions have been posed many times before.

There are obvious answers that supporters and detractors might present to represent their causes. We would like to examine some potentially damaging psychological effects of athletic competition on children. In turn, we will discuss recent developments in cognitive motivational theory and describe reasons why the result of activity for intrinsic motivational reasons is important. Youth programs need to be sensitive to impressionable youth, to provide meaningful and satisfying experiences for them. Suggestions will be made as to the structure of youth sport programs on the basis of psychological research especially related to motivational theory.

Children and Competition in Sport

Experts disagree as to the age at which children should be indoctrinated into formal athletic programs, or for that matter, which types of sports.[a]

The personal and social benefits accrued by participants in sport, although not well documented in the research literature, seem to be accepted by the public. We have no objections to the beliefs in the potential merits of sport. We wish, however, to examine some possible sources of concern as to the psychological composition of individual athletes, their reactions to their performances, their treatment by coaches, and their continual successful experiences in sport. Also, our interest rests primarily with the mass of youth sport participants, rather than those select few who are physically and psychologically endowed, especially disciplined, and who will become the more elite athletes in the world.

Competition can be both threatening and discouraging to those who cannot succeed in the competitive situation. The child who is forced to compete will merely go through the appropriate motions (Combs, 1956). It is for those children who never succeed, or who succeed only on rare occasions, that the nature of competitive athletics might be reevaluated. Only those children who have been successful, or believe they have a chance of succeeding, will continue to seek out competitive athletic experiences. But many of these athletes may possess a less than desirable psychological framework for competition. Consideration must be given to the highly successful youthful athlete who tires of the sport

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a Such was the case, for example, at a recent conference held in Washington, D.C., in February, 1977, sponsored by the American Alliance for Health, Physical Education, and Recreation, in which a group of experts was invited to discuss problems in youth sports and to develop guidelines.

at an early age. The effects of intensive childhood participation in competitive athletics should be assessed with regard to each child's psychological development.

The very nature of athletic competition is that it creates more losers than winners. The ultimate result of competitive participation can only be that a relative few individuals encounter successful (winning) experiences, while the majority experience failure (losing). If these failure experiences become repetitious, then children will begin to question their adequacy. A primary concern of children is mastery over their environment (White, 1959). If this "competence" is not achieved, children may develop feelings of inadequacy, both psychologically and physically.

A child searches for new information through personal testing experiences. Athletics does provide such a medium for these testing experiences, but at what cost?

Many children become disinterested in athletic situations because: (1) they repeatedly cannot make a team; (2) they are on a team, but play very little, if at all; (3) they are ridiculed for lesser playing ability by the better athletes, or even worse, the coach; or (4) the coach shows favoritism to the better athletes. These factors can lead to social withdrawal as reflected in interpersonal relationships with parents, friends, and relatives. It is entirely possible that the child who perhaps needed athletic participation the most will never enter into any athletic or social setting that is perceived as threatening due to the pending occurrence of competition.

A number of youthful athletes probably become disenchanted with the main objective of competition; i.e., beating a rival, regardless if one's own performance reaches a level of excellence (Sherif & Rathay, 1973). If the athlete is being evaluated only on the basis of whether or not a rival has been beaten, little information is really provided relating to the level of excellence achieved in performance.

This type of evaluation can only provide success-failure win-lose information, and can account for the reason why many athletes become disappointed with sports. They may feel unworthy, unwanted, and unacceptable (Orlic & Botterill, 1975). Their self-concept has been diminished because of the belief that their value as a person depends on the ability to achieve (Beery, 1974). Since success becomes the main determinant of achievement and positive evaluations in this situation, the child begins to lose self-confidence and competence as long as there are unsuccessful attempts in athletic competition.

The emphasis in children's athletics might be redirected toward providing the participants with positive experiences in competition. By maintaining an aura of fun around the games, rewards can be given for participation, not winning (Orlick & Botterill, 1975). Evaluations of the performances might be based on personal improvement, not only how performance related to others. Children will increase their self-worth as they learn to appraise themselves in personally successful situations involving self-improvement (Covington & Berry, 1976). Researchers and adult directors of children's athletics might become better aware of each athlete's perception of the competitive situation. Attribution theory, which is concerned with the perceptions about the causes of behavior, not the actual causes (Snyder, 1976), provides one theoretical framework to analyze the child in competitive athletics. The conceptual distinctions between intrinsic motivation and extrinsic motivation are related to this area.

Application of research data from both areas can provide insight into the effects of competitive athletics on children and the possible restructuring of programs.

Cognitive Motivational Theory

Attribution theory (Heider, 1958) is concerned with how a person makes causal explanations about one's own behaviour, and the behaviour of others. In the theory as refined in later years is the ascription of the causes of behaviour to one of four main factors: ability, effort, task difficulty, and luck (Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1972). These factors are most evident as causal explanations of behaviour in situations eliciting success or failure outcomes. Depending on the motivational characteristics of the perceiver, being a high or low need achiever, or possessing an internal or external locus of control, the causal ascriptions to behaviour have been fairly well-determined. Weiner and Kukla (1970) have shown that individuals high in resultant achievement motivation are more likely to take personal responsibility for success than those low in achievement motivation. This attribution of success to the self or internal causes has been substantiated further (Luginbuhl, Crowe, Kahan, 1973; Wolosin, Sherman, & Till, 1973).

Causal ascriptions for failure have been made to lack of ability (Luginbuhl et al., 1973), and to the situation (Wolosin et al., 1973). This attribution of failure to stable factors-ability and task difficulty - will probably lead to expectancies of future failures. However, if the failure was attributed to such unstable factors as effort or luck, the possibility of future expectancies of success should increase (Weiner et al., 1972).

The inference to be made from these data is that the young athlete should be consulted regarding his or her perceptions of personal competitive performance. The object would be to change the athlete's ascriptions for personal performance, if deemed appropriate. Success attributed to unstable factors must be attributed to stable factors. Likewise, stable attributions for failure must be changed to unstable causes for that behaviour. In this way, the future expectancies of success will increase (Weiner et al., 1972).

A child's ascription to the causes of athletic performance will be strongly related to expectancies in that situation. If expectancies are oriented toward failure, and this occurs, an attribution will probably be made to low ability. What must be done in instructuring a competitive situation in this case is to have the outcome disconfirm the athlete's expectancies. If success is experienced when failure was expected and successful performances occur more often than unsuccessful ones, then the athlete will begin to attribute behaviour to a high ability factor. This is because expectancies with regard to success and failure have been reversed (McMahan, 1976).

Another way to change the athlete's ascriptions for personal behaviour is to structure the competitive athletic situation in relation to ability level. This does not mean that the situation must be so simple that success will occur after every performance. The athlete may begin to view this athletic competition as too simple and thereby ascribe performance to low ability and task ease (Gold, 1975). On the contrary, the situation should be formulated so the task is of intermediate difficulty in relation to the child's own ability, not to some reference group (McMahan, 1976).

The implication would be to structure the competitive situation in order that athletes perceive and evaluate their performances such that they are in control

over their own behaviours. In other words, the orientation to attributions for behaviour can, and should, be changed from external to internal factors (Dweck, 1975). This would then lead to the athlete's subjective intention for a successful performance and a successful outcome becoming a contingent occurrence. This contingency can be regarded as further evidence for personal control. When the outcome is a rare occurrence, attributions to an ability factor can still be made.

When athletes assume responsibility for their performances, they are more likely to remain motivated to continue participation in competitive athletic situations. This is probably true more for successful athletes, as assuming responsibility for constant failure may damage self-concept and cause withdrawal. In either case, we are interested in identifying factors that explain why youthful athletes continue or discontinue athletic participation, and what motivated them to enter into athletic situations in the first place.

Intrinsic Motivation

As Deci (1977) has pointed out, intrinsic motivation is behaviour that occurs in the absence of any apparent external reward. It is manifested in sport when the person focuses on interaction with the activity rather than on defeating an opponent. The notion of intrinsic motivation is that attention should be devoted to bettering oneself more than to beating others in competition.

The suggestion has been made (Orlick & Botterill, 1975) that participation in athletics should be rewarded, rather than actual performance outcomes. This will supposedly lead to more enjoyment in the competitive athletic situation. However, enjoyment does not always result in an internal attribution (Ross, 1976), and evidence has accrued attesting to the deleterious effects of non contingent rewards upon children's intrinsic motivation (Lepper & Greene, 1975). It has been stated (Deci, 1975) that the child seeks personal control over situations. Personal control (internal attributions of causality) will only occur when one intends for something to happen, whether caused directly by him or her or by the environment. Internal causality is a major characteristic of intrinsically motivated behaviour.

If, as should be the case, competitive athletics represent a means for participants to find out about themselves, then the experiences should present a worthy challenge to their abilities and result in mostly positive outcomes. Whereas Orlick and Botterill (1975) endorse the use of extrinsic rewards as initial motivators to involve the child in athletics, these same rewards may prove to be the cause of an athlete's subsequent withdrawal from athletics. While extrinsic rewards may aid learning and performance, they may tend to have a long-range deleterious effect on the child's intrinsic interest in the activity.

Extrinsic sources of motivation (e.g., rewards, trophies, ribbons) once associated with participation and performance and expected in the athletic activity, may eventually undermine intrinsic motivation. These rewards are not contingent on personal performances related to personally established goals, but are given for successful performances against an opponent or standard. If the rewards are salient, the child-athlete becomes more concerned with those rewards than the activity itself. If the rewards are terminated, athletic participation may do the same (cf. Deci, 1975).

One point must be reiterated. If the desire of athletic competition is to aid the youthful athlete in developing feelings of competence, and rewards are to be used effectively, they must be contingent upon the personal achievement (not necessarily winning) of the participant. Rewards allocated without regard to the quality of performance have little or no value because they do not arouse the intrinsic interest that becomes associated with effective control (Ross, 1976). A child who feels in control over performance will make internal attributions regarding that performance. Participation in that activity will continue because it is intrinsically interesting, it enhances self-concept, and it provides a means for self-testing in a task that will provide information about personal ability.

It seems plausible to conclude, then, that the development of intrinsic interest in an activity will cause the athlete to continue athletic participation. Extrinsic rewards given merely for participation may result in devalued behaviour (Nisbett & Valins, 1972), and reduce future participation in that activity (Lepper & Greene, 1975). Subjective perception of competitive behaviour in this case is that the behaviour is less desirable and valuable in its own right (Nisbett & Valins, 1972). It has become a means to an end. If this is the case, intrinsic motivation in competitive athletics decresses, and interest wanes. As Harris has rightfully warned (1976), we are still not clear what the ideal ratio is for extrinsic and intrinsic sources of motivation to maximize a person's potential continuation in sport. Both types are important and have specific purposes. Ideally, all participants in sport would always be intrinsically motivated, but of course this is not the case. Perhaps, however, we can work more effectively in this direction.

Structuring Athletic Experiences for Children

Carefully and appropriately structured age-group athletic programs cannot help but produce more skillful athletes.

Practice resulting from participation will result in improved performance. However, concern must not only be shown for the physical improvements that occur in athletic participation, but for the psychological consequences as well.

Perhaps the most desirable outcome of participation in competitive athletics would be the development of positive self-esteem. If a sense of personal effectiveness can be developed (Covington & Beery, 1976), the athlete will believe that he or she is in control of personal behaviour. As the causal factor in achievements, more personal pride will be experienced for successful performances (Weiner & Sierad, 1975). With the development of an internal locus of control, the athlete is more likely to perceive athletics as intrinsically motivating. The desire to continue participation in this activity will increase (Lepper & Greene, 1975). Furthermore, attributions to performance outcomes will be made to internal factors, such as ability and effort (Weiner & Kukla, 1972), which should also serve to increase the desire to continue participation in competitive athletics (cf. Weiner et al., 1972). Weiner and Peter (1973) have found that attributions for causality change with age. While younger children attribute success and the reception of rewards as indications of ability (Covington & Beery, 1976; Weiner & Peter, 1973), with maturity people make different attributions. Whereas outcome is the main factor affecting young children's attributions, effort becomes most important in the late pre-teen years (Weiner & Peter, 1973).

With this in mind, Weiner (1975) has made a plea for rewarding the effort put forth in competitive athletics. An effort evaluation of the athlete's performance in relation to personal ability should lead to an enhanced self-concept through participation in competitive athletics.

The use of rewards to signify winners and losers may tend to restrict the child's activity to internalize standards of moral rightness and wrongness (Martens, 1975). The preference for an effort evaluation based on personal ability may be destroyed with the use of external rewards. As such, the athlete may begin to perceive competitive athletics as a means to an end, and this psychological contradiction can only be alleviated by refusing to participate further.

Since many children may not be physiologically or psychologically ready for competition until their late pre-adolescent years (Wilkinson, 1976), one must question the value of the initial experience into the competitive athletic situation as it currently exists. If a late pre-adolescent athlete is subjected to the outcome evaluation of competitive athletics when psychologically prepared for effort evaluations, the results may prove dangerous. Furthermore, if this cognitive inconsistency leads to a decrease in self-esteem, it is probable that the athlete will lose all interest in athletics, competitive or otherwise (Orlick & Botterill, 1975). Therefore , the competitive athletic situation must be structured with psychological and physical developmental factors in mind.

On the more optimistic side, children's attitudes may be more resistant than we think, as they are not necessarily victims of the adult-imposed cultural reward systems. In a study of Little League baseball players, Watson (1976) concluded that the sport retained its intrinsically rewarding properties for the participants in spite of the surrounding existence of reward system. "The power of the attraction of game interaction, "for its own sake," was stronger than the attraction of any adult-mediated extrinsic reward" (p. 114).

The strongest attraction of the sport was the intrinsic motivation built into its structure, second was achievement mastery, third was social interactions and mutually working toward goals, while the attraction of extrinsic forms of reward was the least in importance. This information is enlightening and heartening. It would appear that for a number of athletes, the nature of sports competition is sufficient in itself to be quite satisfying and enjoyable. Adult-imposed reward systems might be unnecessary to increase or maintain the participants' interest in the sport.

Conclusion

It has been pointed out in previous sections of this paper that a restructuring of the competitive athletic situation for children might be appropriate. Of primary importance should be the development of the youthful athlete's self-concept. Various suggestions were proposed, drawing on research and concepts related to attribution theory and intrinsic motivation.

Some desirable manipulations of the competitive athletic situation that would improve a child's self-image can be identified: (1) Successes should be maximized related to individual ability levels. This will lead to the development of an internal locus of control. Further, attributions for performances will be made to the internal factors of ability and effort. (2) An emphasis on effort evaluations should be made rather than win-lose performance evaluations. This not only

increases the child's perception of the moral value of competition, but it may lead to continued participation in sport through the years. Thus, a decrease would be likely to occur in the attrition rate of youthful athletes (Orlick & Botterill, 1975), as well as older athletes (Ryan, 1977).

These two factors would probably encourage the athlete to perceive the competitive situation as inherently interesting. Participation would not only continue, but it would tend to increase. However, to maintain the child's intrinsic motivation in athletics, the use of external rewards must be used judiciously or else discarded. That is not to say the rewarding of all behaviour will prove detrimental to intrinsic motivation. Rather, it is more of a warning to carefully select where, when, and for what actions rewards will be given, if at all.

It is apparent that those who organize children's sports should reconsider the objectives of their programs. Due respect must be given to all developmental factors of youthful athletes. In addition, adults must realize that children may perceive the competitive athletic situation differently from them. As such, winning and losing may not be as important to the children as they are to the adults. Through proper controls, the competitive athletic situations might be restructured so that more youthful athletes may benefit more fully from participation in sports.

References

Beery, R.G. An attributional analysis of student motivation. Paper presented at the meeting of the Western Psychological Association, San Francisco, California, 1974.

Combs, A.W. The myth of competition. Childhood Education, 1956, 33, 264-268.

Covington, M.V., & Beery, R.G. Self-worth and school learning. New York: Holt, Rinehart and Winston, 1976.

Deci, E.L. Intrinsic motivation: Theory and application. Paper presented at the NASPSPA Conference, Ithaca, New York, May 1977.

Deci, E.L. Intrinsic motivation. New York: Plenum Press, 1975.

Dweck, C.S. The role of expectations and attributions in the alleviation of learned helplessness. Journal of Personality and Social Psychology, 1975, 31, 674-685.

Gold, M. Vocational skill functioning of the severely retarded. Paper presented at the American Psychological Association, Chicago, Illinois, September 1975.

Harris, D.V. Intrinsic motivation with implications for sport. Paper presented at the NAPECW-NCPEAM Conference, Orlando, Florida, January 1977.

Heider, F. The psychology of interpersonal relations. New York: John Wiley, 1958.

Leiken, A. Sport in the U.S.S.R. International Sport, 1974, 1, 7-9.

Lepper, M.R. & Green, D. Turning play into work. Effects of adult surveillance and extrinsic rewards on children's intrinsic motivation. Journal of Personality and Social Psychology, 1975, 31, 479-486.

Luginbuhl, J.E.R., Crowe, D.H. & Kahan, J.P. Causal attributions for success and failure, Journal of Personality and Social Psychology, 1975, 31, 86-93.

Martens, R. (Ed.) Joy and sadness in children's sports. Champaign, Illinois: Human Kinetics, in press.

McMahan, I.D. Relationships between causal attributions and expectancy of success. Journal of Personality and Social Psychology, 1973, 28, 108-115.

Nafziger, J.A.R. The regulation of transnational sports competition: Down from Mount Olympus. Vanderbilt Journal of Transnational Law, 1971, 5, 180-212.

Nisbett, R.E. & Valins, S. Perceiving the causes of one's own behaviour. In E.E. Jones, D.E. Kanouse, H.H. Kelley, R.E. Nisbett, S. Valins, & B. Weiner (Eds.), Attribution: Perceiving the causes of behaviour. New Jersey: General Learning Press, 1972.

Orlick, T., & Botterill, C. Every kid can win. Chicago: Nelson Hall Publishers, 1975.

Ross, M. Self-perception of intrinsic motivation. In J.H. Harvey, W.J. Ickes, & R.F. Kidd (Eds.), New directions in attribution research : Volume 1. New Jersey: Erlbaum, 1976.

Ryan, E.D. Attribution, intrinsic motivation, and athletics. Paper presented at the NAPECW-NCPEAM meetings, Orlando, Florida, January 1977.

Sherif, C.W. & Rattray, G.D. Psychosocial development and activity in middle childhood (5-12 years). Paper presented at the First National Conference and Workshop on the Child in Sport and Activity, Queens University, Kingston, Ontario, May 1973.

Singer, R.N. Sport and international relations. Universal Sports, 1975, 1, 29-32.

Singer, R.N. Sport and international relations. Quest, 1974, 22, 45-51.

Snyder, M. Attribution and behavior: Social perception and social causation. In J.H. Harvey, W.J. Ickes, & R.F. Kidd (Eds.), New directions in attribution research: Volume 1. New Jersey: Erlbaum, 1976.

Sport in Cuba. International Sport, 1975, 2, 15-16.

Sport in GDR. Universal Sports, 1975, 2, 44.

Watson, G.G. Reward systems in children's games: The attraction of game interaction in little league baseball. Review of Sport and Leisure, 1976, 1, 93-121.

Weiner, B. Motivational psychology and sports activities. Paper presented at the American Medical Association meetings, Atlantic City, New Jersey, 1975.

Weiner, B., & Kukla, A. An attributional analysis of achievement motivation. Journal of Personality and Social Psychology. 1970, 15, 1-20.

Weiner, B., Frieze, I ., Kukla, A., Reed, L., Rest., S., & Rosenbaum, R.M. Perceiving the causes of success and failure. In E.E. Jones, E.E. Kanouse, H.H. Kelley, R.E. Nisbett, S. Valins, & B. Weiner (Eds.), Attribution: Perceiving the causes of behaviour. New Jersey: General Learning Press, 1972.

Weiner, B., & Peter, N. A cognitive-developmental analysis of achievement and moral judgements. Developmental Psychology, 1973, 9, 290-309.

Weiner, B., & Sierad, J. Misattribution for failure and enhancement of achievement strivings. Journal of Personality and Social Psychology, 1975, 31, 415-421.

White, R. Motivation reconsidered: The concept of competence. Psychological Review. 1959, 66, 297-333.

Wilkinson, R.E. Athletic competition for the young. McGill Journal of Education, 1976, 11, 29-38.

Wolosin, R.J., Sherman, S.J., & Till, A. Effects of cooperation and competition on responsibility attribution after success and failure. Journal of Experimental Social Psychology, 1973, 9, 220-235.

Youth in the socialist state: Youth act of the GDR. Berlin, DDR: Panorama DDR, 1974.

THE MEANING OF PHYSICALLY ACTIVE PLAY AND MOVEMENT GAMES IN PRESCHOOL PHYSICAL EDUCATION

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1. Background

Finnish preschool education lacks an integrated program of education and instruction. Main attention has been given to the definition of educational objectives. Preschool physical education has, however, a relatively long historical tradition in Finland. The first gymnastics guide for kindergartens was published as early as 1930 (Pesola 1930). After that several other books have been published (Koskimies 1953, 1958, 1962, 1966, 1977). Their physical education contents are mainly programmes in which movement is based on fairy tales and rhythmic games.

At the moment it is topical to study and examine what physical education contents and instructional methods are suitable to children at different age and developmental levels. It is necessary to extend current views of contents of physical education. Physical education should be seen as a function which permeates the daily pedagogical process in preschool education. This means that besides the weekly instruction in physical activities and exercises, different movement games come to occupy an important position in preschool education.

Since 1973 the Research Institute of Physical Culture and Health at Jyväskylä has been carrying out a research project on preschool physical education under the supervision on Mr. Isto Ruoppila, Professor of Developmental Psychology. Its main objective is to create scientific basis for the development of preschool physical education in Finland.

One of the sub-areas of the project has been the study of the psychological characteristics of children's physically active play as well as its forms and significance for motor development and physical education. In addition to theoretical analyses, empirical data have been collected on the physical activity of preschool children and on movement games as its central forms. Research methods have included the use of pedometer, two-level observation (a crossectional observation of a whole group of children and the longitudinal observation of individual children) (Björklid-Chu 1973) as well as interviews of kindergarten teachers. This paper deals both with the results of theoretical analyses and some preliminary empirical findings.

2. Theoretical frame of reference: meaning and forms of movement games

According to Vygotsky (1976) the play-development relationship can be compared to the instruction-development relationship, but play provides a background for changes in needs and in consciousness of a much wider nature. Play contains all developmental tendencies in a condensed form and in it are formed the conscious motives of child behavior. According to Vygotsky play is the source of child development and creates the zone of proximal development.

Play is of particularly great significance for the development of the motivational domain of child´s personality and also for the arousal of interest in motion (Watkinson & Wall 1977). The child practises in it new physical and mental abilities and integrates them into his behavior (Hasdorf 1974, Piaget 1962). Physically active games can serve the utilization and perfection of basic motor readinesses as well as the development of motor abilities such as speed and strength (Keller 1976).

Modern research on play distinguishes five main types of play: function games, role games, construction games, rule games and didactic games. When the play of children is left to spontaneity the children turn under normal conditions more to this than that kind of play, the result being one-sided play habits and play-interests after a certain time. They may, in their turn, lead to one-sidedness and deficiences in the personality development of the children. This tendency is to be contracted by making use of didactic games, because they provide possibilities to direct the activities of children, without regimenting them, in a purposeful, planned and systematic way (Otto 1976). From the point of view of preschool physical education the most important types of didactic games are function games and rule games.

The main types of play cannot unambiguously be related to certain age levels, because children´s play is largely influenced by the external conditions of development including education and psychological characteristics created by it. There are, however, developmental sequences and age-level emphases, which should be taken into account in the contents and methodics of preschool physical education.

2.1. Functional movement games

Functional play is among the earliest of the children´s plays. Its origin is considered to be the joy on action, the child´s awareness of his new powers and his orientation reflex. Function games occur throughout the whole childhood whenever some new performance or behavior is building up (Hasdorf 1974, Piaget 1962). Any game which makes use of recently acquired skills will amuse the child (Millar 1968, p. 110). The dominant period of function games occurs just when the early learning of several basic motor readinesses (running, jumping, throwing, etc.) and the collection of first experiences in them takes place in the child´s motor development, as, for example, Winter (1975) describes the period between 1 - 3,5 years. The child enjoys then greatly the mere process of activity. At this stage the child´s behavior and play is situation-determined. There exists a union of perception and motor affecting reaction. Each perception is to the child a stimulus to activity (Vygotsky 1976). Indirect instruction through the organization of environmental conditions is very important for the child´s motor development and physical education at this stage.

Millar (1968) assumes that functional play is related to the development of return regulation of the child´s behavior. There are two developmental lines of function games: one which leads to fine-motor construction games and a second line which leads to sports games. The latter include, for instance, riding a scooter, trycycle and bicycle, roller skating, swinging and also skating and skiing provided they do

not serve objectives external to play (Otto 1976). Most of the functional movement and sports games, which are sometimes also called individual games (Keller 1976), presuppose the use of some equipment. Equipment have in them only an auxiliary function, however. The basic motivation is the delight in movements, which are repeated without interruption.
Ample time and opportunity as well as equipment should be reserved in preschool physical education for functional movement games to enable the children to realize fully their sensory-motor and gross-motor activities for the benefit of their further development. This is important because the sensory-motor development of preschool children occurs during a very short period of time (Otto 1976). In Finland we have a lot to do, for instance, in the planning of the apparatuses and equipment of playgrounds.

2.2. Physically active rule games

Rule games are often considered to be the most advanced form of play. They usually start appearing in kindergarten age (4 - 6 years of age), and their dominant period extends into school age (Piaget 1962). Rule games start appearing in children's play at a stage which Winter (1975) describes as the period of learning the combinations of basic motor readinesses (e.g. the combination of running and jumping). At the same time the level of performance is also improved and the quality of movements develops. Children learn to apply their basic motor abilities in different varying situations. Physically active rule games provide good opportunities for the exercise and perfection of basic motor readinesses.
Rules are an essential part of other games besides rule games proper, but in the latter they dominate the play. Rule games are characterized by their co-operative nature and long traditions. They are transmitted from one generation to another as a cultural heritage.
Most of the rules of movement games develop children's inhibitory processes. In them children act against immediate impulses and their greatest self-control occurs in play (Netschajewa 1977, Vygotsky 1976).
Functional movement games and rule games can both be used in preschool physical education as didactic games. Games must be selected so that children master the required movements and movement combinations in their basic forms and understand the progress of the game (Keller 1976). Gradually the children learn to organize them independently.

3. Finnish empirical play studies

Preschool physical education should be manysided and compensate for the onesidedness which may be inherent in the child's activities in his home environment. In a large Finnish study (Elinympäristön uudistuminen 1976), which was carried out in a city with about 100 000 inhabitants, it was found out that there were clear differences between different areas and neighbourhoods in the quantity and quality of children's outdoor activities. Traffic density and structure of population, especially the number of children, among other things, were reflected in children's activities. Urban environment easily restricts children's movement and sport games in particular. It has been found that there are problems in maintaining and transmitting rule game heritage in the new housing areas of big cities.
In the study by Helanko (1969), which was carried out in one of Finland's three biggest cities, it was found that among the ten most common outdoor games of 3-5-year-olds were three movement games: swinging, chasing game and riding a bicycle.

Among the ten most popular playground games of 6-7- year-old boys were riding bicycle, bicycle rallye, chasing game and its variation "cop and robbers", climbing and football. Among 6-7- year-old girls the corresponding games were chasing game, skipping and swinging. In some other Finnish studies (Nummenmaa et al. 1971, Rouhiainen & Nummenmaa 1971, Syvänen & Setälä 1972) the most popular playground games have turned out to be sandbox games, family role play among girls, construction game among boys, and cycling and skiing as movement games.
In the preliminary study of the present project the most typical preschool and playground games of physically active nature of 61 6-year-old children (31 boys and 30 girls; the children were interviewed) could be classified as indicated in Table 1. Play categories are not, of course, "entirely pure". A given game classified into one particular category may contain features typical of another play category.

TABLE 1. Classification and per cent distribution of boys' and girls' movement games.

Category of game	Girls %	Boys %
Ball games	6.5	35.5
Running games	18.4	22.4
Co-ordination, agility and balance games	24.3	17.5
Jumping and skipping games	25.7	2.7
Power games (hanging, pulling, pushing etc.)	9.2	7.6
Climbing games	3.3	3.8
Other games	12.6	10.5
Total	100.0	100.0

The results gave some indications about the partially different direction of boys' and girls' physically active games and interests. The clearest difference was boys' interest in ball games and girls' interest in jumping and skipping games. The results showed consistently with earlier studies that among the physically active play of Finnish preschool children during the snow-free period the following activities have a great significance: football among boys, skipping games among girls and among both sexes riding a bicycle, swinging and running games.
As a continuation to the preliminary study the investigation focussed on the contents and amount of physical activity and movement games of children in daily outdoor situations in preschool. Observation, interview and pedometer were used as research methods. The study comprised 137 children aged one to six. Observation took place at two levels. At given intervals the activities of the whole group of children in the playground were observed cross-sectionally. In addition to that the activity of each individual child was followed longitudinally. The analysis of the observation data is under way. The results naturally reflect the influence of the pedagogical work of the day care centres.
The quantity and intensity of children's physical activity in outdoor situations was measured by means of the pedometer. A preliminary analysis of the data confir-

med the results obtained in other countries, according to which the amount of physical activity among children correlated with age and sex so that boys were physically more active than girls.

The questions of the amount, content and orientation of children´s physical activity have important pedagogical implications. On the basis of theoretical and empirical analyses the present research project will attempt to systematize movement games suited to different age and developmental levels so that educators can make use of them in their work consciously and manysidedly and thus extend children´s play and movement habits which easily tend to remain onesided if left entirely to children´s spontaneous activity.

REFERENCES

BJÖRKLID-CHU, P. (1973) Kartläggning av barns aktiviteter inom tva moderna bostadsomraden. Metodbeskrivning (Delrapport II). Preliminärrapport fran Pedagogiska Institutionen vid Lärarhögskolan i Stockholm.

ELINYMPÄRISTÖN UUDISTUMINEN. Osa 1: Tutkimusselostus. Uudistuvan elinympäristön tutkimusasema, Tampere 1976.

HASDORF, W. (1974) Pädagogisch-psychologische Betrachtungen zum Spiel im Vorschulalter. Neue Erziehung im Kindergarten 7/8.

HELANKO, R. (1969) Turun pihayhteisöt ja pihaleikit. II osa: Pihaleikit. Turun yliopiston sosiologian laitoksen monisteita 22.

KELLER, S. (Hrsg.) (1976) Körpererziehung im Kindergarten. Volk und Wissen Volkseigener Verlag. Berlin.

KOSKIMIES, A. (1953) Leiki ja norjistu. Porvoo: WSOY.

KOSKIMIES, A. (1958) Leikkikäämme. Porvoo: WSOY.

KOSKIMIES, A. (1962) Rytmileikkejä. Porvoo: WSOY.

KOSKIMIES, A. (1966) Rytmiliikuntaa ja liikunnan rytmiä. Porvoo: WSOY.

KOSKIMIES, A. (1977) Iloisia rytmileikkejä. Porvoo: WSOY.

MILLAR, S. (1968) The Psychology of Play. Penguin Books.

NETSCHAJEWA, W. (Hrsg.) (1977) Sittliche Erziehung jüngerer Vorschulkinder. Volk und Wissen Volkseigener Verlag. Berlin.

NUMMENMAA, T. & SYVÄNEN, M. & WECKROTH, J. (1970) Lapsen leikki-ja liikkumatila kaupunkiympäristössä. Tampereen yliopiston psykologian laitoksen tutkimuksia 50.

OTTO, K. (1976) Problems of developmental psychology of children in handling play material. Pp. 20-50 In Sotamaa, Y. & Salovaara, J. (Eds.) Playthings -76. Finnish Designers Association Ornamo ry., Helsinki.

PESOLA, E. (1930) Lapsille iloa ja terveyttä. Helsinki: Otava.

PIAGET, J. (1962) Play, dreams, and imitation in childhood. New York: Norton.

ROUHIAINEN, S. & NUMMENMAA, T. (1971) Lasten leikki-ja liikkumatila kaupunkiympäristössä: havaintoja Forssan kaupungista. Tampereen yliopiston psykologian laitoksen tutkimuksia 55.

SYVÄNEN, M. & SETÄLÄ, M-L. (1972) Maalaislapsen elinympäristö. Tampereen yliopiston psykologian laitoksen tutkimuksia 67.

WATKINSON, J. & WALL, A.E. (1977) The PREP PROGRAM: a preschool play program for moderately mentally retarded children. Paper presented to the First International Symposium on Adapted Physical Activity, Quebec March 17-19 1977.

WINTER, R. (1975) Zur Periodisierung der motorischen Ontogenese in der Kindheit und Jugend. Theorie und Praxis der Körperkultur 1, Pp. 39-50.

VYGOTSKY, L.S. (1976) Play and its Role in the Mental Development of the Child. Pp. 537-554 In Bruner, J.S. &Jolly, A. & Sylva, K. (Eds.) Play - Its Role in Development and Evolution. Penguin Books.

APPENDIX

Papers and reports of the Research project on preschool physical education

Research Institute of Physical Culture and Health, Jyväskylä, Finland

SIREN, H. (1973) 3-6-vuotiaiden motorinen oppiminen ja kehitys kaikinpuolisen kehityksen ja kasvuympäristön ehtoihin sitoutuvana tapahtumana. Rep. Dep. Psychology. University of Jyväskylä, 151.

PENTTINEN, H. (1974) 3-6-vuotiaiden liikuntakasvatus osana eri maiden varhaiskasvatusta: perusteet, tavoitteet, opetusmenetelmät ja sisällöt. Rep. Dep. Psychology. University of Jyväskylä, 156.

PENTTINEN, H. The planning and experimentation of the physical education of 3-6-year-old-children in Finnish kindergartens; the planning of the aims and contents on the basis of the different conceptions and realizations of physical education prevailing in different countries. Education physique des enfants avant l'époque de la puberte. Conference internationale scientifico-methodique, Gdansk le 27-31 Mai 1974. Varsovie-Poznań 1976. Editions scientifiques de Pologne, pp. 142-145.

SIREN, H. The planning and experimentation of the physical education and forms of physical exercises (structured gymnastics, movement games etc.) of 3-6-year-old children in Finnish kindergartens on the basis of theory of child development. Education physique des enfants avant l'epoque de la puberte. Conference internationale scientifico-methodique, Gdańsk le 27-31 Mai 1974. Varsovie-Poznań 1976, Editions scientifiques de Pologne, pp. 145-148.

SIREN, H. (1974) Barnets motorik och personlighetsutveckling. Nordisk psykologi N:. 4, s. 282-292.

NURMI, H. & SIREN, H. (1975) Alle kouluikäisten liikunta: Kouluunmenoikäisten lasten motorisen kunnon ja perusliikunnan mittaus ja yhteyksien selvitys. Liikunnan ja kans terveyden julkaisuja 4.

NURMI, H. & SIREN-TIUSANEN, H. (1975) Alle kouluikäisten liikunta: Ulkoliikuntaleikkit kouluunmenoikäisten lasten perusliikunnan kehittäjinä; metodinen kokeilu. Liikunnan ja kansanterveyden julkaisuja 12.

SIREN-TIUSANEN, H. & NURMI, H. Evaluation of the Level of Motor Development Attained in Preschool in Children Entering the Comprehensive School. International Congress of Physical Education 28.06. - 03.07.1976, Jyväskylä, Finland.

ЭКСПЕРИМЕНТАЛЬНОЕ ИССЛЕДОВАНИЕ СПЕЦИАЛЬНЫХ СПОРТИВНЫХ СПОСОБНОСТЕЙ ДЗЮДОИСТОВ

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Совершенствование спортивного мастерства представляет собой процесс формирования и развития специальных психофизиологических механизмов, обеспечивающих успешное выполнение тактико-технических операций в условиях напряженной и ответственной соревновательной деятельности. Эти механизмы определяются показателями преимущественно сенсорного, моторного и интеллектуального характера (А.В.Родионов, 1973) и являются специальными спортивными способностями. Они формируются в самой деятельности под влиянием педагогических воздействий и индивидуальных особенностей личности и свойств нервной системы спортсменов.

Предварительный анализ деятельности борцов высшей квалификации позволил выделить ряд психологических и психофизиологических особенностей, специфическое развитие которых должно в наибольшей степени определять успешность выступления спортсменов на соревнованиях.

Задачами настоящей работы были: 1. Изучить взаимосвязи психомоторных и интеллектуальных функций и качеств личности с различными компонентами спортивного мастерства дзюдоистов. 2. Изучить природные психофизиологические основы специальных спортивных способностей дзюдоистов.

В связи с указанными задачами в исследовании использовался широкий набор методик психофизиологического, психологического и педагогического характера.

Исследование проведено в условиях учебно-тренировочных сборок и ответственных соревнований. В экспериментах приняли участие 166 высококвалифицированных борцов и 23 тренера.

В результате исследований связанных с решением первой задачи оказалось, что результативность соревновательной деятельности борцов, экспертные оценки мастерства и отдельных его компонентов (техники, тактики, физической подготовленности и психической надежности) обнаружили статистически значимые корреляционные связи с точностью дифференцировочного условия ($p < 0.05$), с точностью специфического восприятия признаков тактико-технических операций ($p < 0.01$). Интегральная оценка мастерства и оценка тактико-технической подготовленности были связаны с точностью реакции на движущийся объект ($p < 0.01$). Уровень технического и тактического мастерства борцов коррелировал с быстротой решения оперативных задач и с точностью самооценки времени реакции ($P < 0.05$). Оценка тактического мастерства коррелировала с уровнем активации в спокойной ситуации ($p < 0.01$), а уровень активации перед соревновательными схватками – с экспортной оценкой надежности соревновательной деятельности дзюдоистов ($p < 0.05$).

При решении второй задачи был применен прием вычисления статистической значимости различий по показателям свойств нервной системы между группами эмоционально устойчивых и неустойчивых борцов, а также метод наибольшего корреляционного пути для анализа коэффициентов корреляций между признаками спортивного мастерства борцов и показателями основных свойств нервной системы. Анализ экспериментальных данных показал следующее. Во-первых эмоционально устойчивые борцы на статистически значимом уровне превосходили неустойчивых по показателям силы нервной системы ($p < 0.001$), ее подвижности ($p < 0.05$) и степени второсигнальной регуляции возбудимости нервных структур ($p < 0.01$). Во-вторых, в подструктуру техники вошли показатели подвижности нервных процессов, второсигнальной регуляции возбудимости, и выносливости нервной системы к длительному концентрированному возбуждению; в подструктуру тактики вошли показатели лабильности и силы нервной системы.

Результаты исследований позволили сделать следующие выводы:

1. Наиболее важными для деятельности дзюдоиста являются такие психологические и психофизиологические особенности, как а) точность дифференцировочного усилия, б) точность реакции на движущийся объект, в) быстрота и продуктивность оперативного мышления, г) адекватная ситуации реакция активации, д) высокий уровень эмоциональной устойчивости.
2. Высокий уровень некоторых свойств нервной системы (силы и подвижности), а также особенности второсигнальной регуляции возбудимости нервных структур является благоприятной психологической базой для формирования и развития специальных спортивных способностей для дзюдоистов.

Эти данные могут быть использованы в практике спорта для объективизации спортивного отбора и для индивидуализации процесса совершенствования спортивного мастерства дзюдоистов.

SOCIAL DETERMINATION OF THE EXPRESSIONS OF VOLITION

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Our paper is dealing with the question of social determination of some phases of sports activities.

These questions are paid a great attention especially in those sports activities the character of which requires a close cooperation among individuals - members of one group.

We can undoubtedly expect the strongest connection between a social microclimate of a given sports team and a sports activity itself, both from the point of view of of the process, and the final effect of sports activity.

Our study was concentrated on a following question: do interpersonal relations as a part of group dynamics influence those phases of a sports activity in which a sportsman has to show stronger volition? Trying to answer this question we base ourselves on a concept according to which volition represents an integral part of a volitive act in all its phases (rise of a motive, setting of an objective, struggle of motives, making decisions as to the selection of means, implementation in practice). Every volitive act is characterized by both the existence of objectives, and barriers. Man's (sportsman's) behaviour appearing after setting up a plan of activity and selecting means is determined by the character of a set objective. In conformity with its orientation a volitive act is completed not only in a condition of a strong but also a weak subject's internal tension corresponding with shown volition. Thus volition is sometimes characterized as "an amount of energy" that is being lost in a process of carrying out a purposeful activity.

Methodology

The experiment was carried out in two basic phases. In the first phase we applied a sociometric examination in two stabilized social groups. As a result of the application of a sociometric test we found out the net of interpersonal relations in

observed groups. Out of each group we picked up individuals with clear-cut social relationships of positive or negative character. In the second phase these selected individuals were subjected to further experimental observation.
Laboratory experiment was based on measuring the continuence, as well as the parameters of the course of an isometric contraction within the range of a half of the maximum strength of a subject up to complete exhaustion. The measurement of volition was based on the fact that in correspondence with the tiredness rising during the isometric contraction muscle tension in other skeletal muscles that do not take a direct part in the isometric contraction increases, too. An examined subject takes the tiredness and pain in a muscle as barriers that must be overcome by greater volition. From the anatomical point of view the isometric contraction expressed itself as a flexion in musc. biceps brachia, musc. brachialis and musc. brachioradialis. In the course of experiment a subject indicates the moment of the beginning of subjectively unpleasant feelings (tiredness, pain) but he continues the contraction untill the exhaustion. The experiment was carried out in two stages. In the first stage a subject was observed individually, the second stage of the experiment involved a couple. There were two types of examined couples: a/ couples with a positive interpersonal relationship, b/ couples with a negative interpersonal relationship. The moment of competition is safeguarded by the information on the course of the experiment given simultaneously back to both subjects. The information involves in fact the amount of exerted strength. Homogeneity of conditions (equal indices of the intensity of flexion) was safeguarded by means of an electronic system without changing the intensity of exerted strength of subjects.

Examined parameters of experiment

a - maximum value of pulse frequency (TF max.),
b - total time of isometric contraction (t/s),
c - time elapsing untill the moment of subjective mentioning unpleasant feelings (tiredness, pain) - (t untill S),
d - time elapsing between subjective unpleasant feelings and the termination of contraction (t from S),
e - integral value of EMG potentials taken from musc. biceps brachia of an opposite limb (Intg. EMG OKL),
f - integral value of EMG potentials taken from mimic muscles (Intg. EMG MM).

Results

Comparison of volition shown in an individual situation and shown in a situation of competition proves the influence of this socially modified situation on performance and on volition. Results obtained in the first situation differ significantly from the findings connected with the second situation. Thus our assumption concerning the existence of a relationship between performance and volition on the one hand and a certain social situation on the other hand is confirmed.
Social situation was represented in our study by the competiton of two individuals with a clear-cut interpersonal relationship existing between them. To put it more precisely a group of couples with negative mutual relationships and a group of couples with positive mutual relationships were involved. The analysis of obtained results based on this aspect shows that negative mutual relationships between individuals influence in them the moment of rise of subjective symptoms of tiredness and local pain during the performance simulated by the isometric contraction. It means

that the indivuduals with the relationship of a negative type mentioned the moment of the rise of subjective difficulties (tiredness, pain) during the performance much later than when performing in an individual situation. This fact was also confirmed by the comparison of individuals with mutual negative interpersonal relationships and individuals with mutual positive relationships.

The parameter of time elapsing untill the moment of mentioning subjective difficulties (tiredness, pain) showed that the individuals with negative relationships mention the difficulties significantly later, they try to postpone the mentioning of rising tiredness as much as possible that means that they try to admit subjective difficulties later than their rivals towards whom they have a negative relationship. This tendency, however, was not expressed in couples with a mutual positive relationship (friendly relationship). On the contrary, we observed the reduction of a time limit in which the subjects mentioned subjective difficulties (tiredness and pain). Subjects with this relationship mentioned the difficulties even earlier than in individual performance.

This tendency showed also in objective parameters qualifying volition. Particularly integral values of EMG potentials taken from mimic muscles and musc. biceps brachia of non-active limb were involved.

When observing the total time of contraction, we did not find a significant difference between individuals with mutual positive and negative interpersonal relationships. What was involved here was rather the difference between expression in these situations and the situation of individual performance. Taking into account this aspect we can state that in a competitive situation the activity is terminated soon after overcoming a rival. This is the point at which our findings do not correspond with the results of Ilina (1973) who proved that, on the contrary, under the influence of a competitive situation performance can be increased up to 200 %. Conditions of our experimental examination differed especially as to the fact that Ilina's mentioned experiment involved a competition of teams in which the performance is influenced also by other factors.

This study represents a first methodological step in the field of investigation of bearing capacity of examination pre-requisites in this sphere. Our findings show that the influence of social situation will play an important role in sports performances that depend on greater number of individuals (sports games) and that require participation of volition. This is, however, a question of further examinations that are going to be carried out in this field.

Literature

ILINA, M.N. Psichofiziologičeskije aspekty projavlenija vynoslivosti. In: Psichologijy fizičeskogo vospitanija i sporta. Leningrad 1973, s. 45-46.

RYCHTECKÝ, A. Volní úsilí a jeho diagnostika v pohybové činnosti. Teor. Praxe těl. Vých., 23, 1976, s. 2, s. 73-80.

SLEPIČKA, P. Sociálně psychologické aspekty skupinové činnosti. Acta Universitatis Carolinae 9, 1973, č. 1, s. 5-29.

SLEPIČKA, P. Interpersonal Behaviour and Sports Group Effectiveness. Intern. J. sport Psychol., 6, 1975, s. 1, s. 14-27.

ВЛИЯНИЕ СОЦИАЛЬНОЙ СТРУКТУРЫ КОЛЛЕКТИВА НА СОТРУДНИЧЕСТВО И НА ВОЛЕВОЕ УСИЛИЕ

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Результат спортивного коллектива является большеразмерной величиной. Структура этого комплекса включает как качества физических и психических свойств индивидов, так и социально-психологическую структуру данного коллектива. Эта структура, наряду с остальными внешними влияниями, придает частичным физическим и психическим распоряжениям его индивидов латентные и потенциальные возможности их применения в зависимости от хода собственного исполнения (успех или неудача) и от характера межперсональных отношений в данной ситуации. Важную роль в этом отношении играет социальное включение индивида в данную группу (социальные взаимоотношения между партнерами) как в общих, так и в ситуационных вариантах, определяемых характером спортивной деятельности.

Упомянутая проблематика приобретает актуальное значение особенно в спортивных играх, где условия являются очень вариабильными по отношению к переменчивости результата игры в ее течении, по отношению к качеству конкретного соперника и к осцилляции взаимного межперсонального поведения самых партнеров. Собственные связи взаимодействия проявляются в отношении субъект-субъект. Однако, о социальном взаимоотношении между индивидами мы говорим только тогда, оказывает ли наличие или активность одного индивида в группе влияние на поведение, деятельность и психическое состояние другого индивида. Таким образом речь пойдет о том, до какой меры индивиды в группе оценивают друг друга, как себе соответствующих и равноценных как с точки зрения интересов, ценностей и позиций, так и с точки зрения более специфической, напр.спортивных результатов, которые будут играть важную роль в формировании межперсональных отношений среди индивидов спортивной группы.

По ходу реализации спортивного результата (спортивная игра, состязание, матч) играет межперсональное поведение индивидов важную роль в том смысле, что оно оказывает влияние на уровень взаимного сотрудничества активно участвующих индивидов (игроков) и способствует положительно или отрицательно достижению уровня деятельности коллектива и тем самым влияет также на его результат.

По отношению к созданному коллективу (которым большинство спортивных команд является) необходимо учитывать прежде всего влияния ситуации, какими являются напр. моментальный результат игры, качество соперника, успех или неудача отдельных игроков команды, тренером определенный состав коллектива и другие влияния, которые будут формировать новые социально-психологические отношения между индивидами, и тем самым, будут оказывать влияние также на эффективность данного коллектива. Проводя наше исследование, мы интересовались прежде всего вопросом о том, какое положение, в котором будет находиться спортивный коллектив, будет играть решающую роль в определении влияния, оказываемого межперсональными отношениями на волевое усилие и одновременно будет больше всего участвовать в проведении изменений социальной структуры коллектива. Одновременно нас интересовало то, будут ли эти положения (ситуации), которые будут вызваны, включать предпочтение тех же индивидов коллектива, которое было выявлено посредством неситуационного социометрического обследования.

Методика собственного исследования сборной команды хоккеистов была разделена в два этапа. На первом этапе были определены взаимные межперсональные отношения между игроками, касающиеся 11 характеристик межперсонального поведения, На основе оценки этих отношений мы получили основную социограмму, в которой отношения не были обусловлены никакими конкретными влияниями ситуации. Диагностику межперсональных отношений в модифицированных игорных ситуациях, требующих от индивида волевое

усилие мы проводили с помощью поправленной и дополненной анкеты ПАЛАЙМЫ (1973) и с помощью ситуационной социометрии, прикрепленной к анкете. Переменчивость ситуаций была гарантирована участием разных соперников.(команды СССР, Швеции, Канады) и тем, что моментальные результаты игры выражались очками, когда игрок играет с максимальным волевым усилием, релаксацией, началом нервности и потерей надежды. Сущность исследования заключалась в том, что обследованный игрок отметил по отношению к определяемым ситуациям счет, при котором он это состояние ощущает больше всего, и кроме этого он еще дополнил данные о том, с которыми игроками он бы хотел в этих ситуациях играть.

В результате исследования было выявлено, что существуют отношения между видами межперсонального поведения , какими являются например дружеское поведение, доминантность, субмиссия, требование внимания и подбор партнеров, которым следует участвовать в данных ситуациях. Важными показались виды дружеского поведения - выдача, доминантность, прием, субмиссия - выдача, требование внимания - выдача и вражеское поведение - выдача. Определенные формы поведения, как например доминантность и дружеское поведение, особенно аспекты симпатии и защиты, чаще всего появлялись в тех подборах партнеров в те ситуации игры, когда коллектив выигрывает. Это значит, что давление ситуации (наша команда выигрывает) не так велико, чтобы в его результате произошли изменения по сравнению с межперсональными определениями, выявленными в неситуационной, обобщенной социометрии. В таких ситуациях индивидуальные игроки выбирают таких партнеров, по отношению к которым преобладает дружеская межперсональная связь.

Очень интересным является наличие связи между вражеским поведением и подбором для определенной обследованной ситуации. Среди характеристик, представляющих комплекс вражеского поведения (недоверие, антипатия, агрессия) была выявлена агрессия, которая может оказывать определенное влияние на включение волевого усилия. Эта зависимость была в наших условиях выявлена в ситуациях небольшого выигрыша, которую обследуемые лица характеризовали как игру, в которой максимально включают волевое усилие. Эти результаты в определенной степени совпадают с нашими предыдущими лабораторными исследованиями (СЛЕПИЧКА,РЫХТЕЦКИ, 1977), в которых было выявлено, что отрицательные межперсональные взаимоотношения повышают мобилизацию волевого усилия по отношению к более поздним субъективным высказываниям об усталости и боли.

Результаты работы показывают возможности практического применения, особенно по отношению к оптимальному выбору состава спортивных команд, где можно среди индивидов (учитывая также тактические замыслы игры) найти такие межперсональные отношения, которые способствуют достижению высшего уровня сотрудничества в коллективе на основе разных ситуаций, возникающих в течение спортивной деятельности. Конкретное знание социальной основы межперсональных отношений и закономерностей их обусловленности позволит тренеру более точно основывать свои вмешательства в ход спортивной деятельности и повысит эффективность этих вмешательств.

ЛИТЕРАТУРА:

Palajma,J.J.: Průběžný výsledek hry a soutěžní aktivita hráčů. Teor.Praxe těl. výchovy, 23, 1975, 2: 84-87

Slepička,P., Rychtecký,A.: Interpersonální vztahy a volní úsilí. Teor.Praxe těl.výchovy, 25, 1977, 7: 423-427

EINSTELLUNG ZUM SCHULSPORT

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Die Diskussion um primär sozialpsychologische Einstellungskonzepte bewegt sich in jüngerer Zeit immer wieder um folgende Problembereiche:

1. die Relevanz situativer Bezüge bei der Einstellungsgenese und der Aktualisierung von Einstellungsmustern.
2. die Prognostizierbarkeit des Verhaltens aufgrund gemessener Einstellungswerte.
3. die Veränderung des Verhaltens durch Veränderung der Einstellung.

Die in Punkt 1 dargestellte Problematik geht auf die beiden Grundtatsachen zurück, dass man einerseits den Einstellungsbegriff mehr im Werttendenzbereich (vgl. Oerter, 1970), andererseits mehr im Sinne einer "Bereitschaft zur Reaktion" in einer Situation ansiedelt. Beziehen wir allerdings Erfahrungs- und Lerneinflüsse als die Komponenten mit ein, welche in einstellungsrelevanten Situation sowohl vorstrukturierend als auch handlungsweisend wirken, so hebt sich die vermeintliche Unterschiedlichkeit auf: Die Einstellungsaktualisierung (hierunter versehen wir nach Rosenberg u. Hovland, 1960 - siehe Triandis, 1975, S. 5 - affektive-, kognitive- und verhaltens-Vorgänge) steht unter dem Zeichen vorangegangener Erfahrung und entsprechender situativer Vergleichbarkeit.

In Bezug auf Punkt 2 gibt es zweierlei Thesen:

a. Einstellung determiniert das Verhalten kausal (traditionelle These).
b. über Verhalten stellen sich Einstellungen ein (Triandis, 1975, 8).

Letztere These verweist wiederum auf die Bedeutung primär situativer Merkmale der Umgebung eines Individuums. So bewirken häusliche, soziale und sonstige lebensraumspezifische Reizbedingungen über Kontinuität und Erlebnisvermittlung die Vorgänge der Einstellung. Entsprechend heutiger entwicklungs- und motivationspsychologischer Theorien kommen hierbei den frühen Lebensjahren (ca. ab 2 bis 3 Jahren), eine besondere Bedeutung zu. Dies hängt offensichtlich mit dem Zeitpunkt der Herausbildung kognitiver, sozialer und erlebnishafter Wertgrundhaltungen zusammen. Man sollte daher nicht ausser acht lassen, dass entsprechend des sich verändernden, differenzierenden Aufbaus von komplexen Einstellungen eine "Stützung" von unten her, d.h. von jeweils entwicklungsgenetisch früheren Vorgängen wahrscheinlich ist.

Festinger (1964) ist der Ansicht, dass eine Einstellungsänderung wieder rückgängig gemacht wird, wenn die Umgebung das Verhalten nicht stützt. Neue Lebensräume und soziale Bezugssysteme treten also gerade dort einstellungsbestimmend in die psychische Strukturierung eines Individuums, wo Bedürfnisse und Motive gestützt oder unterdrückt werden - auch langfristig nach den Kognitionskriterien von Dissonanz oder Konsonanz.

Für die Konzeption einer empirischen Untersuchung im Bereich der "Einstellung zum Schulsport" lassen sich aus diesen Thesen folgende Forderungen ableiten:

1. Die primäre Analyse häuslicher Umweltfaktoren als Bezugskomponenten weiterführender Einstellungsvorgänge im Sport. Hier ist insbesondere der Einfluss der Eltern zu beachten.

2. Die sorgfältige Analyse jener schulsportbezogener, situativer Merkmale, welche einen Zugang zu relevanten Bedürfnissen und Motiven beinhalten (Bewegung, Leistung, Kontakt, etc.).

3. Die Analyse von Dissonanzbereichen in den verschiedenen Bezugsebenen des Schulsports:

   a. häuslicher - schulischer Bereich

   b. ausserschulischer - schulischer Sport

   c. Lehrer - Schulsport - Bezug
      Schüler - Schulsport - Bezug
      Lehrer - Schüler - Bezug.

Die letztlich im pädagogischen Feld interessierende Frage einer positiven oder negativen Einstellung zum Schulsport lässt sich prognostisch am ehesten aus den situativ ableitbaren Diskrepanzen zwischen diesen Bedürfnisebenen bestimmen. Hierbei kommen den Erlebnis- und Erfahrungseinschätzungen der Schüler im Schulsport einen schwerpunktmässigen Stellenwert zu.
Stark situations- und handlungsübergreifende Einstellungsverfahren, wie beispielsweise der Kenyon-Test, werden nach obigem Theorieverständnis abgelehnt, da, wie auch schon die wenigen Veröffentlichungen hierzu andeuten (Bielefeld, 1975, Artus, 1975), die Einschätzung der dem Test zugrundegelegten Bedeutungsdimensionen primär von den Erfahrungen der Befragten abhängt. Sind hier keine persönlichen Erfahrungen vorhanden, so entsteht die Gefahr, dass stereotype Einstellungsmuster evoziert werden, welche mit der für die Individuen bedeutsamen Wertzuordnung nur noch wenig gemeinsam haben. Damit ist seine diagnostische Verwendbarkeit im Schulsport in Frage gestellt - dem Anspruch einer gezielten, bewussten Verhaltensänderung über den Lehrer kann der Test ohnehin nicht gerecht werden.

Die mangelnde Einstellungs-Verhaltenskonsistenz ist sicherlich nicht einseitig dem Kenyon-Test zuzuschreiben, sondern eine Folge der Erwartung "mono-kausaler Verhaltensdetermination" an das Einstellungskonstrukt, bzw. ihrer Verfahren, wie Bielefeld (1976) feststellt. Damit stellt sich für den Autor die Frage nach der Bedeutung der Einstellung als Prädiktor für vorherzusagendes Verhalten überhaupt (vgl. Bielefeld, 1975, 46).

Hält man an der von Triandis (1975, 9) nahegelegten Umschreibung des Einstellungsbegriffes fest (a. E. entspricht der Prädisposition für eine Reaktion, b. E. ist gekennzeichnet durch Konsistenz der Reaktion bei Individuen gegenüber sozialen Situationen) und überträgt sie auf die Einstellung zu einem Lebensraum (Sport, bzw. Schulsport), so kann dennoch eine Verhaltensrelevanz gefunden werden, wenn die dem Lebensraum innewohnenden und den Schülern (und Lehrer) bedeutsamen Wertbezüge erfasst werden. Der Abstraktionsgehalt dieser Einstellungsvariablen bemisst sich aus ihrer Entstehung (auch ausserschulisch) und ihrer erlebnismässigen Dicht (konsistent - dissonant).

Aus diesen Überlegungen lässt sich folgendes - operationales Modell ableiten:

Unter "häuslichen Bedingungen", etc. soll primär der Einfluss über Eltern, Freunden, lokal bedeutsame Sportarten, Bewegungsfreiräume, etc., erfasst werden.

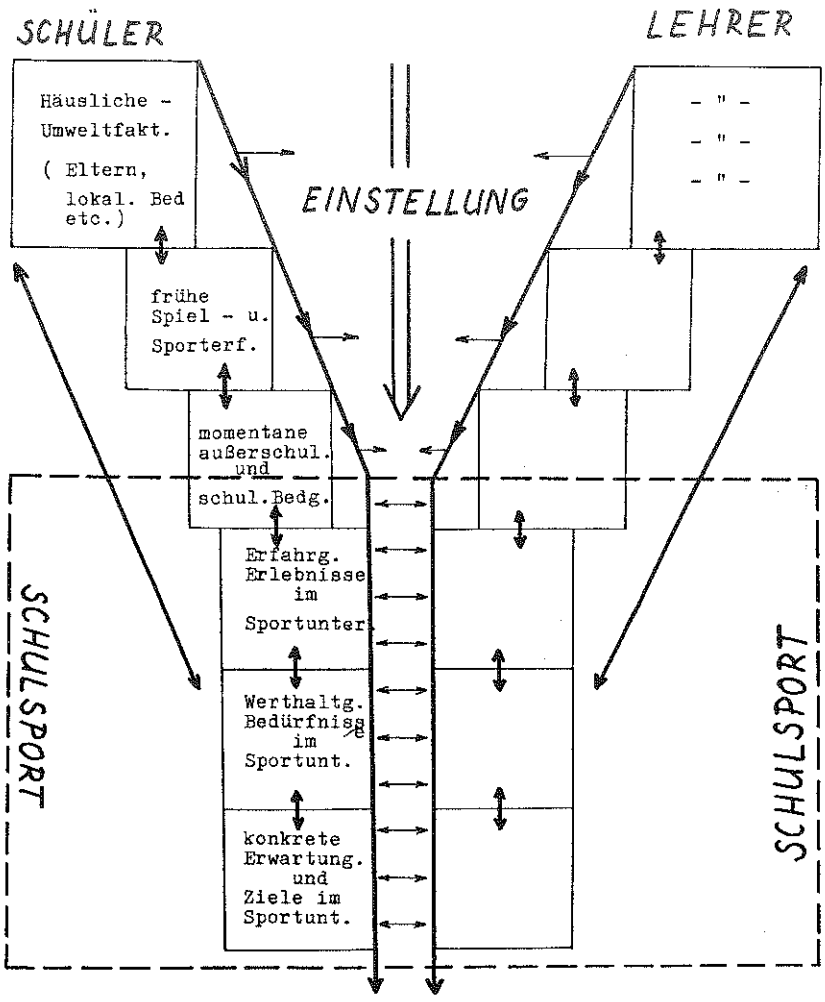


Abb. 1

"Frühe Spiel- u. Sporterfahrung" bezieht sich auf Einsetzen, Form und Intensität aussersschulischer, sportlicher Aktivitäten (auch in Richtung Erfahrungen, Erlebnissen, Bedürfnissen, etc.).

"Momentane ausserschulische und Schulische Einflussfaktoren" umfasst vor allem jene Bedingungen, welche den Ges. unterricht tangieren; z.B. Bewegungsarmut, geistige - versus körperliche Betätigung, Kompensation, etc.

Bei "sportunterrichtsbezogenen Erfahrungen und Erlebnissen" geht es um eingrenzbare Dimensionen, welche in der retrospektiven Vorstellung der Schüler einen bisher bedeutenden Stellenwert einräumen:

> Spielerfahrungen – oder Erlebnisse leistungsbezogene Erfahrungen oder Erlebnisse bestimmte Ereignisse: sozialer Art, erfolgsmisserfolgsbetont sportartbezogene Erfahrungen oder Erlebnisse, etc.

"Werthaltungen und Bedürfnisse" leiten sich zum Teil als normierte Einschätzungen der vorangegangenen Kategorie ab, führen aber ansonsten zu den individuellen Wunschvorstellungen eines idealen Sportunterrichts.

"Konkrete Erwartungen und Ziele im Sportunterricht" bezieht sich auf die jeweilige, von der konkreten schul- und sportunterrichtsabhängigen Einschätzung.

So können beispielsweise zum Zeitpunkt der Befragung die Erlebnisse der vorangegangenen Sportstunde miteingehen und die Einstellung beeinflussen.

Folgende Hauptfragen lassen sich aus diesem Konzept ableiten:

1. In welchem Ausmass korrelieren die deskriptiv erfassbaren Kriterien häuslich-sozialer Früheinflüsse und eigener sportlicher Aktivität mit der sportunterrichtsbezogenen Einstellung?
2. In welchen Bereichen gibt es signifikante Diskrepanzen zwischen der Einstellungseinschätzung der Schüler durch die Lehrer und die Schüler selbst?
3. Wie gestaltet sich das Verhältnis von Diskrepanzen und Unterrichtszufriedenheit qualitativ und quantitativ?

Der <u>Versuchsplan</u> sieht folgende Etappen vor:

1. Empirische Begriffsanalyse durch Expertenbefragung.
   Dieser Schritt ist bereits erfolgt über ein halbstandardisiertes Interview, erstellt unter Mitarbeit von Teilnehmern einer Arbeitsgruppe am Sportinstitut der Universität Heidelberg. Es wurden 34 Lehrer befragt. Die Ergebnisse liegen vor.
2. Entwicklung zweier Fragebögen mit dem Ziel der Erfassung einstellungsrelevanter Variablen auf den inhaltlichen Ebenen, welche in dem operationalen Modell vorgestellt wurden, sowohl für Lehrer (über Schüler), als auch für Schüler (Getrennte Anwendung).
   Ein Entwurf des Fragebogens liegt, ebenfalls nach Expertenbefragung (Psychologen, Sportwissenschaftler, Lehrer), vor.
3. Itembezogene Abstimmung der beiden Fragebögen aufgrund der Ergebnisse.
4. Durchführung bei Lehrern und Schülern derselben Klassen (wobei zuerst Schüler befragt werden, der jeweilige Sportlehrer erst im Nachhinein – Beeinflussung!).

SÚVISLOSŤ MEDZI TYPMI REAGOVANIA NA SVETELNÝ PODNET A POHYBOVÝMI PREDPOKLADMI ŠPORTOVCA

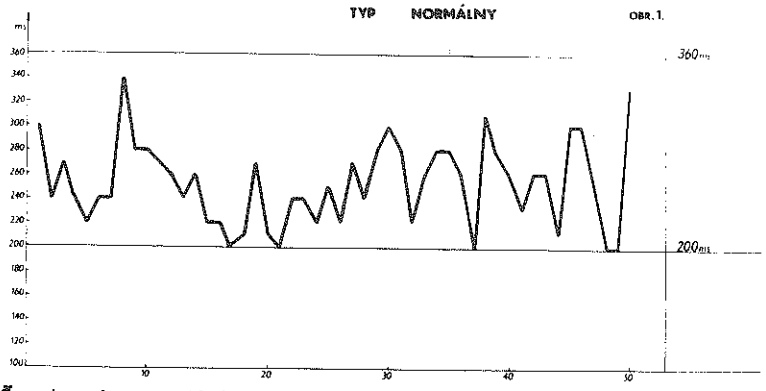
STEJSKAL, T., Prešov, Československo

V športovej psychológii stále dominantnou problematikou je diagnostikovanie trénovateľnosti športovcov. V niektorých športových odvetviach trénovatelnosť je úzko spojená so schopnosťou vytvárať, prípadne pretvárať nové pohybové návyky spojené so schopnostou učiť sa novým pohybovým prvkom a pohybovým štruktúram.

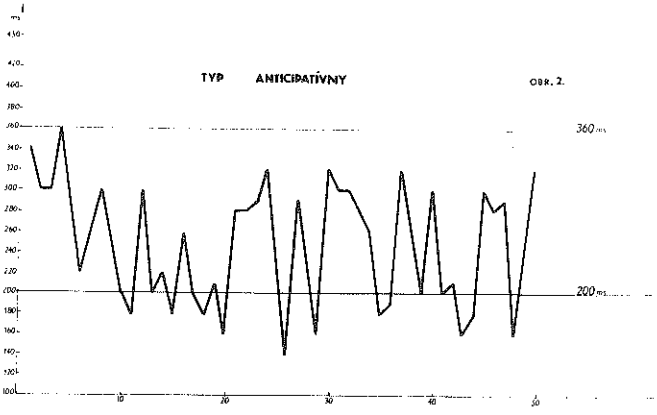
Isté úvahy v súvislosti so spoločnou bázou podstaty reagovania a nervosvalovej koordinácie v mozgových centrách, ako aj iné výskumy /HORVÁTH, 1971, KNOTEK, 1971, MAKKÁR, 1969, VANĚK, 1974, OSINÁDY, 1969/ a pedagogické skúsenosti nás viedli k predpokladu, že výsledok sériového merania reakčného času športovcov nás môže informovať o schopnostiach učiť sa pohybovým návykom.

Diagnostikovanie podľa časových priemerov sériových meraní je však nepresné, pretože priemery sú ovplyvnené tzv. "skorými reakciami". +

Preto sme vypracovali tzv. grafické hodnotenie výsledkov sériových meraní reakčného času, ktoré umožňuje zatriediť športovcov do štyroch typov reagovania.

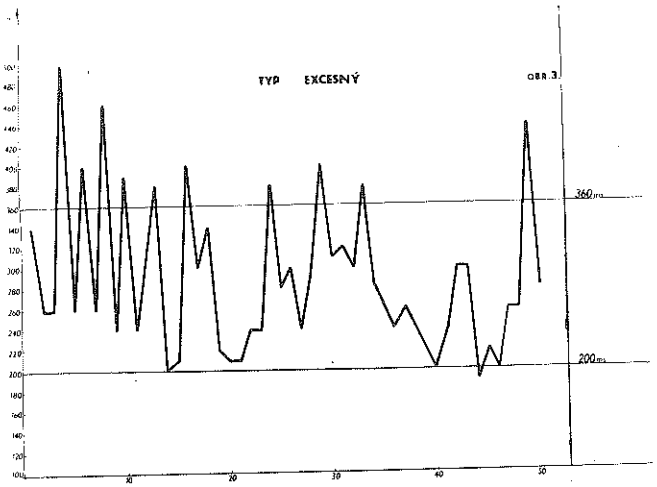


Obr. 1 Športovci reagujúci v priemerných časových limitoch s malými výkyvmi sú typu normálneho.

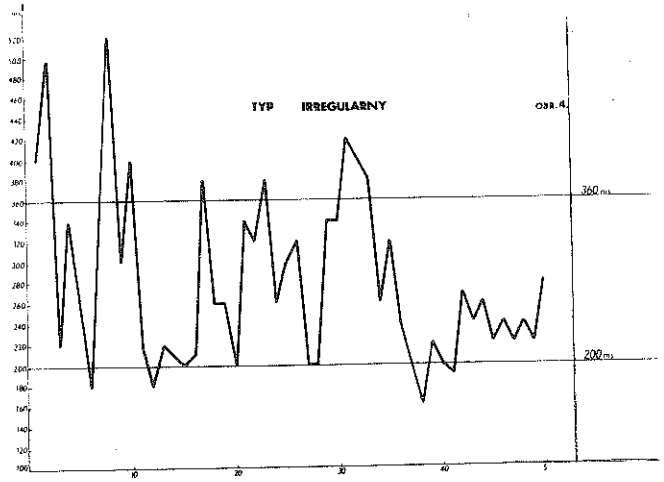


Obr. 2 Iní, reagujúci s rýchlejšou tendenciou sú typmi anticipatívneho.

+ Skoré reakcie sú, keď respondent reaguje nie na podnet, ale pod vplyvom únavy alebo nedostatočného koncentrovania sa bez podnetu. /HORVÁTH, 1971/.



Obr. 3 Športovci inklinujúci k pomalším reakciím sú typu excesného.



Obr. 4 Kým jedinci reagujú raz rýchlejšie raz pomalšie sú typu zmiešaného alebo irregulárneho.

Pedagogické skúsenosti nás viedli k vytvoreniu hypotézy, že športovci inklinujúci k normalnemu, anticipatívnemu a excesnému typu reagovania majú lepšiu nervosvalovú koordináciu ako športovci inklinujúci k irregulárnemu typu reagovania.

Na overenie tejto hypotézy sme uskutočnili výskum pedagogického charakteru, kde súbor probantov tvorilo 122 poslucháčov telesnej výchovy.

U poslucháčov telesnej výchovy sme zmerali v 50-tich sériach reakčný čas na svetelný podnet /pozri prílohu č.1/. Podľa typu reagovania sme ich zatriedili do štyroch skupín.

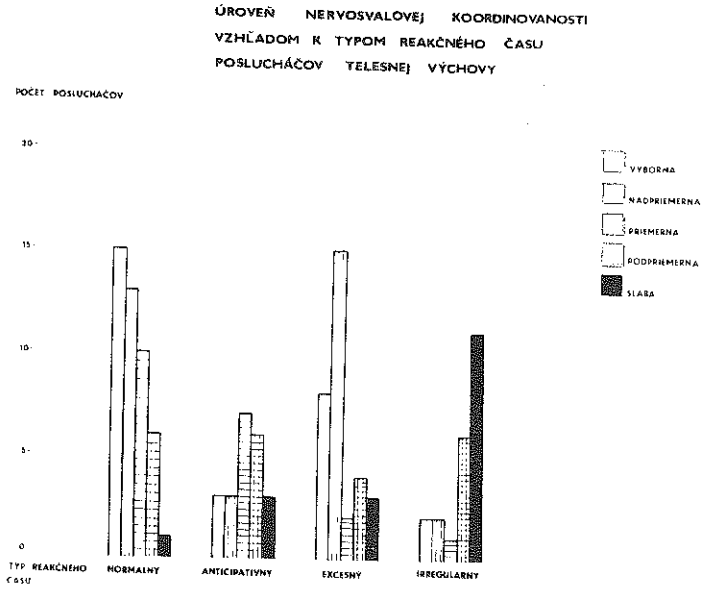
Ďalej súbor poslucháčov sme na 10-dennom lyžiarskom kurze podrobili motorickému testu. Podľa výsledkov motorického testu sme získali skupiny poslucháčov s výbornou, nadpriemernou, priemernou, podpriemernou a slabou nervosvalovou koordináciou.

Potom skupiny podľa typu reakčného času sme vyhodnotili vzhľadom k získaným výsledkom v motorickom teste.

ÚROVEŇ NERVOSVALOVEJ KOORDINOVANOSTI VZHĽADOM K TYPOM REAKČNÉHO ČASU POSLUCHÁČOV TELESNEJ VÝCHOVY

TABUĽKA č. 1

TYP REAKČNÉHO ČASU	VÝBORNÝ		NADPRIEMERNÝ		PRIEMERNÝ		PODPRIEMERNÝ		SLABÝ		SPOLU	
	POČET n	PERCENTÁ	POČET n	PERCENTÁ	POČET n	PERCENTÁ	POČET n	PERCENTÁ	POČET n	PERCENTÁ	POČET n	PERCENTÁ
NORMÁLNY	15	13.29	13	10.65	10	8.19	7	5.74	1	0.83	46	37.70
ANTICIPATÍVNY	3	2.46	3	2.46	7	5.74	6	4.91	3	0.83	22	18.03
EXCESNÝ	8	6.56	15	12.29	2	1.64	4	3.29	3	2.46	32	26.24
IRREGULÁRNY	2	1.64	2	1.64	1	0.83	6	4.91	11	9.01	22	18.03
POČET POSLUCHÁČOV	28	22.95	33	27.04	20	16.40	23	18.85	18	14.76	122	100.0



OBRÁZOK č. 6

Záver

1. Športovci inklinujúci k irregulárnemu typu reagovania majú obyčajne nervosvalovú koordinovanosť nižšej úrovne, snažšie se učia pohybovým návykom ako športovci inklinujúci k normálnemu excesnému a anticipatívnemu typu.
2. Skúmanie vzťahov medzi úrovnou nervosvalovej koordinovanosti a úroven reagovania na svetelný podnet športovcov z hľadiska metodológie výskumu limitnej výkonnosti v športe zasluhuje ďalšiu pozornosť.

Literatúra

1. STEJSKAL, T. : Súvislosť medzi typmi reagovania na svetelný podnet s úrovňou vytvárania motorických zručností športovcov. Teor. Praxe těl. Vých. 23, 1975, s. 9-10, 561-566.

2. STEJSKAL, T. : A testnevelési főiskolások kiválasztásával és alkalmasságukkal kapcsolatos pszichodiagnostikai kérdések. Budapesti műszaki egyetem Sp. 1976, s. 135-146.

3. HORVÁTH, L. : Új módzer a személyiség megismerésére. Akadémiai kiadó, Budapest, 1971.

4. KNOTEK,P. - KUBIČKA, L. : Příspěvek k psychologické charakteristice posluchačů tělesné výchovy pedagogických fakúlt. Teor. Praxe těl Vých. 19, 1971, 1, 8-16.

5. MAKKÁR, M. : A reakcióidő mérése általános sporléletani vonatkazása. TF Tudományos Közlemének Budapest 1969, III. s.1971.

6. VANĚK, M., HOŠEK, V., SVOBODA, B. : Studie osobnosti ve sportu. Universita Karlova, Praha, 1974.

7. CSINÁDY, J. : "Széria reakcióidő" mérésnek jelentősége. Tudományos Közlemének TF Budapest, 1969.

8. ČTVRTEČKA, J. a kol. : Lyžování. SPN, Praha, 1971.

Príloha 1.

Test na zistenie typu reakčného času

Reakčný čas sme merali v 50 sériach na svetelný podnet s diskriminačným reagovaním na dve alternatívy.

Respondentov sme oboznámili s metódou reagovania a pred začatím série mali 10 nácvičných pokusov.

Používali sme univerzálny reakciomer na svetelný podnet s elektrickými stopkami.

Experimentátor uviedol do chodu elektrické stopky súčasne s rozsvietením svetelnej tabule buď na pravej alebo na ľavej strane.

Respondent v izolovanej miestnosti mal svetelnú tabuľu pred sebou a pomocou telegrafického kľúča po diskriminačnom spracování podnetu v mozgových centrách pravou resp. ľavou rukou zastavil stopky. Respondent nemohol reagovať nesprávnou rukou, lebo pri takej reakcii stopky sa nezastavili.

Časové hodnoty od rozsvietenia svetelnej tabule do zastavenia stopiek sme zaznamenávali presnostou milisekundy /ms/. Získané hodnoty zakreslili sme na grafický záznam, na ktorom boli vymedzené časové hranice pre jednotlivé typy reagovania.

Kým namerané hodnoty sa pokybujú v časovom intervale od 200 ms - 360 ms, typ reakčného času respondenta je normálny.

Keď viac ako 8x sú hodnoty pod 200 ms, typ reakčného času respondenta je anticipatívny.

Keď viac ako 8 hodnot je nad hranicou 360 ms, typ reakčného času respondenta je excesný.

Respondenti, ktorých reakcie boli viac ako 4x excesného a viac ako 4x anticipatívného charakteru, sme považovali za typ irregulárny.

Vymedzenie časových hraníc pre jednotlivé typy reagovania

Tab. č. 2

Typ časovej reakcie	časová hranice reakcie	obraz
Typ NORMÁLNY	200 - 360 ms	č. 1
Typ ANTICIPATÍVNY	pod 200 ms	č. 2
Typ EXCESNÝ	nad 360 ms	č. 3
Typ IRREGULÁRNY	zmiešané hodnoty	č. 4

Príloha 2.

Test motorickej koordinácie v lyžování

Výskumu sa zúčastnili len posluchači lyžiari priemerní a slabí. U dobrých a veľmi dobrých lyžiarov vývoj techniky počas 10-denného výcviku je relatívne malý, preto hodnoty zlepšenia výkonnosti sú ťažko merateľné a hodnotiteľné.

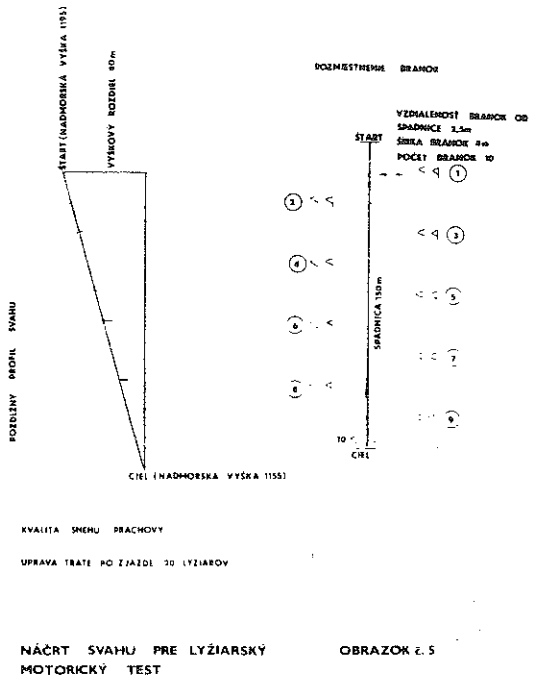
Vývoj lyžiarské motoriky sme skúmali dvoma metódami -

a/ pedagogickým pozorovaním -

inštruktor hodnotil vývoj lyžiarské techniky svojich zverencov piatimi bodmi. Respondenti, ktorí dosiahli najvyššiu nervo-svalovú koordinovanost v lyžiarskych návykoch, získali 5 bodov a opačne, respondenti s nižšou nervo-svalovou koordinovanosťou menej bodov, najslabší 1 bod.

b/ Respondenti prvý deň kurzu zúčastnili sa jednoduchého slalomu s desiatimi otvorenými bránami. Tento slalom opakovali za konštatných podmienok posledný deň výcviku /obr.č.3/. Pri prvom meraní do výskumu sme pojali mužov, ktorí dosiahli čas 0:28 ± 3 sek. a ženy, ktoré dosiahli čas 0:30 ± 3 sek. Pri druhom meraní na konci výcviku najnadanejší muži dosahovali čas okolo 0:23 sek. a ženy 0:26 sek.

Časové zlepšenie medzi prvým a druhým slalomom sme prepočítali na bodové hodnoty tab. č. 3.



NÁČRT SVAHU PRE LYŽIARSKÝ MOTORICKÝ TEST OBRAZOK č. 5

Časové zlepšenie medzi vstupným a výstupným testom Tab. č. 3

Zlepšenie v sek.	Odpovedajúce body
lepšie - 5 sek.	5
5 sek. - 3,5 sek.	4
3,5 sek. - 2 sek.	3
2 sek. - 1 sek.	2
1 sek. a horšie	1

Stupeň motorickej úrovne sme dostali spočiatnim bodov respondenta, získaných pedagogickým pozorovaním a zlepšením v slalome /tab.č. 4/.

Hodnotenie lyžiarskej motoriky Tab. č. 4

Stupeň nervo-svalovej koordinovanosti	Bodová hodnota
výborná	10,9
nadpriemerná	8,7
priemerná	6,5
podpriemerná	4,3
slabá	2,1

Organizácia lyžiarského výcviku

a/ Výcvik bol 10 denný.
b/ Družstvá 10-12 členné.
c/ Inštruktori - asistenti katedry telesnej výchovy.
d/ Terén vysokohorský.
e/ Kvalita snehu - prevážne prachový.
f/ Metodika bežne aplikovaná v ČSSR /ČTVRTEČKA 1971/.
g/ Používanie lyžiarskych výťahov a vlekov, počet najazdených kilometrov počas 10 dní cca 90-120 km.

THE SYMBOLIC EFFECTS OF WINNING AND LOSING: A TEST OF SYMBOLIC SOCIALIZATION

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This study was an attempt to empirically investigate the concept of symbolic socialization as applied to sport. Symbolic socialization suggests that socialization effects occur as consequences of symbolic acts of allocation to particular social roles. Socialization efficacy lies in the symbolic power of the act of role allocation (1, 2). Pragmatic difficulties precluded symbolic acts of international significance; therefore, selected for study were the symbolic acts of "winning" and "losing" at a national women's intercollegiate basketball championship.
Another limitation on this study was that, because of its preliminary nature, we looked at the effects of these two symbolic acts upon merely the self-perceptions of body-image. We were not concerned at this point with the possible effects upon other aspects of self concept.
A "body-image" inventory was administered to all members of 4 of the teams competing in the championships, both before and after each game they played. The independent variable thus consisted of 40 acts of "winning" and 33 acts of "losing".

The inventory offered 2 target phrases, "My body: as I would like to see it" (IDEAL) and "My body: as it really is" (REAL), each with the same 24 polar pairs of adjectives. Twelve adjectives referred to objective characteristics of the body (tall, short) and twelve referred to subjective characteristics (beautiful). For each adjective pair it was possible to assess numerically the difference between perceptions of IDEAL self and REAL self. The dependent variable was thus the difference between the pregame IDEAL-REAL difference and the post-game IDEAL-REAL difference. The hypotheses tested were (1) that the act of "winning" would positively affect an individual's self-perception of body image (reduction in the size of the dependent variable), (2) that the act of "losing" would negatively affect self-perception of body image (increase in the size of the dependent variable), (3) that the two symbolic acts would be equally powerful, and (4) that subjective characteristics would be affected by symbolic acts to a greater extent than objective characteristics. For each adjective pair in the "win" condition and the "loss" condition, a comparison was made between the numbers of cases of each symbolic act in which the pre-game IDEAL-REAL difference was greater or smaller than the post-game difference. The significance of the deviation of the observed distribution from a hypothetical 50:50 distribution was measured by the Chi Square test for one-dimensional tables. Statistical significance was set at the 0.05 level. Because the "value" of the symbolic acts to the individual could not be assumed to be constant, we attempted to measure the degree to which the individual was oriented towards winning by using an inventory with a target phrase "Why I play Basketball" and 18 responses. The respondents were categorized either as highly win-oriented (HIWIN) or as not highly win-oriented (LOWIN).

Tables 1 and 2 summarizes the data relevent to Hypotheses 1, 2 and 3. The hypothesised effects of the symbolic act of "winning" were supported in 5 of 24 adjective pairs (20.8 %), while the hypothesised effects of the symbolic act of "losing" were supported in 12 of 24 adjective pairs (50 %). The hypothesised effects were much more evident in Lowin individuals than in Hiwin individuals, although in both cases the effects of "losing" were more pronounced than the effects of "winning".

In Table 3 those adjective pairs which were significantly affected by the two symbolic acts are categorized according to their objectivity and subjectivity. In all 4 conditions, subjective characteristics were in the majority.

We may conclude that 1) the symbolic act of "winning" positively affected the self-perceptions of body image of Lowin individuals but not those of Hiwin individuals; 2) the symbolic act of "losing" negatively affected the self-perceptions of body image of both Lowin and Hiwin individuals; 3) the symbolic act of "losing" is much more powerful than the act of "winning"; 4) subjective body image characteristics are affected by symbolic acts to a greater extent than objective characteristics. It would seem, therefore, that, contrary to popular conceptions, "winning" and "losing" are not related in a zero-sum manner; rather, they are symbolically independent acts. It also seems that the acts of "winning" and "losing" at a national women's intercollegiate basketball championship do have immediate symbolic effects; although perhaps not the effects which may be hypothesised at first glance. The important issue of whether these effects persist over the long term, a necessary condition in support of the concept of symbolic socialization, has not been answered by this study and awaits a longitudinal analysis.

TABLE 1. Number of adjective pairs which exhibited the hypothesised pre-post changes in the IDEAL-REAL differences

Symbolic Act	WIN	LOSS
N	5	12
% of total	20.8	50.0

TABLE 2. Number of adjective pairs which exhibited the hypothesised pre-post changes in the IDEAL-REAL differences; by orientation towards winning.

	Orientation towards winning			
	HIWIN		LOWIN	
Symbolic Act	WIN	LOSS	WIN	LOSS
N	4	10	12	16
% of total	16.7	41.7	50.0	66.7

TABLE 3. Number of adjective pairs satisfying Hypothesis 1 for each symbolic act: categorization into objective and subjective characteristics.

	Orientation towards winning			
	HIWIN		LOWIN	
Symbolic Act	WIN	LOSS	WIN	LOSS
N	4	10	12	16
Objective characteristics (% of N)	25.0	40.0	33.3	37.5
Subjective characteristics (% of N)	75.0	60.0	66.7	62.5

References

STEVENSON, C.L., "Symbolic socialization: a tentative discourse". 78th Proceedings, National College Physical Education Association for Men, 1975.

STEVENSON, C.L., "An alternative theoretical approach to sport socialization: a concept of institutional socialization". International Review of Sport Sociology, Vol. 1 (11), 1976, pp. 65-76.

РЕЖИМ РАБОТЫ ДЛЯ ФОРМИРОВАНИЯ ВЫНОСЛИВОСТИ И НЕКОТОРЫХ ПСИХОМОТОРНЫХ КАЧЕСТВ У МОЛОДЫХ ЛЕГКОАТЛЕТОВ

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Спорт своими разнообразными средствами содействует укреплению здоровья молодежи и повышению ее работоспособности. Работоспособность человека зависит от многих факторов. Выносливость - это основное качество, которое является определяющим для всех видов деятельности человека. Не случайно ряд авторов проявляет научный интерес к развитию и формированию выносливости (В.М.Зациорский, Н.И.Волков, Н.Н.Кабачкова, Ю.Г.Травин, Б.Ф.Прокудин и др.).

Авторы оказывают предпочтение различным факторам. Оказывается, что совершенно недостаточно изучены параметры, связанные с основными свойствами центральной нервной системы. В нашей стране ряд авторов провели научные исследования в связи с изменениями невродинамики коры головного мозга. (Е.Генова, 1957; В.Пырванов, 1959; Н.Попов, 1966,70,71,72 г.). Свойства высшей нервной системы, как и особый способ функционирования ВНС всегда имеют значение для успешного осуществления спортивной деятельности. Раскрытие связи между определенным свойством нервной системы и достижениями в данной спортивной дисциплине дает возможность прогнозировать спортивный результат, с одной стороны, и с другой - подбирать будущих участников состязаний и контролировать их подготовку.

В нашей работе мы изучали влияние различного режима тренировочной работы на развитие качества выносливости и на лабильность ВНС молодых легкоатлетов в начальном этапе их спортивной подготовки.

Мы использовали следующие методики:

Тепинг-тест для максимальной частоты движений под формой пробы (И.Попов 10 х 10 секунд); быстрота реакций последовательно готовительному сигналу); педагогический эксперимент - применение трех методов развития выносливости (повторного, переменного и равномерного); метод периодических контрольных измерений - бег на 800 метров за определенное время; статистический метод - вариационный.

В трех группах мы взяли данные о частоте движений и быстроте реакций в начале и в конце эксперимента. Данные показывают, что самые высокие исходные стоимости частоты движений имеет 1 группа ($\bar{x}$ = 62,46), за ней следует Ш группа ($\bar{x}$ = 60,73) и на последнем месте П группа ($\bar{x}$ = 58,48). После применения определенной беговой работы, в которой использовали различные методы тренировочной деятельности для развития качества выносливости, в конце педагогического эксперимента мы получили следующие результаты: самое большое увеличение частоты движений имеет Ш группа, которая работала методом равномерного продолжительного бега (соответственно 4,42%, t = 1,47 и pt = 0.91). Следует П группа, работавшая переменным методом (3,52%, t = 1,38 и Pt = 0.90) и 1 группа, которая работала повторным методом (0,96%, t = 0,37 и Pt = 0,61). Улучшение частоты движений во всех трех группах, выраженное через тест 10 х 10, которое отсчитал электрический счетчик, прямо связано с проявлением качества выносливости, так как продолжительность тепинг-теста в рамках 1 мин.40 сек. У нас есть основания считать, что увеличение является результатом, с одной стороны, продолжительной ритмичной работы, при которой движения циклично повторяются (бег) и, с другой стороны, что более существенно - результатом умения чередовать напряжение с ослаблением в равномерном темпе, при котором проявляется в большей степени динамическая гибкость нижних конечностей при беге на средние расстояния.

Из сделанного анализа результатов бега на 800 метров видно, что самое большое улучшение получено в Ш группе (абсолютная разница 8,51 сек; 7,60% и достоверность -

Pt = 0,99). Это является результатом применения метода равномерного продолжительного бега, который оказался самым подходящим для развития выносливости у подрастающих, в случае у девочек 13-14 лет. Близкие стоимости улучшения наблюдаются в П группе, где формировалась выносливость переменным методом (абсолютная разница 14,13 сек; t = 1,75 и Pt = 0,94). Улучшение есть и в 1 группе, но несущественное (12,75 сек; 4,48%, t = 1,48 и Pt = 0,92). Это показывает, что этот метод оказывает определенное влияние на формирование выносливости, но он не является самым эффективным методом.

Тест для исследования быстроты реакций при десяти последовательных попыток по звуковому сигналу показывает следующее (табл.3):

Самую высокую степень быстроты реакций при исходных данных показала 1 группа (347.25 мсек), на втором месте П группа (374.80 мсек) и на третьем месте Ш группа (391.70 мсек).

Улучшение реакций или сокращение латентного периода реагирования, как следует: для Ш группы - 13.12 мсек, для П группы - 6,62 мсек. Видно, что при 1 группе есть увеличение латентного времени на 23.57 мсек, т.е. уменьшилась быстрота реакции. Улучшение в Ш и П группе можно объяснить тем, что в обеих группах есть также улучшение выносливости, что нашло выражение в беге на 800 метров (см.табл.2). В этих группах применялись методы: равномерный и переменный, которые развивают выносливость, а также, в известной степени и быстроту (это подтвердили конкретные бега на 30 и 60 м.).

Увеличение латентного времени реакции в 1 группе, которая работала на более коротких расстояниях, с большей интенсивностью можно объяснить характером работы: развивалась быстрота, но не и скоростная выносливость.

Из сделанного анализа результатов двух тестов - для частоты движений и быстроты реакции - можно сделать следующие выводы:

1. Самые подходящие методы развития выносливости у подрастающих - это равномерный и переменный метод. Они способствуют увеличению частоты движений, что имеет большое значение в работе с молодыми атлетами в начальном этапе их подготовки.
2. Частота движений, как основная форма проявления физического качества быстроты содержится и в качестве выносливости.
3. Различный режим работы, выражающийся в применении различных методов развития выносливости у подрастающих (повторного, переменного и равномерного) не улучшает существенно быстроту реакции.

Использованные тесты, которые дают характеристику изменений, наступающих в лабильности центральной нервной системы (частота движений 10 к 10 сек.) и в силе процесса возбуждения (10 реакций), можно использовать для оценки и которая в работе на средних расстояниях с подрастающими, где решающее место имеет качество выносливости.

ZMĚNY VZTAHU KE SPORTOVNÍ ČINNOSTI V PRŮBĚHU VÝVOJE ČLOVĚKA

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V průběhu individuálního života dochází k mnohým změnám ve vztazích k jednotlivým sportovním činnostem, s nimiž jsme se setkali při vlastním provádění.

K těmto změnám dochází především z důvodů fyziologických, poukým stárnutím. Dalším důvodem je povolání nebo takové životní zaneprázdnění, které snižuje možnosti vlastní sportovní činnosti na minimum nebo po určitou dobu i zcela. Z psychických důvodů bychom mohli jmenovat pohodlnost, slabost vůle a nezájem.

Lze říci, že člověk moderní doby se se změnou vztahů k vlastní sportovní činnosti setkává. Lze také říci, že po 35. roce našeho života, tedy v průměru po jeho první polovině, přechází náš fyzický organismus do stavu vědomé údržby. Mechanismus, kterým se tělo hlásí, bychom mohli nazvat mechanismem Re. Jsme donuceni se zabývat naší obnovou, zotavováním, posilováním, jak to naznačuje význam latinského slova "recreo", nebo slova "recupero" - opětně nabývám, nebo i slova "rebello" ve smyslu povstávám, vzpírám se. Všimněme si, jak je předpona re spojena s různými druhy pohybů, ať již jde o pohyby rekreační, rehabilitační, regenerační či relační.

Můžeme sledovat, jak se tento mechanismus vlastní vzpoury proti ohrožení zdraví hlásí u lidí v různém životním období. Můžeme sledovat, jak jsou lidé nuceni se vracet ke sportovním pohybům když je jejich zdraví nějak ohroženo, když je zasáhne vědomí vlastní opotřebovanosti, v době blížícího se důchodu, nebo když se začínají zabývati otázkami smrti.

Tento mechanismus Re, vyvolaný často na fyzické úrovni, je spojen velmi často s naším vztahem k vlastní sportovní činnosti. Má svůj psychický obsah, který je určován představami z našich sportovních zkušeností, našimi ubývajícími schopnostmi, oslabenými volními vlastnostmi, zanedbanými dovednostmi a někdy i pocity vlastní zbytečnosti.

Tato záporná stránka psychického obsahu je spojena s revizí našeho vztahu ke sportovní činnosti právě v době, kdy je naše zdraví nejvíce ohroženo. Tu jsme ochotni využít všeho, co nás utvářelo v kladném slova smyslu. Jsme ochotni si uvědomit a poznat zákonitosti, které náš život limitují. V tomto směru dochází k zralosti naší osobnosti.

Mechanismus Re v nás samovolně vyvolá představy o změnách vztahů k sportovním činnostem, jež jsme dříve prováděli. Jde často o zpětný pohled na sporty, jež jsme od našeho dětství provozovali. V takových individuálních výpovědích bychom shledali, jak valná část populace se setkala především s kopanou, plaváním , základní tělesnou výchovou, lehkou atletikou, bruslením, cyklistikou, lyžováním, odbíjenou, tenisem a turistikou. U většiny lidí se však v průběhu jejich vývoje aktivní sportovní činnost ztrácí. Nakonec zůstává z původní velké pohybové aktivity pouze domácí tělocvik a nebo jen sporadicky vykonaná procházka.

I takovouto problematikou by se psychologie sportu měla zabývat. Pravděpodobně by se setkala s velmi zajímavými výsledky, jejichž rozpracování by odkrylo některé mechanismy, podílející se na obnově vlastních sil člověka.

Využitím alarmujícího účinku mechanismů Re bychom mohli navodit aktivní vyvolávání představ, spojených s naší bývalou sportovní činností. Navozením patřičného záměru bychom mohli tento alarmující účinek posílit a využít jej k provádění rekreační sportovní činnosti a to nejen v době ohrožení našeho zdraví, ale i preventivně.

V době neúprosného tlaku civilisačních chorob mají i psychologické prostředky svou nemalou hodnotu pro zvyšování odolnosti člověka, i když se prozatím nacházejí ve stadiu hledání a prověřování.

PERSONALITY-TYPOLOGICAL PROBLEMS OF SUCCESS-APPROACHING AND FAILURE-AVOIDING

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Basic aim of our research was: To explore the performance determining the role of interacting factors of personality (environment) interaction.
It was our praxis-oriented theoretical task to gain further differentiation within these two categories for the classification of approaching-avoiding behaviour and explore the characteristical personality traits for it. A research was undertaken with a complex methodology.
Population: One hundred male university students with an average age of twenty point five years.
Methods:

1./ Personality investigations: a/ Taylors' Manifest Anxiety Scale (MAS); b/ Neuroticism investigation test by Ozsváth; c/ PFT; d/ special test in the field of interest; e/Szondi test with two profiles; f/ total Lüscher-test with double clinical protocol.

2./ Performance research: a/ special comma-test; b/ Raven-test; c/ OTIS-test; d/ Hawie-test; e/ school-achievements in instructed subjects.

3./ Sociometric method: From the complex research we make the statement here about the relation of results of the comma-test and the two personality tests (Szondi, Lüscher). Because of the lack of time the syndroms are established here combined, only to characterise the different types.

We elaborated on basis of an earlier comma-test used for other purpose the "Achievement-thematic Motivation Test". The total investigation was executed in four different task-situations (orientating, aspiration level, competitive and stress). The comparative analysis of achievement percentage in the four situations offered the possibility to find four different types by taking into consideration without exception the significant ($p<0.05$) difference.
The relation of results is introduced in Fig. 1. The diagram repreesents the three average parameters of the different types in which curveline at the top is for the achievement (T), curveline in the medium speaks for achievement percentage (T %) and the lowest for error (H).

The four types

1./ Autocentric success-approaching oriented (AS)
2./ Autocentric failure-avoiding oriented (AK)
3./ Heterocentric success-approaching oriented (HS)
4./ Heterocentric failure-avoiding oriented (HK)

Results of Szondi-test with two profile characterising the types

Type AS: There are the Sch - + and C ø + reality signs characteristic. Basis for real purposiveness is given by the consciousness of self-knowledge and well-regulated selfcontrol.

Type AK: There is characteristic the P ø - sign. This means anxiety - failure avoiding - and irreality. C ø - shows - as "infantile" and hysteroid sympton - the incomplete self-knowledge and the irreality of purposiveness. The C ø - and the $\pm$ hy syndrom (by first registration) shows ambivalence manifestation of emotions with consequence of anxiety, self-reproach and in prob-

lemsolving the feeling of depressive supportlessness. In execution of achievement thematical tasks the persons are solitude, failure-avoiding.

Type HS: Both registration with P-- relation - with same frequency as P+ - relation refers to the fact, that emotional tension produces anxiety and pursuits with panic impatience the approciation and success. The P - - panic block is the sign of anxiety and of hysteroid syndroms. The C - + formula is the irrational adherence, in this actual investigation the irresolute adherence to the opinion of others and the subordinated role of the relation played in it.

Type HK: SCH - $\pm$ shows the irresolute, unestablished, unsteady resoluteness leading to achievement instability. Second investigation k factor ø choice is the sign of narcissism, of selfaffectedness.
In second investigation $P^{\pm}$ - and C - + syndrom appearing in the same time shows the strong dependence upon the opinion of others and the anxiety of others reproach. In that case the conquest should be made with failure-avoiding.

Results of two-profile Lüscher-test eight colour scale typical of the different types

The displacement of colour number 4 (yellow) seems to be an important parameter in prediction of achievement development. It means in the plus-choice determined self-realisation (+4+3 AS type). It can be estimated in indifferent zone as the sign of indefinite, uncertain activity (particulary with +5 together).
The refused colour No 1 (blue) indicates unquietness and lack of contact-readiness. Direction of the compensation is shown by the preferential colour.

Type AS: The preferential four-three-two (432) - constellation can be considered as will to hold one's own and the ego-related decisiveness and ability for initiative.

Type AK: Colour number four is in the indifferent zone. It is the sign of uncertain action, particularly by +5. Changing positions of colours in one-four ranking - first investigation 3254, second investigation 3542 - shows the urgent desire for completing of expectation given for himself, at the same time undecisive, uncertain behaviour.

Type HS: Prefered three-four-five constellation shows ambition of conquering eagerness and for quick, irrational success. The compensational character of the behaviour: postulation to accept the success from others without compliance with others (see refused colour number one).

Type HK: Prefered three-five constellation shows the wish to leave the good impression in others, but the supression of self-uncertainty remains unsuccessfull because of the failure avoiding, to avoid the shame before others and uncertain behaviour.

Development of results of the four types are introduced by characteristic examples for each in Fig. 2 (in this diagram the curveline at the top means the achievement (T), curveline in the medium is the achievement-percentage (T %) and the lowest speake for error (H).
Performance according its autocentrical and heterocentrical trend and on basis of thematical success -approaching or failure-avoiding and within the further differentiation can be divided in four types.

Chief characteristics of the types

1./ Autocentrical success-approaching (AS): consciousness in self-knowledge, well-regulated self-control, autocentrical decesiveness and initiative, determined self-realisation and willpower for firmness, balanced achievement, determined purposiveness.

2./ Autocentrical failure-avoiding (AK): incomplete self-knowledge, unbalanced purposiveness and aim-realisation, undetermined and uncertain action, impatience with achieving the own expectations, self-reproach and depressed trend, degradation of quality in achievement in stress-situation. Types number one and two are more achievement-centrical ones.

3./ Heterocentrical success-approaching (HS): decisive conquering aspiration, forced wish of appreciation with impatiance, hysteroid orientation unreal readiness in contacts, excel with spectacular achievement also if this means diminishing in quality. The quality of achievement leads to degradation in rival situation.

4./ Heterocentrical failure-avoiding (HK): unsettled purposiveness, uncertain endeavour to be appreciated, anxiety about others condemning opinion and reproach, narcistic, self-affected and hysteroid orientation, unsteady behaviour, quality of performance leads to degradation in rival and stress situation.

Types number 3 and 4 are more appreciation-centrical.
Preparation and achievement are postulating each other in competitive sport, as well in the interpretative arts. With full knowledge of different types the psychological preparations effectiveness as well the exactness of the prognosis in achievement can be increased.

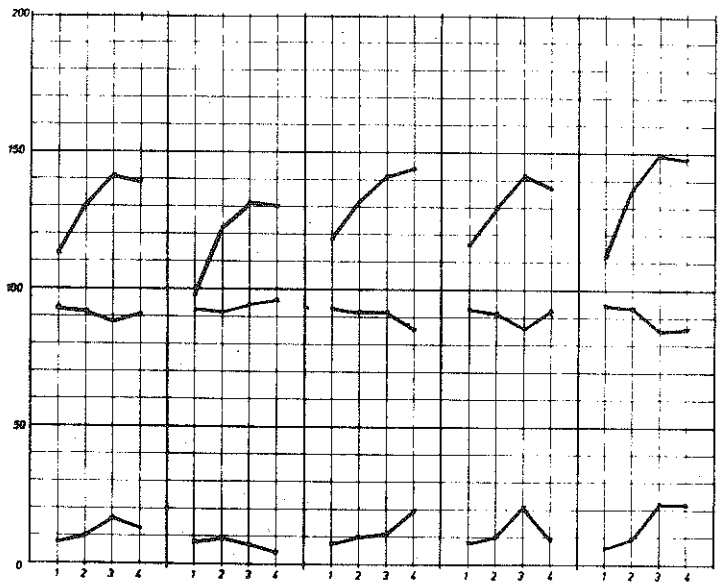


Fig. 1 N.100 AS-15 AK-21 HS-46 HK-14

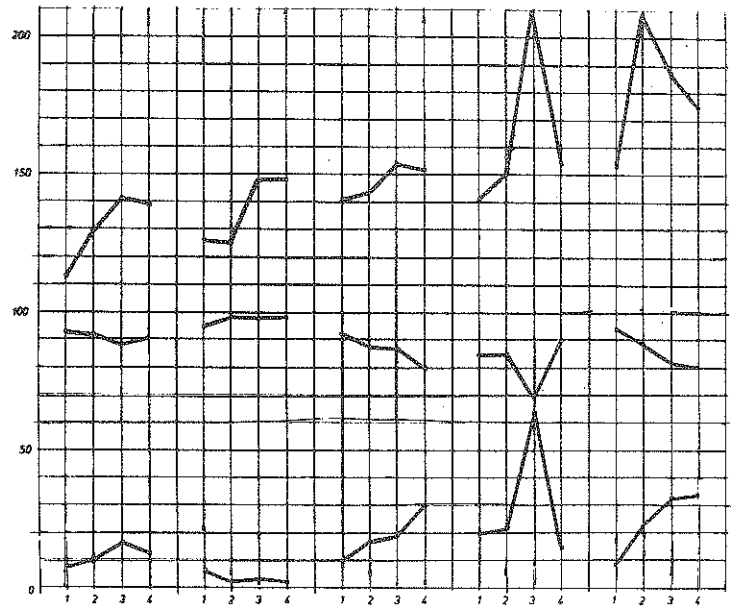


Fig. 2

References

ATKINSON, J.W. AND FEATHER, N.T. (Eds), 1966. A theory of achievemen motivation John Wiley co. Sons, New York, London, Sydney.

LÜSCHER, VM. 1969. Lüscher-test. lo. Auflage, Test-Verlag, Basel.

PUTNOKY J., 1969. A teljesitménymotiváció és tanulmányozásának lehetosége a testnevelésben és a sportban A Sport és Testnevelés Idoszerü Kérdései, 1. sz.

RÓKUSFALVY - POVÁZSAY - SIPOS - HALMI, 1971. Az affectivitás vizsgálata a Lüscher-teszt alkalmazási lehetoségei és standardizálása Akadémisi Kiadó, Budapest.

RÓKUSFALVY P., 1973. Teljesitménymotivációs felfogások és ezek érvényesitése a sportpszichológiai kutatásokban Magyar Pszichológiai Szemle, XXX. kötet, 3. sz.

MÉREI F. - SZAKÁCS F., 1974. Klinikai pszichodiagnosztikai módszerek Medicina Könyvkiadó, Budapest.

АНТИЦИПАЦИЯ В СТРУКТУРЕ ПСИХОМОТОРНЫХ ДЕЙСТВИЙ СПОРТСМЕНОВ

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В современной нейрофизиологии и психофизиологии (П.К.Анохин, Н.А.Бернштейн, М.Миллер, Р.Галантер, К.Прибрам, А.Р.Лурия, Ю.Конорский и др.), а также в исследованиях психологов (Б.Г.Ананьев, А.Н.Леонтьев, Б.Ф.Ломов, К.К.Платонов, А.Ц.Пуни и др.) имеются определенные предпосылки к тому, чтобы рассматривать а н т и ц и п а ц и ю как особую гностическую функцию, в основе которой лежат интегральные механизмы работы мозга, а с точки зрения функционирования психических процессов различного уровня построения - их системность.

В фундаменте нашего подхода к проблеме лежит принцип системности функционирования различного рода "опережающих эффектов", специфичных для различных уровней антиципационных процессов, таких как с у б с е н с о р н ы й, с е н с о м о т о р н ы й, п е р ц е п т и в н ы й, а п п е р ц е п т и в н ы й и в е р б а л ь н о - л о г и ч е с к и й.

Всесторонний анализ экспериментальных данных генетической, экспериментальной, прикладной психологии: спорта и труда, инженерной психологии, патопсихологии и педагогической психологии показала, что каждому из названных уровней антиципации соответствует определенный уровень сложности сенсомоторных, перцептивных и собственно интеллектуальных задач. Было обнаружено, что на каждом уровне антиципации диапазон ее разрешающей способности различен. Выявлено, что от уровня к уровню усложняется структура и интеграция психических процессов, взаимодействие которых обеспечивает тот или иной эффект предвосхищения. В этой связи анализ фактов и их обобщение позволяет заключить, о том, что а н т и ц и п а ц и я суть проявления системности и иерархического принципа в работе головного мозга.

Необходимо со всей определенностью подчеркнуть, что предлагаемая нами концепция о многоуровневом строении антиципации подразумевает не их изолированность друг от друга, а необходимую взаимосвязь.

Подводя итоги обсуждения проблемы антиципации в аспекте системности и структурности строения психических процессов, можно сформулировать ряд положений, имеющих, с нашей точки зрения, не только теоретическое, но и прикладное значение. Во-первых, на современном уровне научных знаний антиципацию следует рассматривать как особую г н о с т и ч е с к у ю функцию, в основе которой лежат интегральные механизмы работы мозга. Во-вторых, каждому из пяти выделенных уровней антиципации соответствует в е д у щ и й уровень структуирования и системности психических процессов, обеспечивающих тот или иной диапазон ее опережающего эффекта. В третьих, широта диапазона "разрешающей способности" антиципационных процессов, их эффективность по тем или иным критериям всегда базируется на анализе и синтезе прошлого опыта, постоянном сличении с ним текущих событий, и, что особенно важно,- на и з б и р а т е л ь н о м извлечении информации из оперативной и долговременной памяти. В связи с этим, наиболее существенной характеристикой антиципации как процесса следует считать не только ее опережающий - временный эффект -, но и максимальное устранение н е о п р е д е л е н н о с т и в ходе принятия решений. Другими словами, антиципация - это не только пространственно-временное опережение, но и та или иная степень полноты в точности п р е д с к а з а н и я. Поэтому антиципирующий эффект есть результат максимального увеличения п р и ч и н н о й (детерминированной) части акта принятия решения и постоянного уточнения в е р о я т н о с т н о й части предсказания.

Отсюда следует, что вероятностное прогнозирование, строящееся большей частью с учетом только ч а с т о т ы встречаемости событий является лишь одной из сторон процесса антиципации.

В прикладном аспекте, применительно к условиям спортивной деятельности, нами проведены обширные исследования и на их основе раскрыты закономерности, с которыми связаны точностные характеристики и определенные зоны временно-пространственной антиципации в структуре психомоторных действий спортсменов (волейболистов и вратарей в футболе, гимнастов и фехтовальщиков, слаломистов и др.).
При этом были учтены как внешние, так и внутренние факторы, обуславливающие точностные характеристики временно-пространственной антиципации у спортсменов. Адекватный и отвечающий определенным критериям тот или иной конечный антиципирующий для разного класса задач (сенсомоторных, сенсорно-перцептивных и др.задач), основывается в большей мере на включении прошлого опыта в форме антиципирующих схем оперативной и долговременной памяти.
Итак, обсуждение проблемы антиципации в аспекте структурности и системности психических процессов разного уровня построения позволяет, с одной стороны, преодолеть функционализм в понимании этого феномена, с другой - рассматривать его как существенный фактор оптимизации поведения и управления двигательными действиями в спортивной деятельности. Именно структурно-системный подход позволяет адекватно определить поиски как методологических, так и методических подходов в теоретико-экспериментальных исследованиях проблемы антиципации в конкретных условиях спортивной деятельности.

ЛИТЕРАТУРА:

1. Сурков Е.Н. Антиципация-системность психических процессов "Психология физического воспитания и спорта" Тезисы докладов к УП Всесоюзной конференции, Ленинград, 14-17 марта 1973 г.Часть 1.,М.,1973.

2. Сурков Е.Н. Об одном из подходов к моделированию экстремальных условий в спортивной деятельности Материалы Всесоюзного симпозиума "Психический стресс в спорте".Пермь, 1973.

3. Сурков Е.Н. Некоторые теоретические аспекты антиципации в психологии спорта Совместно с В.Е.Петуховым К."Теория и практика физической культуры", № 7,1974.

4. Сурков Е.И. Сенсорное обучение и антиципация в спортивно-игровой деятельности Совместно с А.Ц.Пуни В сб."Вопросы психологии и физиологии физического воспитания и спорта",Казань, 1974.

5. Сурков Е.Н. Роль концептуальных моделей в распознавании тактических ситуаций у баскетболистов "Психология физического воспитания и спорта".Тезисы докладов М.Ч.1. Совместно с Ю.И.Портных и А.В.Хиленковым

6. Сурков Е.Н. О факторах, определяющих точностные характеристики сенсорно-перцептивной антиципации в реакциях типа РДО В сб."Вопросы психологической подготовки к соревнованиям в спорте", Л., 1972.

7. Сурков,Е.Н. Особенности антиципации баскетболистов различной квалификации в процессе решения тактических задач Сб.научных работ молодых ученых за 1971г.ГДОИФК им.П.Ф. Лесгафта.Л.,1971.Совместно с.А.В.Хиленковым.

8. Сурков Е.Н. Полимодальность представления движений и роль визуализации в процессе его формирования Материалы 1У Всесоюзного съезда общества психологов Изд."Мецниереба",Тбилиси, 1971.

SOME CONCEPTIONAL ATTITUDES OF COACHES

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Introduction

The exceptionally fast development of sport is conditioned by several factors, one of them being also an increasing level of the qualification of coaches. Coaching is regarded nowadays as a specific educational activity, of considerably complex character, which imposes very high demands on the capacities of coaches, their knowledge and skills, abilities and personality traits.
Although the sport activities are still considered to belong to the sphere of leisure, the work of coaches is regarded as an important component of social life, since the purpose of that work is to influence people - actively, directly as well as indirectly (spectators). In our socialist sport the aim of sport is not only to set a record and to gain victory, but to conjoin high performance with the influence on the athlete's citizenship, personality involvement and intentionality, and moral profile.
We are interested therefore to what extent these theoretical requirements are enforced in the practice of coaches, whether they understand the social coincidences of their influence on the athletes, and how far all that is reflected in their attitudes, especially in the up-bringing respects.

Methodology

We paid attention in the past studies to the problems of personality traits of coaches, the dimensions of their social roles and attitudes. On the basis of this experience we selected a simpler diagnostic tool, a questionnaire with 70 items and direct questions. The questionnaire was administered anonymously.
The questionnaire consisted of three parts, the anamnaestic part (items 1-15), the questionnaire items (16-65) and a free inquiry (66-70). The purpose was to gain answers not only to univocal questions, but also to get insight into the educational and up-bringing opinions and attitudes of coaches, their ideas on psychological causes of the problems in sport education, and on possibilities for the solution of those problems. Therefore the answers to questionnaire items are limited mostly to yes or no, or to the preference of alternated possibilities in several questions, but the inquiry introduces quite free answers to five different problems.
The individual questionnaire items cover on the whole 10 problem spheres (from the most general to specific questions on the control of coaching activities); the definitions are outlined in the paragraph on results of the investigation.

Samples

Under the heading "Conception of the coaching work" we administered the questionnaire to the attendants of courses for coaches regularly arranged at the Faculty of Physical Education and Sport (University of Charles) during the years 1976 and 1977. The total number of coaches included in the sample was 223; they were qualified coaches (at hast 2nd class, 15 of them even the highest i.e. the 1st class).

The coaches represented 18 sports; there were: 9 mostly individual sports (track and field - 19 coaches, swimming - 20, Olympic gymnastics - 15, modern gymnastics - 12, road cycling - 19, rowing - 11, skiing - 17, canoeing - 17, bow shooting - 2);

5 games (basketball - 11, volleyball - 9, handball - 18, rugby - 3, hockey - 4), and 4 combat sports (wrestling - 16, judo - 9, fencing - 7, military sports - 14). All other indices included in the first, anamnestic part of the questionnaire are presented in table 1. As may be seen in that table the selected sample was quite heterogenous, it enrolls the coaches both from the main and less important sports, and coaches of different age, practice, education etc. The low homogenity of the group corresponds with the intention of the investigation; if the coaches in a group with a low homogenity agree in their attitudes, then it is possible to presume with a greater probability that those attitudes are valid for the entire population of coaches in Czechoslovakia.
Since the sample is not representative, it is of course impossible to make any generalizations and all the results should be taken as suggesting information on the actual attitudes of all the population of coaches.

Results

With respect to the relatively low numbers of coaches in individual sports we present only total numbers in the evaluation - absolute figures and percentage obtained from all coaches (see table 2). We also introduce the results from the questionnaire items only, since the verbal evaluation of inquiry questions would require too much space. In those items where more alternatives are exposed a detailed evalution is necessary and therefore the items are not included in the table (2).
In order to make the evaluation of answers belonging to one and the same sphere more understandable, we created an auxiliary classification scale. According to the percentage of answers to an item we regard the result as follows.

1/ nearly explicit - more than 95 %
2/ greatly expressive - more than 90 %
3/ expressive - more than 80 %
4/ relatively expressive - more than 70 %
5/ over average - more than 60 %
6/ average - more than 50 %

The scale enables to make a summarizing estimation of the items belonging to a certain sphere, when a mathematical addition of results in individual items is not possible.

The results in individual spheres:

A/ Conception of coaching (items 16, 17, 21, 22, 24):

Nearly explicitly all coaches proceed from a certain concrete conception of work, and three quarters of them have it in a written form. In this respect their work is based expressively on their own experience with coaching and also on their knowledge of other coaches that they take as models for their job. Items of knowledge gained in their previous study is employed not very frequently (under average), and the suggestions of collaborators quite seldom (some of the coaches are, however, quite isolated in their work). The coaches outline the sport perspectives to their boys (girls) quite expressively more frequently than once in a month.

B/ The up-bringing and political aspects (items 18, 19, 20, 23, 28, 63, 64, 65):

This is actually a continuation of the general conception. The coaches are very expressively of the opinion, that the coaching job does not concern only the sport life, but that it includes also a program of up-bringing of the personality of the athlete. They understand that a systematic political education helps to form the athlete´s personality, but only a half of them admits that it helps also to a better sport performance. The coaches also very expressively agree with the theoretically frequently quoted statement that it is essential to control the sport activities, since otherwise these could result even in negative effects in the up-bringing respect. However the coaches do not think over the details of their up-bringing efforts, but they react much more ad hoc in the situations of the training sessions and competitions.

C/ Authoritative - integrative concept (items 30, 31, 32, 34):

The coaches are relatively expressively integrative, which is surprizing, the authoritative approach, even quite a rigid one, is expected quite often. Even in such situations as when the training assignments are presented to the athletes, half of the coaches admits discussion.

D/ Some non-sport relations (items 54, 57, 58, 61):

The coaches expressively support the identification of their young athletes with proper sport idols. They try to avoid making criticism of the referees. Only half of them supports actions that are not of sport character and are socially important; the same percentage makes and keeps regular contacts with parents of their boys (girls).

E/ Collective education (items 55, 59, 60):

The results confirm the experience that the coaches do not pay much attention to collective education in the sense of Makarenko´s concept.

F/ The preparation of coaches to training sessions and competitions (items 26, 27, 50, 52):

There is an expressive tendency to make a written schedule for every training, of course only in concise points; from only 30 % the coaches make a detailed written program. Less than a half of all the coaches makes a specific preparation also for the competition. The coaches expressively prefer regular training sessions to long-term camps.

G/ Training sessions (items 29, 35, 43, 44, 45):

There is an expressive till greatly expressive tendency to make the training as much variagated as possible, and to demonstrate all the skills; nevertheless a certain stereotype is regarded as quite unavoidable for every training. For the teaching of athletes the coaches regard as most important: first a perfect instruction, on the second place motivation, only then the athlete´s talent, exact demonstration, permanent corrections and in the end possibilities for sufficient repetition of every skill.

H/ Discipline, attendance, day regimen (items 31, 32, 33, 53, 56):

The coaches do not impose expressively a severe discipline, especially in the questions of attendance to the training sessions and day regimen; and they also have continuous problems in these respects.

I/ Making diagnoses of the athletes (items 36, 37, 47, 48, 49, 51):

A not very high majority of coaches does not find enough opportunities for making a complex diagnoses of their athletes, also since they cannot follow all their trials, they do not correct every fault. The coaches learn to know their boys (girls) especially in the training sessions, but also quite expressively during longer travelling. The sources of information are as follows: 1/ tests, 2/ questionnaires (which is surprizing), 3/ observation, 4/ rating scales, 5/ dialogues. So e.g. discussions with the team are employed only scarcely.

K/ Stimulation and sanctioning (items 38, 39, 40, 41, 42, 46):

How to stimulate the athlete to a full effort in the training is regarded as definite problem relatively expressively, although the coaches expressively systematically stimulate their boys (girls). Sanctioning is mostly not employed during the training, though the experience is recognized that a mere warning is not very effective. Otherwise the coaches use the following sanctions (from more to less frequently): 1/ corporal punishment (!), 2/ admonition, 3/ warning, 4/ financial sanctions, 5/ punishment given by the collective (but only 44 coaches), 6/ irony, 7/ additional physical activities, 8/ working duties (10 x).

Discussion and conclusion

Although more items could be required for individual problems and a more representative number of coaches would be desirable, the investigation even so has brought results that suggest some remarkable evidences.

First of all it is clear that the coaches are aware of the necessity to create a certain individual conception of their work and that the formation of the athlete´s personality should become an essential component of this concept. They also understand the political aspects of their activity and the social dimensions of the coaching profession. However in these respects they mostly do not possess a detailed program, especially in terms of concrete measures for everyday sport situations. They have of course all prerequisites for the creation of such definite programs, since they prefer a relatively integrative approach to their boys (girls), they do not insist on rigid obedience, and they apply mostly theoretically exceptable principles in all didactic questions. The collective education is evidently an expressively weak point, although the enforcement of some Makarenko´s principles is quite well possible in all sports. More attention should be also paid to diagnostic means, in the main to the recognition of the structure of personality traits of athletes, in connection with the problems of stimulation and sanctioning (some of the figures in sanctions employed were rather surprizing).

It is of course satisfying to find that the coaches possess undoubtedly (at least those in our group) all prerequisites for a further development, for the creation of a coaching conception that is based not only on effective progress to a good sport performance, but that does not neglect wider social coincidences and the formation of the personality of socialist sportsmen.

TABLE 1. Anamnestic data of the group

1	Men, N = 183 Women, N = 40	2	Age: 22 till 50, $\bar{X}$ = 32
2	Education: elementary - 34, middle - 153, university - 36		
4	Education: pedagogical - 34, non-pedagogical - 187		
5	Former sport performance: representative or master of sport	-	83
	1st class or 1et league	-	91
	2nd class or 2nd league	-	40
	lower	-	15
6	Practice in coaching, years: 0 till 23, $\bar{X}$ = 9		
10	Coaching: men - 88, youth, boys - 102, children, boys - 91		
	women - 44, girls - 65, children, girls - 64		
11	Performance level of the team: representative	-	55
	1st class or 1st league	-	105
	2nd class or 2nd league	-	89
	lower	-	59
	recreation	-	5
12	Number of athletes in one group: 1 till 90, $\bar{X}$ = 15		
13	Coaching is executed: professionally	-	64
	as a voluntary activity	-	105
	partly professionally	-	56
14	Coaching in: a big city (over 100,000 inhab.)	-	100
	a small town	-	114
	in the country	-	6
15	Material conditions for coaching (facilities):		
	optimal	-	36
	quite satisfactory	-	74
	partly not convenient	-	96
	bad	-	15

Notes:

1 Figures of the missing numbers are presented in the paper

2 Total sums are not equal, since not all the coaches answered every item.

TABLE 2. Rate and percentage of Answers in the Items of the Questionnaire

No	Item	Yes		No	
		Rate	%	Rate	%
16	My coaching activity is based on certain definite principles, on a certain conception	220	99	3	1
17	I have this conception formulated in a written form	169	76	52	24
18	The conception of coaching should concern the sport life only	17	8	205	92
19	The only assignment of the coach is to bring the athlete to a good performance	5	3	217	97
20	My conception includes also a program of up-gringing the athlete´s personality	206	93	16	7
22	The work of coaches is a purely practical affair, philosophy does not belong to it. I agree:	22	10	200	90
23	A systematic political education helps the athletes: in sport and life to form his personality, to a better sport performance	83	37	94	42
26	For every training session I make a written scheme of activities	175	79	46	21
27	I have always a detailed written preparation	68	30	151	70
29	A precise organization of every training session is more important than anything else	117	55	101	44
30	The athlete should make his contribution to the content of the training and to help so the coach	181	83	38	16
31	I prefer to keep a severe discipline in all sessions	56	25	166	75
32	Sanctions should always be employed whenever the athlete comes late to the training	53	24	169	76
33	There are permanent problems with the attendence of the athletes to the training sessions	79	36	142	64
34	I admit the athletes to discuss even the presentation of assignments of the training	108	49	110	50
36	Have you the possibility to follow the training trials of all your athletes?	81	36	141	64
37	Do you correct every error immediately?	144	65	78	35
38	Do you punish your boys (girls) even during the training?	96	42	125	57
39	Do you think that you praise too often?	24	11	198	89
40	A mere warning helps not very much	111	50	105	47
41	I stimulate the athletes continuously	194	87	29	13

No	Item	Yes		No	
		Rate	%	Rate	%
42	To bring the athletes to a full effort in the training is a definite problem today	154	70	64	29
43	I make the training as much variagated as possible	201	90	16	7
44	It is impossible to prepare the training without a certain stereotypy of activities	197	88	24	11
45	I frequently demonstrate the skills myself	185	83	34	16
47	I have enough opportunities for a complex diagnosis of my boys (girls)	116	52	102	46
50	I make a specific preparation for every competition	126	57	95	43
51	The coach may learn to know his athlete better in a trip than during a camp	130	58	90	41
52	Regular training sessions are more effective than a long training camp	197	89	20	9
53	I sanction the athlete every time when he (she) does not keep the regimen of living	103	47	111	50
54	I make criticism of the referee only after the match in a session with the athletes (games only)	27	13	65	30
55	I leave the evaluation of an athlete's performance never to the team, but I make it always myself	172	78	46	21
56	Sometimes I intentionally neglect an unproper conduct of the athlete	141	64	80	36
57	I support the youth in imitating good sport idols	185	83	33	15
58	I support important social action even if they interfere with the training program	112	51	105	48
59	My team has a self-governing body that helps me in all problems	74	34	148	66
60	I have no possibility to take care of the development of collective relations of the group members	93	43	124	56
61	I have permanent contacts with parents (husbands etc.) of my boys (girls)	127	57	94	43
62	In my view the conflicts with officials in the club are unavoidable	159	71	59	27
63	Sometimes I find that my athletes behave differently in the sport situations and in the non-sport life	172	77	50	23
64	The sport activity must be controlled, otherwise it may result in the development even of negative personality traits	207	93	16	7

АНАЛИЗ ОТНОШЕНИЙ МЕЖДУ ДЕЯТЕЛЬНОСТЬЮ И ФАКТОРАМИ ЛИЧНОСТИ УЧИТЕЛЯ ФИЗКУЛЬТУРЫ

СВОБОДА,В., Прага, ЧССР

Исследования в области учительской профессии являются затруднительными именно потому, что работа учителя сложно обусловлена несколькими факторами и имеющиеся диагностические средства не приводят к достаточно достоверным и подтвержденным данным. Поэтому большое внимание уделяется поискам подходящих подходов к исследованию учителей и к проверке разных диагностических методов. Исходным пунктом служит также мнение о том, что вся деятельность учителя является функцией его личности. Другими словами сказано - учитель проявляется в своей деятельности и в отношении к учащимся и к целям обучения и воспитания в зависимости от структуры качеств его личности.

Однако, учительская профессия является социальной ролью, с которой учитель сумеет лучше или хуже справиться; до определенной степени он может стилизировать свою личность по отношению к требованиям, предъявляемым этой ролью, но это также в определенном отношении характерно для каждой учительской личности. Вышеупомянутый факт, однако, является призывом к тому, чтобы направить исследование также по этой причине скорее на интенсивное обследование небольшого количества лиц, применяя несколько диагностических средств.

По отношению к учителям физкультуры мы искали соотношения между его деятельностью во время урока и между структурой качеств его личности. Для наблюдения деятельности во время урока мы разработали систему категорий наблюдения и шкалы оценок. Личность мы определяли с помощью анкет 16 ПФ, ЕПИ и Лиры. В группе 46 обследованных учителей находились также студенты физкультуры, проводимые педагогическую практику. Подробные результаты были опубликованы, как и конструкции обоих методов наблюдения; в настоящем сообщении я занимаюсь только некоторыми специфическими вопросами.

Прежде всего необходимо определить все виды деятельности, которыми учитель физкультуры в процессе обучения занимается. Система категорий позволяет следить за учителем и регистрировать в интервалах 5 секунд частоту его проявлений, естественно в соответствии с концепцией, определенной разделением целого континуума видов деятельности в отдельные категории. Бесспорным является разделение видов деятельности на вербальные и невербальные; различение невербальных категорий не представляет никаких проблем, но более сложно дело обстоит по отношению к вербальным видам деятельности.

В нашей группе показалось, что непрофессиональное мнение о том, что учитель физкультуры главным образом сам занимается упражнениями, естественно не выдерживает. В процентном выражении представляли невербальные виды деятельности всего 42 %, из этого собственные упражнения учителя только 9 %. Среди невербальных видов деятельности самым частым является наблюдение, при котором учитель молча следит за своими учащимися. (21,6%). В области вербальных видов деятельности высоко преобладают вызывающие виды деятельности учителя, в которые мы включили инструкцию (зарегистрирована в 21,6%), организационные указания (8,7 %) и команды (9,5 %) - в общем 41%. Другие категории, связанные уже с ходом управления моторными проявлениями учащихся, появлялись на много реже, напр. стимуляция 5,8%, корректирование 6,7%, замечание 1,9%, похвала 1,3%, более общее воспитательное воздействие (анализ) 0,5% - в общем всего 18,5%.

Конечно, существовали разницы между индивидами и между группами, но тенденции были похожие. Это значит, что является практически невозможным искать связи с харак-

теристикой личности у всех категорий; это реально только по отношению к нескольким часто встречаемым (и по отношению к общей деятельности учителя).
Естественно, что мы оставляем в стороне вопрос качества проявлений учителя, который мы обследовали с помощью шкал оценки и который нельзя связывать с проведением оценки интенсивности деятельности учителей.
Следующая проблема анализа соотношений между деятельностью учителя физкультуры и характеристикой его личности заключается в психологическом содержании факторов отдельных анкет личности. В общем однозначным мы считали соотношение между фактором доминантности и ролью руководителя с одной стороны, и с количеством команд (категория 3) со стороны другой. Это мнение было подтверждено статистически важными корреляциями, хотя они были довольно низкие, так как речь идет о порядковых корреляциях у относительно низкого количества учителей и о диагностических средствах, исходящих из разных теоретических основ. Самой высокой является корреляция между ролью руководителя (в 16 ПФ) и категорией 3 (команды) r = 0,401; это соотношение подтверждают также статистически важные корреляции между доминантностью, определенной по анкете Лири и по 16 ПФ, и категорией 3 (r = 0,264 вернее 0,251). Таким образом можно сказать, что руководящие личности, доминирующие по отношению к другим лицам, действительно отличаются большим количеством команд, чем остальные учителя. Это подтверждается также отрицательной корреляцией между субмиссивностью (Лиры) и категорией 3 (r = 0.317), отличающейся статистической важностью. Тенденция в факторе 16 ПФ1 - (твердость, чувство реальности, типичное для участия в спорте) находится также в корреляции с количеством команд.
Статистически важной и целесообразной является также корреляция между количеством корректирований (категория 6) и ассертивностью, эгоцентричностью (ЕЦ - Лиры), что можно трактовать таким способом, что больше всех корректируют своих учащихся те учителя, которые хотят всегда применять собственное проведение и собственную концепцию (r = 0,309).
Мы ожидали, что количество важных корреляций будет больше - несмотря на вышеупомянутые затруднения. Таким образом можно напр. предполагать связи между фактором Г в 16 ПФ и О-Н в Лиры)(ответственностью) и категориями регуляции хода учения в области моторики (6,7,8,9,), между циклотимией и общим количеством вербальных вмешательств, между сдержанностью и дименэией интроверсии - экстраверсии и количеством вмешательств со стороны учителя вообще и т.п.
Ни эти, ни другие суждения, однако, непотвердились, что показывает, что соотношения между характеристиками личности и проявлениями учителя во время уроков носят более сложных характер, и что они обусловлены еще другими обстоятельствами.
Благодаря нашему исследованию мы достигли целый ряд результатов и большой опыт для дальнейших психологических обследований и для педагогической работы. Некоторые из них связаны с вопросами соотношения между личностью и деятельностью. Работа учителя в физкультуре бесспорно отличается от остальных предметов тем, что учитель требует моторную реакцию на свои вербальные стимулы, и тем, что коммуникация и диагностика осуществляются в относительно большом пространстве, в котором учащиеся пользуются определенной свободой. Сознание того, что для учащихся является целесообразным прежде всего их собственное упражнение, заставляет учителя экономить средства выражения, в результате чего возникает своеобразный запас слов, содержащий также отдельные слова, сокращенные предложения и символы, которые для учащихся понятны и которые заменяют длинное изложение. Это вероятно причина того, почему вмешательства учителя регистрируются довольно редко.
Эффективность работы учителя пропорциональна также его способностям организационным, которые могут заменить в общем и лишнее вербальное воздействие. Это значит,

что таким сложным способом находят свое выражение также некоторые качества личности учителя посредством его способностей (коммуникационных, организационных , диагностических) в частоте и качестве видов деятельности в уроках.
С точки зрения перспективного развития мы считаем целесообразным такой подход, в котором бы наряду с определением видов деятельности учителя проводили комплексный анализ качеств, от которых реализация зависит. (Т.е. также направленность, знания и опыт), в котором бы отношение к характеристикам личности определялось мультидименсиональным образом. Так как коммуникация проявляется во всех аспектах преподавательской деятельности, мы считаем основными три способности учителя: организаторскую, образовательную (постановка задач, корректирование, мотивация и т.п.) и воспитательную (идейное воздействие, стимуляция проявлений качеств личности учащегося и т.п.). Весьма существенная сфера оценки диагноза, находит свое отражение во взаимодействии во всех предыдущих трех областях. Вероятно было бы целесообразно сопоставить результаты в этих областях со способностями и соответствующей конфигурацией качеств учителя. Пока мы определили для этой цели три синдромических типа учителей физкультуры, т.е. тип методический (подчеркивается содержание и представление учебного материала и проведение), направленный на взаимодействие (у него хорошие контакты, он оказывает воздействие на личность учащихся) и спортивный (подход, заключающийся в достижении максимальных результатов, хорошая атмосфера с точки зрения эмоциональной, он ухаживает меньше за неталантливыми). Пока мы не попытались провести анализ соотношений в этих димензиях. Соотношение между деятельностью и личностью учителя физкультуры очень сложно и на его определение оказывает влияние большое количество мешающих обстоятельств. Однако, сам факт мультидименсиального характера обоих обследованных явлений представляет собой проблему, которую необходимо решать разработкой и приспособлением диагностических средств. Мы попытались применить подход относительно доступный, показавший, что существуют предпосылки познания обследованных отношений тогда, направляет ли исследователь свое внимание также на комплексный анализ всех предпосылок, нужных для осуществления видов деятельности в обучении физкультуре.

NEUROMOTOR SPEED AND COORDINATION IN YOUNG FENCERS

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The speed of neuromotor information processing has an important role in fencing performance. We measured serial visual reaction time (SVRT) (3), serial auditory reaction time (SART) (5), time interval of a self-triggered double action (ISDA) with either hand, the number of cyclic alternate direction movements during 30 sec (1) (NADM, "plate tapping", also with either hand) and, finally, the time taken by one hundred successive random order choice decisions (SCDT) in 23 girls and 31 boys. The subjects' age ranged from 11 to 18, the mean being around 14 years. The girls were foil fencers, the boys were swordsmen. The measurements were carried out while the fencers stayed in a training camp.
SVRT and SART were measured by a digital RT meter in milliseconds. Ten responses to each stimulus modality were recorded in a sensory set. ISDA was measured by using a one second per turn fast stopwatch to obtain the interval between two successive pushes on the start/stop button. During plate tapping (NADM) the distance

of the cushioned contact surfaces was 60 cm (2,4). Every tap was scored as one point in this task. The pace of progress with the successive choice decisions (SCDT) depended on the swiftness of the subject. The work field contained an 8 x 8 rectangular matrix of switches like a checkerboard in which the switch rectangle to be depressed was indicated by line and column identifier lamps (Fig.1).

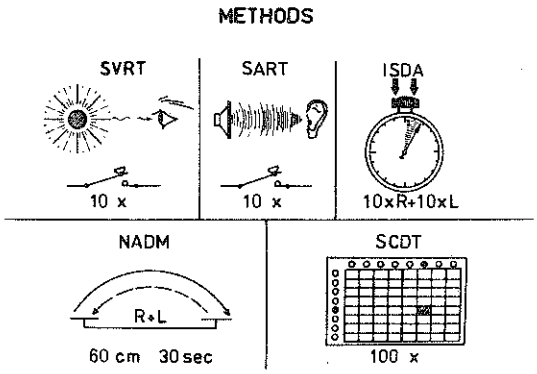


Fig. 1. Methods employed in assessing neuromotor speed. SVRT: serial visual reaction time; SART: serial auditory reaction time; ISDA: interval of self-triggered double action; NADM: number of alternate direction movements (plate tapping); SCDT: serial choice decision time. x denotes number of repetitions.

Subjects were made familiar with every task by previous practice trials. Task order was not specified, but completion times were balanced so that every subject had a rest of 3 to 4 minutes between each task. In addition to the specific instructions the subjects were told the tests would show how fast they were and also the spirit of competition was encouraged.

In order to interpret test scores the following assumptions were made. Reaction time tasks would reflect the minimum delay of the fencer to initiate a fully mastered action. Double action interval (ISDA) would correspond to the delay in executing a relatively simple double action planned in advance. Performance in tapping (NADM) would resemble the speed of one or more reciprocal actions under accumulating fatigue (2). Performance in the serial decision task would be interpreted as decision speed and accuracy under unforeseen conditons. Accordingly, only overall time was measured here, since the stimulus pattern stayed unchanged until the subject found the correct answer. These assumptions need later validation.

The analysis of the obtained results (Fig. 2) established a difference between the boys and girls in SVRT only. Girls had significantly shorter visual response times, but auditory responses did not differ. Though the boys were slightly older, the age difference was not significant. The two sensory modalities showed the usual difference in favour of the auditory task.

When the total time needed for the completion of the SCDT task was divided by the loo steps, we got values of slightly over one second per decision with divided attention. We could not find comparable data and would like to hear comments on this problem. Yet, when we compared these values to means of an unpublished study of ours which were obtained in subjects of the same age range, but engaged in other sports, fencers were neatly superior to ice hockey and basketball players, for instance.

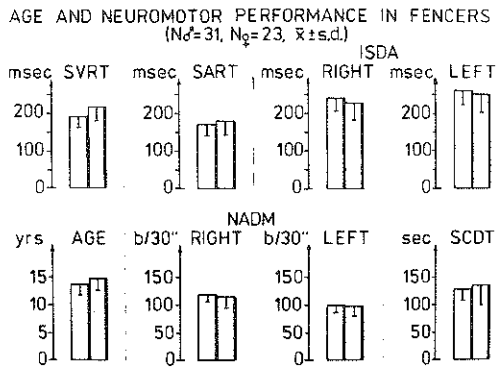


Fig. 2. Means and standard deviations of test performance. Abbreviations as in Fig. 1. RIGHT: performance of the right hand; LEFT: performance of the left hand. Left bars: girls; right bars: boys.

ISDA performance too deserves some comment (Fig. 2). Mean delays between pushing the button twice were near to reaction times. During the familiarizing process as well as in former studies, subjects with normal disdochokinesis were found to structure such quick repetition tasks by uniting the two actions into one double action. Even the mistakes of this motor program were associated with rather more than the required two repetitions.
In plate tapping (NADM) the obtained means corresponded or slightly exceeded the values reported by Renson and associates for this age range (4) in Belgian boys (Fig. 2).

CORRELATION TABLE

		SART	ISDA	NADM	SCDT
SVRT	♂	.57	Ø	Ø	Ø
	♀	.78	Ø	Ø	Ø
SART	♂	—	.55	-.57	.48
	♀	—	Ø	Ø	Ø
ISDA	♂	—	—	-.60	.35
	♀	—	—	-.54	Ø
NADM	♂	—	—	—	-.74
	♀	—	—	—	Ø

Fig. 3. Raw coefficients of test performance intercorrelations. Abbreviations as in Fig. 1. Zeros denote coefficients not significant at the 5 per cent level.

Of the correlations between the respective tasks Fig. 3 shows numerical values only for the significant ones. As seen, success or failure in the different types of performance was much closer related in the boys than in the girls. Approaching or full biological maturity in the latter sex might be a factor in that difference since age was a factor in boys that confounded the test results. As shown in Fig. 4 by the age-dependent regressions, even where performance was significantly related to age in the girls, the slopes were only about half as great as in the boys. We draw attention to the rather high correlation of plate tapping with age in boys, which was evidenced also in other sports as well as by other reports (4).

REGRESSION ON AGE

Y		= a + b.yrs	r	$\pm s_{yx}$
SVRT	♂	———	n.s.	—
msec	♀	———	n.s.	—
SART	♂	355.6 − 11.9x	−.65	29.5
msec	♀	———	n.s.	—
ISDA	♂	———	n.s.	—
msec	♀	———	n.s.	—
NADM	♂	11.3 + 7.1x	.80	11.3
bp30"	♀	68.4 + 3.8x	.46	13.2
SCDT	♂	284.0 − 10.2x	−.61	28.5
sec	♀	208.0 − 5.9x	−.57	15.4

Fig. 4. Regression parameters of test performance on age. Abbreviations as in Fig. 1. bp30"; number of tapping in 30 sec.; n.s.: nonsignificant correlations.

The role of age as a confounding factor was evidenced by the age-independent partial correlations of which only intercorrelations of reaction times and that between plate tapping and serial decisions remained significant in boys while those of the girls stayed unchanged.

To compare the respective performance data a one hundred point score range was used. Such scores can be more easily interpreted by the coaches. The rank order of the combined individual score totals was compared to three, in part subjective rank orders as assessed by the fencing masters for specific fencing skills. Rank correlation of score totals in girls was .58 with class of competitive rank, .63 with technical skill level, and .49 with speed and accuracy in action during fencing. The respective rank correlations of the boys were higher, namely .73, .77, and .76. This kind of validation of the employed test battery supports the assumption that it may be used for selection purposes in these two branches of sports.

Literature

ANDREAS, B.G. Experimental Psychology, 2nd ed. Wiley, New York, 1972.

FITTS, P.M. The information capacity of the human motor system in controlling the amplitude of movement. Journal of experimental Psychology 47: 381-391, 1954.

MALOMSOKI, J., SZMODIS, I. Visual response time changes in athletes during physical effort. Internationale Zeitschrift für angewandte Physiologie 29: 65-72, 1970.

RENSON, R., GERVEN, D. VAN, BEUNEN, G. Physical fitness en sportbeoefening bij jongens van 12 tot 19-jarige leftijd. Werken van de Belgische Geneeskunde Vereniging voor Lichamelijke Opvoeding en Sport 22B, 1970-71.

SZMODIS, I. Exercise effects on the time of reactions to auditory stimuli. European Journal of Applied Physiology and Occupational Physiology 37: 39-46, 1977.

ROZVÍJENÍ POTŘEB V OBLASTI TĚLESNÉ KULTURY

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Rozsáhlé a složité předmětné pole tohoto kongresu je dalším svědectvím problémové bohatosti sportu a celé tělesné kultury. V mnohotvárné motivační struktuře tělesné kultury vystupuje jako základní motiv p o t ř e b a .

Dovolte úvodem několik poznámek k povaze potřeb v oblasti tělesné kultury. Bylo by velkým zjednodušením, kdybychom tyto potřeby chtěli rozdělit na primární a sekundární. I ty potřeby, které souvisí s udržováním homeostázy, s fyzickým rozvojem a udržováním zdraví, mají spolu s biogenní povahou i povahu sociogenní. Ještě většího zjednodušení bychom se dopustili, kdybychom biogenní stránku potřeb v oblasti tělesné kutury ztotožňovali s potřebami vrozenými a sociogenní stránku s potřebami naučenými.

Často hovoříme o "přirozené" potřebě pohybu, dokonce se ji pokoušíme měřit. A právě tyto výzkumy stále více potvrzují, že pohybová aktivita člověka se od pohybové aktivity ostatních živých bytostí odlišuje právě v tom, že není projevem pudových mechanizmů, ale že musí být kultivována, záměrně stimulována - předávána jako kulturní dědictví. V této souvislosti zároveň vyniká úloha pohybové aktivity a jejího stimulování v ontogeneze lidské psychiky.

Problematika potřeb v oblasti tělesné kultury vystupuje zvlášť do popředí v složitých podmínkách a konfliktních důsledcích vědeckotechnické revoluce. Prudké redukování tzv. přirozených pohybových činností v pracovním a životním režimu vyvolává požadavek kompenzace, rozmach tzv. civilizačních nemocí vede k požadování preventivních opatření, růst psychických zátěží obrací pozornost k autoregulativním mechanismům tělesné kultury.

Není sporu o tom, že jde o prostředky naléhavé. Jejich váha je dána hloubkou a často tragickými důsledky těchto moderních nouzových stavů člověka. Je třeba si však položit otázku, zda tím je aktualizování potřeb člověka v období vědeckotechnické revoluce vyčerpáno.

V naší prognostické studii, ve které jsme analyzovali funkci tělesné kultury v podmínkách spojení vědeckotechnické revoluce s přednostmi socialismu, jsme došli k závěru, že by takové vymezování potřeb bylo zužující. Potřeby kompenzace a prevence jsou jakousi "první pomocí" ve stavu nouze. Základní strategie tělesné kultury však musí být odvíjena od historicky determinované potřeby a zároveň cíle rozvinuté socialistické společnosti - všestranného svobodného rozvoje všech členů společnosti.

Jde o potřebu maximálního rozvoje tvůrčích lidských sil, o rozvoj osobnosti morálně čisté, ovládající vědu, o člověka fyzicky dokonalého . A právě na tento specifický aspekt rozvoje člověka bych chtěl obrátit vaši pozornost. Specifičnost tělesné kultury je charakterizována dvěma navzájem propojenými polarizujícími strukturami, jež při jistém zjednodušení můžeme označit na jedné straně jako strukturu rozvoje motoriky a na straně druhé jako strukturu rozvoje a udržování základních vegetativních funkcí organismu.

Jestliže otázkám rozvoje motoriky a jejího vlivu na rozvoj psychiky i na specializaci člověka je věnována v poslední době rostoucí pozornost - jak to dosvědčuje i obsah našeho jednání - pak otázce cílevědomého stimulování základních funkcí organismu zůstáváme ještě stále velmi dlužni. Jde v podstatě o realizaci fylogeneticky preformovaného genetického potenciálu lidského organismu, o jeho

"vyvolání" v život adaptačními mechanismy - a to takovými, jež, jak uvádějí fyziologové, podmiňují "nespecificky" adaptační efekt. Stručně řečeno jde o cyklicky uspořádané serie dostatečně intenzivních podnětů, jež komplexně mobilizují základní adaptační mechanismy a jejichž výsledkem je celkové zdokonalení organismu nebo udržení vyššího stupně fyzické dokonalosti.

Tento proces má v jednotlivých fázích lidského života své zvláštnosti, a to jak v biologickém, tak v psychologickém a sociálním smyslu. Tak v rané ontogeneze s výrazným vztahem k prenatálnímu období se rozhoduje o tom, jaké bohatství daptačních možností bude mít člověk k dispozici, zda bude otužilý či choulostivý, zda bude mít dobře rozvinuté základní funkce, zda bude mít problémy s obezitou, zda jeho organismus bude racionálně fungovat. V tomto období se však zároveň rozhoduje o tom, jaký bude mít vztah k stimulům, na nichž rozvoj a udržování funkcí závisí, zda pro něj např. nezbytná pokybová zátěž bude radostí a zvykem příjemně a racionálně uspokojovat tuto objektivní potřebu, nebo zda půjde o nepříjemnou povinnost či vůbec o potřebu zanedbanou a zdeformovanou.

Poznání stále větší váhy a nezastupitelnosti raných fází života neoslabuje význam školního věku a dospívání, jež by měly vyústit v opravdovou fyzickou dokonalost mladého člověka. Potřeba fyzické dokonalosti je nutně spjata s hlubokým pochopením funkce tělesné kultury v životním způsobu člověka a s ovládnutím základních mechanismů dodržování této fyzické dokonalosti a regulování životního režimu.

Motivační bohatost, kultivované rozvinutí potřeb v oblasti tělesné kultury jsou zároveň rozhodujícím předpokladem pro naplnění funkce tělesné kultury v intencích prodlužování činorodého věku.

V závěru dovolte, abych vyzvedl tyto psychologické aspekty dané otázky :

1. Fyzická dokonalost se stává jednou ze základních potřeb současného člověka.
2. Na cestě za fyzickou dokonalostí je třeba vytěžit co nejúplněji genetický potenciál člověka a tím vytvořit příznivé podmínky pro všestranný rozvoj a realizaci jeho osobnosti (zejména ve smyslu času, dynamičnosti a kapacity jeho činností).
3. Do popředí vystupují naléhavě psychologické aspekty rozvíjení potřeb v oblasti tělesné kultury, formování tělesné kultury jako složky socialistického životního způsobu, otázky psychologických základů systému tělesné kultury v jeho dimenzích ontogenetických i celospolečenských.

VISUELLE KONTROLLE BEIM PSYCHOMOTORISCHEN LERNEN

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Nach den morphologischen Ausführungen von GAGNE/FLEISHMAN (1959) und dem informationstheoretischen Ansatz von SCHNABEL (1969) spielen das akustische und visuelle Informationssystem als äussere Regelkreise und das taktil-kinästhetische und vestibuläre Informationssystem als innere Regelkreise eine wesentliche Rolle beim Lernen von Bewegungen. HACKER (1973) betont für das Erlernen feinmotorischer Fertigkeiten die herausragende Bedeutung des visuellen und des taktil-kinästhetischen Informationssystems.

Nach den Erläuterungen von MEINEL/SCHNABEL (1976) kommen diesen Informationssystemen im psychomotorischen Lernprozess unterschiedliche Funktionen zu. In der ersten Lernphase, in der die Grobform der Fertigkeit in relativ raschem Verlauf erworben wird, dominiert zunächst das visuelle Informationssystem, insbesondere das zentrale Sehen. Das taktil-kinästhetische Informationssystem ist zwar massgeblich an der Bewegungsausführung beteiligt, ist jedoch noch unzureichend ausdifferenziert. In der zweiten Lernphase, in der allmählich die Feinform der Fertigkeit erlernt wird, verlagert sich die Dominanz der Informationsaufnahme und -verarbeitung zunehmend vom visuellen System auf das taktil-kinästhetische System. Die Bewegung wird schon weitgehend von den taktil-kinästhetischen Afferenzen und Reafferenzen reguliert. Die visuelle Kontrolle wird für die Verfeinerung von Einzelheiten der Bewegung eingesetzt, und das umliegende Gesichtsfeld wird zunehmend durch das periphere Sehen überwacht. Die Informationen werden durch beide Systeme komplex aufgenommen und schon weitgehend differenziert verarbeitet. In der dritten Lernphase wird die Bewegung weiter vervollkommnet und die Stabilisation erreicht. Die Dominanzverschiebung auf das taktil-kinästhetische Informationssystem ist weiter fortgeschritten. Die Bewegung verläuft automatisiert und kann nahezu "blind" oder "wie im Schlaf" ausgeführt werden. Insbesondere bei Zielaufgaben und komplexen Bewegungen bleibt die visuelle Kontrolle, vor allem das periphere Sehen von grosser Wichtigkeit. Die komplexe Informationsaufnahme und -verarbeitung erreicht in beiden Systemen den Grad der höchsten Präzision und Differenziertheit.

Ausgehend von der zunehmenden Dominanzverschiebung vom visuellen auf das taktil-kinästhetische Informationssystem im Verlauf des psychomotorischen Lernprozesses, werden in dieser Untersuchung folgende Probleme analysiert:

1. Lernverlauf unter ständiger visueller Kontrolle (Kontrollgruppe)
2. Lernverlauf unter ausgeschalteter visueller Kontrolle (blindes Üben) in einem frühen (Versuchsgruppe I), in einem späteren (Versuchsgruppe II) und in beiden Lernstadien (Versuchsgruppe III)
3. Lernverlauf unter visueller Kontrolle nach den Stadien mit ausgeschalteter visueller Kontrolle.

Als Testgerät wurde eine modifizierte Form des O´CONNOR-Fingergeschicklichkeitstest verwendet.

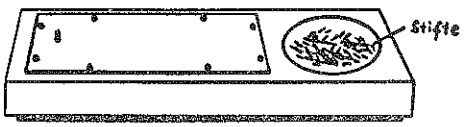


Abb. 1: Modifizierte Form des O'CONNOR-Testgerätes

Während das ursprüngliche Testgerät insgesamt 50 Lochungen aufweist, enthält die modifizierte Form nur eine Lochung. Es handelt sich um einen Test mittlerer Komplexität. Die Aufgabe besteht darin, mit der rechten Hand jeweils zugleich 3 Stahlstifte aus der Schale zu ergreifen, zur Lochung zu transportieren und einzustecken. Nach erfolgter Füllung der Lochung fallen die Stifte durch eine automatische Schaltung in eine unter dem Testgerät liegende Schale. Die Füllung der Lochung mit 3 Stahlstiften wird als ein Punkt gezählt. Die Versuchspersonen bekommen die Instruktion, so viele Füllungen wie möglich in 3 Minuten vorzunehmen. Der gesamte Lernprozess erstreckt sich über 17 Übungsperioden à 3 Minuten, wobei zwischen den einzelnen Perioden jeweils eine Pause von 2 Minuten eingeschaltet ist.

Insgesamt nahmen 100 männliche Sportstudenten mit einem Durchschnittsalter von 23,8 Jahren an der Untersuchung teil.

Diese 100 Sportstudenten wurden in vier randomisierte Vergleichsgruppen von je 25 Versuchspersonen unter die angeführten Bedingungen visueller Kontrolle eingeteilt.

Die Lernverläufe der vier Vergleichsgruppen unter den verschiedenen Bedingungen visueller Kontrolle werden in der folgenden Abbildung dargestellt:

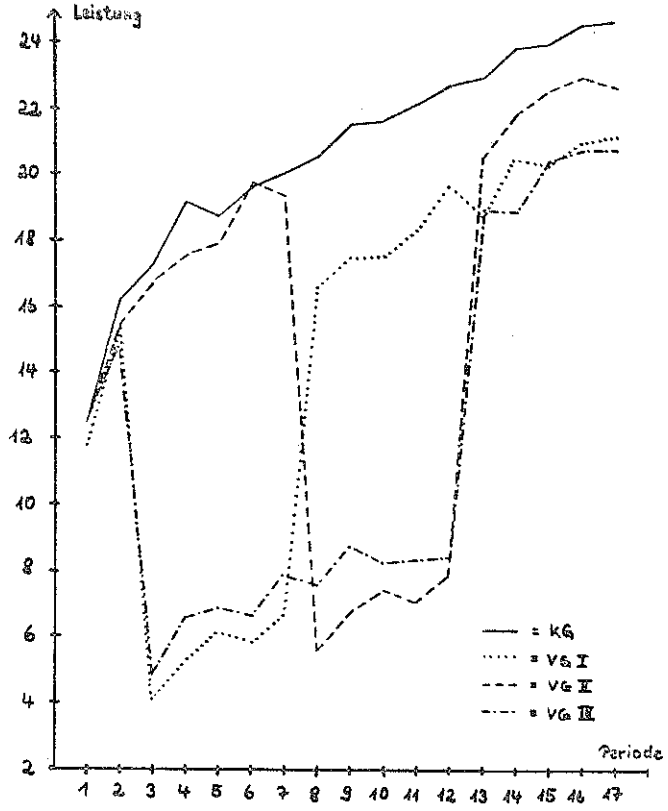


Abb. 2.: Lernverläufe der Vergleichsgruppen

Entsprechend den Fragestellungen lassen sich folgende Ergebnisse ablesen:

In den beiden Vortestperioden ergeben sich zwischen den vier Vergleichsgruppen keine signifikanten Leistungsunterschiede.

1. Die Lernkurve unter ständiger visueller Kontrolle zeigt einen negativ beschleunigten Verlauf. Sie weist in den ersten drei Übungsperioden einen steilen Anstieg, in den folgenden Perioden einen kontinuierlichen, aber sich allmählich verflachenden Anstieg auf. Auch in den letzten Übungsperioden ist noch ein mittlerer Lerngewinn zu verzeichnen.

2.1. In den beiden Vortestperioden zeigt die Lernkurve der Versuchsgruppe I einen steilen Anstieg, fällt infolge der Ausschaltung der visuellen Kontrolle in der dritten Übungsperiode rapide ab. Während der Perioden des blinden Übens ist ein leichter Lerngewinn festzustellen. In der nachfolgenden Periode mit visueller Kontrolle stellt sich eine über dem Vortestniveau liegende Leistung ein. Die weiteren vier Übungsperioden weisen einen kontinuierlichen Lerngewinn auf. Die Leistungen liegen allerdings erheblich unter denen der Kontrollgruppe.

2.2. Die Lernkurve der Versuchsgruppe II zeigt ähnlich wie die der Kontrollgruppe einen steilen Anstieg in den ersten sieben Perioden. In der ersten Periode unter Ausschaltung der visuellen Kontrolle tritt ein starker Abfall ein, wobei die Leistung jedoch höher ist als die der Versuchsgruppe I in der dritten Periode. Während des blinden Übens wird ein leichter Lerngewinn deutlich. Die Leistung in der letzten Periode des blinden Übens liegt über der Leistung der Versuchsgruppe I in der siebten Periode. In der folgenden Periode mit visueller Kontrolle wird eine geringfügig höhere Leistung erreicht als in der Periode vor dem blinden Üben.

2.3. Nach dem steilen Anstieg in den beiden Vortestperioden fällt die Lernkurve der Versuchsgruppe III in der ersten Periode unter Ausschaltung der visuellen Kontrolle rapide ab. In den Perioden des blinden Übens zeigt die Lernkurve einen leichten Anstieg, der durch einige Leistungsschwankungen unterbrochen ist. In allen Übungsperioden des blinden Übens liegen die Leistungen der Versuchsgruppe III über denen der vergleichbaren Perioden der Versuchsgruppen I und II. Die nachfolgende Periode mit visueller Kontrolle lässt eine signifikant über dem Vortestniveau liegende Leistung erkennen.

3. Nach den Lernstadien mit der Ausschaltung der visuellen Kontrolle zeigen alle Versuchsgruppen in den letzten fünf Übungsperioden mit visueller Kontrolle leichte Lerngewinne. Die Kontrollgruppe erweist sich als die beste Gruppe. Ihre Leistungen liegen deutlich über denen der Versuchsgruppe II und signifikant über denen der Versuchsgruppen I und III. Die niedrigsten Leistungen werden von der Versuchsgruppe III erreicht.

Zusammenfassend lässt sich feststellen, dass die Ausschaltung der visuellen Kontrolle erwartungsgemäss zu einer markanten Leistungsverschlechterung führt. Die Ausschaltung in einem späteren Lernstadium hat einen weniger grossen Leistungsabfall zur Folge wie die in einem frühen Lernstadium. Während des Übens ohne visuelle Kontrolle zeigt sich ein leichter, oftmals durch Schwankungen gekennzeichneter Lernzuwachs. Die längerdauernde Ausschaltung bewirkt höhere Leistungen als die kurzzeitige Ausschaltung in einem späteren Lernstadium.

In Bezug auf den nachfolgenden Lernprozess mit visueller Kontrolle haben eine frühzeitige und längerdauernde sowie eine frühzeitige Ausschaltung der visuellen Kontrolle eine starke Leistungsverringerung zur Folge. Die Ausschaltung der visuellen Kontrolle in einem späteren Lernstadium wirkt sich in einer weniger starken Leistungsverminderung aus. Die ständige visuelle Kontrolle erweist im nachfolgenden Lernverlauf als allen Ausschaltungsbedingungen überlegen.

Ob dieser Befund von der relativ einfachen Fingergeschicklichkeitsaufgabe auf andere fein- und grobmotorische Bewegungen übertragbar ist, bleibt in weiteren Untersuchungen nachzuprüfen.

Literaturverzeichnis

Cratty, B.J.: Motorisches Lernen und Bewegungsverhalten. Frankfurt: Limpert, 1975.

Gagne, R.M./Fleishman, E.A.: Psychology and human performance. New York: Holt, Rinehart and Winston, 1959.

Hacker, W.: Allgemeine Arbeits- und Ingenieurpsychologie. Berlin: Deutscher Verlag der Wissenschaften, 1973.

Krestownikow, A.N.: Physiologie der Körperübungen. Berlin: Volk und Wissen, 1973.

Meinel, K./Schnabel, G.: Bewegungslehre. Berlin: Volk und Wissen, 1976.

Rohmert, W./Rutenfranz, J./Ulich, E.: Das Anlernen sensumotorischer Fertigkeiten. Frankfurt: Europäische Verlagsanstalt, 1971.

Schnabel, G.: Zur Bewegungskoordination. Wissensch. Zeitschrift der DHfK Leipzig, 1968, 10, 13 - 32.

Ungerer, D.: Zur Theorie des sensomotorischen Lernens. Stuttgart: Hofmann, 1971.

Volpert, W.: Sensumotorisches Lernen. Frankfurt: Limpert, 1973.

THE RELATIONSHIP BETWEEN LEISURE TIME PHYSICAL ACTIVITY, PHYSICAL FITNESS AND MENTAL HEALTH AMONG EMPLOYEES OF MACHINE INDUSTRY IN FINLAND

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1. Foreword

This study is part of a larger METELI-project[1)], the purpose of which is to study the working conditions, state of health and physical activity of employees in the machine industry and their relationships with some individual factors. The purpose of this study is to investigate the importance of physically active leisure time and physical fitness as regards some factors related to mental health. The study is mainly concerned with slight symptoms of mental disorder such as psychosomatic symptoms. Psychic wellbeing is perhaps a better term in this context than mental health.

1) METELI is a research project financed with grants by the Academy of Finland and the Ministry of Education. The project is being carried out as a joint effort by various departments of the University of Jyväskylä and the Research Institute of Physical Culture and Health.

The before-mentioned relations are studied in connection with stress in work. The social starting point of this study is the fact that mental disorders are common in Finland in comparison with other nations. 40 per cent of hospital beds in our country are reserved to psychiatric patients and almost 30 per cent of our early retirement pensions have been granted for reasons of mental health (Väisänen 1975, Toropainen 1974). Difficulties in work are often the most important factor causing illness especially in psychosomatic diseases. This topic is scientifically interesting because the relation of physical activity and mental health has been widely discussed and written about, but empirical research results are scarce.

2. The theoretical background of the study

In connection with the METELI-project attempts have been made to analyze the concept of mental health, which is interpreted in various ways in literature. Here it is possible only to say that mental health in this study is considered a multidimensional phenomenon, which can following Kornahauser (1965) be defined as man's balanced relation with himself and his environment. In case this relation is disturbed on any level of human experience e.g. physical, psychic or social level, the disturbance causes a state of mind which can be called stress. Stress on the other hand may cause such changes in the body or in behaviour as anxiety, alienation, tension or psychosomatic symptoms, which can be considered disorders in one's psychic wellbeing. From the point of view of preserving mental health the factors, which cause stress and those affecting stress tolerance, are essential. The importance of physical activeness and fitness can also be studied from these points of view.

As working conditions have been found to be a central factor causing stress (Bolinder & Ohlström 1971; Levi 1974) and working conditions are also related to mental disorders (Kornhauser 1965; Suonio & Sorri 1976; Levi 1974) and because the nature of work is known to regulate leisure time as well (for instance METELI 1975; Parker 1971; Snyder & Speitzer 1974) this study concentrates on stress brought about by working conditions. Also the relationship of physical activeness, fitness and mental health are looked into in relation to stress caused by work.

Figure 1 shows a theoretical model of stress. Stress experienced by an individual as well as the consequences of stress depend primarily on the interaction of the following three factors: 1) the nature of environmental factors requiring adjustment, i.e. environmental stress factors, 2) individual characteristics and 3) resources and support provided by environment to the individual. The importance of physical activeness and fitness from the point of view of stress is related to individual qualities. First of all physically active leisure time may influence the way in which the individual perceives or assesses a stress situation or how he tolerates stress psychically. Secondly, physical fitness is important with regard to the biological adaptation syndrome of stress, which Selye (1956) has described. Physical fitness may have an effect on how stress reactions develop and whether e.g. emerge psychosomatic symptoms. These symptoms are here considered indicators of disturbances of psychic wellbeing.

There is only a little empirical knowledge of the effects of physical activeness on stress toleration and stress reactions on the psychological level. It is widely believed that physical activeness decreases anxiety, e.g. Rarick (1967) found out that 98 per cent of doctors believed so. However, there is scarce empirical evidence. There are some data which suggest that bowling has positive effects (Byrd 1967) but negative results have been obtained as well (Ryan 1974). Because spontaneous

self-expression and expression of emotions have been considered important with regard to mental health, the importance of physical activeness has been judged significant also from the point of view of self-expression (Vanderzwaag 1972) and expression of emotions (McCloy Layman 1974). The relationship of physical activeness and personality traits have been widely studied. Results suggest that those active in sports have such personality traits which may be important from the point of view of stress tolerance and mental health (among others Cooper 1969; Kane 1964). As Martens (1975) has observed, it is not possible to draw any definite conclusions regarding the impact of sport interests owing to the methodological weaknesses of most studies.

The significance of physical fitness for stress tolerance can according to Selye be understood so that physical activeness which increases fitness may be seen as a stressor to which a healthy organism responds by adaptation, in other words by improved fitness, which again increases the possibilities of tolerating the harmful phase of other stressors. Studies among psychiatric patients have shown that disorders of physical fitness (Ryan & Allman 1974) and motorics (Morgan 1970) are related to the amount of psychopathological disorders. On the other hand, there is little information about the relationship between fitness and mental health in persons who are not psychiatrically ill (McCloy Layman 1974).

The problems of the study are the following:

1. To what extent physical activity during leisure time is related to some indicators of mental health disorders and especially to psychosomatic symptoms including anxiety, sleep disorders, loss of appetite, headache, etc.
2. To what extent physical fitness and particularly muscle fitness is related to disorders of mental health and to psychosomatic symptoms in particular?

3. Research methods

Using a stratified systematic sampling at regular intervals a sample consisting of 609 men and 293 women was selected from a population which comprised about 5000 employees in three metal factories. Physical activity outside of work was measured in two stages by means of a combination of short questionnaire and interview according to the Montoye and Reiff procedure (Montoye & Epstein 1965; Reiff et al. 1967). Physical fitness was measured in terms of the capacity of the respiratory system (forced vital capacity) and the maximal oxygen intake on a bicycle ergometric test. Muscle strength was measured with functional tests and tensiometer.

The variables of mental health were indexed by a questionnaire asking about psychosomatic symptoms, which were checked in individual medical examination. In addition to this, a questionnaire dealing with psychic wellbeing and psychic stress was administered as a group test. The questionnaire contained items which had been tried out in earlier investigations (e.g. Bolinder & Ohlström 1971; Gardell & Westlander 1968; Kalimo et al. 1970; Kornhauser 1965; Scharman 1967).

4. Results

A general analysis of relationships based on correlations showed that leisure time physical activity and physical fitness are to some extent related to variables of mental health, but correlations are low. Physical fitness is more closely related to psychic wellbeing than is physical activity. Working conditions are more important for psychic wellbeing than is physical activity.

In the interview of physical activity people were asked how much time they had spent on sport interests, home chores and journey to work and what was the intensity of their participation. As far as activity concerns the results were interesting mainly insofar as in men activity in general - home chores including were slightly positively related to variables of mental health. Active men had more contacts with other people during leisure and they were more satisfied with their lives than were less active men. Among women the result on this point is reversed.

TABLE 1. Relationship between physical fitness and psychosomatic symptoms. The intercorrelations of variables and partial correlations of the first and second order

MEN

1	Occupational status	1												
2	Age	-10	2											
263	Sleep disorders	07	17	263										
266	Sexual indifference	-	30	22	266									
267	Dizziness	15	17	26	30	267								
268	Palpitations	05	15	24	20	34	268							
271	Breathing difficulties	17	16	23	32	42	23	271						
273	Tiredness	23	07	39	31	42	33	33	273					
276	Sum of psychosomatic symptoms	20	09	55	45	59	50	45	72	276				
831	Feelings of exhaustion	23	07	22	16	25	25	23	43	44	831			
2101	Anxiety	14	01	69	36	44	38	35	76	87	42	2101		
2102	Neuroveget. symptoms	14	24	37	51	69	60	62	56	80	35	61	2102	
2104	Depressions	24	-	41	33	45	33	33	78	85	44	81	58	2104
2105	Main psychosomatic symptoms	16	12	64	41	62	53	51	75	92	44	94	81	79	2105
666	Capacity of respiratory system	-10	-62	-19	-26	-21	-14	-24	-17	-17	-14	-12	-28	-10	-19
5000	Strength of extremities	-	-44	-12	-21	-26	-18	-24	-22	-18	-19	-14	-28	-15	-21
5001	Strength of body	-14	-55	-20	-29	-32	-27	-27	-29	-27	-23	-22	-38	-20	-30
First order partial correlations, occupational status controlled														
666	Lung function		-18	-26	-20	-14	-23	-15	-16	-12	-07	-10	-27	-08	-17
5000	Strength of extremities	-45	-12	-21	-26	-18	-24	-23	-19	-19	-16	-14	-29	-16	-21
5001	Strength of body	-58	-19	-29	-30	-26	-25	-26	-25	-21	-20	-20	-37	-17	-28
Second order partial correlations, occupational status and age controlled														
666	Lung function		-09	-10	-11	-05	-15	-12	-11	-08	-08	-14	-09	-11	-11
5000	Strength of extremities		-04	-09	-20	-13	-18	-21	-15	-17	-12	-13	-20	-17	-17
5001	Strength of body		-11	-15	-24	-22	-18	-26	-23	-19	-15	-20	-27	-20	-25

TABLE 2. Relationship between physical fitness and psychosomatic symptoms. The intercorrelations of variables and the first and second order partial correlations

WOMEN

1	Occupational status	1											
2	Age	15	2										
263	Sleep disorders	18	29	263									
267	Dizziness	12	-02	14	267								
268	Palpitations	12	19	30	27	268							
273	Tiredness	15	02	34	40	30	273						
276	Sum of psychosomatic symptoms	18	02	54	54	47	67	276					
831	Feelings of exhaustion	23	01	19	30	18	38	39	831				
855	Worry about future	27	-11	17	10	11	17	25	24	855			
2101	Anxiety	14	-01	63	36	32	72	86	35	28	2101		
2102	Neuroveget. symptoms	18	17	41	60	59	50	82	30	19	58	2102	
2104	Depressions	15	-06	38	44	28	72	83	39	24	78	55	2104
2105	Main psychosomatic symptoms	17	06	60	53	51	70	93	38	27	93	80	77	2105
720	Oxygen intake	03	-20	-08	-13	-11	-04	-01	-06	-03	-03	-05	-04	-06
5000	Strength of extremities	-03	-20	-15	-11	-23	-23	-12	-20	-14	-10	-14	-12	-14
5001	Strength of body	-29	-38	-25	-18	-24	-21	-20	-25	-15	-14	-26	-14	-21
First order partial correlations, occupational status controlled													
720	Oxygen intake			09	-14	-12	-04	-02	-07	-04	-03	-06	-05	-06
5000	Strength of extremities	-19	-15	-11	-23	-23	-12	-20	-14	-09	-14	-12	-14	
5001	Strength of body	-36	-21	-15	-22	-18	-15	-20	-08	-10	-22	-10	-17	
Second order partial correlations, occupational status and age controlled													
720	Oxygen intake			-04	-15	-08	-04	-03	08	-07	-03	-03	-07	-06
5000	Strength of extremities			-10	-11	-20	-23	-12	-20	-18	-10	-11	-14	-13
5001	Strength of body			-12	-18	-17	-19	-16	-22	-15	-12	-18	-14	-17

The general activity of women, for instance the amount of active hours (hours spent on physical exercise and domestic work) correlated negatively with psychic wellbeing so that active women are more dissatisfied with life, more irritable and they have more psychosomatic symptoms than less active women. Correlations are rather low (0.12 - 0.17), yet significant. This is accounted for by the fact that in women's out-of-work physical activity domestic work weights more than physical exercise (METELI 1975). The large amount of home chores done by women is an additional burden which on one side of gainful employment is a stress factor rather than a shield against stress. This is a clear reminder that in assessing the meaning of

physical activity more attention has to be directed to the goals and nature of activity than to the quantity of activity.
The present study did not indicate, contrary to frequent references in literature that leisure time physical exercise is related to anxiety, depression and neuroticism.
The correlations of physical fitness with variables of mental health are slightly higher than those of physical activity. The correlations of physical activity may be reduced by the fact that it was not possible for medical reasons to test those people whose fitness was the poorest. Furthermore, it has to be borne in mind that the relationships are not linear.
Since physical fitness and partly also variables of mental health correlated with age and occupational status. The tables also show first and second order partial correlations, in which age and occupational status are controlled.
Of the fitness variables muscle strength and particularly the strength of body muscles are most closely related to psychosomatic symptoms (figure 2). Physical fitness correlates highest, especially among men (figure 3) with neurovegetative symptoms such as sexual indifference and dizziness. The first order correlations indicate that the correlations between physical fitness and psychosomatic symptoms are independent of occupational status. On the other hand, second-order correlations show that in men the correlations between the capacity of the respiratory system and neurovegetative symptoms is explained by age. Similarly age accounts for part of the correlations of sleep disorders and sexual indifference to muscle strength.

5. Discussion

By way of summary of the results of the study it can be concluded that

1. Leisure time physical activity is only slightly positively related to variables of mental health. A general view according to which physical exercise reduce anxiety did not get support.
2. The quality of physical activity is important for mental health. In women activeness in domestic work is slightly negatively related to mental health and appears to be a factor which causes or increases stress.
3. Physical fitness and especially muscle strength is clearly related to mental health so that the fit ones have fewer psychosomatic symptoms and particularly fewer neurovegetative symptoms. This would indicate that physical fitness is conductive to mental health.

The results concerning the differential relationship of domestic work and physical exercise to mental health underline the significance of the level of consciousness in connection with physical activity. For the same reason it can be assumed that if the nature of physical interest had been analyzed more closely, higher correlations might have been found between it and mental health. In this study only the amount and frequency as well as intensity of physical activity was measured. In the first stage of the project an extensive questionnaire was presented to 1154 persons asking, among other things, about psychosomatic symptoms and active participation in different forms of leisure time physical activities. No clear relationships were found here between physical interests and variables of mental health, either. It would appear that physical activity as such does not affect mental health but only through fitness.

As noted in connection with the theoretical model of stress (figure 1), individual characteristics such as physical fitness affect stress mechanism at least in two ways. First, fitness may be related to how the stress situation is perceived and assessed. This in turn may be related to selfimage and particularly to body-image, and especially among men. Fitness may heighten self-confidence, which is considered as one of the corneretones of mental health. Secondly, fitness may have an impact on the adaptation syndrome of stress and on stress tolerance. The latter interpretation seems more probable. Both interpretations are supported by the correlation between fatigue, feelings of exhaustion and physical fitness.
Since the present investigation is a cross-section study it is difficult to say anything about causal links. Statistical analyses were made in order to ascertain that the correlations were not spurious. Logically the relationship between physical fitness and mental health can also be such that less stressed people are the most eager to keep up their physical fitness. This explanation is not theoretically very sound, however. In any case a longitudinal study would give a better opportunity for ascertaining the nature of this interesting relationship. The project has made plans to carry out a second survey with the same subjects after about five years, which would make it possible by means of retrospective enquiry to approach the follow-up design.

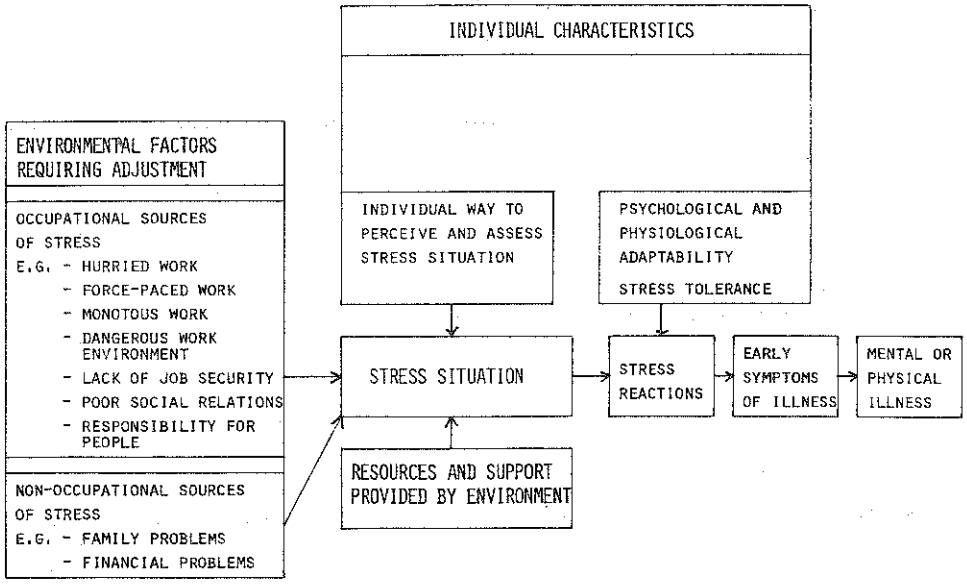


FIGURE 1. THEORETICAL MODEL OF STRESS

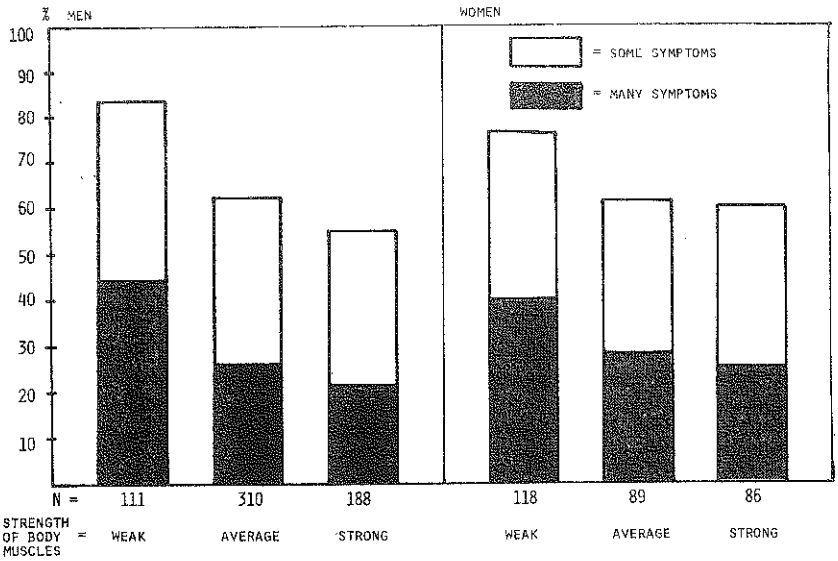


FIGURE 2. NEUROVEGETATIVE SYMPTOMS BY SEX AND STRENGTH OF BODY MUSCLES

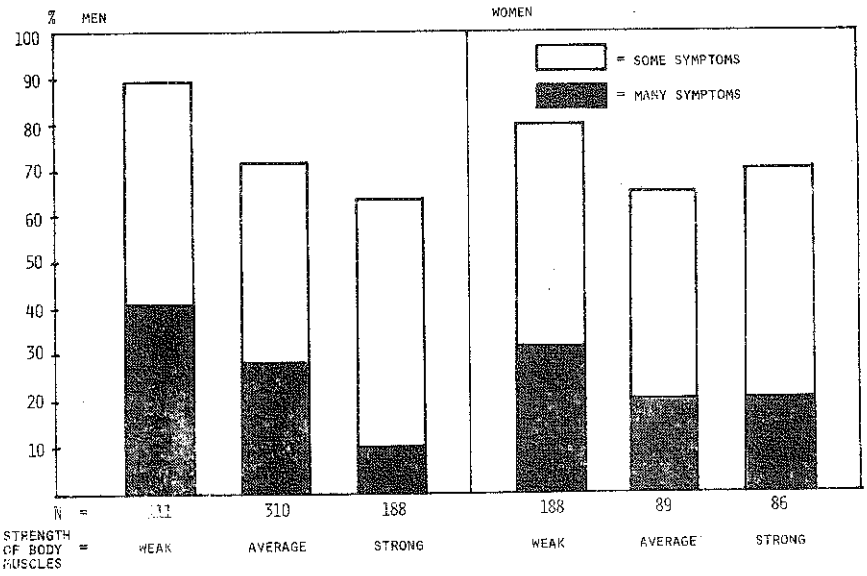


FIGURE 3. PSYCHOSOMATIC SYMPTOMS BY SEX AND STRENGTH OF BODY MUSCLES

References

BOLINDER, E. & OHLSTRÖM, B.O. (1971) Stress på svenska arbetsplatser. En enkätundersökning bland LO-medlemmarna rörande psykiska påfrestningar i arbetsmiljön. Lund: Prisma.

BYRD, O.E. (1967) Psychological values of lifetime sports. Journal of Health and Physical Education 38: 9, 33-35.

COOPER, L. (1969) Athletics, activity and personality: A review of the literature. Research Quarterly 40; 1, 17.

GARDELL, B. & WESTLANDER, G. (1968) Om industriearbete och mental hälsa. Stockholm: PA-rådet.

KALIMO, E., BICE, T.V. & NOVOSEL, M. (1970) Cross-cultural analysis of selected emotional questions from the Cornell medical index. Brit. J. Prev. Med., 24, 229-240.

KANE, J.E. (1964) Psychological correlates of physique and physical abilities. Teoksessa Jokl, E., Simon, I., International research in sport and physical education.

KORNHAUSER, A. (1965) Mental health of the industrial worker. New York: John Wiley & sons.

LEVI, L. (1974) Att förebygga stress i arbetslivet. Socialmedicinsk tidskrift 4, 248-252.

MARTENS, R. (1975) The paradigmatic crisis in American sport personology. Sportwissenschaft 1, 9-24.

McCLOY LAYMAN, E. (1974) Contributions of exercise and sports to mental health and social adjustment. Teoksessa Johnson. W.R., Buskirk, E.R., Science and medicine of exercise and sport. New York: Harper & Row.

METELI (1975) Kolmen metallitehtaan henkilöstöjen liikuntakäyttäytyminen. Liikunnan ja Kansanterveyden julkaisuja 11. Jyväskylä.

MONTOYE, H. & EPSTEIN, F. (1965) Tecumseh community health study: An investigation of health and disease in entire community. Journal of Sports Medicine and Physical Fitness, 5, 4, 127-131.

MORGAN, W.P. (1970) Physical fitness correlates of psychiatric hospitalization. Teoksessa Kenyon, G.S., Grogg, T.M., Contemporary psychology of sport, Chicago: The athletic institute.

PARKER, S. (1971) The future of work and leisure. London: MacGibbon & Kee.

RARICK, G.L. (1967) Present and future research. JOHPER 38: 9, 35-37.

REIFF, G., MONTOYE, H., REMINGTON, R., NAPIER, J., METZNER, M. & EPSTEIN, F. (1867) Assessment of physical activity by questionnaire and interview in Karvonen, M.J. & Barry, A.J. (eds.) Physical activity and the heart, 336-371. Springfield Ill.: Charles C. Thomas.

RYAN, A.J., ALLMAN, F.L. (1974) Sports medicine. New York: Academic Press.

SCHARMANN, T. (1967) Lebensplanung und Lebensgestaltung junger Arbeiter. Bern: Verlag Hans Huber.

SNYDER, E., SPREITZER, E. (1974 b) Work orientation. Meaning of leisure and mental health. Journal of leisure research 6: 3, 207-219.

SUONIO, K. & SORRI, P. (1976) Mielenterveys työelämässä. Turku: Lounais-Suomen kirjapaino.

TOROPAINEN, M. (1974) Käytännön tavoitteet ja keinot työntekijän mielenterveyden ylläpitämiseksi. Suomen mielenterveysseuran koulutuspäivät 5.4. 1974 (moniste).

VANDERZWAAG, H.J. (1972) Toward a philosophy of sport. Ontario: Addison Wesley Publishing company.

VÄISÄNEN, E. (1975) Mielenterveyden häiriöt Suomessa. KELAN julkaisu AL: 2/1975.

SPORT ALS INDIVIDUELLES HANDLUNGS- UND ERLEBNISFELD

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Man kann Sport unter verschiedenen Gesichtspunkten erforschen. Auch in der Sportpsychologie sind unterschiedliche Betrachtungsweisen möglich. Im Folgenden soll ein Forschungskonzept vorgestellt werden, das, von einer handlungstheoretischen Basis ausgehend, sportliches Handeln und Erleben als komplexe Einheit zu erfassen versucht. Die Ausgangsfrage lautet: Bietet Sport dem Menschen spezifische Handlungs- und Erlebnismöglichkeiten, die er in seinem Leben sonst nicht findet, und welchen Einfluss haben sie auf seine verschiedenen Lebensbereiche?

Wenn hier von Handlung gesprochen wird, dann ist damit immer eine spezifische Form des Verhaltens gemeint. Es ist ein Verhalten, das zielgerichtet, erwartungsgesteuert und motiviert ist (s. THOMAS, 1976).
Zur Untersuchung der gestellten Frage kann man von folgenden Annahmen ausgehen:

1. Hochleistungssportler, die lange Jahre eine bestimmte Sportart trainieren, werden durch die sportartspezifischen Anforderungen und die Trainingsbelastungen in ihrer Persönlichkeitsentwicklung beeinflusst. Das Training, die Wettkampfvorbereitung, die Wettkampfdurchführung und die psychischen Nachwirkungen des Wettkampfs stehen so sehr im Mittelpunkt des Lebens, dass sie auf alle Lebensbereiche einen prägenden Einfluss ausüben.

2. Das Ziel der täglichen Trainingsanstrengungen ist die Steigerung der eigenen Leistungsfähigkeit, um sich im nächsten Wettkampf den Konkurrenten gegenüber behaupten zu können. Wird dieses Ziel nicht erreicht, so führt das in der Regel zu erneuten Trainingsanstrengungen, zur Änderung des Handlungsziels oder des gesamten Handlungsfeldes (z.B. der Sportart). Wird jedoch das Ziel erreicht, erfolgt eine neue Zielsetzung, ein entsprechender Mitteleinsatz. In jedem Falle sind eine Fülle von Entscheidungen zu treffen, die der Sportler nicht allein fällt, an denen vielmehr seine Umwelt (Trainer, Sportkameraden, Funktionäre, Freunde, Presse usw.) in erheblichem Masse beteiligt ist. Einiges kann er selbst entscheiden, vieles aber entscheiden andere für ihn.

3. Wenn der Leistungssportler seinen aktiven Sport beendet, weil sich kein Erfolg mehr einstellt, weil er alle seine Ziele erreicht hat, oder weil er aus gesundheitlichen Gründen keine Leistungen mehr erbringen kann, dann ändert sich damit zugleich sein gesamtes Leben. Der Sport verliert für ihn seine lebensbestimmende Funktion. Andere Werte, Ziele, Handlungs- und Erlebnisfelder treten an seine Stelle. Er muss sich in vielen wichtigen Lebensbereichen (z.B. Familie, Beruf, soziale Umwelt, Freizeitbereiche) neu orientieren.

Zur Untersuchung der Ausgangsfrage nach dem Sport als spezifischem Handlungs- und Erlebnisfeld lassen sich auf Grund dieser Annahmen folgende Untersuchungsgruppen bilden:

1. Leistungssportler, die den Höhepunkt ihrer sportlichen Laufbahn und damit ihre Ziele erreicht haben, also die erfolgreicher Sportler.

2. Leistungssportler, die sich zwar ebenso intensiv bemüht haben, wie die erfolgreichen, denen es aber nicht gelang, ihre Ziele zu erreichen. Sportler, die immer die zweiten, dritten oder noch weiter zurückliegenden Plätze belegen und denen der "Druchbruch zur Spitze" nicht gelingt. Gemeint ist die grosse Zahl der in diesem Sinne erfolglosen Leistungssportler.

3. Leistungssportler, die aus gesundheitlichen Gründen (z.B. Verletzungen) ihren aktiven Sport plötzlich abbrechen müssen oder die aufhören müssen, weil sie im fortgeschrittenen Alter keine ausreichenden Leistungen mehr erbringen.

4. Leistungssportler, die ihre aktive sportliche Laufbahn vor längerer Zeit beendet haben, und deren Leben längst nicht mehr wesentlich vom Sport bestimmt wird.

Für die vier Personengruppen ist der Sport ein bedeutsames und jeweils verschiedenes Handlungs- und Erlebnisfeld. Zudem befinden sich die drei Gruppen der noch aktiven Sportler in einer wichtigen Phase lebensbestimmender Entscheidungen. Gerade diese Phase "kritischer Entscheidungen" und "kritischer Ereignisse" (critical incidents) bietet hervorragende Möglichkeiten zur Erfassung der sportspezifischen Handlungs- und Erlebnisprozesse und ihrer lebensbestimmenden Einflüsse. Die Befragung der Leistungssportler muss sich nun auf Fragenbereiche konzentrieren, die dem handlungstheoretischen Grundkonzept entsprechen. Das bedeutet, dass die gesamte sportliche Laufbahn und die einzelnen Ereignisse unter dem Aspekt der Ziel-Mittel/Weg-Struktur analysiert werden.

1. Fragen zum Beginn der sportlichen Aktivität

   Hier ist es wichtig zu erfahren, durch welche Personen und Ereignisse der Anstoss zum Sporttreiben erfolgte; welche Zielsetzungen mit dem Sporttreiben verbunden wurden; welche Entscheidungen zur Realisierung der Ziele getroffen wurden und welche Wirkungen die Mittel und Wege zur Zielerreichung auf die Umwelt, besonders das soziale Umfeld, ausübten.

2. Fragen zum Verlauf der sportlichen Aktivität

   Selten verläuft die Entwicklung eines Leistungssportlers geradlinig. Oft gibt es Umwege, Sprünge oder wichtige Veränderungen (Wechsel der Sportart, des Trainers, des Vereins usw.). Diese äusseren Ereignisse oder Stationen in der Laufbahn des Leistungssportlers werden durch seine eigenen Entscheidungen oder von den Entscheidungen wichtiger Personen seiner sozialen Umwelt bestimmt. In dem vorgestellten Untersuchungskonzept ist also der Ablauf der äusseren Ereignisse in der Laufbahn des Sportlers ein Ansatzpunkt zur Erfassung der sie bestimmenden und von ihnen bestimmten psychischen Prozesse.

3. Fragen zum Ende der sportlichen Aktivität

   Bei diesem Fragenkomplex sind bedeutsam die Bewertungen der erreichten sportlichen Erfolge, die Begründungen und interpretierenden Wertungen für die Beendigung der sportlichen Aktivität und die Entwicklung einer Zukunftsperspektive.

4. Fragen zu den Aktivitäten nach Beendigung der sportlichen Laufbahn.

   Ein Vergleich des Lebens- und Tagesablaufs in der Zeit als aktiver Leistungssportler und in der Zeit danach kann zeigen, wie der Sportler mit der neuen Situation fertig geworden ist, welche Umstellungen notwendig waren und welche

Lebens-, Handlungs- und Erlebnisbereiche davon betroffen wurden. Die nach Beendigung der aktiven, sportlichen Laufbahn entwickelten Einstellungen und Bewertungen über die gesetzten Ziele, die verwandten Mittel und eingeschlagenen Wege könnten Hinweise auf die kognitive und emotionale Verarbeitung der mit dem Sporttreiben verbundenen Handlungen und Ereignisse geben.

Die Befragung ausgewählter Personen aus den genannten Gruppen kann zunächst einmal einen Einblick in das vielfältige Spektrum der mit dem Leistungssport verbundenen Handlungs- und Erlebnisprozesse liefern. Nachdem aus diesen Befunden eine erste Strukturierung der beteiligten psychischen Prozesse und Einflussgrössen entwickelt ist, müsste man ein Konzept für eine Längsschnittuntersuchung entwickeln. In diesem Falle wäre man nicht mehr nur auf die Registrierung schon stattgefundender Ereignisse und die Rückbesinnung und nachträgliche Bewertung durch den Sportler angewiesen, sondern man könnte sofort und im entscheidenden Augenblick mit der Untersuchung ansetzen. Neben dem allgemeinen Erkenntniswert einer solchen Untersuchung für die Psychologie und die Sportpsychologie liessen sich für das noch weitgehend vernachlässigte Feld der Beratung und Betreuung (counseling) des Leistungssportlers wichtige Grundlagen entwickeln. Die Betreuung des Sportlers darf nicht nur auf die Zeit seiner sportlichen Karriere beschränkt sein. Dem Sportler muss vielmehr schon frühzeitig geholfen werden, eine Perspektive für die Zeit nach Beendigung seiner sportlichen Laufbahn zu entwickeln. Diese Beratungstätigkeit darf sich aber wiederum nicht nur auf die wenigen erfolgreichen Leistungssportler konzentrieren. Der moderne Leistungssport hinterlässt eine grosse Zahl erfolgloser Leistungssportler, die mit einer doppelten Belastung fertig werden müssen. Ihr Leben ist vom Sport geprägt worden, doch haben sie die gesetzten Ziele nicht erreicht.

Literatur

Thomas, A.: Psychologie der Handlung und Bewegung
In: Psychologia Universalis Bd. 32
Hain, Meisenheim 1976

SPORT ALS TEIL DES INDIVIDUELLEN FREIZEITVERHALTENS
(Untersuchungen zur Handlungspsychologie des Freizeitsport)

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Die Zunahme an Freizeit und die sinnvolle und menschengerechte Gestaltung der Freizeit sind zu einem beherrschenden Thema in den Industriegesellschaften geworden. Es finden eigene Freizeitkongresse statt, und die wissenschaftlichen Untersuchungen zum Freizeitverhalten mehren sich.

Wie Untersuchungen von BLÜCHER (BRD, 1956), ARTUS (BRD, 1974), RÖHLITZ (DDR, 1964), GÜSSING (Österreich, 1970), FESSEL (Österreich, 1976) und anderen zeigen, die an

Jugendlichen durchgeführt wurden, steht Sport neben Lesen an erster Stelle der Freizeitbeschäftigungen. Aus einer vergleichenden Literaturanalyse von SCHMITZ-SCHERZER (1974) zur "Sozialpsychologie der Freizeit" und aus einer empirischen Erhebung von FREISITZER (Österreich, 1972) ergibt sich allerdings, dass die meisten Erwachsenen keinen Sport mehr in ihrer Freizeit betreiben. Dabei ist der gesundheitsfördernde Wert sportlicher Betätigung unbestritten, und er wird in der Bevölkerung auch allgemein anerkannt. Durch gezielte sportliche Bewegung lassen sich die somatischen Störungen vermeiden bzw. ausgleichen, die durch allgemeinen Bewegungsmangel oder durch berufsbedingte einseitige körperliche Belastung entstehen können. Der Staat und viele Gruppen in der Gesellschaft mühen sich, breite Bevölkerungsschichten zum Sporttreiben zu motivieren. Die in der Bundesrepublik Deutschland gestartete "TRIMM DICH" Aktion oder Aktionen für den Familiensport, den Altensport oder Sport für Randgruppen sind Beispiele für diese Aktivitäten.

Alle diese Bemühungen können jedoch nur dann erfolgreich sein, wenn sie auf wissenschaftlich gesicherten Erkenntnissen der psychischen Bedingungsfaktoren sportlicher Betätigung aufbauen. Diese Erkenntnisse fehlen noch weitgehend. Wir gingen bei unserer Studie davon aus, dass Sport, und so auch Freizeitsport, für den Menschen ein spezifisches Handlungs- und Erlebnisfeld darstellt, das mit seinen anderen Aktivitäten in Beziehung steht. Mit dem Begriff "Handlungsfeld" wird deutlich, dass der Sport in besonderer Weise Möglichkeiten für zielgerichtetes erwartungsgesteuertes und motiviertes Verhalten bietet. Aus der aktiven Auseinandersetzung mit der sportspezifischen, physikalisch-gegenständlichen und individuell-sozialen Umwelt gewinnt der Sportler einzigartige Erlebnismöglichkeiten. Aber erst wenn man weiss, welche Handlungs- und Erlebnismöglichkeiten der Freizeitsport bietet und welche davon tatsächlich vom Sportler genutzt werden, können Motivierungsstrategien für freizeitsportliche Betätigungen entwickelt werden. Denn erst dann erkennt man, worauf bei den Methoden der Einstellungs- und Verhaltensänderung bei noch nicht sporttreibenden Menschen zu achten ist, und wie eine effektive Propagierung für den Freizeitsport auszusehen hätte.

Wir haben Studenten an der Freien Universität Berlin untersucht, die in ihrer Freizeit im Rahmen des allgemeinen Hochschulsports Sport treiben. Dabei versuchten wir folgende Fragen zu klären:

1. Welche handlungsrelevanten Motive sind für das Sporttreiben der Studenten massgebend? Was hat sie zum Freizeitsport motiviert?

2. Welche Handlungs- und Erlebnismöglichkeiten bietet der Freizeitsport in der Hochschule? Welche Handlungen und Erlebnisse werden positiv bzw. negativ bewertet?

3. Welche Beziehungen bestehen zwischen der freizeitsportlichen Betätigung und anderen Lebensbereichen wie:
   - Studium und Beruf
   - Familie und soziale Beziehungen
   - Individualität und Persönlichkeitsentwicklung.

Nach einigen Vorstudien in Form ausführlicher Interviews wurde ein Fragebogen entwickelt, der nach mehrfacher Überarbeitung einer Zufallsstichprobe von Studenten vorgelegt wurde, die am allgemeinen Hochschulsport teilnahmen.

Die Ergebnisse zeigen, dass 93 % der befragten Studenten noch ausserhalb ihrer Teilnahme am Hochschulsport und am Vereinssport in ihrer Freizeit Sport betreiben. Der Hochschulsport wird als eine unter vielen anderen Möglichkeiten zur Befriedigung eines allgemeinen Bedürfnisses nach sportlicher Betätigung genutzt. Dabei sind über 64 % der Studenten schon länger als ein Semester aktive Hochschulsportler. Die Freude am Sporttreiben, der Gesundheitswert des Sports und der Sport als Ausgleich für die durch das Studium bedingte einseitige geistige Beanspruchung sind die Hauptmotive für die Teilnahme am Hochschulsport. Auf die Frage, was den an der sportlichen Betätigung so viel Freude bereite, geben 43 % der Befragten sportartspezifische Gründe an, 23 % nennen individuelle und soziale Erlebnisse als Reaktion auf die sportliche Betätigung (z.B. die Freude über die eigene gute Leistungsfähigkeit oder das Gefühl der Entspannung nach der Sportstunde) und 21 % geben soziale Faktoren an, wie Kameradschaftlichkeit, Kooperation, Kontaktmöglichkeiten usw.

Erlebnisse, die am Beginn der sportlichen Betätigung standen und einen bestimmten Einfluss auf die Motivation zum Sport hatten, stammen aus Bereichen des sozialen Handelns (z.B. Freundschaften, Erlebnisse in einer Sportgruppe) oder sie beziehen sich auf eigene sportliche Erfolge. Auch negative Erfahrungen und Erlebnisse mit Sportkameraden, Trainern oder Sportlehrern können einen motivierenden Einfluss haben, wenn daraus, statt resignativer Verhaltensweisen, neue Anstrengungen zur Verbesserung der eigenen sportlichen Handlungsmöglichkeiten erwachsen.
Ein Vergleich der eigenen sportlichen Leistungsfähigkeit mit anderen ist nur für 47 % der männlichen und 22 % der weiblichen Studenten ein motivierender Faktor. Interessanterweise spielt für mehr als die Hälfte der befragten Hochschulsportler der Schulsport keine motivierende Rolle. Bei einigen Sportlern war er eher ein Hinderniss für ihr weiteres Sportengagement.
48 % der Studentinnen und 60 % der Studenten nehmen ohne Beteiligung von Freunden und Bekannten am Hochschulsport teil. Schon in diesem Ergebnis zeigt sich deutlich, dass die Sportgruppe eine relativ separate soziale Gemeinschaft darstellt, die in keinem Bezug zu anderen sozialen Gruppen, z.B. Freundschafts- oder Studiengruppen, steht. Nur sehr wenige sprechen mit anderen Personen über den Sport und die Sportgruppe.

Für die überwiegende Mehrzahl der befragten Personen ist der Hochschulsport primär als soziales Handlungs- und Erlebnisfeld bedeutsam. Die Angaben über erfreuliche und unerfreuliche Erlebnisse beim Sporttreiben und die gemachten Verbesserungsvorschläge beziehen sich meist auf Faktoren der Kooperation und Kommunikation unter den Sportkameraden und mit dem Trainer. Für viele Studenten ist der Sport ein bedeutsames und oft sogar das einzige Feld, in dem es ihm gelingt, aus der sozialen Isolation an einer überfüllten und anonymen Massenuniversität herauszukommen, um mit anderen etwas Gemeinsames zu tun und zu erleben.
Erst an zweiter Stelle hinter den sozialen Faktoren wird dem Leistungserleben und der Erfüllung sportlicher Leistungsanforderungen Bedeutung beigemessen. Dieses, für die weitere Entwicklung des Hochschulsports bedeutsame Ergebnis, spiegelt sich auch in den Antworten auf die Frage nach der Bedeutung des Freizeitsports für die individuelle Lebensgestaltung wieder. 15 % der Angaben beziehen sich auf den Wertbereich des sozialen Handelns (z.B. andere Menschen kennenlernen, mit anderen zusammen etwas leisten können, Freunde treffen). Lediglich der Wertbereich: "Körperlicher Ausgleich und psychische Entspannung" ist mit 21% der Nennungen stärker vertreten, gefolgt vom Wertbereich "Selbstbewusstsein stärken" und "Gesundheit und Fitness".

Die Kürze der Zeit erlaubt nur die Mitteilung einiger wichtiger Ergebnisse. Die Gesamtuntersuchung hat aber eindeutig gezeigt, dass der Hochschulsport für den einzelnen Studenten und für die gesamte Gruppe vornehmlich kompensatorische Funktion hat. Der einzelne Student treibt Sport, weil er in diesem Handlungs- und Erlebnisfeld Bedürfnisse befriedigen kann, die sonst unbefriedigt bleiben, z.B. nach sozialem Kontakt; mit anderen zusammen etwas leisten zu können. Die soziale Isolation des einzelnen Studenten an den heutigen Massenuniversitäten und die immer weiter ansteigenden einseitigen Anforderungen an seine kognitive Leistungsfähigkeit, Konzentration und Aufmerksamkeit lassen den Wunsch nach einem freien und möglichst wenig reglementierten körperlichen Ausgleich immer grösser werden.

Hier liegen die Aufgaben und Chancen eines zukünftigen Freizeitsports für Studenten - und vermutlich nicht nur für diese Gruppen.

Literatur

Artus, H.G.: Jugend und Freizeitsport
Schriftenreihe des Inst. f. Leibesübungen der Universität Hamburg; Achenbach, Giessen 1974.

Blücher, V.G.: Freizeit in der Industriegesellschaft-Dargestellt an der jüngeren Generation. Stuttgart 1956.

Fessel u. Ges. f. Konsum-, Markt- u. Absatzforschung:
Jugendstudie 1976, Wien 1976.

Freisitzer, K. (Hrsg.): Freizeit- und Naherholungsgewohnheiten der Grazer.
Schriftenreihe des Instituts f. Soziologie an der Universität Graz Bd. 5/6, Graz 1972.

Grössing, St.: Sport der Jugend, Wien 1970.

Röblitz, G.: Freizeitnutzung und sportliche Betätigung der lernenden Jugend,
Habilitationsschrift, DHfK., Leipzig 1964.

Schmitz-Scherzer, R.: Sozialpsychologie der Freizeit, Kohlhammer,
Stuttgart 1974.

Thomas, A.: Fussball, eine Sportart für Frauen? - Eine empirische Untersuchung psychologischer Aspekte des Frauenfussballs.
Berlin 1976 (unveröff. Manuskript).

CREATIVE THINKING AND MOTOR SKILLS AS PREDICTORS OF CREATIVE MOVEMENT

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1. Introduction

Creative movement has been studied by observing dance (Mayer 1968, Dickson 1965) and particulary modern dance (Crawshaw 1971, Little 1966). Characteristic of it is, among other things, body awareness, awareness of time, weight and space, flow

of movement and musical awareness. The characteristic traits of creative movement can also be derived from the product types of creative thinking, the most common of which are fluency, flexibility and originality (Alamikkelä et al. 1973, Holopainen 1973, Tiainen 1973, Wyrick 1968).

Music and/or verbal instructions are often used as the stimulus of creative movement. Since movement reactions are not wholly dependent on stimuli but also on the organism, it is also necessary to examine individual differences. Earlier research and literature seem to indicate that not only music and given tasks (themes) but also creative thinking (Crawshaw 1971, Phillipp 1967, Torrance 1970), motor skills (Roiha 1965) and rhytmic ability (Immonen et al. 1973, Mayer 1968) contribute to creative movement: ideas produced by thinking are needed to direct creative reaction, motor skills to execute the ideas and rhythmic ability to adapt thinking and motor abilities to music. The purpose of the present study was to analyze empirically to what extent this conclusion is verified as far as students of physical education are concerned.

2. Method

2.1. Variables, tests and measurement

The variables of creative movement and creative thinking were chosen on the basis of Guildford's (1967) conceptual frame of reference.

2.1.1. Creative movement

Creative movement was defined as movement fluency, which here refers to an ability to produce as many (different) motor responses as possible within a given time limit and as originality of movement, which means the individuality of produced motor response in relation to motor responses produced by others.

Creative movement was measured by four motor tasks (3 minutes each):

Use of mat test with drum accompaniment: the assignment was to use the mat in as many original ways as possible while expressing the drum rhythm.

Use of wand test with folk music accompaniment: the assignment was to use the wand in movement in as many original ways as possible while expressing the played folk music.

Use of imagination test with symphony music as stimulus: the assignment was to portray a spring in as many original ways as possible while expressing the played symphony music.

Visual test with avantgarde music as background; the assignment was to express a painting in as many original ways as possible while giving expression to the played avantgarde music.

The motor responses were videotaped. The movement fluency score of each test was the number of motor responses. The score on the originality of movement was obtained for each test by assigning 1 to 3 points to each different movement according to its unusualness and by totalling the scores. The total score of creative movement was obtained for each subject by adding normalized scores of fluency and originality on the four tests.

2.1.2. Creative thinking

Creative thinking was defined as thinking fluency, by which was meant the ability in a given time to produce as many ideas as possible about a given topic, and as originality of ideas, which referred to the originality of the produced idea in

comparison to ideas produced by others. Instead of originality one test (Object Naming) was rated in terms of flexibility which indicated the ability to produce several different ideas about a given topic.

Creative thinking was measured by four tests consisting of two tasks (4 - 5 minutes each):

Unusual Thoughts: the task was to produce as many original and clever ideas as possible about the topics "Physical education in school" and "Physical fitness".

Object Naming: the task was to write several words belonging to the semantic field of "Public health" and "Spectator sport" so that the words give as thorough an account of the concepts as possible.

Consequences: the task was to think as many different and clever consequences as possible of the folowing situations: "What would happen if physical education in schools were voluntary?" and "What would happen if boys and girls were taught physical education together at school?".

Plot Titles: The task was to write as many unusual and clever titles as possible to short stories with a theme "Rex as a micro-car racer" and "Trio dance".

On each test the subject's thinking fluency score was the number of ideas produced in the two test items. The originality score was obtained for each test by assigning 1 to 3 points per test item for each different idea according to the degree of unusualness and by totalling the item scores. The index of the flexibility in the Uses test was the number of different ideas produced for the items. The total score of creative thinking was obtained for each subject by adding up the normalized scores of thinking fluency, and originality or flexibility.

2.1.3. Motor skills

Motor skills were tapped by a measure of gymnastic ability, since the movement tasks involved were gymnastical, and rhythmic ability because movement was accompanied by music. A subject's score was supervisor's assessment of her skills in gymnastics and rhythmics.

The subjects were 17 second-year female students studying at Faculty of Physical and Health Education at the University of Jyväskylä, Finland. Teacher assessments as well as measurements of creative movement were done in the spring of 1972. Data on the subjects' creative thinking were obtained from data collected in the autumn term of 1970.

3. Results and discussion

Rank order correlations (Table 1) indicated that there was a statistically significant correlations (rho = $.48^{XX}$, $P \leq .05$) between creative thinking and creative movement as well as between rhythmic ability and creative movement (rho = .55 and 69 respectively). Gymnastic ability and creative movement correlated .47 and gymnastic ability and rhythmic ability .38. Other correlations between the variables were low. Since some variables were interrelated, partial correlations were also computed. They have been presented in Figure 1, which also illustrates the main findings of the study. This analysis also brings forth clearly the significant correlations between rhythmic ability and creative movement and between creative thinking and creative movement ($rho_{24.3}$ = .63 and rho_{14} = .55). The correlation between gymnastic ability and creative movement was .31 ($rho_{34.2}$).

TABLE 1. Subjects' ranks by variables and rank order correlation between variables

Subject	Creative movement	Creative thinking	Rhythmic ability	Gymnastic ability
A	8.5	9.5	9	14
B	4	4	4	3
C	2	1	4	8
D	1	9.5	1	5.5
E	6	2	9	15
F	8.5	6.5	9	5.5
G	17	12.5	16	16
H	5	14.5	2	1
I	7	9.5	6	10
J	16	6.5	15	7
K	15	16.5	13	9
L	12.5	12.5	17	12.5
M	10	4	13	11
N	3	4	13	3
O	12.5	16.5	9	3
P	12.5	14.5	4	12.5
Q	12.5	9.5	9	17

Spearman's rank order coefficients of correlation ($r = .48^{XX}$, $p \leq .05$):
Creative thinking/creative movement, $r = .55^{XX}$
Gymnastic ability/creative movement, $r = .47$
Rhythmic ability/creative movement, $r = .69^{XX}$
Creative thinking/gymnastic ability, $r = .02$
Creative thinking/rhythmic ability, $r = .08$
Rhythmic ability/gymnastic ability, $r = .38$

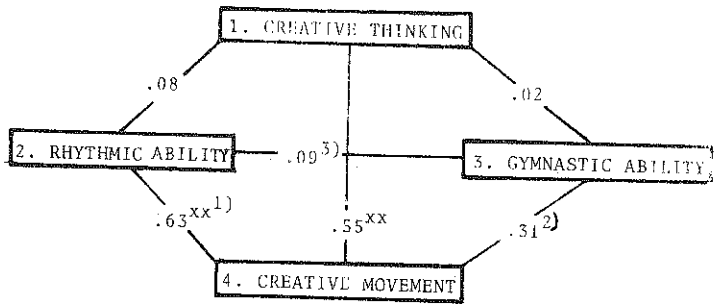
inally a regression analysis was carried out in order to find out what proportion f creative movement is explained by creative thinking and motor skills (Table 2).

TABLE 2. Amount of the variance of creative movement explained by creative thinking, rhythmic ability and gymnastic ability

Dependent variable	Creative movement	
Independent variables	r[1)]	β
Creative thinking	.55	.44
Rhythmic ability	.73	.64
Gymnastic ability	.35	.08
R	.85	
R^2	72	

1) Product moment correlations have been computed from raw scores, which explains the fact that they deviate to some extent from rank order correlations.

The amount of explained variance was 72 %, which indicates that the study has dealt with really central elements of creative movement. It can be said, that creative movement is mainly the combined product of creative thinking and rhythmic ability but also to some extent of gymnastic ability. In making generalizations it should be kept in mind, however, that the sample was small. On the other hand, the results are congruent with the findings of earlier studies. Especially the correlation between creative thinking and creative movement observed earlier in a corresponding sample of subjects (Crawshaw 1971) was collaborated. The study gives rise to several problems needing further eludication. It would be useful to explore the relationship between different forms of thinking (different operations, contents and products) and creative movement and other sport arts. Creative movement should also be studied in terms of variables other than movement fluency and originality (e.g. convergent solutions). The role of personality in creative production should also be analyzed. Studies should be carried out using more representative samples.



1) $rho_{24.3}$, 2) $rho_{34.2}$, 3) $rho_{23.4}$

FIGURE 1. Correlations between creative movement and the other variables

REFERENCES

ALAMIKELÄ M. et. al. (1973) Luova liikuntatesti (Test of creative movement). In Kyöstiö O.K. & Luukkonen J. Luovuus ja sen mittaaminen. Oulun yliopiston käyttäytymistiedeiden laiktoksen julkaisuja 12/1973, 93 - 104. (in Finnish)

DICKSON N.H. (1965) A subjective study by the observer of the creative movement of second and third grades. In Research in Dance (1968). Washington:D.C.

CRAWSHAW J.E. (1971) An investigation into correlation between scores on tests of creativity and ability in modern educational dance. British journal of Physical Education 2:6

GUILFORD J.P. (1967) The nature of human intelligence. New York: Mc Graw - Hill

HOLOPAINEN S. (1973) Väline-, mielikuva- ja näköärsykkeen yhteys luovaan liikuntaan ilman musiikkiärsykettä ja musiikkiärsykkeeseen yhdistettynä (Relation of equipment, image and visual stimuli to creative movement with and without musical stimulus. Liikuntapedagogiikan pro gradu -työ (julkaisematon). Jyväskylän yliopisto. (in Finnish)

IMMONEN et. al. (1973) Luovan musiikin testi (Test of creative music). In Kyöstiö O.K. Luukkonen J., Luovuus ja sen mittaaminen. Oulun yliopiston käyttäytymistieteiden laitoksen julkaisuja 12/1973, 93-104. (in Finnish)
LITTLE A.A (1966) Concepts relating to the development of creativity in modern dance. In Research in Dance (1968). Washington: D.C.
MAYER J.G. (1968) An investigation of children reactions to a program of creative dance in elementary school. M.S. publications. University of Utah.
PHILIPP J.A. (1967) The comparison of motor creativity with figural verbal creativity, and selected motor skills. Dissertation Abstracts 28:12, 4899 - A.
ROIHA E. (1965) Johdatus psykologiaan (Introduction to psychology of music). Jyväskylä: Gummerus. (in Finnish)
TIAINEN J. (1973 a) Luovan liikunnan psykologiset perusteet (Psychological basis of creative movement). Liikuntakasvatus 4, 16 - 17. (in Finnish)
TORRANCE E.P. (1970) An Experience in Creative Movement. In Sweeney R.T, Selected readings in movement educations ss. 124 - 126. London: Addison-Wesley.
WYRICK V. (1968) The development of a test of motor creativity. Research Quarterly 39 (3), 756 - 765.

PŘÍSPĚVEK K TYPOLOGII SPORTOVCE - BĚŽCE NA STŘEDNÍ TRATĚ

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V poslední době ve sportovní psychologii probíhaly pokusy stanovit typ úspěšného závodníka té které disciplíny. Jistě lákavá představa, které jsme se ani my neubránili. V kontextu širšího výzkumu problematiky běhů na střední tratě jsme se pokusili stanovit profil osobnosti úspěšného závodníka. Porovnávali jsme mezi sebou skupiny běžců středotratařů a běžců na krátké tratě, a ty pak s obecnou populací. Sledovaný vzorek není příliš velký, má celkem 80 členů. Tím se pochopitelně statistická významnost snižuje, ale to bude problém zřejmě všech podobných výzkumů v oblasti vrcholového sportu. Skupiny jsme porovnávali ve 37 faktorech dvou testů : Ihavezu testu pro zjišťování předpokladů odolnosti vůči zátěži a Cattellově šestnáctifaktorovém osobnostním dotazníku.

Vycházeli jsme z hypotézy, že typ úspěšného běžce na střední tratě by měl mít specifickou strukturu osobnosti, nebo v ní vystupující dominantní specifické psychické vlastnosti, lišící se od úspěšného typu běžce na krátké tratě, a v každém případě lišící se od profilu obecné populace. Prováděli jsme srovnání profilu skupin tvořených průměrnými hodnotami jednotlivých faktorů, další srovnání pak jsme prováděli U - testem Manna a Whitneyho. Výsledky této sondy se nám nezdají příliš povzbudivé. Z časových důvodů se soustředím pouze na tu část výsledků, která se zdá (alespoň na první pohled) pro nás nejzajímavější a nejslibnější.

Ve srovnání skupiny běžců středotratařů, zařazených podle výkonosti, na československé poměry, do prvé skupiny se skupinou běžců zařazených do kategorie neúspěšných, vyšly statisticky významné rozdíly v několika faktorech. Podle nich by typ úspěšného závodníka-středotratařa měl sníženou intenzitu vnitřního prožívání, daleko menší tendenci spoléhat se na náhodu právě ve vypjatých až rizikových situacích, na které můžeme sportovní střetnutí považovat. Celková

individuální tendence k riziku by měla být menší než u neúspěšných závodníků. Snížená by měla být i úzkostnost, pojímaná jako náchylnost jedince prožívat úzkost v určité míře a kvalitě. Zvýšená oproti tomu by měla být účinná kapacita rozumu, pojímaná jako schopnost mobilizace psychických sil k udržení či obnovení rovnováhy člověka s prostředím v podmínkách psychické zátěže. Vyšší by měla být celková integrovanost osobnosti, která vyjadřuje na kolik a v jaké kvalitě je schopen daný jedinec integrovaně řešit zátěžové situace, nebo obráceně, kdy dochází k selhání, jak intenzivní situace se pro něj už stává nadhraničně zátěžovou. Statisticky významná se ukázala i vyšší sebejistota úspěšných závodníků. Úspěšní závodníci se dále jeví jako svědomitější, vytrvalejší, spolehlivější, zodpovědnější, více ovládání smyslem pro povinnost s vyšší sebekontrolou, silnější vůlí, řídící se vlastním sebepojetím.

Na první pohled by se mohlo zdát, že jsou to zajímavé a povzbudivé výsledky. Bohužel, je musím poněkud zpochybnit. V prvé řadě jde o skutečně dosti malé vzorky. Za druhé : v ostatních typech srovnání již tak přesvědčivé výsledky nevyšly. Např. ve srovnání s obecnou populací jsou výsledky u skupin výkonostně nejlepších - o které nám v prvé řadě jde - nulové. Dále platí pravidlo čím větší vzorek, tím více se svým profilem blíží průměru. U srovnání nejlepších a neúspěšných běžců na krátké tratě - u kterého by se dal očekávat obdobný výsledek jako u stejného srovnání středotratařů - vyšly statisticky významné rozdíly pouze ve dvou faktorech : úspěšní závodníci by měli mít zvýšenou zálibu ve smyslových dojmech a silnější superego - měli by být svědomitější, vytrvalejší, spolehlivější, zodpovědnější atd.
V porovnání skupiny nejlepších středotratařů se skupinou nejlepších běžců na krátké tratě nevyšly podstatné rozdíly. Osobnost středotratařе se tu jeví celkově integrovanější.

U úvahu se tu musí vzít i skutečnost, že testovanou skupinu označenou jako výkonostně nejvyšší, netvoří závodníci na úrovni světové špičky, které bohužel nemáme. Dá se předpokládat, že by tvořili vzorek ještě daleko méně homogenní, než byl náš sledovaný, neboť z praxe se nám ukazuje, že opravdu špičkový sportovec, který sport povýšil na prvé a daleko nejdůležitější místo ve svém životě, bývá pravidelně osobnost svým způsobem značně vyjímečná, vymykající se v nejrůznějších směrech právě průměru. Proto snažit se postihnout, či dokonce předpovědět vyjímečného jedince ve vyjímečných podmínkách cestou statistického propočtu se nám zdá neadekvátní a spíše iluzorní. Abychom mohli výsledky podobných srovnání brát vážněji, ne sice pro špičky, ale alespoň pro vrstvu výkonostně kvalitních závodníků, musely by se podobné výzkumy provést opakovaně po generační výměně celých sledovaných vzorků, nebo paralelně s podobnými skupinami závodníků, např. v jiných zemích. I tak v případě pozitivních výsledků, by se vnucovala otázka, jak takto získané informace v praxi zpětně využít. I výsledky, které vyšly jako statisticky významné, se ani ve výzkumu, ani v praxi neprokázaly natolik významné, že by mohly být jednoznačně, absolutně a prokazatelně určující, a tím predestinující. Ze zkušenosti právě u špičkových závodníků se ukazuje, že silná absence některé vlastnosti, která je běžně považována za naprosto nutnou pro dobrého sportovce, se dá v celkové struktuře osobnosti zcela kompenzovat jinou vlastností. Proto výsledky podobných výzkumů, i kdyby se do jisté míry potvrdily, se budou moci podle našeho názoru brát pouze orientačně. Myslím, že je účelnější vycházet z pojetí individua jako osobnosti zcela vyjímečné, neopakovatelné zasazené do zcela specifických podmínek, vycházet z hluboké individuální analýzy, zaměřit se právě na možnost vzájemné kompenzace psychických vlastností a na tomto základě v podstatě tvůrčím způsobem spolu s trenérem a závodníkem pracovat.

DIE INDIVIDUELLE WIRKUNG VON ERFOLG UND MISSERFOLG BEI EINZEL- UND GRUPPENLEISTUNGEN

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1. Fragestellung

Erfolge und Misserfolge stellen nicht nur bei Leistungssportlern die entscheidenden Kristallisationspunkte seiner Sportlaufbahn dar, sondern sie sind auch beim Schul- und Breitensport von zentraler Bedeutung für die Zufriedenheit und die weitere Sportmotivation. In verschiedenen Untersuchungen konnte die stabilisierende Wirkung von Erfolg und die destabilisierende Wirkung von Misserfolg auf das subjektive Befinden nachgewiesen werden (vgl. u.a. BODDEZ, 1973; NITSCH & ALLMER, 1976). Weitgehend unberücksichtigt geblieben ist jedoch, inwieweit hierbei Unterschiede zwischen Einzel- und Gruppenleistungen bestehen.

Die beiden folgenden Fragen stehen im Mittelpunkt der vorliegenden experimentellen Untersuchung:

1. Haben Erfolge bzw. Misserfolge bei einer kooperativ erbrachten Gruppenleistung andere Auswirkungen auf das subjektive Befinden einer Person als bei einer Einzelleistung?
2. Inwieweit bestehen hierbei persönlichkeitsspezifische Unterschiede? Beeinflusst die Gruppensituation die Auswirkungen von Erfolg und Misserfolg bei Extravertierten in anderer Weise als bei Introvertierten?

2. Methode

Der Untersuchung wurde ein 2x2x2-faktorieller Versuchsplan mit den Faktoren Erfolg/Misserfolg, Einzel-/Gruppensituation und Extraversion/Introversion zugrunde gelegt. Von den insgesamt 160 männlichen Sportstudenten der Deutschen Sporthochschule Köln, die an dem Experiment teilnahmen, erhielten jeweils 80 Personen die Aufgabe, allein (Einzelleistung) bzw. in kooperativer Zusammenarbeit mit einem Partner (Gruppenleistung) ein bestimmtes Leistungsziel an einem sensomotorischen Testgerät (Kombination von Pursuit-Rotor und Zweihandprüfer) zu erreichen.

Durch Variierung der Aufgabenschwierigkeit war es jeweils der Hälfte der Vpn möglich, das vorgegebene Leistungsziel zu erreichen (Erfolg), wohingegen die zweite Hälfte der Vpn ihr Leistungsziel nicht erreichen konnte (Misserfolg).

Das Persönlichkeitsmerkmal Extraversion wurde mit Hilfe des "EYSENCK-Persönlichkeitsfragebogen" (EPI) in der deutschen Übersetzung von EGGERT (1974) erfasst.

Zur Feststellung der Auswirkungen von Erfolg bzw. Misserfolg auf das subjektive Befinden wurde den Vpn vor und nach dem Versuch ein Selbstaussageverfahren, die sogenannte "Eigenzustandsskala" (EZ-Skala) von NITSCH (1976) vorgelegt. Dieses Verfahren besteht aus 40 Adjektiven, die der Proband anhand einer 6-stufigen Skala danach bewerten soll, inwieweit sie auf seinen momentanen Zustand zutreffen. Von den insgesamt 14 Faktoren der EZ-Skala, die auf drei hierarchischen Ebenen angeordnet sind, werden aus Gründen der Übersichtlichkeit im folgenden nur die 8 Faktoren der dritten Ebene berücksichtigt.

Die durch einen Erfolg bzw. Misserfolg induzierten Änderungen des subjektiven Befindens ergeben sich aus den Vorher-Nachher-Differenzen der EZ-Faktorenwerte.

Die Auswertung der EZ-Differenzwerte erfolgt kovarianzanalytisch, wobei die jeweiligen Ausgangswerte als Kovariaten dienen (vgl. WINER, 1970).

3. Ergebnisse

Eine Überprüfung der Effektivität der experimentellen Erfolgs-Misserfolgs-Variierung ergibt ein zufriedenstellendes Resultat: Das subjektive Befinden der Vpn ändert sich unter der Misserfolgs-Bedingung in stärkerem Masse negativ als unter der Erfolgs-Bedingung; nach Erfolg zeigt sich insbesondere eine signifikant positivere Veränderung der Selbstsicherheit ($F = 47.41$; $p < .001$) und nach Misserfolg eine signifikant stärkere Zunahme der emotionalen Spannung ($F = 7.17$, $p < .01$).

Die Analyse des Einflusses von Einzel- und Gruppensituation auf die EZ-Änderung erbringt folgende Ergebnisse:

(1) Nach **E r f o l g** ändert sich der Eigenzustand der Vpn in der Einzel- und in der Gruppensituation in gleicher Weise (vgl. Abb.1). Eine erfolgreiche Gruppenleistung hat somit die gleichen positiven Auswirkungen auf das subjektive Befinden einer Person wie eine erfolgreiche Einzelleistung.

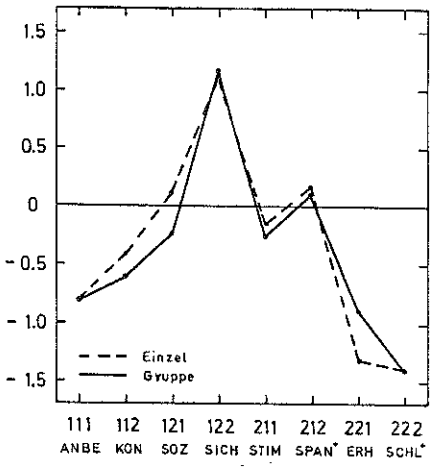


Abb. 1: EZ-Differenzwerte bei Erfolg in der Einzel- und Gruppensituation. Signifikanzniveaus: (+) : $p \leq .10$, + : $p \leq .05$, ++ : $p \leq .01$.

EZ-Faktoren: ANBE = Anstrengungsbereitschaft, KON = Kontaktbereitschaft, SOZ = Soziale Anerkennung, SICH = Selbstsicherheit, STIM = Stimmungslage, SPAN = Spannungslage, ERH = Erholtheit, SCHL = Schläfrigkeit.

(2) Nach **M i s s e r f o l g** ändert sich jedoch der Eigenzustand der Vpn in der Einzelsituation stärker negativ als in der Gruppensituation (vgl. Abb. 2); dies zeigt sich insbesondere in einer deutlicheren Abnahme der Kontaktbereitschaft ($F = 9.28$; $p < .01$), der Selbstsicherheit ($F = 3.63$; $p < .06$) und der

Stimmungslage ($F = 6.86$; $p < .01$) sowie in einer stärkeren Erhöhung der Spannungslage ($F = 7.74$; $p < .01$).

Ein Misserfolg bei einer Gruppenleistung führt somit zu weniger negativen Auswirkungen auf das subjektive Befinden einer Person als ein Misserfolg bei einer Einzelleistung. D.h. die Gruppensituation übt offenbar einen stabilisierenden Effekt auf die Gruppenmitgleider aus.

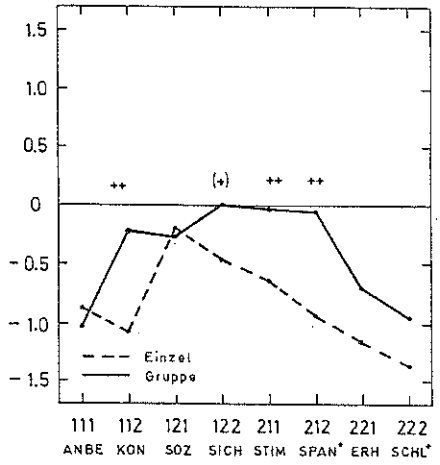


Abb. 2: LZ-Differenzwerte bei Mißerfolg in der Einzel- und Gruppensituation. Signifikantniveaus: (+) : $p \leq .10$, + : $p \leq .05$, ++ : $p \leq .01$.

(3) Betrachtet man diesen stabilisierenden Effekt der Gruppensituation unter differenziellem Aspekt, so zeigt sich, dass bei E x t r a v e r t i e r t e n ein Misserfolg in der Gruppenleistung bei allen EZ-Faktoren zu einer weniger negativen Änderung führt als ein Misserfolg in der Einzelleistung.

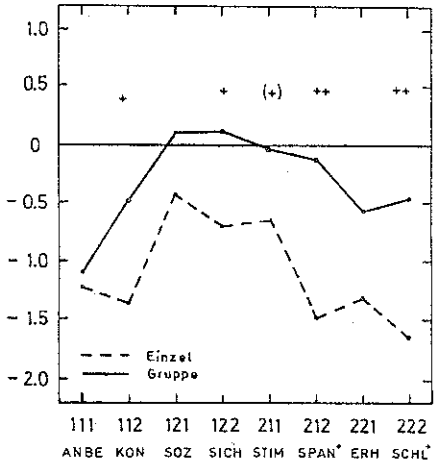


Abb. 3: EZ-Differenzwerte der Extravertierten bei Mißerfolg in der Einzel- und Gruppensituation. Signifikanzniveaus: (+) : $p \leq .10$, + : $p \leq .05$, ++ : $p \leq .01$.

Bei I n t r o v e r t i e r t e n dagegen führt ein Misserfolg in der Gruppenleistung in einigen EZ-Faktoren (z.B. im Faktor soziale Anerkennung) zu stärker negativen und in anderen EZ-Faktoren zu stärker positiven Änderungen als ein Misserfolg in der Einzelleistung (vgl. Abb. 4).

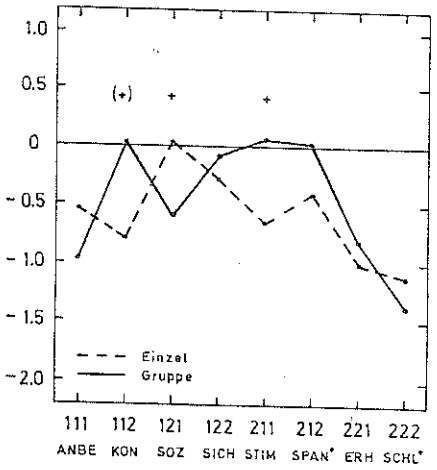


Abb. 4: EZ-Differenzwerte der Introvertierten bei Mißerfolg in der Einzel- und Gruppensituation. Signifikanzniveaus: (+) : $p \leq .10$, + : $p \leq .05$, ++ : $p \leq .01$.

4. Diskussion

Die Ergebnisse der vorliegenden Untersuchung zeigen, dass ein Erfolg in einer Einzelleistung die gleichen Auswirkungen auf das subjektive Befinden einer Person hat wie ein Erfolg in einer Gruppenleistung. Im Unterschied dazu wirkt sich ein Misserfolg in einer Gruppenleistung weniger stark negativ auf das subjektive Befinden einer Person aus wie ein Misserfolg in einer Einzelleistung.

Wenn auch eine generalisierende Übertragung dieser experimentellen Befunde auf den Sportbereich sicher nur eingeschränkt möglich ist, so legen die Ergebnisse doch die Annahme nahe, dass Misserfolge im Mannschaftssport von den betroffenen Mannschaftsmitgliedern als weniger belastend erlebt werden bzw. besser verarbeitet werden als vergleichbare Misserfolge im Einzelsport.

Inwieweit ein solcher stabilisierender Effekt von Gruppen bzw. Mannschaften ausser von den hier festgestellten Persönlichkeitsmerkmalen auch von bestimmten Gruppenmerkmalen wie z.B. der Führungs- oder der Affektstruktur abhängig ist, müsste in weiteren Untersuchungen geklärt werden.

5. Zusammenfassung

Ausgehend von der Frage, inwieweit Erfolge und Misserfolge bei Gruppenleistungen das subjektive Befinden einer Person in anderer Weise beeinflussen als bei Einzelleistungen, wurden in einem Experiment 160 männliche Sportstudenten einem sensomotorischen Einzel- bzw. Gruppentest unterzogen. Die Ergebnisse zeigen, dass sich ein E r f o l g in einer Gruppenleistung in gleicher Weise auf das subjektive Befinden auswirkt wie ein Erfolg in einer Einzelleistung, wohingegen ein M i s s e r f o l g in einer Gruppenleistung zu weniger negativen Veränderungen des subjektiven Befindens führt wie ein Misserfolg in einer Einzelleistung. Dieser stabilisierende Effekt der Gruppensituation ist bei Extravertierten stärker als bei Introvertierten.

Literaturverzeichnis

Boddez, M.: An analysis of the self-concept and the impact of success and failure upon the perception of performance and upon the self-concept of junior high school students: II. St. Louis University Research Journal, 1973, 4, 485-547.

Eggert, D.: Eysenck-Persönlichkeits-Inventar. Göttingen: Hogrefe, 1974.

Nitsch, J.R.: Die Eigenzustandsskala (EZ-Skala) - Ein Verfahren zur hierarchisch-mehrdimensionalen Befindlichkeitsskalierung. In: NITSCH, J.R. & UDRIS, I. (Hrsg.), Beanspruchung im Sport. Bad Homburg: Limpert, 1976.

Nitsch, J.R. & Allmer, H.: Untersuchung zur Motivations- und Beanspruchungslage bei Handballspielen. In: NITSCH, J.R. & UDRIS, I. (Hrsg.), Beanspruchung im Sport. Frankfurt: Limpert, 1975.

Winer, B.J.: Statistical principles in experimental design. New York: McGraw-Hill, 1970.

DLOUHODOBÉ SLEDOVÁNÍ POHYBOVÉ (KINESTETICKÉ) CITLIVOSTI PRO ROZSAH POHYBU U VODNÍCH SLALOMÁŘŮ

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O významu kinestetické citlivosti pro sportovce jsme se přesvědčili z prací řady autorů, zejména autorů sovětských. Podle nich kinestetická citlivost mění v závislosti na sportovní vyspělosti i na sportovní formě. V naší práci referujeme o sledování kinestetické citlivosti pro rozsah pohybu u vodních slalomářů.

Naše práce vychází z údajů, získaných od 11 slalomářů, mužů, praváků, členů reprezentačního mužstva ČSSR, kteří během let 1973 až 1976 se zúčastnili měření vždy v únoru, tj. před sezónou a v říjnu, tj. po sezóně.

Položili jsme si otázku, zda se u vodních slalomářů mění kinestetická citlivost během roku vzhledem k tomu, že jejich závodní i intenzivní tréninková činnost je hodně závislá na sezóně. Chtěli jsme ověřit hypotézu, zda v únoru budou výsledky měření kinestetické citlivosti horší než v říjnu, po sezóně.

Srovnávali jsme výsledky z října roku 1973, který předcházel únoru 1974 a výsledky z října 1976, který následoval po únoru 1976 s údaji, které jsme získali při měření v únoru 1974 a v únoru 1976.

Celkový plán výzkumu měl charakter vícefaktorového výzkumu se dvěma nezávislými proměnnými. Jednou proměnnou byl termín měření : únor a říjen. Druhou proměnnou byla paže : levá a pravá.

Pokud jde o závislé proměnné, používá se běžně ukazatele kinestetické citlivosti absolutní chyby (ACh). Je to dost podivné, protože absolutní chybu nelze psychologicky jednoznačně interpretovat. Absolutní chyba je někdy závislá více na konstatní chybě (KCH), to tehdy, když je variabilita odpovědí nulová nebo blízká nule. Absolutní chyba je jindy závislá na variabilitě (intraindividuální variabilitě) odpovědí, a to tehdy, když konstatní chyba je nulová nebo blízká nule. Nechceme zde tuto problematiku podrobně rozvádět. Chceme pouze vysvětlit, proč jsme jako závislé proměnné nepoužili pouze absolutní chybu, ale rovněž bod subjektivní rovnosti (BSR), který je dán průměrem odpovědí jednoho zkoumaného, dále konstantní chybu, absolutní chybu a míru variability odpovědí. Odvoláváme se v těchto otázkách na významnější autory, např. Woodworthe a Schlosberga (Experimentální psychologie). Jako míru variability jsme nepoužili rozptyl ani směrodatnou odchylku, ale průměrnou odchylku od průměru (PrO).

Pokud jde o vlastní metodu, pokusíme se být struční. Měření jsme prováděli na vertikálním kinesteziometru. Testovacím, standardním pohybem byl pohyb paže z neúplného upažení napjaté paže (obr. 1, pokud bude čas) do neúplného připažení s paží mírně pokrčenou v lokti (obr. 2, pokud bude čas). Rozsah standardního pohybu činil 50°. Po zácviku proveděl zkoumaný jeden standardní pohyb, tj. pohyb z výchozí polohy k zarážce s vyloučením zraku. Potom měl testovaný za úkol provést pětkrát po sobě reprodukci standardního pohybu, zarážka vymezující rozsah standardního pohybu na kinesteziometru byla odstraněna. Mezi měřením u levé paže, které bylo vždy první a měřením u pravé paže, které vždy následovalo, byl interval asi 15 minut.

Výsledky uvádíme pro každou závislou proměnnou zvlášť.

Výsledky podle BSR

	levá	pravá	prům.
II. únor	51,1	48,9	50,00
X. říjen	50,8	49,3	50,1
prům.	51,0	49,1	

Výsledky podle KCh

	levá	pravá	prům.
II. únor	2,9	2,7	2,8
X. říjen	1,7	2,1	1,9
prům.	2,3	2,4	

Je zřejmé, že podle bodu subjektivní rovnosti nelze předpokládat změnu způsobenou intenzivnější činností během sezóny. Zjistili jsme však velmi významný rozdíl mezi levou a pravou paží. Ne však v tom smyslu, že by jedna paže byla lepší, ale v tom smyslu, že u levé paže byl bod subjektivní rovnosti nad standardem, tzn. že konstantní chyba byla v průměru pozitivní, zatímco u pravé paže byl v průměru bod subjektivní rovnosti pod standardem, tzn. že konstantní chyba byla negativní. V únoru byly tyto chyby větší než v říjnu, avšak tyto rozdíly nejsou statisticky významné.

Podle konstantní chyby je statisticky významný rozdíl mezi měřením v říjnu a v únoru. Tento výsledek podporuje naši hypotézu. Rozdíly jsou analogické jak u pravé tak i u levé paže. Zajímavé je, že zlepšení u levé paže je výraznější (o 41 %) než u pravé paže (o 22 %). Ještě zajímavější je zjištění, že levá paže je v únoru horší než pravá a v říjnu je levá paže lepší než pravá, avšak tyto rozdíly nejsou statisticky významné.

Rozdíl mezi pažemi z hlediska velikosti konstantní chyby je minimální. Víme však podle bodu subjektivní rovnosti, že u levé paže vzniká chyba pozitivní a u pravé paže chyba negativní - i když její velikost je téměř stejná.

Výsledky podle ACh

	levá	pravá	prům.
II. únor	3,3	2,7	3,0
X. říjen	2,3	2,6	2,4
prům.	2,8	2,6	

Výsledky podle PrO

	levá	pravá	prům.
II. únor	1,5	1,3	1,4
X. říjen	1,5	1,6	1,5
prům.	1,5	1,4	

Podle absolutní chyby jsou výsledky zcela analogické jako výsledky podle konstantní chyby. Rozdíly však nejsou statisticky významné.

Podle průměrné odchylky od průměru jsme nezjistili téměř žádné rozdíly ani ve vlivu sezóny, ani mezi levou a pravou paží.

Vzhledem k rozdílným výsledkům u různých ukazatelů kinestetické citlivosti pro rozsah se domníváme, že konstantní chyba postihuje více aktuální změny v kinestetické citlivosti. Naproti tomu průměrná odchylka od průměru postihuje pravděpodobně stálejší dispozice, případně vysokou úroveň trénovanosti, která má stálejší charakter. Tento předpoklad jsme vyslovili dříve rovněž na základě srovnání členů reprezentačního družstva ČSSR ve vodním slalomu s nesportujícími studenty v přibližně stejném věku a srovnání s mladými telantovanými vodními slalomáři. Reprezentanti byli významně lepší podle průměrné odchylky od průměru než obě skupiny.

Nezjistili jsme však žádné korelace mezi kinestetickou citlivostí pro rozsah pohybu a mezi sportovními úspěchy ve vodním slalomu u reprezentantů. Je třeba však podotknout, že všichni reprezentanti ČSSR ve vodním slalomu dosahují velmi vysoké sportovní úrovně.

PSYCHOLOGICKÁ ANALÝZA VODNÍHO SLALOMU

VALOUŠEK, Ch., Olomouc, Československo

Referujeme o výsledcích jednorázového vyšetření družstva reprezentantů ČSSR ve vodním slalomu. Bylo vyšetřeno 34 závodníků, z toho 28 mužů a 6 žen.

Z hromadných metod byl použit Eysenck Personality Inventory (EPI), dotazník odolnosti vůči zátěži (DOZ, Mikšík), test rychlost rozhodování (Becker), Ravenův test inteligence.

Z individuálních metod byl použit dvojbarevný číselný čtverec 7 x 7 pro zjištění úrovně pozornosti (Leontěv), bludištní učení, stereoskop a kinesteziometr pro rozlišování rozsahu pohybu.

Výběr zkoušek jsme provedli na základě odhadu vycházeje z popisu činnosti vodního slalomáře. Vyšetření jsme prováděli na dvou soustředěních reprezentantů v roce 1974 a 1975, kde nebylo mnoho času.

Výsledky šetření.

Podle dotazníku EPI, vymezíme-li interval průměru rozsahem jedné směrodatné odchylky, můžeme konstatovat, že z 32 slalomářů (včetně žen) se objevuje v intervalu stability 16 osob (hrubé skóre 0-7), v intervalu nevyhraněných 9 osob (hrubé skóre 8-12), v intervalu lability 7 osob (hrubé skóre 13-24). Mezi introverovanější povahy můžeme zařadit 8 osob (HS 0-9), mezi nevyhraněné 11 osob (HS 10-13) a mezi extrovertovanější 13 osob (HS 14-24).

Při posuzování závodníků v rámci dvoudimenzionální stupnice EPI můžeme konstatovat, že většinou patří mezi vyhraněné temperamenty. Pouze o 4 osobách lze uvažovat jako o nevyhraněných. Většinou (14) jsou sangvinici, melancholiků je 6, flegmatiků 4 a cholerici jsou 3.

Dotazník DOZ zjišťuje odolnost vůči zátěži (Mikšík, 1975, 1973). DOZ je zkrácenou verzí dotazníku IHAVEZ. Obsahuje skóre optimální hladiny stimulace, která je vyjádřena jednou hodnotou hrubého skóre spolu s tendencí rizikovat (skóre označené SR), dále skóre integrovanosti osobnosti (I), skóre sebejistoty (P1), skóre adaptability a flexibility (P2), skóre odpovědnosti (P3) a skóre maskulinity (P4).

Skóre dotazníku DOZ, získané u slalomářů jsme srovnávali se skórem obecné populace v ČSSR.

Muži, slalomáři mají vyšší skóre hladiny stimulace a tendence rizikovat (SR) a skóre maskulinity (P4). Mají nižší skóre odpovědnosti (P3).

Ženy se liší stejně jako muži s tím rozdílem, že skóre maskulinity mají nižší než obecná populace žen.

Za průměrnými skóre dotazníku DOZ se skrývají velmi výrazné interindividuální rozdíly. Největší interindividuální rozdíly se vyskytují právě u uvedených tří skóre:

	SR	IG	P 1	P 2	P 3	P 4
muži						
obec.populace	9,2	15,3	13,0	13,0	13,9	6,6
slalomáři	11,7	14,3	11,9	13,0	10,4	11,0
ženy						
obec.populace	10,4	12,3	10,5	11,9	12,1	10,8
slalomářky	13,0	12,5	10,5	12,5	9,6	8,8

Zkouška rychlosti rozhodování (Becker, 1972) je testem , kde mírou rychlosti rozhodování je čas. Slalomáři muži (26 osob) dosáhli průměru 665 sec, s velkým variačním rozpětím (500-930 sec.). Ženy dosáhly v průměru času 765 sec. s poněkud menším variačním rozpětím (660-970). Metoda není u nás běžně používána. Nejsou proto k dispozici údaje k srovnání. Aby bylo možno provést nějaké srovnání, provedli jsme zkoušku u 25 vysokoškolských studentů 2. roč. tělesné výchovy (mužů i žen). Jejich průměrný výkon je poněkud lepší (626 sec.) s podstatně menším variačním rozpětím (525-725 sec.).

Podle Ravenovy zkoušky inteligence dosahují slalomáři muži průměrné hrubé skóre 52,2 s velkou variabilitou (28-59) a ženy průměru 51,1 s menší variabilitou (49-60). Ojedinělá nízká skóre vysvětlujeme jinak než nízkou úrovní inteligence.

Z výsledků vyšetření individuálními metodami uvádíme pouze výsledky vyšetření pomocí číselného čtverce a pomocí stereoskopu. U ostatních metod nemáme možnost srovnání s jinou skupinou ani s opakovaným vyšetřením.

Zkouška pomocí číselného čtverce (Leontěv, 1972) poskytuje různá skóre, která se týkají intenzity a přenášení pozornosti. Ve všech skóre byli slalomáři (23 mužů a žen) v průměru horší než skupina studentů 2. roč. tělesné výchovy (43 mužů a žen).

Analogické výsledky jsme zjistili ve zkoušce prostorového vidění, kterou jsme prováděli pomocí stereoskopu a testovacích stereobrázků. Slalomáři měli horší průměrné skóre (11,6), přičemž nejlepší výkon má hodnotu(6) a opět velkou variabilitu (6-19), než skupina 12 studentů tělesné výchovy s průměrem (9) a variabilitou (6-15).

Dále jsme zjišťovali kinestetickou citlivost pro rozsah pohybu na vertikálním kinesteziometru u vodních slalomářů reprezentantů s průměrným věkem 23,3. Srovnávali jsme je s mladými talentovanými vodními slalomáři (prům. věk 16,6) a studenty nesportovci (prům. věk 20,4).

Podle skóre absolutní chyby jsou reprezentanti lepší (2,51°) než junioři (3,25) a neliší se podstatně od studentů (2,75). Studenti jsou lepší než junioři.

Podle skóre průměrné odchylky od průměru jsou reprezentanti v průměru lepší (1,25) než junioři (1,74) a lepší než studenti (1,60). Mezi studenty a juniory není rozdíl, statisticky významný.

Nezjistili jsme pozitivní vztah (korelaci) mezi sportovními úspěchy reprezentantů ve vodním slalomu a mezi výsledky vyšetření. Pozitivním zjištěním z toho hlediska je pouze rozdíl v kinestetické citlivosti pro rozsah pohybu podle skóre průměrné odchylky od průměru a částečně podle skóre absolutní chyby od ostatních vyšetřovaných skupin.

Charakteristické pro výsledky vyšetřování je velká variabilita svědčící o velkých individuálních rozdílech mezi reprezentanty ve vodním slalomu. Protože jde u všech o špičkové sportovce předpokládáme, že nelze vytypovat nějaký "ideální typ" vodního slalomáře, který by se vyznačoval určitými psychickými vlastnostmi. Vyplývá to zřejmě z povahy vodního slalomu, který je velmi složitou činností. Mohou v ní vynikat lidé s nejrůznějšími psychickými vlastnostmi.

ДИНАМИКА И УПРАВЛЕНИЕ ПРЕДСТАРТОВОГО СОСТОЯНИЯ И ПСИХОЛОГИЧЕСКОЙ ФОРМЫ

ВАСИЛЕВ,В.К., Пловдив, Болгария

Проблема предстартовых состояний одна из наиболее интенсивно разрабатываемых в спортивной психологии. Но как в теоретических концепциях, так и в конкретных диагностических исследованиях замечается какая то односторонность в подходе: рассматривают предстартовое состояние и ищут закономерности его проявления в отдельных, обычно изолированных друг от друга соревнованиях. Однако общеизвестно, что достижение лучшей спортивной формы - процесс иногда очень продолжительный,

проходящий через отдельные этапы (которые возможно четко разграничить). В этом процессе свои закономерности; одной из них является сильное влияние участия в соревнованиях на развитие спортивной формы. У нас все основания (и логические, и опирающиеся на обобщенный опыт спортивных специалистов и тренеров) считать, что предстартовое состояние спортсмена - явление, которое подобно спортивной форме изменяется и развивается в течение соревновательного сезона, обладает собственными закономерностями развития, и, как доказывает опыт, это развитие тесно связано с процессом участия в соревнованиях.

А.Ц.Пуни (1969) подчеркивает, что состояние психической готовности к соревнованию является одним из компонентов, входящих в понятие "спортивная форма". Любое его изменение приводит к изменению и спортивной формы. Мы однако считаем, что существует и обратная зависимость большого значения - любое изменение остальных компонентов спортивной формы (степень тренированности) приводит к изменению психической готовности к соревнованию. Мы считаем, что в целях его углубленного исследования, в целях раскрытия закономерностей его возникновения, проявления, а следовательно и регулирования предстартового состояния - обязательно, чтобы это состояние было исследовано в его развитии, в его динамике.

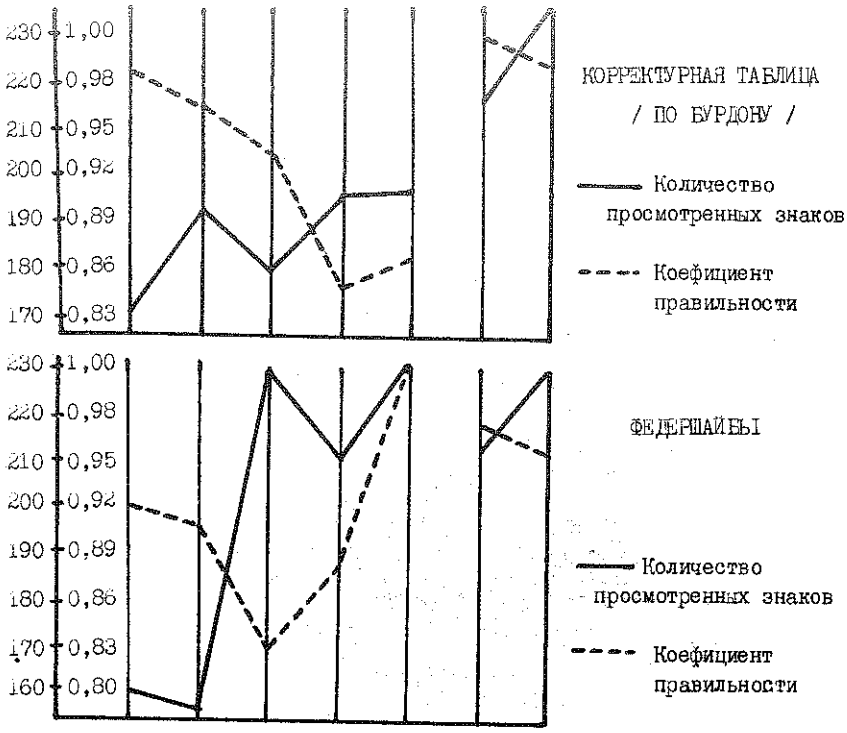
В течение всего соревновательного сезона (лето 1975 г.) почти на всех соревнованиях мы экспериментально проследили особенности предстартового состояния болгарского чемпиона и рекордсмена, пловца-спринтера Штефана Георгиева. Применяли несложные и краткие пробы (тесты), у которых по всеобщему мнению высокие диагностические возможности:

- традиционная корректурная таблица (по Бурдону);
- модификация корректурного теста - по Генкину, Медведеву ("федершайбы");
- модификация пробы Крепелина (цифровой тест);
- тремометрия;
- теппинг-тест - вариант О.А.Черниковой и
- реакция на время (10 сек.)

Исследования продолжительности в 5-7 минутах проводились после разминки спортсмена, непосредственно перед стартом и позволяли диагностицировать компоненты предстартового состояния: степень предстартового возбуждения и концентрации, моторная координация, умственная продуктивность и предстартовая уверенность. Мы проводили отдельные исследования других пловцов высокой квалификации, республиканского рекордсмена в прыжках в высоту (Румен Йоцов), а над рядом спортсменок высокой квалификации (метательницы МС Ив.Ванчева, Р.Бахчеванова, М.Димитрова и др.) проводили наблюдения в течение двух соревновательных сезонов.

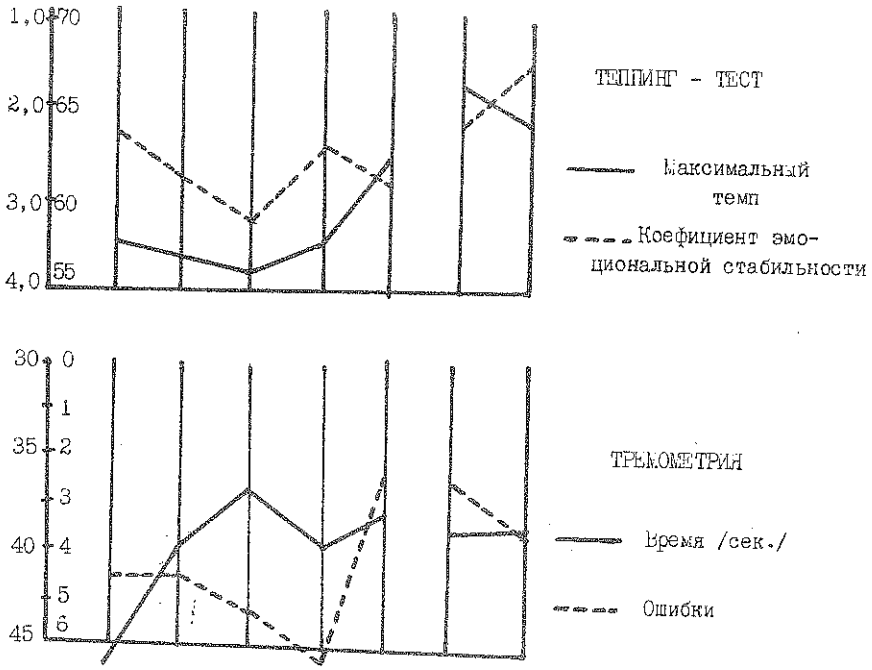
Нам не известно, чтобы подобные лонгитюдинальные исследования предстартового состояния проводились в других странах.

Наши исследования дают основания сделать вывод, принципиально различающийся от взглядов, что данный спортсмен может добиться состояния мобилизационной готовности перед каждым соревнованием. Мы констатировали, что предстартовое состояние в большой мере определяется особенностями конкретного соревнования (масштабом, значимостью,"порядковым номером"), изменяется в течение соревновательного сезона (притом его динамика имеет собственные закономерности и "следует" за динамикой спортивной формы), и, следовательно невозможно добиться оптимального предстартового состояния перед любым соревнованием.



I	II	III	IV	V	VI	VII	Порядк. № старта
28.6	5.7	8.7	8.7	9.7	16.8	17.8	Дата
Пз	Пд	София-респ.п-во		Евр.ком.п-во			Город, вид соревн.
100м	100м	200м	100-з	100м	100м	200-эст.	Дистанция
56,8	56,5	2:04,8	54,8	55,4	53,54	2:00,4	Результат

Рисунок 1. Динамика предстартового стресса сообразно показателям корректурных таблиц /по Бурдону и Федершайбы/.



I	II	III	IV	V	VI	VII	Порядк. № старта
28.6	5.7	8.7	8.7	9.7	16.8	17.8	Дата
Пз	Пд	София-респ.п-во		Евр.ком.п-во			Город, вид. соревн.
100м	100м	200м	100-э	100м	100м	200-эст	Дистанция
56,8	56,5	2:04,8	54,8	55,4	53,54	2:00,4	Результат

Рисунок 2. Динамика предстартового стресса сообразно показателям Теппинг-теста и Тремометрии.

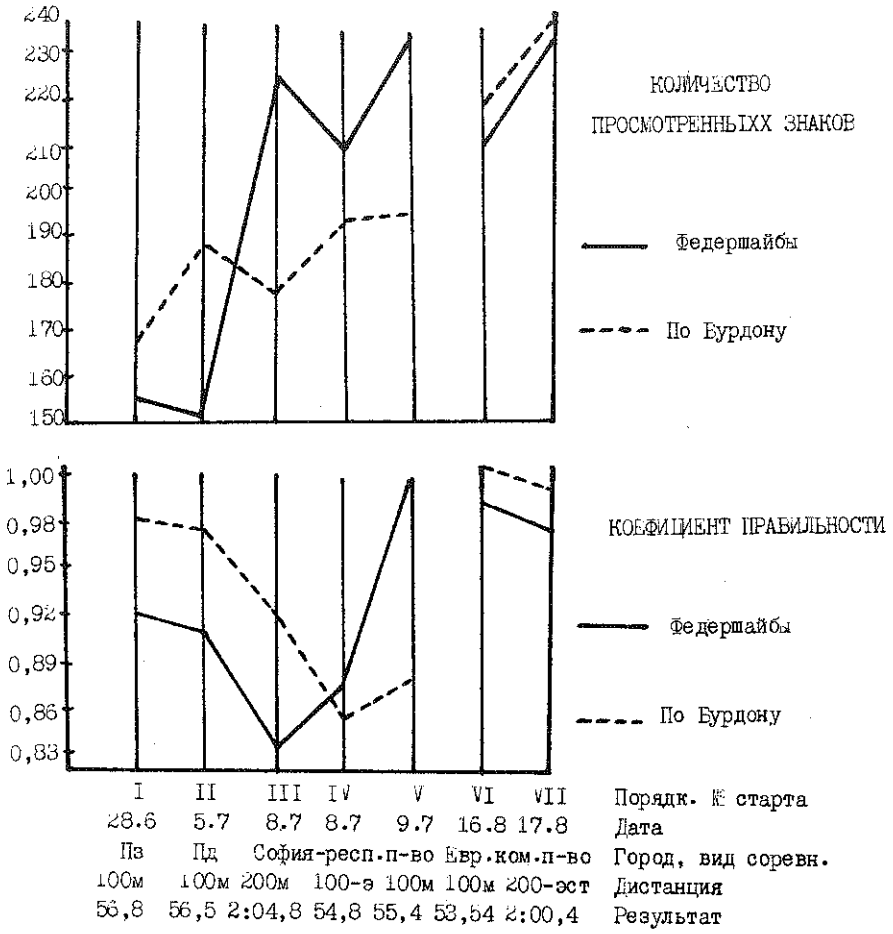


Рисунок 3. Динамика компонентов предстартового стресса - предстартового возбуждения (сообразно количеству просмотренных знаков) и предстартовой концентрации (сообразно коефициенту правильности).

На графиках (1,2,3) представлены результаты работы Ст.Георгиева над тестами - продуктивность (количественные характеристики) и точность (качество) работы. Хорошо видно, что продуктивность при работе над тестами увеличивается с каждым соревнованием и каждым стартом - это свидетельствует, что с каждым соревнованием нарастает предстартовое возбуждение - один из компонентов предстартовой мобилизированности. С другой стороны это показывает, что на практике невозможно еще в первых соревнованиях сезона достигнуть оптимального (очень высокого) уровня предстартового возбуждения, что является абсолютно необходимым условием для эффективной реализации возможностей, степени тренированности в данный момент. Это подтверждается и наблюдениями над предстартовым поведением, а также субъективными показаниями спортсмена - в первых стартах сезона он говорит "Соревнование еще не чувствую".
Однако одновременно с этим увеличиванием продуктивности (выражение повышения предстартового возбуждения) значительно уменьшается точность в работе над тестами, что свидетельствует о недостаточной концентрации и сосредоточенности спортсмена. Т.е. возбуждение имеет хаотический, разлитой, иррадированный характер. Этот вывод также подтверждается непосредственными наблюдениями перед отдельными стартами и отчетами спортсменов.
Тенденция к повышению количественных характеристик работы над тестами сохраняется до конца, но особенно характерно и важно то, что к времени основных соревнований значительно улучшаются и качественные характеристики, показатели точности.
Поскольку в своей совокупности все эти показатели раскрывают особенности предстартового состояния, можно заключить, что оптимальное предстартовое состояние (по крайней мере лучшее для сезона) наблюдалось в конце соревновательного сезона, притом перед одним из самых ответственных стартов - Европейское командное первенство.
Проявляется закономерность, которую в общих линиях можем сформулировать так:
В первых нескольких соревнованиях (2-4) в начале каждого соревновательного сезона нарастает предстартовое возбуждение, но спортсмен не вполне концентрирован и сосредоточен, не может еще полностью "почувствовать соревнование". Это предстартовое состояние, очевидно, отнюдь не оптимальное. В следующих нескольких соревнованиях(3-6 и т.д.) предстартовое возбуждение сохраняется на высоком уровне (даже повышается), но спортсмену уже удается все больше сконцентрироваться, сосредоточить свою психическую и в результате мобилизировать свою физическую дееспособность к предстоящей деятельности. Его предстартовое состояние в течение сезона все больше приближается к оптимальному, к состоянию "мобилизационной готовности".
Умение произвольно регулировать собственное предстартовое состояние не может проявиться полностью в начале сезона; оно растет с каждым соревнованием и достигает своего верхнего проявления в определенный момент, который вероятно для каждого спортсмена разный. Потом (вследствие психической усталости, сверхнапряжения тяжелого сезона, отслабленной мотивации) показатели, характеризующие предстартовое состояние начнут понижаться.
Сопоставление этапов, которые мы разграничили в развитии предстартового состояния, со стадиями вегетативных изменений, сопровождающими формирование ориентировочной реакции в раннем онтогенезисе (по А.А.Волохову, 1968) показывает их большое сходство. Это дает нам основание сформулировать гипотезу, что этапы, которые мы разграничили в развитии предстартового состояния (предстартового стресса) являются стадиями в динамике стресса вообще, т.е. в этих этапах появляются закономерности в развитии стресса и адаптации к нему. Существование онтогенетической динамики (в раннем онтогенезисе) дает основание предполагать, что подобная динамика существует и в индивидуальной адаптации к конкретному стрессу. Данные экспериментов, по нашему мнению, подтверждает это предположение.

И так, предстартовые состояния изменяются и развиваются в течение соревновательного сезона, в их динамике проявляются закономерности, которые в какой-то мере имеют объективный характер и поэтому оптимального психического предстартового состояния можно достичь не когда-нибудь, а в момент, определяемый с одной стороны этими закономерностями, а с другой стороны - динамикой изменения и нарастания спортивной формы спортсмена. Вот это пока мы называем динамикой психологической формы.

Следует уточнить, что понятие "психологическая форма" не замещает и не вытесняет понятия " боевая готовность" или "мобилизационная готовность" - его смысл иной. Если термин "мобилизационная готовность" служит для обозначения и раскрытия содержательной стороны оптимального предстартового состояния, то термин "психологическая форма" раскрывает это оптимальное предстартовое состояние с точки зрения его динамики, закономерностей этой динамики, его соотношение с другими компонентами тренировочного и соревновательного процесса (со спортивной формой) и раскрывает предстартовое состояние в его соотношении с предстартовыми состояниями, предшествующими оптимальному, с которыми психологическая форма находится в причинной зависимости. Или психологическая форма является наивысшей степенью психической подготовленности, которая позволяет спортсмену произвольно и сознательно регулировать свое предстартовое состояние, формировать мобилизационную готовность перед самыми ответственными стартами. Психологическая форма - состояние, которое характеризуется наивысшей степенью психологической надежности, т.е. состоянием, в котором спортсмен максимально эффективно реализует в соревновательных условиях свои возможности, достигнутые в тренировочном процессе.

Легко можно увидеть, насколько важно установить для каждого спортсмена период наступления психологической формы, после скольких и каких соревнований гимнаст или стрелок сумеет настраиваться и сосредотачиваться наилучшим образом, а легкоатлет или пловец - достигать оптимального сочетания предстартового возбуждения и концентрации; т.е. сколько и какие предшествовавшие соревнования нужны, чтобы подготовить психологически спортсмена к главному для сезона соревнованию.

Следует вывод, что для психологической подготовки спортсменов решающее значение приобретает хорошо обдуманная система соревнований, предшествующих основному. Они должны быть подобраны так, чтобы их масштаб, напряженность и ритм следовали за динамикой вхождения в спортивную форму (и не только следовали, но и управляли ею) и быть в соответствии с индивидуальными закономерностями формирования психологической формы каждого спортсмена.

Если спортивный календарь года не предусматривает такой системы соревнований (что,к сожалению иногда бывает), для вхождения в психологическую форму необходимо использовать и другие средства - например моделированные тренировки. Понятие это не новое (М.Ванек, 1968), но пока моделированные тренировки используются главным образом для адаптации спортсмена к конкретным соревновательным условиям, чтобы они не могли его дезорганизировать. А способность спортсмена сам формировать у себя предстартовое возбуждение, предстартовый стресс (важный компонент мобилизационной готовности), является существенным условием для полной реализации собственных возможностей в соревнованиях. Эта способность тренируется когда моделированная тренировка воспроизводит и внутреннюю (психологическую) ситуацию соревнования - путем автосугестированного настроя психического состояния спортсмена и психологической атмосфере соревнования, путем вызывания внушением или самовнушением чувство ответственности, путем моделирования и напряженности, стресса соревнования.

На динамику психологической формы оказывают влияние разные средства целенаправленного и прямого воздействия на психику спортсменов в их предстартовом состоянии -

аутогенная и психотоническая тренировка с мобилизирующим концом, внушение и самовнушение, специфическое сосредоточение. К сожалению этот момент, кажется, самый неясный и засекреченный среди проблем, связанных с предстартовым состоянием. Наш скромный опыт в применении аутогенной тренировки показывает, что ее возможности для мобилизации спортсменов перед стартом не следует преувеличивать. В большой степени ее эффект определяется видом спорта.
В годы, в которые будут проводиться особенно важные соревнования (Олимпийские игры, мировые и европейские чемпионаты) путем экспериментальных исследований и сопоставления их результатов с "психологической моделью" (модель динамики психологической формы), созданной заранее, возможно планировать и управлять тренировочным процессом и участием в соревнованиях так, чтобы совпадали вершины спортивной и психологической формы - состояние наивысшей надежности в спорте. Это совпадение абсолютно необходимо для максимальной реализации в самых ответственных соревнованиях достигнутых в тренировочном процессе возможностей.

DIE TEMPERAMENTSTYPISCHEN EINSTELLUNGEN ZU MIT- UND GEGENSPIELERN

VEIT, H., Lehrte, Bundesrepublik Deutschland

Mitglieder von Ballspielmannschaften müssen, im Gegensatz zu allen anderen Sportlern, ihre wettkampfmässigen Aktionen direkt auf eine Vielzahl von Mitmenschen in ihrer unmittelbaren Umwelt beziehen. Einerseits müssen sie sich dem Verhalten der Mitspieler, der Mitglieder der eigenen Mannschaft, anpassen. Andererseits müssen sie sich auf die Spieler der gegnerischen Mannschaft, auf die Gegenspieler, einstellen.

Dabei kommt es nicht nur darauf an, dass die Anpassung formal gelingt. Das mannschaftliche Zusammenwirken hängt auch wesentlich davon ab, wie das Anpassen erfolgt, in welcher Art sich die Spieler aufeinander einstellen. Ist es ein Einordnen oder ein Unterordnen? Geschieht es als Angleichen oder als komplementäres Zuordnen? Auf der Objektstufe ist nach den Kontaktstilen zu fragen, auf der Subjektstufe danach, wie die Mitmenschen grundsätzlich erlebt werden.

Die allgemeine Einstellung zur menschlichen Umwelt wird auf dem Spielfeld, während des Wettkampfes, sozusagen in jeder Aktion sichtbar, und in bestimmten aufgabenbezogenen Rollen und Verhaltensweisen konkretisiert. Die Art, in der die Rolle des Spielmachers gestaltet wird, zeigt beispielhaft die Einstellung zu den Mitspielern auf. Die Art, in der Fouls verübt werden, demonstriert die grundsätzliche Einstellung zu den Gegenspielern.

Zum Erfassen und Beschreiben der verschiedenen Erlebnisweisen und Kontaktstile dient mir die Temperamentstypologie von Kretschmer. Zwischen ihr und der Typologie von Sheldon bestehen viele Parallelen. Kretschmers Lehre ist trotz methodologischer Mängel ein anschauliches Denkmodell zur Orientierung in den untersten Schichten des Seelenlebens, im endothymen Grund der Tiefenperson. Und diesem Grenzbereich zwischen Physis und Psyche entstammen auch die Impulse, durch die das sportliche Verhalten im allgemeinen, und das direkte Zusammenwirken in Ballspielmannschaften im speziellen, weitgehend geprägt wird.

1. Das Verhalten der schizothymen Temperamente, und auch das der Cerebrotonen von Sheldon, wird durch ihre Neigung zum Autismus bestimmt. Sie erleben "Ich" und "Nicht-Ich" als zwei voneinander getrennte Welten. In jedem Mitmenschen sehen sie den Fremden. Je empfindlicher, sensibler sie sind, desto eher fühlen sie sich bedroht, desto mehr halten sie die Anderen auf Distanz, desto mehr sondern sie sich ab und schliessen sich aus.

   Dieses Sich-Distanzieren von den Mitspielern ist charakteristisch für das Verhalten der Spielmacher aus dem schizothymen Formenkreis. Es ist ihnen unmöglich, in der Mannschaft aufzugehen. Sie tun vielmehr alles, um sich deutlich von den Anderen abzuheben. Das führt dann leicht zu Überheblichkeit, und wird von den Mitspielern als Arroganz empfunden.

   Auf der anderen Seite ist es gerade die Überempfindlichkeit, die seelische "Hyperästhesie", die die schizothymen Spielmacher auszeichnet. Sie haben ein feines Gespür für die Absichten und Möglichkeiten ihrer Mitspieler, und sind daher imstande, diese nach Massgabe ihrer Fähigkeiten einzusetzen.
   Als prominente Beispiele der europäischen Fussballszene möchte ich den Holländer Cruyff und den Deutschen Netzer nennen.

   Schizothyme Ballspieler verüben ihre Fouls gewöhnlich absichtlich und wohlüberlegt. Sie wollen dem Gegner wehe tun, ihm ihre Überlegenheit demonstrieren. Andererseits fühlen sie sich persönlich getroffen, wenn ihr direkter Gegenspieler ihnen zu nahe tritt. Ihnen ist fast jedes Mittel recht, den Feind zu besiegen. Sie spielen so unfair, wie es der Schiedsrichter zulässt.

2. Die zyklothymen Temperamente, denen bei Sheldon die Viszerotonen entsprechen, brauchen Menschen um sich, mit denen sie ihre Gefühle teilen, denen sie ihre Gefühle mitteilen können. Dieses Mitfühlen ist der persönlichen Stimmungslage entsprechend unterschiedlich gefärbt: Bei den subdepressiven Varianten ist es in erster Linie ein Mitleiden, bei den Hypomanischen äussert es sich in mitreissendem Schwung.

   Zyklothyme Spielgestalter gehen in der Mannschaft auf. Aufgrund ihrer mitmenschlichen Verbundenheit vermögen sie sich so in die Mitspieler einzufühlen, dass sie ganz selbstverständlich "im anderen" denken und handeln können. Ihr Lenken der Mitspieler erfolgt unauffällig. Sie dienen der Mannschaft, sie verstecken sich aber auch in der Mannschaft. Musterbeispiele waren der Engländer Bobby Charlton (WM-Elf 1966) und der Deutsche Fritz Walter (WM-Elf 1954).

   Bei Fouls zyklothymer Ballspieler handelt es sich meistens um gefühlsmässig ausgelöste Kurzschlussreaktionen, die sofort und unüberlegt ausgeführt werden.
   Bei aller Menschenfreundlichkeit überschreiten sie in der "Hitze des Gefechtes" unversehens die Grenzen des Erlaubten. In persönlicher Hinsicht lassen sie sich provozieren und zu Revanche-Akten hinreissen, die sie dann selber im nächsten Augenblick am meisten bedauern.

3. Die Temperamente, die dem athletischen Körperbautypus zuzuordnen sind, habe ich, in Erweiterung der Kretschmerschen Konzeption, die Bathmothymen genannt. Sie decken sich weitgehend mit den Somatotonen von Sheldon. Sie benötigen Materielles, Stoffliches, um ihre Psychenergien zu binden und zur Wirkung zu bringen.

Ihre Mitmenschen sehen sie in erster Linie unter dem Gesichtspunkt der Sachlichkeit an: Sie suchen Partner, mit denen, und an denen sie ihre Kräfte messen können.

Bathmothyme Spielmacher sind weder Lenker noch Dirigenten, sie wirken durch ihr Tun, durch ihre Motorik. Die dynamischen Varianten sind die unermüdlichen Ankurbler und Vorwärtstreiber aus dem Mittelfeld heraus, wie der Engländer Moore und der Schotte Bremner. Die phlegmatischen Varianten stehen unerschütterlich im Abwehrzentrum, wie Ondruš aus der Europameistermannschaft unseres Gastgeberlandes (ČSSR, 1976). Dass die Mitspieler sich nach ihnen richten und an ihnen aufrichten, beeindruckt die Bathmothymen kaum, es überrascht sie höchstens.

Fouls von bathmothymen Ballspielern sind fast immer quasinormale Begleiterscheinungen von Sachzwängen . Hart und geradlinig gehen sie zur Sache, zum Ball. Die Gegenspieler tun dasselbe. Fast zwangsläufig kommt es also zu Zusammenstössen zweier Körper, deren Folgen dann lediglich vom Ausmass der eingesetzten Kräfte und Massen abhängen.

Der möglichen Folgen wegen vermindern die Bathmothymen aber nicht ihren Einsatz. Sie gehen weiterhin hart und geradlinig zur Sache, und nehmen weder auf den Gegner noch auf sich selbst dabei Rücksicht.

Meine Damen und Herren!

Die Möglichkeiten der Kretschmerschen Temperamentstypologie habe ich hier nur skizzenhaft, in Stichworten darstellen können. Sie ist eine klinische Methode, der Blick ist von vornherein auf die Eigenarten und Besonderheiten des Einzelfalles, des Indiviuums, gerichtet.

Allgemein kann die Typologie als Gegenpol zu den psychometrischen Verfahren angesehen werden, und als notwendige Ergänzung zu rein theoretischen Abhandlungen. So stellen die hier vorgetragenen Hinweise auf Kontaktstile und die Psychodynamik von Fouls auch einen Beitrag zur Aggressionsforschung bei, und einen Beitrag zur Motivation speziellen sportlichen Tuns.

Im speziellen, für die sportliche Praxis, ist die konstitutionspsychologische Betrachtungsweise ein brauchbares diagnostisches Instrument: Gefragt wird allerdings nicht nach dem Leistungsvermögen, sondern nach dem Stil des Leistungsverhaltens; dessen Bedeutung für das Zusammenpassen von Spielern zu einer Mannsohaft ist grösser, als gemeinhin angenommen wird.

ПСИХОДИНАМИЧЕСКИЙ АСПЕКТ СПОРТИВНОЙ ДЕЯТЕЛЬНОСТИ

ВЯТКИН,В.А., Пермь, СССР

Советская психология в последние годы характеризуется внедрением в изучение психики и деятельности системного подхода (Ф.В.Ломов, Б.Г.Ананьев, В.С.Мерлин и др.).
Известно, что своеобразие и эффективность спортивной деятельности в различных условиях во многом определяется особенностями ее субъекта - спортсмена, среди которых немаловажное значение имеют свойства психодинамики (темперамента). Настоя-

щее сообщение является первой попыткой анализа роли темперамента в спортивной деятельности с позиций общей теории систем.

В свете общей теории систем индивидуальность спортсмена как человека (большая система) содержит целый ряд иерархически организованных уровней индивидуальных свойств (подсистем). В лаборатории профессора В.С.Мерлина принято считать, что наиболее высоким иерархическим уровнем индивидуальных свойств (из числа тех, которые мы в данный момент рассматриваем) являются индивидуальные свойства, которые характеризуют спортсмена как члена команды (коллектива), - социальный статус его в группе .

Второй иерархический, относительно более низкий, уровень индивидуальных свойств - это мотивы и отношения личности. Третий, еще более низкий, - свойства психических процессов и качеств. Еще более низким, четвертым, уровнем свойств являются индивидуальные особенности организма - нейропсиходинамические свойства, особенности нервной системы и темперамента. Наконец, пятым, самым низким иерархическим уровнем индивидуальных свойств являются особенности психофизиологического состояния организма (например, уровень эмоционального возбуждения).

В этой системе различные иерархические уровни индивидуальных свойств взаимодействуют друг с другом. Проявляется это в том, что влияние более низких уровней на эффективность деятельности всей системы обусловливается условиями более высокого иерархического уровня индивидуальных свойств, а влияние на деятельность условий высокого уровня в значительной мере зависит от более низкого уровня свойств.

Многолетние исследования, проведенные в нашей лаборатории, показали, что влияние темперамента на деятельность в спорте обусловлено той конкретной системой индивидуальных свойств того или иного - более высокого или более низкого - уровня, с которой он взаимодействует в данный момент.

Взаимосвязь темперамента и условий более низкого уровня проявляется, например, в том, что влияние эмоционального возбуждения одной и той же степени на эффективность деятельности различных спортсменов обусловлены особенностями темперамента каждого из них (различиями в тревожности, эмоциональности, импульсивности, ригидности, экстравертированности и др.).

Обратимся к фактам. В таблице 1 представлены результаты исследования влияния уровня эмоционального возбуждения перед стартом на успешность соревновательной деятельности гребцов на байдарках и каноэ в связи с различиями по тревожности и эмоциональной возбудимости.

Уровень эмоционального возбуждения перед стартом определялся путем измерения тремора и величины электрокожного сопротивления (ЭКС). Из таблицы видно, что влияние эмоционального возбуждения на результат гребца в соревнованиях зависит от степени выраженности таких свойств темперамента, как тревожность и эмоциональная возбудимость. В этом случае темперамент, как более высокий уровень свойств, определяет эффект влияния на деятельность эмоционального возбуждения - более низкого уровня условий.

Взаимосвязь темперамента и условий высших иерархических уровней в их влиянии на спортивную деятельность проявляется в том, что темперамент оказывает положительное или отрицательное влияние на успешность выступления в соревнованиях не сам по себе, а в зависимости от условий высшего уровня, например, от социального статуса спортсмена в команде (Л.В.Лихачев, 1976), активности мотивации (В.А.Вяткин, 1972}1974; В.А.Вяткин и В.В.Маркелов, 1974; Р.Н.Зюкова, 1976; В.В.Маркелов,1976), уровня притязаний личности (А.Н.Капустин, 1972, 1974, 1976).

Еще раз обратимся к фактам, В таблице 2 приведены результаты исследования влияния активности мотивации на успешность выступления спортсменок в соревнованиях по художественной гимнастике. Из таблицы видно, что в условиях низкой мотивации (со-

ревнования на первенство города) все спортсмены, независимо от особенностей темперамента, показывают примерно одинаковые результаты. В условиях более высокой мотивации (соревнования республиканского масштаба) спортсмены тревожные, эмоционально возбудимые, малоимпульсивные, ригидные показывают результаты, значительно более худшие. В этом случае от темперамента, как условий более низкого уровня, в какой-то степени зависит влияние на успешность деятельности условий более высокого уровня - активности мотивации.

Эти факты позволяют сформулировать ряд педагогических, практических рекомендаций, направленных на индивидуализацию школьного физического воспитания и индивидуализацию учебно-тренировочного процесса в спорте, а также на управление психическим состоянием спортсменов в соревнованиях в зависимости от темперамента - одного из существенных компонентов интегральной характеристики индивидуальности. Например, различные воздействия на спортсмена с целью управления его психическим состоянием в условиях соревнований для создания условий достижения наиболее высокого результата, должны представлять из себя конкретную систему по отношению к каждому спортсмену индивидуально и адресоваться к различным иерархическим уровням его свойств, в зависимости от темперамента.

Для спортсмена тревожного, эмоционально возбудимого, эта система может быть осуществлена по следующей схеме: повышение социального статуса в команде, дозирование мотивации (снижение) с целью устранения гипертрофированного чувства ответственности, повышение уровня притязаний с целью вселения уверенности в своих силах, использование психорегулирующей тренировки (вариант "успокоение") в целях оптимизации эмоционального предстартового состояния и выработка четкого алгоритма поведения на старте в целях повышения помехоустойчивости. Для спортсмена с противоположными свойствами (малотревожного, эмоционально невозбудимого) может быть рекомендована иная система воздействия: усиление мотивации в целях повышения чувства ответственности и возрастания стресса, снижение уровня притязаний (устранение самоуверенности), возбуждающий массаж перед стартом и использование психорегулирующей тренировки (вариант "мобилизация") в целях повышения уровня эмоционального возбуждения.

ОСОБЕННОСТИ ПСИХОЛОГИЧЕСКОЙ ПОДГОТОВКИ ТАЛАНТЛИВЫХ МОЛОДЫХ БОРЦОВ

ВОЛКОВ,Н., Омск, СССР

Цели большого спорта требуют от молодых атлетов предельной мобилизации для достижения наивысших спортивных результатов. Экспериментальные исследования показывают, что в борьбе, одном из наиболее острых видов спортивного единоборства, поединки протекают на высоком уровне эмоционального стресса. Поэтому одной из основных проблем в подготовке талантливых борцов является проблема регуляции эмоционального состояния в напряженных условиях ответственных соревнований.

Результаты исследования трудовой и спортивной деятельности свидетельствуют о том, что индивидуальные особенности поведения человека в экстремальных условиях зависят от основных свойств нервной системы.(Б.М.Теплов, В.Д.Небылицын и др.).

Учет особенностей высшей нервной деятельности - непременное условие индивидуального подхода в процессе управления эмоциональным состоянием, так как именно, основные свойства нервной системы во многом определяют характер поведения борца в напряженных условиях ответственных соревнований.

Выше сказанное определило направление настоящей работы и послужило основанием для предположения о том, что индивидуализация методов регуляции предстартового эмоционального состояния в зависимости от высшей нервной деятельности борцов будет способствовать более эффективному управлению психическим состоянием молодых спортсменов в условиях соревнований.

Задачей первого этапа исследования было выявление зависимости между динамикой предстартового эмоционального состояния и особенностями высшей нервной деятельности борцов. С этой целью был проведен корреляционный анализ индивидуальных показателей динамики предстартового состояния, а также показателей, характеризирующих особенности их высшей нервной деятельности. Результаты анализа между исследуемыми показателями по методу максимального корреляционного пути свидетельствуют о том, что наиболее тесной положительной корреляционной связью оказались взаимосвязаны показатели предстартового состояния с показателями, характеризующими силу нервной системы относительно процесса возбуждения, а также с показателями, характеризующими особенности второсигнальной регуляции ($P \leqslant 0,01$).

Сопоставление показателей динамики предстартового состояния у борцов, различающихся между собой по выделенным параметрам высшей нервной деятельности свидетельствует о достоверных статистических различиях динамики предстартового состояния у спортсменов, оказавшихся в крайних оценочных зонах по параметру силы нервной системы. Выявленные на данном этапе исследования зависимости позволили наметить пути управления предстартовым эмоциональным состоянием с учетом индивидуальных психофизиологических особенностей борцов.

Важным положением при выборе методов регуляции явилась выявленная зависимость произвольной регуляции эмоционального состояния от особенностей высшей нервной деятельности спортсменов, связанных с второсигнальной регуляцией. В связи с этим основное внимание было уделено второсигнальным методам саморегуляции.

Проведенные экспериментальные исследования, а также практические результаты работы, которые успешно были использованы при подготовке талантливых молодых борцов к крупнейшим международным соревнованиям, позволяют дать конкретные рекомендации по методике регуляции их эмоционального состояния.

В процессе регуляции эмоционального состояния у молодых борцов необходимо учитывать их индивидуальные психофизиологические особенности - силу нервной системы и особенности второсигнальных управляющих влияний.

При этом борцам с относительно сильной нервной системой акцент следует делать на применение второсигнальных средств регуляции, способствующих значительному понижению их предстартового эмоционального напряжения, сильной самостимуляции на достижение успеха, так как именно высокий уровень эмоционального напряжения в наибольшей степени благоприятствует их эффективной деятельности в условиях соревнований.

Борцам с относительно слабой нервной системой, эмоционально более возбудимым, склонным к чрезмерно ранней предстартовой мобилизации, следует использовать второсигнальные средства регуляции, способствующие снижению уровня неадекватно раннего предстартового эмоционального напряжения.

Для регуляции предстартового эмоционального состояния у борцов в условиях соревнований целесообразно применять модифицированный вариант аутогенной тренировки (АТ), объединяющий второсигнальные средства психической саморегуляции в сочетании со специальными физическими упражнениями. Наличие двух противоположно направ-

ленных по своему воздействию частей АТ - успокаивающей и мобилизующей - создает возможность использовать эти компоненты психической саморегуляции в зависимости от индивидуальных психофизиологических особенностей спортсменов.
Предлагаемая комплексная методика саморегуляции предстартового эмоционального состояния с учетом индивидуальных психофизиологических особенностей может быть использована в учебно-тренировочном процессе как отдельное звено в системе психологической подготовки молодых спортсменов.

TOP SPORTS AS CONTENT OF LIFE

WUOLLE, P., Jyväskylä, Finland

1. Background and purpose of study

In the history of the national physical culture in Finland top and competitive sport have occupied a prominent position. Due to rapid development of research during the last decade Finland is one of the leading countries of the world regarding the science of coaching. Research with its strongly biological orientation has, however, focussed mainly on finding out factors which contribute directly to the upgrading of athletes' performance capacity, while less attention has been given to the study of the athlete's personality and social context.
Behind sport there is always social life with its demands and requirements, and the athlete has to adjust or confront his sport goals with them. The most important social demands, social pressures and expectations concern such civic obligations as getting an education and training for an occupation, being gainfully employed, taking care of family duties and participating in the management of common social concerns. In addition to them, personal needs have to be against the demands of sport. A top athlete can thus encounter choice situations in which sport is contrasted with other alternative activities of life: should the latter be forgone, restricted or postponed? The more important functions of life are at stake, the more problematic the choise situation may become. Although sport points out the concrete objective to be sought, it cannot be final and lasting in amateur sport. When the sport career once is inevitably over, it may be difficult - even impossible - to go back to activities set aside because of sport.
The International Committee for Sport Sociology (ICSS) undertook as one of its tasks to make a survey of the social problems of top athletes. It initiated in 1969 in eleven countries a survey in which the life career of athletes on top in 1956 was followed up. When international comparisons were still underway, the study was extended nationally by gathering new data in 1972 and in 1975.
The national study "Top athletics as content of life" was to carry out the following tasks:
1. Make a survey of the position of top athletics in the athlete's life and of its relation to other activities of life.
2. Map potential conflict situations in different areas of athletes' lives and to examine them in relation to the dominance of sport.
3. Clarify the mechanism by which athletes seek to solve emerging problems.

4. Utilize the acquired date in assessing the personal and social significance of athletes' problems and in examining ways and means of overcoming such problems in physical education.

As life functions to be studied were selected school and study, occupational and family life and partly also other leisure activities. These represent areas, which have proved significant in earlier studies. At the same time they are life functions, in which the social problems of top athletes in the top athletics of four time are most frequently brought up.

2. Theoretical background and frame of reference

As a theoretical framework to integrate research problems and to guide analyses was used Festinger's (1946, 1957)[1] theory of cognitive dissonance. The starting point of this application of Heider's (1964, 1958)[2] is a person's cognitive behavior in a decision-making situation, in which a choise has to be made between two or more alternatives. After the decision has been made the choise is re-examined. The more important the excluded alternatives are to the individual, the more unbalance or dissonance the decision-making situation causes and the more actively the individual seeks to remove it through adapting his behavior. In the problem situations included in the present study the theory can be interpreted so that when an athlete because of sport is forced to give up his goals in other central areas of life he experiences dissonance which he attempts to reduce by behaving in way which strengthens the decision made in favour of sport. This chain of response is illustrated in figure 1 in which the research process is outlined and the empirically established relationships are indicated by means of a solid line.

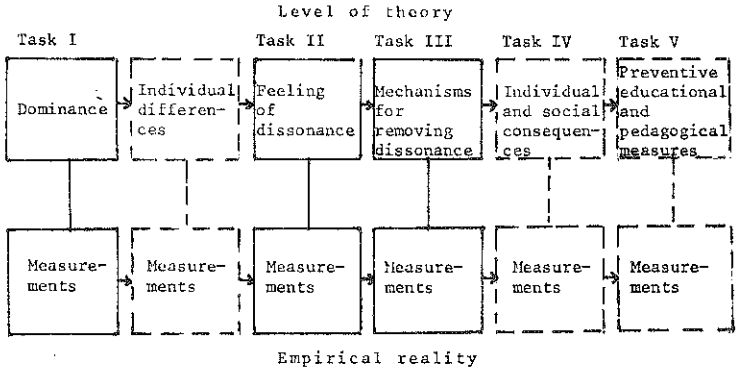


FIGURE 1. Origin, mechanisms of reducing and consequences of dissocance. (In the present study only those relationships are examined closer which are indicated by solid lines.)

[1] Festinger, L. (1957) A theory of cognitive dissonance. Stanford University Press, Stanford
Festinger, L. (1964) Conflict, decision and dissonance. Stanford University Press, Stanford

[2] Heider, F. (1964) Attitudes and cognitive organization. Journal of Psychology 21, 107 - 112.
Heider, F. (1958) The psychology of interpersonal relations. NY: John Wiley. New York.

3. Methods

3.1. Population

The population of the study was the most successful Finnish male athletes during the olympic years of 1956, 1960, 1964, 1968 and 1972, who were called "top athletes". Within the concept "top athlete" were included:

1. Athletes who took part in the Olympic games.
2. Finnish champions in the 21 events chosen for the study.
3. Members of the Finnish national team in football.
4. Players in the "East-West" contest in Finnish baseball.

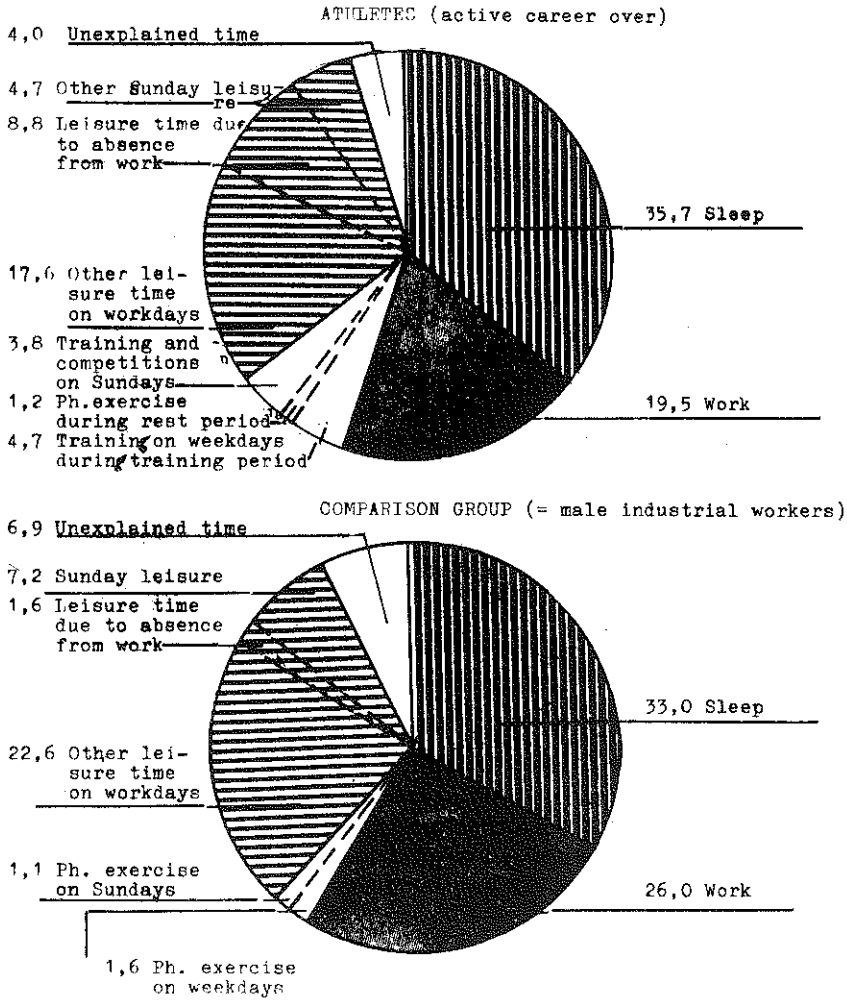
3.2. Procedure

The data were collected as a mail enquiry at the turn of 1972 - 73 with the help of central sport federations. The data were complemented in spring 1975 by sending to all athletes who had answered the first enquiry a detailed questionnaire which asked mainly about time spent on sport and other activities.
The final sample was 451 athletes in the second stage of the study, 182 being active at that point of time and 269 having ended their athletic careers. Team sport was represented by 172 and individual sport by 279 athletes.

4. Results

4.1. Dominance of sport

In athletes' lives work was the single most dominant activity during workdays and sport on Sundays. Although work dominated time expenditure on workdays, sport has such a prominent position in athletes' lives that these two functions combined can be considered to have accounted for an essential part of athletes' life content (figure 2).
Despite the fact that time spent on work had somewhat decreased and time spent on sport increased, the changes between 1956 and 1972 were small. It appears that the development of systems of coaching and competitions during the above mentioned period has not led to a quantitative increase of time expenditure but rather to a qualitative upgrading of coaching systems.
Although the active career of team athletes was longer than that of individual athletes, the differences in total time expenditure turned out to be small. The training and competition of team athletes was more strictly guided and controlled than that of individual athletes when control was assessed in terms of an athlete's freedom in making personal decisions and in the planning, implementation and follow-up of the training programme.
The description of time expenditure shows that during the period from 1956 to 1972 Finnish top athletes practised sport beside their work. According to the results they can be regarded as fairly pure amateurs if the question of amateurism is only examined in terms of time spent on work and on sport. This was true also with regard to the very top athletes.
In the athletes' system of values top athletics, schooling, occupation and family life were all highly regarded areas of life. During the peak period of athletics career sport had a clearly dominant position, even if less time was spent on it than on work.



Absolute total time: 13,2 year x 365 days/year x 24 hrs/day= 115632 hrs

FIGURE 2. Distribution of absolute total time between different activities in per cent among athletes and the male industrial workers

4.2. Undesirable effects of sport on other spheres of life and mechanism for their removal

The undesirable effects of sport were most clearly manifested in schooling and occupational life as dissatisfaction felt in these areas and as sacrifices made on account of sport. In other areas of social life the disadvantages due to sport were felt most distinctly in personal life. They were recognized most strongly as sacrifices in family life and vacationing.

Differences in the experience of disadvantages due to sport were small between active athletes and those whose active careers were over. Team athletes found them in their schooling somewhat more clearly than did individual athletes. The diffe-

rence seems to be explained on the one hand by team athletes' tighter training commitment and by their better possibilities for recognizing disadvantages on account of their better educational background on the other.
As a general check against the emergence of problems can be regarded a sportcentred way of life, developed through a long period of socialization. In consequence of it athletes had built for themselves a system of life values in which the high estimation of sport functions as a "mental safeguard" against recognition of conflicts. The possibility of combining occupational and athletic interests proved the most important mechanism for the prevention and removal of problems. At best, sport was instrumental in getting an occupation and one's occupation in turn offered good possibilities for practising sport during one's athletic career.
The basis for the setting of research problems were the great changes in the structure and results of top athletics during the period from 1956 to 1972. The changes gave reason to assume that athletes actively engaged in training and competition during or close to that period had experienced the disadvantages in other spheres of life due to sport more strongly and extensively than had those athletes who had already ended their active careers. Although the results of the study show that coaching systems had become more effective along with improved training programmes and thus had to some extent increased susceptibility to disturbances, the changes by the beginning of the 1970's were small. It would appear that problems concerning the relationships between sport, schooling and family life had been managed so that they had not increased to any appreciable extent, let be that they had not decreased, either.

5. Discussion

In evaluating the seriousness of the athletes' social problems on the basis of the obtained results, it can be concluded that the situation is by no means alarming. This does not mean, however, that society should not feel responsibility for top athletes and their education. Holding themselves mainly responsible for their lives athletes also had some expectations as to what sport leaders and society and to some extent also coaches should do for their schooling and occupation. Societal responsibility can be born even today without any extensive special measures and mainly in the form of prevention.
Direct preventive measures concerning athletes can be classified into guiding and supportive activities. The former means personal or group guidance. The objective is to give the athlete such information on the basis of which he can see the consequence of his choices and being conscious of them decide rationally between the alternatives of career choice. Supportive activities are more concrete than guidance and seek to create or improve possibilities for carrying out the activity in question. The most common form of support is giving financial aid to athletes. More commonly guidance and partly other schooling are integrated into the actual training programme.
Indirect supportive activities are means which indirectly contribute to the success of prevention. This is a question of the pedagogical ability of persons specialized in the training of athletes including coaches, physical education teachers and sport leaders, in other words, of their ability to impart knowledge and guidance. This ability can be achieved by developing the schooling so that as the primary educational goals is set the acquisition of pedagogical abilities related to physical culture.

The picture yielded by the present study of the effects of sport on the lives of athletes is rather positive. This interpretation is limited, however, by the fact that the registering of disadvantages was based on the athletes' subjective opinions on these points. The results should be elaborated so that the study is extended to cover the environment and the interactions within which the athletes find themselves in different roles. In occupational life the study would focus on the athletes' work environment including work supervisors and fellow workers. Similarly, a thorough analysis of disadvantages in family life would presuppose hearing "the other party", in other words, what are athletes' wives' and children's views. The structure of respondents is of crucial importance if we want to assess the individual and social significance of the obtained results. The population of the present study was those athletes who can be considered to have achieved their objectives in their athletic careers. Behind them are, however, numerous other athletes who have trained and sacrificed their lives for sport as much as the respondents without achieving similar success. In the lives of these athletes who have failed in their athletic careers the chances for problems are much greater than in the lives of those athletes who made it to the top. Only by taking into account the large number of athletes who have failed to achieve their objectives we can make a better evaluation of top athletics as content of life and of its individual and social consequences. The study covered only male athletes. It would naturally be very important to extend it to cover also female athletes.

DIE BEDEUTUNG DER VORAUSSICHT IN DER SCHÖPFERISCHEN AKTIVITÄT DES SPORTLERS

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Die Körperkultur und darunter eine ihrer zeitgenössischen Formen - der hochqualifizierte Sport-sind zu einem bedeutenden Lebensgebiet der Gesellschaft im Prozess ihrer dynamischen Entwicklung geworden.

Deshalb auch unterliegt der Sport, ähnlich wie andere Gebiete, einer etappenhaften Einschätzung der Effektivität seiner Einflüsse, sowie der Bestimmung und der Reichweite einer weiteren Entwicklung gestützt auf detaillierte prognostische Indexe.

Heute entbehrt es bereits jeglicher Notwendigkeit, die Rolle und die Bedeutung der Körperkultur in der Entwicklung der modernen Gesellschaft zu begründen. Dagegen jedoch müssen die verschiedenartigen Funktionen, welche die Körperkultur im Verlauf des beständigen Fortschritts der gegenwärtigen technischen Zivilisation, der Umgestaltungen der heutigen Kultur der Menschheit, der Schaffung neuer gesellschaftlicher Bedürfnisse und neuer ökonomischer Perspektiven aufzeigt, gesehen werden.

Die in verschiedene Richtungen gehenden Bedürfnisse einer Bewegungsaktivität, die oftmals in spontaner Form anwachsen, finden heutzutage ihre Begründung in der Einwirkung von Faktoren gesellschaftlicher, technischer, ökonomischer und kulturschöpferischer Natur und stellen einen Ausdruck vollkommen neuer veränderter Lebenssituationen des modernen Menschen dar.

Diese Bedürfnisse, Anstrebungen und Ausrichtungen haben ihre Implikationen einerseits in den Kompensationsaktivitäten, welche eine Begrenzung unvorteilhafter Einflüsse der wissenschaftlich-technischen Revolution durch die Anwendung einer rationellen aktiven Rekreation, das Betreiben des Tourismus und die Einführung einer rekreativen Aktivität bezeichnen, und andererseits die Entwicklung der körperlichen Leistung und der gesundheitlichen Effekte auf höchstem Niveau dank des Betreibens des Sports, in welchem der moderne hochqualifizierte Sport eine Sonderstellung einnimmt, gefunden.

Heute kann man mit Gewissheit behaupten, dass die Körperkultur der Gegenwart zu einem der bedeutenden Elemente der gesellschaftlichen Aktivität geworden ist und ein wichtiges prophylaktisches Mittel angesichts der unvorteilhaften Einflüsse der modernen Zivilisation ist, ein Mittel für eine rechtmässige Entwicklung ist, welche ihre normale Funktionierung in der Gegenwart ermöglicht, zugleich aber auch ein Element der Steigerung des Gesundheitsniveaus der Völker darstellt.

Zu guter letzt kann man auch annehmen, dass diese spezifische Form der Körperkultur - der qualifizierte Sport - der ein Instrument zur Beherrschung der eigenen Bewegung des Menschen zur Perfektion ist, um die bestmöglichen Resultate zu erzielen, ist zu einem gesellschaftlichen Bereich geworden, welcher nicht nur allein die Sportler, Trainer und Sportaktivisten, sondern ebenfalls en gros auch die gesellschaftlichen Milieus, ganzer Völker und einzelner Kontinente engagiert und oftmals kollektive Spannungen und Erlebnisse hervorruft, die in keinerlei anderen Bereichen der Aktivität des Menschen antreffbar sind.

Der dem Sport eigene Wettbewerb, der Kampf um die Erzielung des Vorrangs, das Ringen, welches die Exponierung maximaler körperlicher sowie das effektivste Engagement der psychischen Kräfte des Sportlers erfordern, haben bewirkt, dass sich die Sportveranstaltungen durch eine hohe emotionelle erkenntnisreiche und Motivationsattraktivität auszeichnen, und somit auf eine riesige Frequenz Einfluss nehmen und die Zuschauer, die direkt an der Aktivität der Wettkämpfe interessiert sind, und sogar diejenigen Zuschauer, die bisher am Rande der sportlichen Tätigkeit gestanden haben, engagieren.

Die modernen Trainingsmethoden und die Vorbereitung der Sportler auf die Wettkämpfe, im Verhältnis zur Vergangenheit weitgehend rationalisiert, die vor allem auf der Bildung der Schaffung eines höheren Schwierigkeitsgrades als während der Wettbewerbe beruhen, haben bewirkt, dass das Niveau der Resultate in den einzelnen Sportarten und -disziplinen sukzessiv anwächst und dass ein bedeutender Anstieg der Anzahl von Sportlern bestimmter Nationalausweisen erfolgt, die ähnliche Sportergebnisse aufweisen.

Ausser den mit den Sportlern zusammenarbeitenden Trainern und Ärzten hat sich in den letzten Jahren systematisch das Zusammenwirken von Vertretern verschiedener Wissensgebiete, darunter auch von Vertretern der gesellschaftlich-humanistischen Wissenschaften abgezeichnet.

Das Erzielen immer besserer Resultate in den einzelnen Sportarten ist das Ergebnis einer schrittweisen Rationalisierung des Trainings, einer sorgfältigen Selektion und der Schaffung breiter Teams sich spezialisierender Sportler sowie auch der Einführung bestimmter Indexe der Funktionierung des Organismus bei der Beurteilung des Vorbereitungsniveaus der Sportler, deren Reaktion und Benehmens in verschiedenen Startsituationen.

Zu den anderen Faktoren, welche auf eine sukzessive Steigerung der Sportergebnisse Einfluss nehmen, ist die Tatsache des Ausgleichs des Niveaus des qualifizierten Sports in den einzelnen Ländern sowie die steigende Konkurrenz und Rivalisation, welche oft während der organisierten Sportwettbewerbe auftreten.

Alle diese Erscheinungen des modernen Sports sind im bedeutenden Masse durch die breiten gesellschaftlichen Einflüsse bedingt, welche von aktiven Interessen, kollektiven Erlebnissen der Satisfaktion, von Freude und Missmut sowie auch von kollektiven Reflexionen und weitgehenden Einschätzungen der Siege und Erfolge und insbesondere von den Niederlagen und verlorenen Spielen begleitet werden. Die gesellschaftlichen Erlebnisse und Einschätzungen sind in ihrer Reichweite oftmals so tiefgreifend, dass sie den Fächer der Interessengebiete in anderen Bereichen des menschlichen Lebens überschreiten und einen bedeutenden Einfluss auf die Entwicklung und die Perspektiven des Sports in den einzelnen Ländern ausüben.

Eine tiefgreifende psychologische Analyse des Entwicklungsweges der Sportler, das Verfolgen ihrer Sportkarriere in zwei Aspekten: der Aktivität im Trainingsprozess sowie der Aktivität während der Sportwettbewerbe erlauben es festzustellen, dass der Sportler zur Aktivität im höchsten Masse sowohl die geistige intellektuelle als auch gleichzeitig die motorische Seite engagiert. Man kann folgern, dass die ständige Vervollkommnung seiner Aktivitäten, seines Strebens nach Bezwingung des Gegners und nach Erzielung immer besserer Ergebnisse den Charakter einer kreativen Tätigkeit besitzt. Es scheint, dass der Sport im Vergleich zu einer Reihe anderer Lebensbereiche des Menschen auf der präzisen Beherrschung der Aktivitäten des eigenen Körpers sowie auch auf dem Operieren mit dem Gerät bei gleichzeitigem Streben nach Anwendung spezifischer taktischer Lösungen und nach der Erzielung eines bestmöglichen Sportergebnisses beruht.

Demgegenüber basiert die schöpferische Aktivität des Künstlers, des Neurers und des Wissenschaftlers auf der Transponierung der eigenen Vorstellungskraft, der intellektuellen Illuminierung auf einen fremden Stoff, welcher einen kulturellen, gesellschaftlichen, wissenschaftlich-technischen Wert darstellt.

Somit also unterliegt es keinem Zweifel, dass die Planung eigener Sporterrungenschaften, das Aufspüren und die Anwendung taktischer Lösungen im sportlichen Wettkampf, und was noch wichtiger ist, die Erzielung bestmöglicher Sportresultate dank einer präzisen Beherrschung der eigenen Aktivitäten von schöpferischem Charakter ist.

Die moderne Strategie und die Taktik des sportlichen Wettkampfs erfordern bei dem ausgeglichen Niveau der Gegner von dem Sportler, dem Trainer und den Sportaktivisten eine entsprechende Vorbereitung und die Durchführung des Kampfes gemäss angenommenen Pläne und Voraussetzungen. Eine breite Analyse der Faktoren, welche Einfluss auf den Erfolg nehmen, sowie die Berücksichtigung unverhoffter Situationen - stellen die Grundlage für die voraussichtlichen Sportergebnisse dar. Die Beurteilung eigener Möglichkeiten sowie die Voraussicht bestimmter Sportresultate während des Starts auf den nächsten Wettbewerben sind eine schon seit langer Zeit von den Sportlern selber und vor allem von den sie auf diesen Start vorbereitenden Trainern durchgeführte Tätigkeiten. Jedoch im Gegensatz zur Vergangenheit werden die Prognosen, welche die Erzielung eines gegebenen Sportergebnisses betreffen, sehr tiefgreifend auf der Basis aktueller Indexe des Niveaus der Austrainierung sowie auf der Basis einer Reihe von Faktoren durchgeführt, welche Einfluss nehmen auf den Start des Sportlers und in höherem Masse als bis vor kurzem die Wahrscheinlichkeit seiner Ergebnisse voraussehen.

Es ist jedoch festzustellen, dass die Möglichkeit des Voraussehens oder auch die Aufstellung konkreterer Prognosen in den einzelnen Sportarten, abhängig von der Anzahl der die Aktivität determinierenden Faktoren, des Grades ihrer Kenntnis, von dem Einfluss unvorhergesehener Situationen, die sich im sportlichen Wettkampf herausbilden, und zu guter letzt auch von dem Niveau der Kompliziertheit der Aktivitäten der Sportler, die in den Sportspielen und in den Sportkampfarten so typisch sind im Vergleich mit den Sportarten, in welchen der Kampf individuellen Charakter trägt und auf indirektem Wege verläuft, bedeutend differenziert ist.

Aus den von uns durchgeführten Untersuchungen geht hervor, dass die Sportler in einem höheren objektiven Grade als die Trainer das Erzielen eines Sportresultats voraussehen, obwohl ein gewisser Teil von ihnen eihre eigenen Möglichkeiten überschätzt. Die Konfrontierung der Prognosen der Ergebnisse, welche von den Sportlern selber und ihren Trainern vor den Sportwettkämpfen angegeben werden, mit den während der Sportwettkämpfe erzielten Resultaten weist ebenfalls auf die Tatsache hin, dass die Prognose sowohl der einen als der anderen nur in geringem Masse entsprechend den Erwartungen verwirklicht sind. Es scheint, dass solch ein hoher Grad der Unsicherheit der Prognosen in geringerem Masse mit der konkreten Austrainierung der Sportler für den Kampf als mit den kompliziertен gesellschaftlichen Bedingungen und mit der Aufnahme eines in hohem Masse stehenden Risikos des Wirkens, welches der Sportler und insbesondere der Trainer auf sich nimmt, verbunden ist. Oftmals überschreiten ein zu intensives Sporttraining sowie zu hohe gesellschaftliche Erwartungen, welche unter den drei Alternativen des Sportkampfes: der Niederlage, des Unentschiedens oder des Erfolgs- einzig und allein den Sieg sehen, die Möglichkeiten der Sportler und stellen die aktiven Wettkampfteilnehmer in eine schwierige Situation vor dem Start und rufen unvorteilhafte Spannungen für den Verlauf der Wettbewerbe hervor. Charakteristisch ist eben die Tatsache, dass die späteren Einschätzungen in minder realem Grade die Analyse der Siege betreffen und dass sie sich vielmehr auf die Kommentierung für die Gründe der Niederlage ausdehnen und dies in einer ausserordentlicher subjektiven Form.

Das von uns ziemlich allgemein und fragmentarisch dargelegte Problem erfordert weitere eindringliche wissenschaftliche Untersuchungen und Forschungen. Sowohl von theoretischem Standpunkt aus als auch vom Gesichtspunkt der Sportpraxis ist es ausserordentlich interessant, wichtig und höchst aktuell. Es scheint so, dass die Vorarbeit auf die Beurteilung aller Faktoren beruhen muss, die einen dominierenden Einfluss auf die Prognostizierung und die Planung der Ergebnisse des Sportlers durch den Sportler selber in Zusammenarbeit mit seinem Trainer, gleichzeitig mit dem Sportarzt und anderen Personen, die sich mit den Startvorbereitungen befassen, haben. Die weitere Arbeit muss die Anwendung solcher Trainingsformen anstreben, welche den Schwierigkeitsgrad der Wettkämpfe überschreiten und die Treffsicherheit der Prognostizierungen und der Sportvorhaben vergrössern sollten, um somit zu einer weiteren Objektivisierung der Messungen der Tätigkeit im Sport beizutragen.

Es sei jedoch festzustellen, dass dies die schwierigsten Probleme sind, welche auf einer Lösung seitens der Praktiker des Sports sowie der Theoretiker harren und die bisher am schwächsten entschlüsselt worden sind. Es ist anzunehmen, dass die gegenwärtig aufgenommenen Untersuchungen sowie auch die in naher Zukunft geplanten Forschungen die Kenntnis des Funktionierens der Psychik des Sportlers in komplizierten gesellschaftlichen Bedingungen bereichern und die Lakunen der modernen Wissenschaft zum Thema des Verhaltens des Menschen in Bedingung seiner Aktivität ausfüllen können.

ANXIETY, QUALITY OF MOVEMENT AND PERFORMANCE

WEINBERG,R.-BARTHOL,R.P., Los Angeles, U.S.A.

Admonitions from coaches to people throwing balls; "Follow through", "Relax", "Don't choke up", "Make it nice and smooth".

A relationship between anxiety level and motor performance seems intuitively clear to most coaches. The Yerkes-Dodson inverted U-curve (which has some flaws in it) defines the philosophy of most coaches who try to help their players achieve just the right amount of arousal or anxiety- not too little, not too much. Although this seems to be a usable philosophy, it turns out that it works very well as a post hoc hypothesis, not a predictor. Rainer Martens pointed out in 1971 that most of the research relating anxiety and motor performance in any way is equivocal. The many conceptual and methodological problems in arousal-motor performance research may be caused- or at least aggravated-by the fact that most of this research is focussed on motor performance, not motor behavior. Performance refers to outcome: how many points, how high, how fast, how close. Performance measures are specific to the situation and do not necessarily reflect individual behavioral differences. Motor behavior refers to a process of moving, yet the usual criterion is the performance, the end result,rather than the quality of movement. We will look at the process. Dr. Valerie Hunt, of UCLA, used electromyography, a procedure that measures muscle activity, to show that the high-anxious and low-anxious subjects differ in their quality of movement. She looked for efficiency and economy of energydemand of muscles during the entire sequence of a simple athletic behavior. These measures provide information about movement patterns during a task, which may be quite different from outcome of the task. Both kinds of information are important: a ball travelling between the uprights of a goal carries very important information, but not necessarily anything about the movement patterns of the body that drove it there. Information about movement patterns may allow us to make predictions about many performance tasks, not just the single task-specific performance.

Weinberg tried to relate the quality of movement with the effectiveness of motor performance, and to determine how differing conditions of anxiety might interact with these two variables. Anxiety is considered to have two separable qualities: the chronic, long term, semi-permanent anxiety condition of the individual, called TRAIT ANXIETY; and the situational, transitory, immediate anxiety condition called State Anxiety.

In this study, subjects were divided into high and low-trait anxiety groups and given a gross motor task to perform under conditions likely to induce differential levels of state anxiety. Scores reflecting the degree of success in the outcome were used to indicate performance, and electromyographic recordings were used to indicate the quality of movement. So, four variables were measured (state anxiety, trait anxiety, quality of movement, and performance) and the interrelationships were explored.

The procedures used in the study followed a simple design. Both trait and state anxiety were measured by the Spielberger State-Trait Anxiety Inventory which was administered to 175 male undergraduate volunteers. Ten high-anxious and ten low-anxious subjects were selected. The task was to throw a tennis ball at a target 7.5 meters distant. The target consisted of a center circle 10 cm in diameter, and two more concentric circles, each one 10 centimeters larger in diameter. Performance was measured by scoring 5 points for hitting the center, 3 and 1 points for the outer two, and no points for outside the target.

Quality of movement was estimated by electromyography: electrodes were placed to continuously record activity of four relevant muscle groups. The agonists were the triceps and the flexor carpi ulnaris; the antagonists were the biceps and extensor carpi radialis. A baseline measure of activity for each muscle was used to determine the starting and ending point of each of the four variables used. (1) "Anticipation" is the time in seconds from the start of activity until the major contraction; (2) "duration" is the time of the major contraction; (3) "perseveration" is the time lapse from the end of the major contraction to the return to the baseline measure; (4) "sequence of muscle action" was the time of the start of activity in the agonists compared with the start of activity in the antagonists. Two measures were used for this variable: "cocontraction," the simultaneous contraction of agonist-antagonist and "sequential contraction in sequence of the two muscle groups.
After the electrodes were placed on the subject he completed a state-anxiety test to obtain his anxiety level at that time. He was then given instructions about throwing at the target, about the point system, and the unsupported statement that the final score would be "an excellent prediction of success in numerous sports." After completing the ten throws, the subject was given negative feedback, that is, he was told he did poorer than most college students, and indeed was one of only a few who failed to reach the level of most college males. He was asked to concentrate more and try harder. The failure feedback was readily believed because the task appeared much easier than it was. After the second ten throws, the second A-State test was administered to see if any anxiety was created by the experimental conditions.
The literature indicates that negative evaluation of performance or threats to self esteem produce higher levels of state anxiety in persons with high trait anxiety than in persons with low trait anxiety. These were the expectations in this study and the results bore them out at the .01 level of confidence. That is, the high A-trait subjects showed higher state anxiety after the experimental procedure than did the low A-trait subjects.
The results of the electromyographic study clearly showed that the subjects who were chronically high anxious used more energy and had less efficient movements than the chronically low anxious before, during, and after the throw. (A multivariate discriminant analysis showed all significant at .03 or smaller.) In addition, they exhibited much greater cocontraction of agonists and antagonists which indicates a high level of inhibition, rather than the large rhythmical movements characteristic of throwing a ball. We infer from this that the control of movement for the high A-trait subjects, who had the opposite characteristics, used less energy and showed a smooth sequential series of movements of the agonist and antagonist muscles. The rhythmical, smooth, free-flowing movements are characteristic of midbrain and spinal cord control. A throw should be reflexive with little control from the cerebral cortex; and the low A-trait subjects displayed this pattern, giving them more freedom of movement and more efficient expenditure of energy.
The performance scores (number of points) of the low anxious subjects were higher after failure feedback, while the high anxious subjects had a performance decrement, that is, they had lower scores.
We believe that this represents increasing cognitive control by the high anxious subjects, which interfered with the natural, rhythmical, smooth movement of the body. This notion is in accord with Tim Gallwey's conception of Self 1 and Self 2, in which Self 1 is the "teller" and Self 2 is the "doer", and the relationship between the two is the prime factor in the translation of knowledge of technique into

effective movement. By thinking too much, and trying too hard, Self 1 produces tension and muscle conflict in the body which causes poor performance. If the unconscious, automatic, spinal self (Self 2) is allowed to work without interference from Self 1, then rhythmical effective action will result. Thus, the performer who can relax and quiet his mind by reducing his thinking, calculating, judging, and trying, can let the body do what it knows how to do. The concept of BRACED-V, which was discussed at another part of this Congress, fits exactly with this hypothesis.
To summarize, this study showed that high anxious subjects respond poorly to anxiety producing situations. The poor performance can be related to the over-controlling of muscles by the cerebral cortex with the attendant inefficient use of energy and the loss of the smooth flow of movement. This might say something to the coaches who try to "motivate" their team players through sarcasm or condemnation which probably raises the anxiety level which may release more energy but at a probable cost of a decrement in performance for high anxious subjects.

OBSERVATION DU COUPLE "PARENTS-ENFANTS" EN MILIEU AQUATIQUE

WIELKI, C. - LANDRAIN, L. - MARIQUE, T., Louvain, Belgique

1. Introduction

On admet aujourd'hui que les résultats sportifs dépendent de l'héritage génétique du sujet ainsi que de son développement psycho-moteur. Si la valeur des données génétiques sont déterminées à la naissance et restent immuables, la valeur du développement psycho-moteur a pris aujourd'hui une grande importance. De plus,ce problème s'occupe d'enfants de plus en plus jeunes aussi bien dans le milieu terrestre que récemment dans le milieu aquatique.
Certains visent surtout la spécialisation précoce de l'enfant en vue de la haute performance, du résultat sportif, d'autres mettent davantage l'accent sur les problèmes de l'évolution et du développement harmonieux de l'enfant en insistant sur la disponibilité psycho-motrice du sujet. On considère le développement psycho-moteur de l'enfant comme un moyen d'éducation, comme développement naturel se faisant dans la joie et le plaisir, répondant ainsi aux besoins psychologiques de l'enfant.
Nous nous sommes penchés sur le problème du comportement des enfants dans le milieu aquatique en présence d'un adulte, soit la mère, le père et aussi, même, parfois le moniteur.
Lors de nos observations préliminaires, nous avons remarqué que les comportements "moniteur - enfant - parents" sont très diversifiés et étroitement liés aux optiques et finalités envisagées par les différentes tendances de ce mode particulier d'éducation. Nous avons soit les tendances qui mettent au premier plan les résultats immédiats en vue de performances spectaculaires, soit, d'autre part, les tendances visant le développement psycho-moteur de l'enfant. Nous situant plus dans l'optique d'une approche éducative contribuant au développement psycho-moteur de

l'enfant et ceci dans un cadre de relation affective parents-enfants, nous avons envisagé les objectifs suivants:

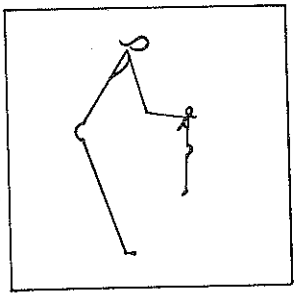
- offrir un cadre supplémentaire de développement à l'enfant avant qu'il devienne craintif vis à vis de ce nouveau milieu et ne perde ainsi ses réflexes natatoires,
- aider les enfants, avec la collaboration des parents, à conquérir leur autonomie dans ce milieu à trois dimensions /Self-saving/,
- offrir à l'enfant un milieu privilégié pour son développement psycho-moteur à l'âge où l'élaboration de l'intelligence est très grande,
- emploi de gestes moteurs naturels en évitant tout "dressage" stéréotypé en présentant des situations-problèmes à résoudre.

2. Méthode de travail et technique d'observation

Pour pouvoir comparer les comportements, nous avons cru nécessaire d'organiser les séances hebdomadaires en vue d'une observation dans des conditions plus standardisées /zone d'évolution limitée, angle de vue identique, profondeur égale.../. Nos observations portent sur une série de situations caractéristiques pré-déterminées qui permettent d'adapter l'enfant au milieu aquatique et en même temps, le comportement de l'adulte aux nécessités psychologiques de l'enfant en présence des situations dans ce milieu:

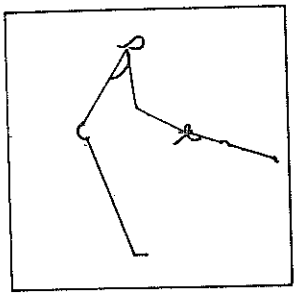
1° Situation: Enfant en position verticale

- Recherche de l'équilibre en position verticale.
- La mère soutient son enfant sous les aisselles.



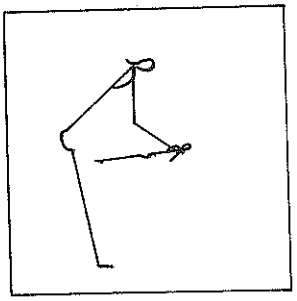
2° Situation: Recherche de l'équilibre en position ventrale

- L'enfant est en position ventrale face à sa mère, il est soutenu sous la poitrine.
- La mère promène son enfant en marchant à reculons.



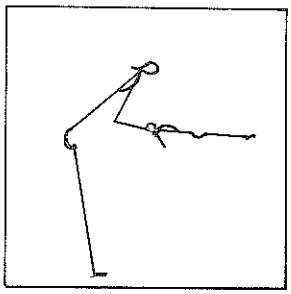
3° Situation: Recherche de l'équilibre en position dorsale

- L'enfant est en position dorsale, face à sa mère, il est soutenu sous les aisselles.
- La mère promène son enfant en le poussant devant elle.



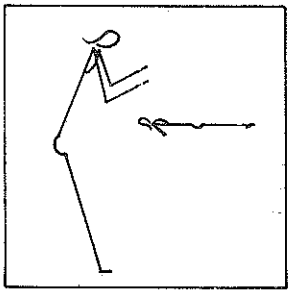
4° Situation: Recherche de l'équilibre en position dorsale

- L'enfant est en position dorsale, sa mère se trouve derrière lui, il est soutenu sous la nuque.
- La mère promène son enfant en marchant à reculons.



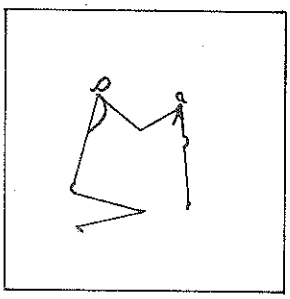
5° Situation: Flottaison dorsale

- L'enfant est en position dorsale, sa mère se trouve derrière lui. Il est soutenu sous la nuque. Il y a un relâchement progressif du soutien par de changements de mains de plus en plus espacés.
- En cas de flottaison libre, la mère tiendra ses mains au-dessus du visage de l'enfant pour servir de repère.



6° Situation: Immersion verticale

- Immersion tenue de l'enfant soutenu sous les aisselles par sa mère.
- La mère s'immerge aussi en observant son enfant.



Chaque couple "parents-enfants" passe individuellement et tour à tour dans la zone d'observation. Chaque séquence est observée directement et en même temps, elle est enregistrée pas système vidéo.

Exemple d'observation directe : /Derchee A. - 6 mois et 1/2 /
Première séance pour l'enfant. Avant l'entrée dans l'eau, l'enfant réagit normalement. Dans l'eau, il est très détendu, souriant et très bien équilibré.
La mère est affective, très souriante et très à l'aise dans l'eau.
En fin de séance, l'enfant flotte presque librement et il fait des mouvements alternatifs des jambes.
Mr. le Professeur Wielki effectue avec l'enfant un passage sous eau vers la maman. L'enfant bloque bien sa respiration et réagit très bien. Il fait même un essai de retournement /mouvements croisés des jambes et des bras/, mais la mère stoppe le mouvement trop tôt en reprenant son enfant.
Immersion: bon blocage et réaction positive après.
R/ C'est un enfant très ouvert, assez extraverti, sociable /il s'intéresse aux autres bébés/.

Dépouillement-vidéo

Dans les situations choisies, nous déterminons:

1. Le comportement /expression de caractère/ d'une part de l'enfant et d'autre part de la mère,
2. L'attitude corporelle de l'enfant et de la mère,
3. Appréciation de l'aisance du couple dans l'eau.

De plus, nous avons choisi 4 critères complémentaires d'observation pouvant apporter des éléments de compréhension ou d'explication au sujet de la relation mère-enfant:

1. Attitude posturale de la mère /proximité, enveloppement.../,
2. Contact visuel,
3. Contact vocal,
4. Appréciation de la manipulation.

Moyen de cotation:

- Le comportement /expr.car./ :

Enfant

++ = Très positif = joie intense, rire au éclat
+ = positif = l'enfant est souriant, joyeux
O+ = neutre positif=l'enfant est calme, ne manifeste . joie, ni mécontentement, il est assez passif
O⁻ = neutre négatif=l'enfant exprime de légères plaintes intermittentes
- = négatif = l'enfant pleure de façon continue
-- = très négatif = l'enfant pousse des cris, pleure fortement

Mère

++ = très positif = joie intense, rire, expression vocale amusante
+ = positif = joie, sourire
O+ = neutre positif= calme, souriante
O⁻ = neutre négatif= calme sans joie
- = négatif = non contentement
-- = très négatif = répressive, invectivante

- L'attitude corporelle:

Enfant

++ = très positif = l'enfant est calme, très bien équilibré et très détendu, cela de façon constante. Mouvements actifs.
+ = positif = l'enfant détendu, plus ou moins bien équilibré, peu de mouvements actifs
O+ = neutre positif= enfant plus ou moins détendu, pas de mouvements actifs
O⁻ = neutre négatif= enfant un peu crispé, peu détendu, mouvement de défense passager
- = négatif = enfant crispé, pas détendu, mouvements de défense
-- = très négatif = enfant très crispé, pas du tout équilibré, beaucoup de réactions de défense

Mère

++ = très positif = mère active, très détendue, très bien équilibrée dans l'eau
+ = positif = détendue, bien équilibrée dans l'eau
O+ = neutre positif= manifeste quelques problèmes d'équilibration
O⁻ = neutre négatif= problèmes d'équilibration, crispation
- = négatif = mère crispée, peu équilibrée
-- = très négatif = mère très crispée, mouvements parasites.

- Aisance dans l'eau:

Enfant

++ = très à l'aise, aucun problème
+ = à l'aise
0+ = moyennement à l'aise
0- = peu à l'aise
- = mal à l'aise, crispation très grande
-- = a peur de l'eau

Mère

++ = très à l'aise dans l'eau
+ = à l'aise dans l'eau
0+ = moyennement à l'aise
0- = peu à l'aise
- = mal à l'aise, crispation très grande
-- = a peur de l'eau

- Attitude posturale de la mère:

+ = très proche, très enveloppante
0 = plus ou moins proche
- = éloignée, distante

- Contact visuel:

+ = existant tout le temps
0 = momentané
- = inexistant

- Contact vocal:

+ = existant
0 = momentané
- = inexistant

- Appréciationde la manipulation

+ = très bonne, parfaite
0 = petits problèmes
- = mauvaise.

3. Déductions, réflexions suite aux observations

A titre d'exemple, nous vous présentons un cas réel illustrant bien le rapport étroit des relations entre la mère et son enfant en employant notre système d'évaluation.

Noëlle H. 11 mois

enfant ⟶ mère
enfant ⟵ mère

Début de la séance.

Tableau 1 /sit.4: position dorsale enfant dos à sa mère/

Comp. /Car./	0+ à +	++	Att.post. +
Att . Corp.	0+ à +	++	Contact visu.+ ; c.voc. +
Aisance	+	+	Manipulation +

Plus tard dans la séance, passage de la sit. 2 à la sit. 4

Tableau 2 /sit. 2 : position ventrale enfant face à sa mère/

Comp. /Car./	++	++	Att.post. +
Att.Corp.	++	++	Contact visu.+ ; c.voc. +
Aisance	+	++	Manipulation +

Tableau 3 /passage de la sit. 2 à la sit. 4/

Comp. /Car./	-	0+	Att.post. 0
Att. Corp.	-	0-	Contact visu.- ; c.voc. -
Aisance	-	-	Manipulation --

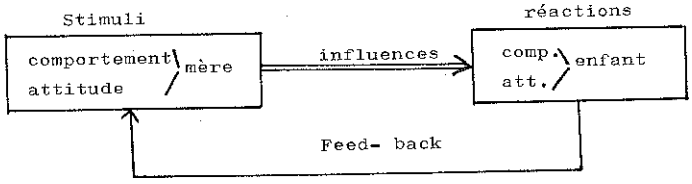
Tableau 4 /début de la sit. 4/

Comp. /Car./	-	+	Att.post. +
Att. Corp.	-	+	Contact visu.+ ; c.voc. -
Aisance	-	+	Manipulation +

Tableau 5 /sit. 4 elle-même/

Comp. /Car./	+	++	Att.post. +
Attt. Corp.	+	++	Contact visu.+ ; c.voc. +
Aisance	+	++	Manipulation +

A la fin de la séquence /tableau 5/, on retrouve une relation similaire de la situation no 4 du tableau 1 déjà observée dans la séance.
Au tableau 2, on constate au départ une relation très positive entre la mère et l'enfant.
Au tableau 3, la relation mère-enfant devient négative. Le facteur perturbant est ici une mauvaise manipulation -- lors du changement de situation, la mère s'était engagée dans une manoeuvre n'offrant plus continuellement un soutien sécurisant à son enfant. Ce problème de manipulation de la mère engendre une réaction négative chez l'enfant. Dans un premier temps, l'attitude et le comportement de la mère sont nettement moins positifs face aux réactions de son enfant.
Au tableau 4, la mère réajuste l'ensemble de son comportement l'enfant réagit encore négativement.
Au tableau 5, ce réajustement positif de la mère a pour résultat de sécuriser son enfant, face à cela elle retrouve le sourire, le contact visuel et vocal avec son enfant et montre ainsi une attitude et un comportement à nouveau très positif.
Par cet exemple, nous constatons que les influences de comportement et attitude dans la relation mère-enfant sont très bien illustrées et que ces influences ne se font pas que dans le sens mère enfant mais également de l'enfant vers la mère c'est à dire une relation en boucle cybernétique avec feed-back, ce que nous illustrons par le schéma suivant:



Tout ceci peut être visualisé par notre système simple de notation que nous avons présenté plus haut.
Notons que ce système permet en outre de visualiser clairement le tableau général dans une situation déterminée mais également le déroulement des actions dans une suite enchaînée de situation.

Nous pouvons ainsi étudier les relations de différents couples mère-enfant dans une situation semblable et de même voir la relation d'un même couple dans une suite de situations.

Dès maintenant, malgré le nombre restreint de nos observations dans des conditions standardisées, voici nos déductions:

- quand l'ensemble est + ou ++ du côté enfant, on constate une correspondance + ou ++ du côté parents,
- en situation 2, quand l'attitude et le comportement de l'enfant sont moins positif et négatif, on trouve parfois mais pas toujours des éléments moins positifs du côté parents, tandis que en situation 4, il y a très souvent un facteur négatif du côté parent qui intervient, il s'agit surtout du facteur "qualité des manipulations" ou du soutient. Il est vrai que la sit. 2 correspond à une situation plus naturelle/avoir l'enfant de face et soutenu sous les aisselles/ et fréquement employée dans la vie de tout les jours tandis que la situation de l'enfant soutenu en décubitus dorsal sous la nuque est une situation plus exclusive du milieu aquatique.
- Il y a une plus grande variété et une plus grande répartition dans les deux sens /positif et négatif/ comportement et attitudes en situation 4, tandis que en situation 2, l'ensemble a tendance à se porter vers le positif.
- On remarque dans les deux situations une correspondance très forte entre comportement /caractère/, attitude corporelle /tonicité/ et l'aisance générale, et ceci plus chez l'enfant que chez les parents. Cela montre que l'enfant réagit plus en "bloc" /total pattern/ et que les adultes réagissent de manière plus nuancée. Les sourires, les paroles sécurisantes,une attitude corporelles adéquate n'excluent pas nécessairement un manque d'aisance dans l'eau ou des manipulations inadéquates.
- D'une manière générale, les parents qui sont très à l'aise et très adroits dans l'eau ont des enfants qui réagissent de façon très positive dès le début et qui se réajustent plus vite en cas de perturbations.
- Il faut aussi faire une différence entre les enfants très jeunes ou débutants et les enfants plus habitués: les premiers ont un comportement parallèle, calqué sur celui des parents tandis que les autres ont une moins grande nécessité d'un contact très proche, leur aisance, leur début d'autonomie leur permettent de se détacher plus de ce contact constant avec leur parents et de s'intéresser à l'environnement.
- Les facteurs pouvant engendrer un comportement négatif dans la situation 4 sont de différents ordres:
  - soit dans le changement de situation, la perte de sources d'intérêts /jouets, environnement.../ de la situation précédente,
  - soit des défauts au niveau de la manipulation, changement trop rapide de la position du corps entraînant des perturbations au niveau des sens de l'équilibre: les réflexes de sursaut, de Moro /embrassement/ et contractions musculaires générales du corps peuvent se déclencher,
  - soit le transfert de la mère vers le moniteur non accepté,
  - éventuellement, la situation dorsale non acceptée en général, peut être en relation avec la position habituelle du sommeil en décubitus ventral.

En conclusion, nous ne prétendons pas que notre étude a résolu entièrement les problèmes de l'éducation aquatique au premier âge, mais nous pensons dès à présent qu'il est important de prendre en considération les points suivants:

- finalités de cette éducation aquatique précoce,
- importance de la présence "active" des parents dans un cadre de relation affective parents-enfants. Nous pensons que la relation parents-enfants est un des facteurs les plus importants dans cette forme d'éducation,
- importance de la fonction ludique.

Ainsi nous croyons faire un pas en avant pour sensibiliser votre attention afin de canaliser davantage cette vogue d'éducation aquatique précoce des bébés, afin de ne pas les exposer à des situations traumatisantes.

КОНФЛИКТЫ В РАЗВИТИИ СПОРТИВНОГО КОЛЛЕКТИВА

ЗАВЕРСКА,Ю.Г., София, Болгария

Конфликтность является глубокой диалектической характеристикой любой человеческой деятельности. Объединение разных людей в группе для достижения коллективной цели базируется на единстве и противоречии. В нашем обществе их существенное отличие отсутствие антагонизма. Проблема в конфликтах в спорте особенно актуальна из-за его напряженного, экстремального характера. Спортивная практика часто требует ответа на такие вопросы, показывающие непонимание и невыясненность, как например необходимы и неизбежны ли конфликты, поскольку они могут быть полезными или вредными, положительными или отрицательными, нужно ли их заглаживать или четко выявлять, существуют ли пути их устранения, кому отдать предпочтение - конфликтной или бесконфликтной личности и т.п. Бессомненно конфликт является социально-психологическим потенциалом спортивного коллектива (В.Темков). Его нужно изучать как сложное явление, отдифференцировать формы и особенности проявления, вызывающие причины и, следовательно, способы оптимального решения. И все это ввиду особенностей, потребностей и целей конкретного спортивного коллектива, поскольку мелочей нет в тренерской работе - каждая из них может вызвать конфликт (А.Я.Гомельский).

Настоящее сообщение представляет попытку обобщения результатов многолетних исследований спортивных команд (баскетбол, волейбол, гандбол, футбол, водное поло, спортивная гимнастика) наших и социалистических стран при помощи методов социометрии, полярных профилей, констатирующий и преобразующий лабораторный и естественный эксперимент.

Общение между спортсменами строится на объективной необходимости их активного взаимодействия. Оно протекает разными способами на базе определенных взаимоотношений, характеризующих команду как устойчивую систему. Каждое нарушение этой устойчивости ведет за собой конфликт. Коротко коснемся следующих форм его проявления, наблюдаемых нами.

1. Ролевой конфликт проявляется прежде всего в нарушении деловых отношений, в снижении интенсивности взаимодействия на площадке, в уменьшении эффекта деятельности. Причины кроются в пробелах целостной подготовки спортсмена; потенциальным источником может быть также некомпетентность тренера. Исход связан на первом месте с повышением спортивного мастерства.

2. Личностные конфликты проявляются обычно в общении вне спортивной деятельности, но остро на нее отражаются (изменение обычного поведения, настроения, активности на тренировках, растерянность, нарушение дисциплины и режима). Причина неудовлетворение потребности в общении, сопереживания мыслей, волнений, интересов и пр. Решение конфликта возможно с возобновлением общности переживаний или переключением на новый объект.

3. Информационный конфликт возникает при неадекватности и неэффективности размениваемой между спортсменами информации. Установленные нами категории информации - организующая, оперативная и оценочная имеют различную весомость в зависимости от особенностей противника. Их оптимальность предотвращает информационный срыв. Преобладание одной над другими, например, отрицательной оценочной информации (неодобрения, упреки, споры, ссоры и др.) приводит к острому информационному конфликту, который со своей стороны может вызвать ролевой, личностный и т.д. Причины надо искать в недостаточно обдуманной тактической и эмоциональной подготовке.

4. Дезорганизацию наблюдаем при нарушении обычного взаимодействия, при затруднении визуального восприятия жестикуляций, вида партнеров, при невозможности своевременной интерпретации, срочного угадывания его замыслов и саморегуляции собственных действий. Причины: отсутствие сработанности, определенных стереотипов взаимодействия и единого семантического языка (при подмене, например, состава команды).

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6. Особенности созданных отношений между игроками в команде как например критичные-бескритичные, принципиальные-беспринципные, негативные и скептические, подражательские и др., ведут со своей стороны к различному по своему характеру взаимодействию: коллективизм, соревнование, интеграция, содействие, сопереживание или приспосабливание, конформизм, оппозиция, подчинение и господство, изоляция, ассимиляция - словом, конфликтность.

Сделанная нами содержательная систематизация конфликтов не является исчерпательной. Она показывает сложность этих явлений, взаимно переплетающихся, обуславливающихся, сливающихся, Видно, есть основание смотреть на конфликты как на закономерные развитию явления, быть в готовности всегда их встретить и эффективно решать. Для этого нужно их хорошо знать. Самое главное условие при поиске исхода из конфликта бескомпромисность, имея в виду коллективную цель и воспитание личности спортсмена в коллективе.

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ATTITUDE FORMATION AND CHANGE

ZAICHKOWSKY, L.B., Boston, U.S.A.

In education, as the affective domain struggles to achieve parity with the cognitive domain it is only logical that the discussion of the concept of attitudes takes on greater significance. This is neatly demonstrated by the inclusion of attitudes as one of the areas of concern at this conference. The development of positive attitudes toward physical activity is considered to be an important component of the instructional process. We are not only interested in the acquisition of motor skills but also concerned about the total development of the student.

One reason to consider positive attitude development important is that generally attitudes are considered to have approach and avoidance characteristics. That is to say, if a person likes the attitude object she is more likely to "approach" it than to "avoid" it. For physical educators this means having a person participate in physical activity, not only during the time in which she is physically present in the class, but also long after she has left the "formal education" setting. Therefore what we are looking for is a relationship between how a person feels about physical activity and how she acts toward physical activity. However, this relationship is not a direct or straightforward one.

Attitudes are made up on three components: affect, cognition, and behavioral intentions. Many people make the assumption that if one were to measure the affective component of an attitude that it would be possible to predict how a person would respond when presented with the attitude object. This relationship, however, is an elusive one and Wicker (1969) suggests that the research is much more supportive of a conclusion that indicates a lack of relationship between the attitudinal components. Kelman (1974) in assessing the problem states that we should be looking for the "conditions that make for a greater consistency." (312) He continues, that major determinants of the action are affected by the social constraints upon the individual - i.e. interpersonal demands and normative expectations (reference groups). It is Kelman's contention that "action is the ground on which attitudes are formed, tested, modified, and abandoned." (316)

Although this lack of relationship between the components of attitude has been discussed at length by social psychologists and is indeed disappointing, there are some studies in physical education which have shown a slight relationship between affect and behavioral intentions. Smoll, Schutz, and Keeney (1976) found a significant relationship between affect and participatory behavior of fourth, fifth, and sixth grade students. Kenyon (1968) found this relationship among high school students and Zaichkowsky, L.B. (1973) also found the same pattern using a sample of college students. The relationships were correlational in nature and not particularly high, but there may be some reason for optimism in seeing a more direct relationship between affect and behavior when discussing attitudes about physical activity.

What can we do if we are interested in creating favorable attitudes toward physical activity or in changing unfavorable ones? In order to create positive attitudes toward physical activity it is most appropriate to start at an early age. In examining some of the developmental tasks of middle childhood, as suggested by Havighurst (1972), one finds the learning of physical skills and building wholesome attitudes listed. Kahn and Weiss (1973) in a review article, point out that it is during this time (elementary school) that we generally find a consistent decrease in the attitudes of children in their like for school. This same decrease has been shown in physical education (Zaichkowsky, L.B., Zaichkowsky, L.D., and Martinek,1976).

It would seem then that middle childhood would be an important time for forming positive attitudes and acquiring motor skills; even though we presently find that this is not occurring. Instead we find that there is a general decrease in the attitudes of children toward school and physical education. Holloran (1967) states that we form our attitudes from direct experience with the attitude object, as well as from implicit and explicit learning acquired from others. This certainly brings to mind the work of Bandura and Walters (1963) and their research dealing with "modeling". Any "significant other" in a child's world can very easily have a positive or negative effect upon that child's perception of physical activity. Certainly teachers as well as the parents would have a great deal of impact. Therefore, in discussing the formation of positive attitudes toward physical activity the parents would be the first line of attack. The school would naturally come next with teachers exerting a great deal of influence.

To me, this means that educators must make a concerted effort to present the information in the best possible way. This would have curricular implications in that we should take the child where she is and also keep her interested in the activities offered. Allowing each child to experience success, particularly in a field where there are so many varied and diverse activities from which to select a program, is an important part of the growing process. In the United States, we can point to examples where teaching styles have no doubt contributed to the formation of negative attitudes. Take the case of the teacher who is more involved with teaching students who have developed their motor skills and ignores those who do not have the requisite physical abilities.

The term "hidden curriculum" has been used to incorporate the idea that the manner in which we speak to others, the way we make a person feel, the example which we set, is at least as, if not more important than the actual skills that we are attempting to teach. This "hidden curriculum" may account for some of the problems which we see in the schools. Examples of children who drop out of sport at an early age may be a direct reflection of the experiences that they have had in connection whith physical activity. The learning associated with the attitude object has been undesirable.

If we are fortunate we would be able to create positive attitudes which would, hopefully, result in "approach" tendencies right from the beginning of the school experience. Then we might not find that schooling has an undesirable effect on the development of attitudes. However, since we seem to be unable to maintain the good feelings children bring to school we should look at how attitudes might be changed. There are a number of theories (basically dealing with discrepancies between affect and action) dealing with attitude change. The belief seems to be that as long as people are given information about the facts of the situation that eventually their actions will change along with their cognitive beliefs. Of course, factors like credibility of the communicator and initial attitudes of the target population are other important considerations. Kelman (1974) proposes a model whereby action is a key element in attitude change. He asserts that if a person acts in a discrepant way, i.e. affect and behavior are not consistent, that the action itself may be a step in the attitude change process. He assumes that an attitude does not represent a fixed point on a scale but represents a "range of commitment", and that a person finds herself in a stituation where she takes some action which is higher (lower) than her modal level, but within her range of commitment. As a result of the action she may raise (lower) her modal level and later her entire range. Kelman cites the reasons for these changes as, "opportunity, social challenge, cognitive challenge,

and self-mobilization." (322) That is, the person responds to opportunities, challenges, and internal factors to take actions that are higher (lower) than the modal level and this action is conducive to the process of continued attitude change. According to this model then, action creates the commitment to the attitude object and generates the change in the attitude. If this approach has merit then physical educators should have an advantage because the action component is such an integral part of the physical education setting. That is, if a person's modal level can be altered by a change in action; then the more we get people involved in physical activity the better chance we might have of inducing change in attitude and perhaps showing some consistency between affect and behavior.

Although it has been demonstrated in the literature that many people have positive attitudes (affect) toward physical activity; this regard has not been translated into action, as is readily apparent simply by looking at physical fitness levels. Some explanations for this lack of relationship between affect and action are: interpersonal demands on the individual as well as normative expectations which are constantly in operation. These "situational" aspects may be the intervening variables that prevent a demonstration of a direct relationship. However, one model proposes that this relationship is not static and that the action of the individual is constantly modifying a person's affect and that the process of attitude change is an interactive one. Be that as it may, it is still the responsibility of the teacher to try to present adequate "models" and activity situations that will foster positive attitudes and change negative ones.

REFERENCES

BANDURA, A., + WALTERS, R.H. Social learning and personality development. New York: Holt, Rinehart, and Winston, 1963.

HAVIGNHURST, R.J. Developmental tasks and education. (3rd. ed.) New York: David McKay Company, Inc., 1972.

HOLLORAN, J.D. Attitude formation and change. Leicester, England: Leicester University Press, 1970.

KAHN, S.B., + WEISS, J. The teaching of affective responses. in R.M.W. Travers (Ed.). Second handbook of research in teaching. Chicago: Rand McNally College Publishing Company, 1973.

KELMAN, H.C. Attitudes are alive and well and gainfully employed in the sphere of action. American Psychologist, 1974, 29, 310-324.

KENYON, G.S. Values held for physical activity by selected secondary school students in Canada, Australia, England, and the United States. Washington, D.C.: United States Government Printing Office, 1968.

SMOLL, F.L., SCHUTZ, R.W., + KEENEY, J.K. Relationship among children's attitudes toward physical activity. Research Quarterly, 1976, 47, 797-803.

WICKER, A.W. Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. Journal of Social Issues, 1969, 25, 41-78.

ZAICHKOWSKY, L.B. A study of change in the affective, behavioral, and cognitive aspects of the attitudes of university students toward physical activity. Unpublished doctoral dissertation, University of Toledo, Toledo, Ohio, 1973.

ZAICHKOWSKY, L.B., ZAICHKOWSKY, L.D., + MARTINEK, T.J. Self-concept and attitudinal differences in elementary age school children after participation in a physical activity program. Mouvement, October, 1975.

THE EFFECTS OF BIOFEEDBACK ASSISTED SYSTEMATIC DESENSITIZATION IN THE CONTROL OF ANXIETY AND PERFORMANCE

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Coaches, sports psychologists, sports fans, and athletes themselves will all concede that athletes at all levels of competition often fail to perform to their maximum capabilities under certain conditions. Although the limiting factors are numerous, there is some evidence that the athletes psychological state, specifically state anxiety, strongly affects performance. A large body of psychological literature has been devoted to describing the relationship between anxiety and performance, and although the results are somewhat equivocal, the general concensus is that high anxiety has a negative effect on the performance of complex skills-a characteristic of most competitive sports.

Given the theoretical assumption that high competitive anxiety has a detrimental effect upon human performance it stands to reason that intervention strategies should be employed to reduce competitive anxiety and hence to facilitate performance. One need not search far for anxiety management strategies; clinical psychologists have been developing and practicing several methods for many years. These techniques have included Progressive Relaxation (Jacobson, 1938), Meditation (Goleman, 1971), Autogenic Training (Schultz & Luthe, 1959), Systematic Desensitization (Wolpe, 1958), and Biofeedback (Budzynski, Stoyva & Adler, 1970).

One of the most popular treatment techniques for situation specific anxiety has been Systematic Desensitization (SD), in conjunction with a form of relaxation training. Recently EMG biofeedback has been used to facilitate the learning of relaxation. The purpose of the study was two-fold: 1. To determine whether EMG biofeedback training and traditional relaxation training in conjunction with systematic desensitization are successful in controlling athlete anxiety prior to gymnastic competition varying in competitive uncertainty. 2. To determine whether gymnastics performance improves as a result of the treatment.

Methods

Subjects. The 35 initial sucjects selected were college age male gymnasts aged 18-25. Subject selection was based upon their above average anxiety scores on the State Trait Anxiety Scale (STAI) (Spielberger, Gorsuch & Lushene, 1970), and coaches perceptions of individuals who exhibited performance hindering anxiety. Subjects were randomly assigned to: 1. Biofeedback Group, 2. Relaxation Group, 3. Control Group. In addition to STAI scores, baseline frontalis EMG scores were obtained from all subjects.

Treatment Procedures

Biofeedback Group (BFK). Subjects were comfortably seated in a laboratory with EMG electrodes (Cyborg EMG Model P433) in place over the frontalis muscle. Subjects were then instructed on techniques of relaxation. Visual feedback of muscle activity was presented to the subject for 15-20 minutes, twice per week. This training lasted for three weeks.

Relaxation Group (R). For purposes of training, the relaxation group followed the same procedures as the biofeedback group, however they were not allowed to view the feedback from the EMG instrument. Instead they listened to a taped se-

quence of relaxation exercises (Cyborg manual). As were the subjects in the BFK group, these subjects were asked to practice their learned relaxation techniques during their free time away from any instrumentation.

Desensitization Training. At the end of the 3-week training period both experimental groups practiced desensitization training for an additional 3-weeks. The investigators developed a hierarchy of anxiety producing events in gymnastics after discussions with the gymnasts and coaches. Subjects attached to EMG electrodes (no feedback) were asked to relax as completely as possible, then await a description of a competitive scene. The first scene was one that produced a small amount of anxiety. The subject was asked to imagine that scene for 10-30 seconds then return to a relaxed state for about 1-minute. More anxiety producing situations were then visualized in a continued hierarchy, each followed by a return to relaxation.

Control Group (C). The control group received no special training following their initial measurement for anxiety and EMG levels.

Post Tests. EMG data were again collected for all three groups following the 6-week training period. A-State data were gathered under two different conditions of competitive stress: 1. Moderate stress-competition where opposition was perceived to be approximately equal in ability, 2. Maximum stress-Regional gymnastics competition. Approximately 10-15 minutes before competition, subjects were administered the A-State form of the STAI. Judging of gymnastics performance was conducted by National Card Holders of the National Gymnastics Judges Association.

TABLE 1

Summary of research design

Group	Pre-test st.	tr.	EMG	Relaxation training	EMG	Desensitization training	EMG	Stress 1 st.	perf.	Stress 2 st.	perf.
BFK	x	x	x	x	x	x	x	x	x	x	x
Relax.	x	x	x	x	x	x	x	x	x	x	x
Control	x	x	x				x	x	x	x	x

Results

A total of 10 subjects failed to complete post-testing and participate in all aspects of the study.

Frontal EMG. All three groups (BFK, R, C,) had relatively low base-line mean EMG Levels: 6.3, 6.6, 5.9 microvolts ($p > .10$). After training in biofeedback and standard relaxation techniques the respective experimental groups lowered their EMG levels to means of 4.0 (BFK) and 4.2 (R) ($p < .05$). This amount represented a 36 % and 31 % decrease in EMG activity. After desensitization training, the BFK group had an additional 6 % reduction and the R group had a reduction of 7 %. The C group failed to show a significant change from baseline.

A-State Anxiety. Baseline anxiety scores for the three groups were: X = BFK-48.1, R-46.9, C-47.7 ($p > .10$). Prior to moderate competitive stress, mean A-State scores were: BFK-44.3, R-46.9, C-51.3. Prior to maximum competitive stress the means were: BFK-43.5, R-46.4, C-46.4. Repeated measures analysis of variance failed to show any statistically significant main effects or interactions. A nonsignificant correlation of -.07 was obtained between baseline A-State scores and baseline EMG scores.

Gymnastics Performance. It was difficult to adequately compare gymnastics performance from a statistical standpoint mainly because sample sizes for particular events were too small (range: n=1 to n=6). There are six events in mens gymnastics and the rules alow a performer to compete in one, several, or all events, hence the unequal and small group sizes in this study. Visual inspection showed the biofeedback group performed slightly better under moderate and maximum stress in the floor exercise and still ring events. Mean scores ranged from a group low of 6.1 (R) to a group high of 7.7 (BFK) for the floor exercise and 5.5 (C) to 6.6 (BFK) for the still rings. The relaxation group performed slightly better under both stress conditions in the vaulting and pommel horse events. Mean group scores ranged from 7.7 (C) to 8.4 (R) for the vaulting and 5.0 (C) to 5.7 (R) for the pommel horse events. The control group performed better under both stress conditions in the horizontal bar and parallel bar events. Mean scores ranged from 4.8 (BFK) to 8.3 (C) for the horizontal bar and 5.8 (BFK) to 8.0 (C) for the parallel bar.

Discussion

Based upon the work of Wolpe (1958), Budzynski et al (1970) and numerous other investigators using clinically anxious subjects as well as "normal" subjects under stressful conditions (Nideffer, 1976), it was hypothesized that a chain of events should take place. First, the anxious gymnasts who received treatment should have gained control over their anxiety. This would have been reflected by lowered EMG activity, and lowered self-report A-State anxiety.

Secondly, this lowered state anxiety should have resulted in increased performance by the gymnasts. As was predicted, subjects who were taught techniques of relaxation were able to significantly lower their frontal EMG activity, with the biofeedback technique being superior to traditional relaxation. This supports the work of Budzynski et al (1970). Although it was apparent that the experimental subjects had learned to control their frontal activity (theoretically a physiological measure of anxiety), this was not reflected in their A-State scores just prior to moderate and maximum competition. The only group that showed any signs of a self-reported decrease in competitive anxiety was the biofeedback group. The near zero correlation between EMG scores and self-report scores of anxiety suggest that perhaps frontalis EMG activity is not a good indicator of psychological anxiety.

The results of the gymnastics performance fail to demonstrate unequivocally that relaxation training transfers to the gymnasium and enhances performance. Although those receiving treatment scored better overall than their controls (four events out of six), under both stress conditions, it is possible that these differences could be due to chance since the number of subjects in each event were small. On the other hand it is possible that low arousal induced by relaxation may be detrimental for specific events thus explaining the superior performance of the control group in the horizontal and parallel bar events. Recent work in task analysis by Salmela (1976) indicates that the psychological demands of the various gymnastics events differ and therefore should be prepared for differently from a psychological stand-

point. Once a clear profile of gymnastics task demands become available it will perhaps be possible to determine the arousal needs for a specific event.

Interviews with subjects in the experimental groups pointed out that many of the athletes personally felt that relaxation training and biofeedback training allowed them to control their competitive anxiety and that over-all they perceived it to have helped their performance. Unfortunately this experimental design failed to clearly demonstrate this improvement. Although experimental research provides greater generalization of results, it seems in retrospect that case studies may have been a more appropriate way to test the efficacy of biofeedback assisted desensitization in the treatment of anxious athletes. The nature of gymnastics competition, as described earlier, makes it difficult to have a strong experimental design. Further, recent research has shown large individual differences in client response to biofeedback training (Brown, 1977). It is also true that the therapist's interaction with a client has a strong bearing on the effect of treatment. It is also possible that frontalis muscle training does not generalize to other muscle groups as readily as once thought, thus more research has to be done in this area.

In conclusion, the results of this study showed that frontal EMG biofeedback training and traditional relaxation exercises along with systematic desensitization are effective in cotrolling frontal EMG activity. However, self-report A-State anxiety failed to reduce appreciably from baseline. Although athletes self-reports provided support for relaxation training, the data failed to demonstrate that relaxation training enhanced all aspects of gymnastics performance. It is recommended that further studies, particularly case studies, be conducted to determine the efficacy of biofeedback relaxation training and systematic desensitization in the control of performance anxiety.

REFERENCES

BLANCHARD, E. & YOUNG, L. Clinical applications of biofeedback training: a review of evidence. Archives of General Psychiatry, 1974, 30, 573-589.

BROWN, B. Stress and the Art of Biofeedback. New York: Harper & Row, 1977.

BUDZYNSKI, T., STOYVA, J. & ADLER, C. Feedback induced muscle relaxation: application to tension headaches. Behavior Therapy & Experimental Psychiatry, 1970, 1, 205-211.

GOLEMAN, D. Meditation as meta-therapy: hypothesis toward a proposed fifth state of consciousness, Journal of Transpersonal Psychology, 1971, 3, 1-25.

JACOBSON, E. Progressive Relaxation. Chicago: University of Chicago Press, 1938.

NIDEFFER, R. Personal Communication. University of Rochester, N.Y. July, 1976.

SALMELA, J. Application of a psychological taxonomy to sport performance. Canadian Journal of Applied Sports Science, 1976, 1, 24-29.

SCHULTZ, J. & LUTHE, W. Autogenic Training: A Psycho-physiological Approach to Psychotherapy. N.Y.: Grune & Stratton, 1959.

SPIELBERGER, C., GORSUCH, R. & LUSHENE, R. STAI Manual. Palo Alto: Consulting Psychologists Press, 1970.

WOLPE, J. Psychotherapy by Reciprocal Inhibition. Stanford, Ca.: Stanford University Press, 1958.

ZUR BEZIEHUNG VON REMINISZENZPHÄNOMEN UND WARMING-UP-PHÄNOMEN BEIM MOTORISCHEN LERNEN

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I.

Reminiszenz ist dann gegeben, wenn sich nach einer einzigen Ruhepause, in der kein Lernen stattgefunden hat, eine Lernsteigerung nachweisen lässt (vgl. FOPPA 1975, 257; IRION 1972, 178; REED 1971, 151). Reminiszenz stellt also den Leistungsanstieg einer teilweise gelernten Aufgabe dar, der durch Pausenwirkung entstanden ist (Mc GEOCH/IRION 1965, 158).

Nach welchen Intervallen kann nun mit Reminiszenz gerechnet werden? Die Untersuchungen von WARD (1937) und HOVLAND (1938) zeigen eine Verbesserung der Behaltensleistung für kognitiv/verbales und motorisches Lernen nach relativ kurzen Pausen von zwei bis zehn Minuten. Darüber hinaus scheint für das motorische Lernen auch das Ballard-Williams - Phänomen zu gelten, so dass wohl auch noch nach einem wesentlich längeren Zeitraum Reminiszenzgewinne möglich sind.
Das Auftreten der Reminiszenz hängt von folgenden Bedingungsfaktoren ab:

1. Von der Beschaffenheit des Lernstoffs

   Hier gilt für den verbal/kognitiven Bereich, dass dem Erlernen abstrakter Wörter weniger Reminiszenz folgt als dem Erlernen sinnvoller Inhalte (Mc GEOCH/IRION 1965, 162). Ähnliches darf im übertragenen Sinne für das motorische Lernen angenommen werden.

2. Von der vorausgehenden Verteilung der Übung

   Nach massiertem Üben wurden in der Pause viel höhere Reminiszenzgewinne festgestellt als nach verteiltem Üben (ADAMS 1952, 413; IRION 1972, 179).

3. Vom Lernfortschritt vor der Pause

   Bedeutende Reminiszenzgewinne wurden gefunden, wenn das Lernziel vor der Pause noch nicht erreicht werden konnte (ADAMS 1961, 260). Für sportliche Bewegungen gilt wohl, dass während des Erwerbs der Grobkoordination beträchtliche Reminiszenzgewinne möglich sind, die dann bis zu dem der Feinkoordination immer mehr zurückgehen (RÜSSEL 1976, 125).

4. Von der Länge des Pausenintervalls

   In der Pause steigt die Reminiszenz bis zu einem Maximum an, das die optimale Pausenlänge kennzeichnet. Wenn die Pause darüber hinaus fortgesetzt wird, dann beginnt die Reminiszenz wieder abzufallen (IRION 1972, 179).

5. Vom Lebensalter

   Es darf angenommen werden, dass Reminiszenz als eine Funktion des Lebensalters zuerst steigt und dann abnimmt (IRION 1972, 179).

Die Anteilsverhältnisse und die Wechselbeziehungen der genannten Bedingungsfaktoren

beeinflussen die Ausprägung der Reminiszenz. In motorischen Lernsituationen sind die Reminiszenzwirkungen dauerhafter und grösser als in verbal/kognitiven (Mc GEOCH/IRION 1965, 165; IRION 1972, 178).

II.

Die Pause, die zwischen Lern/Übungsdurchgänge eingeschoben wird, kann auch die negative Wirkung des Anwärmverlustes (= Warm-up-decrement) zeitigen. Man versteht darunter das Abklingen, den Wegfall des Warmgewordenseins nach Beendigung des Lernens in der Ruhepause bzw. im Behaltensintervall (HÖRMANN 1964, 672; SCHUBERT 1972, 760).

Das Abklingen, Verlieren des Warmgewordenseins wird mit Hilfe der Set-Theorie nach Ammons und IRION erklärt:
Während des Übens werden Einstellungen, "Sets", erworben, die das Lernen bzw. Leisten erleichtern. Diese Einstellungen erfahren in der Behaltenspause eine Beeinträchtigung. Wenn dann die Lerntätigkeit wieder aufgenommen wird, muss der einzelne erst die richtige Einstellung zurückgewinnen (Mc GEOCH/IRION 1965, 452). Dieser Vorgang wird als Warming-up-Phänomen bezeichnet und geschieht unabhängig davon, ob in der Pause ein Lerngewinn oder Lernverlust stattgefunden hat.

Welche Bedingungsfaktoren beeinflussen nun den Anwärmverlust und welche begünstigen das Warming-up-Phänomen?

Das Warm-up-decrement bestimmen wohl:

1. Die vorausgegangene Verteilung der Übung

   Warm-up-decrements treten sowohl beim massierten als auch beim verteilten Lernen auf. Verteiltes Lernen bewirkt bei anwachsender Übungstätigkeit eine Verminderung des Anwärmverlustes (ADAMS 1952, 414). Für massiertes Lernen liegen unterschiedliche Befunde vor:

2. Der Lernfortschritt vor der Pause

   Je mehr Lernperioden vorausgegangen sind, ein desto höheres Niveau an Einstellung wurde erreicht. Folglich steigt auch die Anfälligkeit, in der Pause Anwärmverluste zu erleiden (SILVER 1952, 89).

3. Die Länge des Pausenintervalls

   Mit zunehmender Pausenlänge steigt der Anwärmverlust bis zu einer Obergrenze an (SCHINDELE 1960, 14; RÜSSEL 1976, 126).

4. Das Lebensalter

   Die Untersuchungen von SCHINDELE haben ergeben, dass fortgeschrittenes Lebensalter das Ausmass des Warm-up-decrements begünstigt (SCHINDELE 1960, 145-146).

In der Vergangenheit wurden zahlreiche Versuche unternommen, den Anwärmverlust noch in der Pause durch Einschieben sogenannter Warming-up-Tätigkeiten auszugleichen. Dabei zeigte sich, dass Auftreten und Wirkungsgrad des Warming-up-Phänomens nach Mc GEOCH/IRION von folgenden Faktoren abzuhängen scheinen (Mc GEOCH/IRION 1965, 451-455):

1. Vom Umfang der Aufwärmtätigkeit

Die Ergebnisse lassen darauf schliessen, dass mit einem Anwachsen der Aufwärmtätigkeit zunächst der Aufwärmeffekt bis zu einer Obergrenze steigt und dann abfällt.

2. Von der Ähnlichkeit zwischen Aufwärmtätigkeit und Lernaufgabe

3. Vom Zeitintervall zwischen Aufwärmtätigkeit und Lern- bzw. Übungsdurchgang

Es sei noch darauf hingewiesen, dass die Ausprägung von Warm-up-decrement und Warming-up-Phänomen in jedem speziellen Fall vom Anteilsverhältnis der dargestellten Bedingungsfaktoren abhängt.

III.

Ein Vergleich der für die Reminiszenz und das Warm-up-decrement gefundenen Ergebnisse lässt erkennen, dass beide Erscheinungen von annähernd den gleichen Bedingungsbereichen beeinflusst werden. Dies sind:

- die der Pause vorausgehende Verteilung der Übung,
- der Lernfortschritt vor der Pause,
- die Länge des Pausenintervalls,
- das Lebensalter.

Die detaillierte Betrachtung liefert folgende Erkenntnisse:

1. Wenn vor der Pause verteilt geübt wurde, sind die Beträge für Reminiszenz und Warm-up-decrement jeweils gering, d.h. beide Wirkungen wenig ausgeprägt. Auf massiertes Lernen folgt hoher Reminiszenzgewinn, und auch der Anwärmverlust scheint sich zu verstärken.

2. Im Stadium geringen Lernfortschritts treten erhebliche Reminiszenzgewinne auf, die sich mit steigendem Können immer mehr vermindern. Das Warm-up-decrement zeigt hier die umgekehrte Entwicklung: anfangs wächst es gering, später stärker.

3. Mit grösser werdendem Pausenintervall steigen Reminiszenz und Warm-up-decrement bis zu einer Obergrenze an. Während die Reminiszenz dann abfällt, scheint das Ausmass des Warm-up-decrements in eine Konstante überzugehen.

4. Im höheren Lebensalter treten nur geringe Reminiszenzwirkungen, aber hohe Anwärmverluste auf.

Zusammenfassend kann gefolgert werden:

Reminiszenz und Warm-up-decrement sind zwei Erscheinungen, die unter den gleichen Bedingungen auftreten, aber gegenläufig gerichtet sind.
Dabei zeigt sich, dass alle Faktoren, die die Reminiszenz fördern, keine Verminderung des Anwärmverlustes bewirken und umgekehrt. Nach vorausgegangenem massierten Lernen und bei länger werdendem Pausenintervall scheinen beide Erscheinungen absolut entgegengesetzte Wirkungen aufzubauen.

Nun wissen wir ja, dass durch Einschieben geeigneter Tätigkeiten das Warming-up-Phänomen herbeigeführt und damit der Anwärmverlust verringert bzw. beseitigt werden kann. Die Warming-up-Arbeit darf aber die entstandene Reminiszenz nicht beeinträchtigen. SILVER empfiehlt deshalb, die Aufwärmtätigkeit verteilt durchzuführen.

Eine optimale Lösung dieses Problems wäre wohl zu erreichen, wenn in die Pause mehrere Zwischentätigkeiten eingeschoben werden, die einerseits Anwärmverluste verhindern, andererseits aber auch den Abbau der reaktiven Hemmung nicht beeinträchtigen, so dass Reminiszenz eintreten kann.

Literatur

J. A. Adams: The second facet of forgetting: a review of warm-up-decrement. In: Psychol. Bull. 58 (1961), 257-273.

J. A. Adams: Warm-up-decrement in performance on the pursuit-rotor. In: Americ. Journ. of Psychol. 65 (1952), 404-414.

K. Foppa: Lernen, Gedächtnis, Verhalten. Ergebnisse und Probleme der Lernpsychologie. Köln/Berlin 1975^{9}.

H. Hörmann: Die Bedingungen für das Behalten, Vergessen und Erinnern. In: Handbuch der Psychologie. 1. Bd. 2 Hbd. Göttingen 1964, 225-283.

A. L. Irion: Stichwort "Reminiszenz". In: W. ARNOLD/H.-J. EYSENCK/R. MEILI (Hrsg.): Lexikon der Psychologie. 3. Bd. Freiburg/Basel/Wien 1972, 178-182.

J. A. Mc Geoch/A. L. Irion: The psychology of human learning. New York 1965^{2}.

A. Rüssel: Psychomotorik. Darmstadt 1976.

F. Schindele: Experimente über Beziehungen zwischen Alter und Intelligenz und Warming-Up-Effekt. Phil. Diss. Wien 1960.

R. J. Silver: Effect of amount and distribution of warming-up activity on retention in motor learning. In: Journ. of experim. Psychol. 44 (1952), 88-95.

K. Zieschang: Zur zeitlichen Gestaltung von Lernprozessen im Sport. In: Sportwissenschaft 7 (1977), H. 3.

СКОРОСТЬ ВЫПОЛНЕНИЯ ДВИГАТЕЛЬНОГО ЗАДАНИЯ В СИТУАЦИЯХ О РАЗЛИЧНОЙ СЛОЖНОСТИ НА ПРИМЕРЕ ДЕТЕЙ,ЗАНИМАЮЩИХСЯ ФУТБОЛОМ

ЗИОБРО,Г., Вроцлав, Пальша

Скорость человека характеризуется определенной структурой, в состав которой входят время реакции, время отдельного движения, частота движения, беговая скорость, физические условия. Из новейших научных исследований Геблевич М., Римольди И.А., Зациорски Б.М. известно, что нельзя ограничиваться только до характеристики составных ее частей в простых ситуациях.

В сложных ситуациях (спортивные игры) правильность выполнения двигательного задания обусловлена скоростью выбора решения. Скорость ету в общем можно определить как умственную. Считается, что на целостное время выполнения двигательного задания в каждой простой либо сложной ситуации складываются частичные времена т.е.:

$T = t_1 + t_2 + t_3 + t_4 + t_5$

где: t_1 - возникновение возбуждения в рецепторе
t_2 - ход возбуждения путями, ведущими к центру нервной системы
t_3 - ход возбуждения через нервные центры и формирование исполнительного сигнала
t_4 - ход сигнала с центра нервной системы в мышцу
t_5 - возбуждение эффектора

Из работ многих авторов известно напр.Фамосе И.П., Зациорски Б.М., что наиболее долгое время длится переход возбуждения с t_3 до t_4 .Следовало бы ожидать, что возбуждение это длится тем дольше, чем сложнее является ситуация (больше взаимоисключающихся раздражителей). Кажется, что в спортивных играх по поводу постоянно изменяющихся ситуаций использование максимальных двигательных возможностей обусловлено умственной скоростью (скорость переработки внешней информации) принятие правильного решения и его реализации. Отсюда следующие гипотезы:

1. скоростные качества снисканные в простых ситуациях отличаются существенно от величин снисканных в сложных ситуациях, 2. лица занимающиеся футболом на вводном этапе тренировки должны характеризоваться высокими параметрами скорости, чем их ровесники, которые не занимаются плановой спортивной деятельностью, 3. затраты максимальной скорости по мере роста сложности ситуаций являются меньше в спортивной группе, чем в группе ровесников, 4.принято тоже, что затраты скорости тем меньше, чем выше умственная работоспособность.

Методы и организация исследований

Исследуемую группу составляли, выбранные по жребию 13-летние мальчик Ученики начальных школ г-да Вроцлава. Мальчики были разделены на две группы:

1. неспортсмены - мальчики, которые не занимались никаким видов квалифицированного спорта (51 учеников)
2. спортсмены - мальчики, которые играли 1,5 - 2 года в футбол в спортивных клубах Вроцлава (40 учеников).

Исследованиям подвергались только те ученики, которые прошли общий и специальный медицинский осмотр.

Выполнялись следующие попытки:

А. - измерение скорости двигательного задания в простых ситуациях без удара по мячу и с ударом по мячу;
В. - измерение скорости выполнения двигательного задания в сложных ситуациях без удара по мячу и с ударом по мячу.

Оба измерения выполнялись перед и после утомления.

Чтобы утомление было одинаковым, авторы использовали тест беговой выносливости до отказа (Нагляк З.).

В. - измерения умственных предрасположений проводились при помощи трех тестов: теста Равена, теста Квадратов и теста скорости и точности наблюдения Гримслея. Измерения А и Б проводились при помощи прибора обозначенного символом Д-1 конструкции авторов.

Прибор состоит из:

1. Набора измерителей времени Тиммер-Коунтер типа Ц-549А с точностью измерения до 1/1000 сек.
2. Набора фотоэлементов и фотооптического преобразователя скорости типа ФП-01.
3. Электромагнетического манипулятора типа МЭ-1.

Результаты исследований:

Для обеих исследуемых групп вычислено:

а) средние величины разниц для действий, выполняемых перед и после утомления в простой и сложной ситуации без удара и с ударом ногой мяча по цели;

б) средние величины времени реагирования (t Om), времени на отрезке 2 м (t 2 m) и 6 м (t 6 m) в простых и сложных ситуациях перед и после утомления без удара ногой по мячу и ударом ногой мяча по цели;

в) средние величины для употребленных измерений интеллигенции показатели соотношения между тестом Равена, Квадратов и Гримслея;

г) средние величины разниц в измерениях А и Б а также коэффициенты соотношений между этими попытками а также коэффициенты соотношений между разницами и значением тестов Равена, Квадратов и Гримслея.

Так же как в спортивной группе, так и в группе учеников, наибольшие разницы (статистически существенные на уровне p 0,01) между простой и сложной ситуацией установлено для показанных результатов на дистанции 2. Это может свидетельствовать о том, что увеличение степени усложнения ситуации влечет за собой затраты скорости в начальных фазах движения.

Результаты показанные спортивной группой во всех применяемых двигательных попытках перед и после утомления выше в сравнении с группой учеников. Статистические разности существенные на уровне p 0.01 установлено для разультатов показанных на дистанциях 2 и 6 м. Следует затем предположить, что результаты бега на этих дистанциях могли бы быть специфическим критерием для детей, которые намерены заниматься футболом.

Величины показателей соотношений между средними размерами разниц для беговых попыток в простых и сложных ситуациях свидетельствуют о том, что в попытках без удара ногой по мячу выступает существенная зависимость между временем реагирования (tOm) а временем показываемом на отрезке 2 и 6 метров. Тенденция эта особенно выразительна после утомления.

В ударах мяча по цели выше величины показателей соотношения достигнуто в спортивной группе перед утомлением. Сравнение средних величин для тестов Равена, Квадратов и Гримслея указывает на то, что существенные разницы на уровне p 0,05 между спортивной группой учеников выступают только в тесте Гримслея. Следовательно тест скорости восприятия Гримслея может быть пригоден для исследований специфических умственных расположений детей начинающих футбольную тренировку.

Полученные величины показателей соотношения между средними разниц для времени реагирования, продолжительности бега на 2 и 6 метров во всех исследуемых ситуациях а значимостью тестов Равена, Квадратов и Гримслея не подтверждают четко гипотезы, касающейся связей между затратами скорости и умственной работоспособностью. В спортивной группе после утомления самые высокие показатели соотношения были отмечены между величинами затрат скорости для времени реагирования (tOm)в попытке

с ударом мяча и без удара мяча по цели а тестом Квадратов. В обеих случаях показатель соотношения приобрел отрицательную значимость. Кажется, что проведенные попытки и сравнения, несмотря на некоторое несоответствие конечных результатов с поставленной в введения гипотезой свидетельствуют о правильном направлении поисков и требуют тем самым ведения дополнительных исследований и анализов.

ВЫВОДЫ

В результате анализа следует сделать следующие выводы:

1. Величины скорости снискаемые в простых ситуациях отличаются существенно (p 0,01) от величин снисканных в сложных ситуациях.
2. Группа мальчиков, занимающихся футболом во всех попытках А и Б (двигательные тесты в простых и сложных ситуациях без удара ноги по мячу и с ударом мяча по цели - воротам) более положительные результаты - существенные статистически на уровне p 0,05, 0,01 - в отношении к группе учеников.
3. Между применяемыми тестами интеллигенции достигнуто существенных величин коэффициентов соотношений.
4. Группа спортсменов достигла в сравнении с группой учеников более положительные результаты - существенные статистически на уровне - P 0,05 - в тесте Гриншея. В тестах Равена и Квадратов результаты не являются существенными статистически.
5. Установление некоторых несущественных статистически на уровне p 0,05 показателей соотношения между уровнем затрат скорости в измерениях А и В а тестами интеллигенции дает возможность дальнейших поисков ответа какова есть структура умственной скорости.

ЛИТЕРАТУРА:

1. Berlyne E.D. Struktura i kierunek myslenia PWN W-wa, 1969.
2. Famose J.P. Science du mouvement, psychomotoricité et méthoda experimentale. Educ.Psych.Sport. 1975, 132 s.33-36.
3. Gagajewa M. Psychologia gry w pilke nožna. Sport i Turystyka W-wa, 1973.
4. Greń J. Statystyka matematyczna, PWN W-wa, 1975.
5. Geblewicz M. Badania nad szybkoscia ruchow czlowieka. AWF W-wa, 1973.
6. Hornowski B. Analiza psychologiczna skali J.C.Ravena. PWN W-wa, 1970.
7. Naglak Z. Trening sportowy. Teoria i praktyka. PWN W-wa, 1974.
8. Rimoldi H.J.A. Personal tempo- J.Abn.Soc.Psych.1951,46, s.283.
9. Zaciorski W.M. Ksztaltowanie cech motorycznych sportowcow. Sport i Turystyka W-wa, 1970.
10. Zimny Z. Fizykalna teoria pomiaru funkcji intelektualnych, PTPN Poznań, 1961 - T.X.z.4.

ТЕМП ИЗМЕНЕНИЯ НЕКОТОРЫХ СПЕЦИФИЧЕСКИХ ПСИХИЧЕСКИХ КАЧЕСТВ СПОРТСМЕНОВ В УСЛОВИЯХ СРЕДНИХ СПОРТИВНЫХ УЧИЛИЩ

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Современный спорт убедительно требует выражения самой яркой его специфичности - стремление к непрерывному снижению возрастной границы ранней спортивной специализации и спортивного усовершенствования. Исследования в этой области наших и чужих

специалистов (Кр.Рачев - 64г., В.П.Филин - 67г., З.Г.Романова и С.А.Акселрод - 58г., Н.А.Фомин и др.) внесли посильный вклад в освещении этого вопроса - возрастное развитие и воспитание физических качеств молодых спортсменов.

В период юношества до 18-20 лет заканчивается функциональное развитие высшего отдела нервной системы, что ведет к усовершенствованию аналитико-синтетической деятельности коры головного мозга и его контроля. Повышенная реактивность организма определяет и состояние всех звеньев рефлекторных дуг, состоящихся из воспринимающих аппаратов-рецепторов, центробежных нервов и нервных аппаратов референтных органов. Здесь ведущая роль отводится на состояние основных нервных процессов - их силы, уравновешенности и подвижности.

Ввиду этих, доказанных практикой, теоретических постановок, мы задались целью проследить, как развиваются специфические психические качества (СПК) в возрастном аспекте и в плане высокообъемной, интенсивной, программированной тренировочной деятельности.

В проштудированной литературе по спортивной психологии мы не нашли нужных данных по вышеуказанным проблемам.

В открытых у нас средних спортивных училищах молодые спорсмены начинают тренировочные занятия по соответствующему виду спорта еще с одиннадцатилетнего возраста. Период с одиннадцати и до восемнадцати лет характеризуется активной и интенсивной спортивно-состязательной деятельностью, которая оказывает влияние, как на развитие физических и технических качеств, так и на развитие неукрепших психических качеств. Мы исследовали состояние и темп изменения некоторых специфических психических качеств у 589 состязателей, которые прямым образом влияют в, в то же самое время, отражают качественные особенности двигательной деятельности.

В период с 1971 года и до 1976 года исследованы были:

1. быстрота двигательной реакции верхних и нижних конечностей на звуковой раздражитель;
2. быстрота двигательной реакции верхних и нижных конечностей на зрительный раздражитель (красный цвет);
3. максимальный двигательный темп в десяти сериях по $10^{"}$ каждая, с перерывом три-пять секунд между сериями.

Вышеуказанные показатели были заснятs на пленке по три раза в год - в начале учебно-состязательного года, в конце подготовительного периода и в конце основного периода по видам спорта - баскетбол и волейбол, легкая атлетика и гимнастика. Полученные результаты были группированы по возрасту и полу спортсменов для математической обработки. Был использован вариационный анализ извлечения среднеарифметической величины ($\bar{X}$), ее устойчивость - среднеквадратическое отклонение (σ), t - коэффициент доверительной вероятности и P t - гарантийная вероятность. Таблица № 1 отражает конечные стоимости для каждого показателя по возрасту - 11, 12, 13, 14, 15, 16, 17, 18 лет.

Приведенные данные показывают, что БДР (простая) верхних конечностей на звуковой раздражитель развивается по восходящей линии - то есть начальная стоимость этого специфического качества, которое может послужить показателем и двигательного качества "быстрота" - равно $0.15^{"}$, а в течение 1976 года - $0.13^{"}$. Это восходящее движение подкрепляется с t - коэффициент - 3.33 и его гарантийная вероятность довольно большая - P t = 0.99903. В то же время t коэффициент эксперимента - больше критического значения при P t = 0.99 или t > 2.70. Эти математические доказательства свидетельствуют, что это специфическое психическое качество информативно и его положительное изменение является результатом не случайного фактора, а положительного воздействия тренировочных нагрузок.

Второй показатель БДР нижних конечностей на световой раздражитель с 0.22" у двенадцатилетних улучшается на 0.16" у восемнадцатилетних, а двигательная реакция нижних конечностей с 0.19" улучшается на 0.15". И при двух показателях t критерий очень высокий - 8.57 и 5.71 со стоимостями P t ≒ 0.99999. И оба t больше критического значения t - таблично - 8.57 > 2.70 и 5.71 > 2.70.

Видимо напрашивается вывод, что специфическое психическое качество "быстрота" двигательной реакции" - изменчиво и его возрастное развитие у молодых спортсменов отражает развитие двигательного качества "быстрота". При этом темп изменения при звуковом раздражителе - 14.28% для руки и 23.52% для ноги, а при световом - 31.57%.

Максимальный темп движения в серии из десяти опытов по 10" с максимальным темпом кистью мы регистрировали, чтобы получить информацию об изменении уровня общих скоростных возможностей молодых состязателей. Доказано, что МДТ в любом суставе отражает не только скоростные свойства данной мускульной группы, но и общей двигательной способности (Фарфел - 59г., Букреев - 59г.) и отражает состояние ЦНС, уровень ее возбудимости и подвижность возбудительных и тормозных процессов. В то же время динамическая темпометрия определяет и уровень скоростной выносливости. У двенадцатилетних МДТ $\bar{X}$ - 61.4 удара, прогрессивно растет в течение всех годов, чтобы достичь у восемнадцатилетних $\bar{X}$ - 80.4 (t = 8.80 > 2.70, P t = 0.99999). Темп изменения этого показатели - 26.79%.

Таблица № 2 отражает развитие вышеупомянутых качеств у девушек.

Быстрота двигательной реакции на звуковой раздражитель верхних конечностей - тоже 0.15", доходит до 0.13" (t = 6.67 > 2.88, P t = 0.99999, как и темп изменения - 14.28%).

Латентный период двигательной реакции на зрительный раздражитель с 0.20" у одиннадцатилетних и 0.19 у 12-летних (против 0.22" у юношей того же возраста) доходит до 0.17" у 18-летних против 0.16" у юношей. Улучшение достоверно t = 3.00 > 2.85, P t = 0.99730. Здесь темп изменения - 16.21%, что является меньше, чем у юношей.

Реакция нижних конечностей у девушек улучшается с замедленными темпами - 11.76% против 23.52 у юношей; и с 0.18" у 11-летних и 0.17" у 12-летних - против 0.19 у 12-летних юношей - доходит до 0.16 у 18-летних (у юношей - 0.15").

Максимальный двигательный темп у девушек возрастает с бо́льшими процентами, чем у юношей - 30.84% (26.79%) и с 58.4 ударов доходит до 79.7. При t = 3.89 > 2.85 и P t = 0.99999.

Из сказанного до сих пор можно сделать следующие выводы:

Во-первых, проблема возрастного развития СПК и темпы этого развития является актуальной и нуждается в еще более углубленной разработке; во-вторых, в условиях ССУ усовершенствование физических качеств молодых спортсменов отмечается восходящими изменениями; в-третьих, быстрота двигательной реакции прогрессивно уменьшается при переходе из одного возраста в другой и достоверно подтверждает положение о том, что одно из важнейших физических качеств "быстрота" наиболее эффективно развивается в детском и юношеском возрасте; в-четвертых, доказанная взаимосвязь между физическими качествами и качествами двигательных навыков (спортивная техника) на разных возрастных этапах и в разных видах спорта, дают основание использовать СПК в качестве критериев для сравнения и контроля на всех этапах спортивно-состязательной деятельности; в-пятых, у юношей темп изменения БДР больше, а у девушек больше темп изменения МДТ и этот факт соответствует темпу развития соответствующих физических качеств - быстроты и скоростной выносливости; в-шестых, полученные цифровые стоимости об уровне БДР и МДТ имеют большую доверительную стоимость и с успехом могут послужить в целях сравнительного анализа и контроля молодых спортсменов в легкой атлетике, спортивной гимнастике, поднятии тяжестей, борьбе, волейболе, баскетболе и футболе.

Таблица № 1

СПК \ лет	11	12	13	14	15	16	17	18	t-t табл	P %	Темп %
БДР-д.р.зв.	-	-	-	0,15	0,15	0,15	0,14	0,13	3,33>2,70	0,99999	14,28
БДР-д.р.св.	-	0,22	0,21	0,18	0,17	0,17	0,16	0,16	3,57>2,70	0,99999	31,57
БДР-д.кр.зв.	-	0,19	0,19	0,17	0,17	0,17	0,16	0,15	5,71>2,70	0,99999	23,52
МДТ-10х10"	-	61,4	66,4	71,2	73,9	74,8	77,8	80,4	8,80>2,70	0,99999	26,79

Таблица № 2

СПК \ лет	11	12	13	14	15	16	17	18	t-t табл	P t	Темп %
БДР-д.р.зв.	-	-	-	0,15	0,14	0,14	0,13	0,13	6,67>2,88	0,99999	14,28
БДР-д.р.св.	0,20	0,19	0,18	0,17	0,17	0,18	0,17	0,17	3,00>2,85	0,99730	16,21
БДР-д.кр.зв.	0,18	0,17	0,17	0,16	0,17	0,18	0,17	0,16	2,60>2,04	0,99068	11,76
МДТ-10х10"	58,4	62,9	65,5	68,5	71,0	73,8	71,1	79,7	3,89>2,85	0,99999	30,84

ОБ ОДНОМ ИЗ ВОЗМОЖНЫХ ПУТЕЙ ПОВЫШЕНИЯ УРОВНЯ ПСИХИЧЕСКОЙ НАДЕЖНОСТИ СПОРТСМЕНОВ

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За последние годы достаточно четко определена область применения понятия психической надежности в психологии спорта. При этом отчетливо проступает идея о необходимости структурно-системного подхода к анализу этого феномена. В частности, показано, что в проблеме надежности есть комплекс вопросов, относящихся к биомеханике, к физиологической стороне деятельности организма, к психологическим и педагогическим факторам. В свою очередь, было показано, что сами психологические факторы надежности спортсмена также носят структурно-системный характер. Одна из задач психологии спорта состоит в том,чтобы найти оптимальное соотношение между различными компонентами психической надежности в конкретных видах спорта.

Основную часть своего выступления мы посвятим такой стороне надежности, которая обычно не выступает в работах по этой проблеме. Показано, что одним из важных компонентов надежности является высокий уровень технико-тактического мастерства спортсменов.

Внимание к технико-тактической подготовке спортсмена как к компоненту его надежности в соревновательной борьбе является вполне оправданным, а выяснение условий формирования технико-тактического мастерства спортсменов вносит определенный вклад в обсуждаемую проблему. В свою очередь, решение этой задачи предполагает использование некоторой теории учебно-тренировочного процесса, использующей данные современной общей и педагогической психологии. Вот почему существенный интерес представляет анализ тех принципов, которые лежат в основе разных форм учения и тренировки, наблюдаемых во многих областях практики, в том числе и при спортивной подготовке. Опыт показывает, что при всем многообразии форм обучения в этом процессе проявляются некоторые общие принципы, смысл которых сводится к тому, что ориентация обучае-

мого человека на общие, существенные и наиболее значимые условия деятельности формируется постепенно, медленно и на основе овладения частными приемами решения конкретно-практических задач.

Исследования последних лет показывают, что качество деятельности, сформированной по указанным принципам, во многих случаях оказывается далеко несовершенным. Прежде всего формирование деятельности на основе частных приемов и навыков не позволяет даже при длительной тренировке обеспечить их полный набор. Часто возникают такие конкретные задачи, приемы и технику решения которых предусмотреть нельзя, а спортсмен нередко вынужден действовать именно в условиях таких неожиданных задач, приемы решения которых у него предварительно не сформированы.

Иными словами, схема обучения, действующая в спортивно-тренировочном процессе, не формирует такого психологического механизма, который обеспечивал бы умениям и навыкам достаточную гибкость, перенос на достаточно широкий круг задач, сознательность и самоконтроль. И еще одно важное обстоятельство. При таком формировании приемов у спортсменов очень медленно возникает представление о некоторых основных, ведущих и наиболее существенных условиях выполнения своей деятельности.

В настоящее время есть достаточное основание говорить о том, что учебно-тренировочный процесс в любой области и, в частности, спортивной, может быть организован существенно иначе, чем это предусматривается привычной схемой. Новая организация этого процесса позволит, как нам кажется, существенно повысить уровень технико-тактической подготовки спортсменов, что, в свою очередь, весьма важно для психической надежности.

В противоположность тем принципам, которые были сформулированы выше, новые условия организации учебно-тренировочного процесса можно определить так. С самого начала обучения, в том числе обучения приемам и технике спортивной деятельности, необходимо формировать у человека умение ориентироваться в общих ситуациях и задачах, специфических для данной области, в частности, для конкретных видов спорта. Необходимо с самого начала выделить и продемонстрировать обучающимся основные и ведущие компоненты его технической и тактической подготовки, то есть начинать нужно с того, к чему талантливый спортсмен приходит лишь в результате длительной соревновательной борьбы. Ориентация на эти общие задачи и на общие способы их решения может быть организована так (это показано во многих экспериментах), чтобы овладению ими происходило без значительного количества ошибок. Обучающийся должен при этом рассмотреть и проанализировать общие условия происхождения самих задач деятельности, в частности, условия возникновения экстремальных обстоятельств. Еще до овладения подробностями техники и тактики важно представить и четко осознать разнообразные сочетания условий, при которых могут возникать не похожие друг на друга экстремальные ситуации и стрессовые обстоятельства. Все это является психологически необходимым моментом формирования у спортсменов оперативного мышления, которое выступает как один из главных компонентов психической надежности спортсмена.

Новые принципы обучения требуют экспериментальной проверки. Но уже сейчас здесь имеются, хотя и предварительные, однако весьма обнадеживающие материалы. Так, накоплен такой опыт обучения юных теннисистов, когда у них специально с самого начала формировалось умение ориентироваться в условиях общих задач, возникающих при игре в теннис. Эти юные спортсмены начинали свою подготовку не с частных технических приемов, а с общего умения "играть". На этой основе, как показывает опыт, можно сравнительно быстро формировать у спортсменов достаточно совершенные технические приемы и навыки. Аналогичные исследования проводятся сейчас при подготовке юных гимнастов.

Подобные исследования показывают, что такая организация учебно-тренировочного процесса существенно повышает уровень специальной подготовки спортсменов, умение ориентироваться в сложных конкретных вариантах игровых задач. А это, в конечном счете, значительно повышает устойчивость и надежность результатов в ответственных соревнованиях.

В заключение можно сказать, что одним из резервов повышения надежности психологической регуляции спортивной деятельности является, наряду с другими факторами, такая организация самого учебно-тренировочного процесса, при которой овладение общими и существенными условиями этой деятельности предшествует усвоению ее частных технических приемов и навыков.

Сейчас в психологии и педагогике положено только начало исследовательской работы в данном направлении. Оно ждет своих энтузиастов и как нам кажется, на этом пути нас ждут значительные достижения.

ВОСПИТАТЕЛЬНОЕ ЗНАЧЕНИЕ СПОРТИВНЫХ КЛАССОВ

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Спортивные школы, создавая широкую базу в виде хорошо подготовленной для специальных тренировок молодежи имеют огромное значение для развития спорта.

Однако не только эта сторона деятельности определяет положительную роль спортивных школ в процессе воспитания молодежи. Отдельные исследования доказывают, что участие молодежи в спортивной жизни оказывает благоприятное влияние на ее успехи в учебе и повышенную общественную активность.

Результаты проведенных до настоящего времени исследований в этой области указывают на необходимость их дальнейшего комплексного продолжения. Диапазон этих исследований свидетельствует в довольно одностороннем направлении научных поисков т.к. решающее их большинство охватывало лишь вопросы оценки уровня физического развития и степени биологического развития (3,18,19). Редко встречаются сообщения касающиеся психологической и педагогической проблематики, связанные с функционированием в системе просвещения специализированных спортивных школ (5,6,10,12). Анализ дидактически-воспитательной деятельности спортивных школ и достигаемых ими эффектов может явиться основой для передачи педагогического опыта другим школам, а также для внедрения этого рода нововведений во всех школах и произведения таким образом модельных преобразований на этой ступени системы образования (9,17).

Ожидания касающиеся эффектов достигаемых спортивными школами не ограничиваются исключительно сферой физической культуры, но распространяются также на всю систему работы школы, например различных методов и областей познания учителями учеников, индивидуальной работы с учениками и эффектов в морально-общественных аспектах воспитания. Речь идет здесь между другим и о формировании активного отношения, развитии совместной ответственности за групповые действия, внедрении стремления к самовоспитанию (1,4,7,20).

В настоящем сообщении представляем концепцию реализованных за последний год общепольских исследований,целью которых является оценка спортивного класса как общественно-воспитательной ячейки, а также изучение совокупности свойств, являющихся основой норм поведения, а также идей и образцов функционирующих в общественности спортивного класса.

Достижение этой цели возможно путем:

- изучения отношения учеников спортсменов и неспортсменов к различным проявлениям жизни и школьным обязанностям;
- определения степени интеграции ученических групп;
- выявления общественности активности молодежи;
- анализа результатов учебы;
- изучения факторов формирующих отношения между учениками спортивных классов, которые определяют неформальную общественную структуру класса, отражением чего является атмосфера господствующая в классе;
- установления связи между неформальной структурой класса и спортивными результатами, итогами учебы, степенью интеграции и отношением к общественной жизни.

При столь сложной цели исследований предметом эмпирической верификации избраны две главные гипотезы:

1. Спортивный класс имеет существенное влияние на отношение молодежи к общественной жизни и формировании ее системы оценок.
2. Повышенное количество часов физического воспитания и спорта влияет на сплоченность класса, мобилизирует к учебе и формирует отношение и поведение в соответствии с принятыми нормами.

Исследования сосредоточены вокруг трех главных групп проблем:

1. Факторы общественной среды спортивных начальных и средних школ обусловливающие их деятельность.
2. Характеристика внутришкольной воспитательной среды.
3. Реализация предполагаемых функций начальных и средних спортивных школ.

Подробная исследовательская проблематика заключается в следующих четырех областях эмпирических исследований: изучение функционирования формальной организации деятельности школы, изучение учителей, изучение родителей и учеников.

В рамках этих четырех областей эмпирических исследований применяются следующие методы и исследовательские техники: педагогический эксперимент (с применением канона единственной разницы), индивидуальный лист ученика, анкета для исследования общественной структуры школьных классов, свободное сочинение на тему "Спорт в моей жизни", расписание для ученика, социометрический тест, тест выбора под названием "Скажи кто?", масштаб совокупности личных качеств, лист измерения прогресса в отношении к общественной жизни, анкета для воспитателей экспериментальных классов, анкета опроса родителей учеников спортивных классов, наблюдение за учениками во время занятий по различным предметам и в ходе общественных работ, анализ школьной документации: дидактически-воспитательного плана школы, классных журналов, протоколов собраний педагогических советов, журналов школьных спортивных кружков и т.п.

Экспериментальными исследованиями в Польше охвачены начальные и средние (общеобразовательные и профессиональные) школы, в которых параллельно работают спортивные и неспортивные классы, называемые контрольными. Спортивные классы охватывают следующие дисциплины спорта: легкая атлетика, фехтование, плавание, байдарочный спорт и спортивные групповые игры: волейбол, баскетбол и ручной мяч.

В настоящее время обрабатываются результаты исследований касающиеся первого года эксперимента предусмотренного на три года. Мы очень заинтересованы научным сотрудничеством в области аналогичных исследований.

1. Botwinski R.: Założenia organizacyjne oraz zadania szkol o profilu sportowym. "Kultura Fizyczna", 1973, s.408-409.
2. Ekiert-Grabowska D.: Przynaleznośc do określonej kategorii socjometrycznej w nieformalnej strukturze klasy a wyniki uczniow w nauce i zachowaniu. "Zycie Szkoly",1976, nr.1.
3. Konaszewska H., Woynarowska B., Tomaszewska H., Dolota W.: Sprawność fizyczna uczniow szkol podstawowych o profilu sportowym a ich wiek rozwojowy."Wychowanie Fizyczne i Higiena Szkolna",1976, nr3, s.6-8.
4. Moroz H.: Jaka powinna być szkola sportowa. "Wychowanie Fizyczne i Higiena Szkolna" 1976, nr.10, s.8-9.
5. Muszyński H.: Sport i turystyka w szkole wychowujacej. "Wychowanie Fizyczne i Higiena szkolna", 1976, nr.4.
6. Norkiewicz H.: Inegracjy grupy sportowej a jej wyniki w zawodach sportowych. "Wychowanie Fizyczne i Sport" 1970, nr.4, s.137-147.
7. Organizacja i funkcja szkol i klas o profilu sportowym w Polsce, II. Konferencja Naukowo-Metodyczna."Sport Wyczynowy" 1974, nr.12, s. 52-54.
8. Peszynski A.: Wychowanie fizyczne w aspekcie spolecznego dostosowania. "Kultura Fizyczna", 1974, nr.5, s.198-200.
9. Pilkiewicz M.: Socjometryczna skala akceptacji jako technika badania pozycji jednostki w nieformalnej strukturze grupy. "Psychologia Wychowawcza",1963, nr.5.
10. Pudelkiewicz E.: Problematyka integracji spolecznej a zagadnienie integracji w sporcie (refleksje wstepne). "Roczniki Naukowe AWF w Warszawie", T.XIX, 1974, s.153-172.
11. Skowronski J.: Stan aktualny i perspektywy ksztalcenia mlodziezy uzdolnionej sportowo."Wychowanie Fizyczne i Higiena Szkolna",1976,nr 3, 14-17.
12. Srokosz W.: Uprawiane sportu a pozycja i popularnosc ucznia w zespole klasowym. "Wychowanie Fizyczne i Sport" 1976, nr 4, s.83-91.
13. Witkowscy I.S.. Niektore czynniki determinujace atrakcyjnosc interpersonalna a ksztaltowanie sytuacji spolecznej w klasie. "Ruch Pedagogiczny" 1976, nr 6, s.763-767.
14. Wohl A., Pudelkiewicz E.: Założenia badawcze nad przebiegiem procesow zaangażowania sportowego i uspolecznienia przez sport."Kultura Fizyczna",1973, nr 6, s.53-58.
15. Woloszyn S.: Wychowanie fizyczne i sport jako czynniki wychowawcze."Kultura Fizyczna",1973, nr 7, s.296-300.
16. Założenia programowo-organizacyjne szkol o profilu sportowym (artykul opracowany na podstawie materialow MOiW), "Sport Wyczynowy" 1973, nr 9, s.18-26.
17. Zborowski Z.: Stosunki koleżenskie w klasie szkolnej.PWN, Warszawa 1964.
18. Zdobych B.: Ocena postepu w wynikach klasy sportowej lekkoaltetycznej w okriese czteroletnim."Wychowanie Fizyczne i Sport",1975, nr 2, s.63-82.
19. Zuchora K.: Eksperymentalne klasy sportowe w PRL. "Kultura Fizyczna" 1972, nr 2, s.77-79.
20. Zukowska Z.: Sport w zyciu współczesnej mlodziezy. "Sport Wyczynowy" 1973, nr 7, s.32-36.

PŘÍSPĚVKY ZE ZASEDÁNÍ U KULATÉHO STOLU

ЗАМЕЧАНИЯ ИЗ ДИСКУССИИ ЗА КРУГЛЫМ СТОЛОМ

ROUND TABLE CONTRIBUTORS

REPORT ON THE "JOURNAL"

ANTONELLI, F., Roma, Italia

The INTERNATIONAL JOURNAL OF SPORT PSYCHOLOGY was born in 1970.

From Spring 1970 to Winter 1976 - it means seven years - the Journal published, in 1304 pages, 80 original contributions, 11 lectures, 121 books reviews, 505 abstracts, 259 news, in 18 issues forwarded to about 500 people in about 50 countries. We began to publish two issues each year during the first three years: now we publish three issues each year from 1973.
40 new papers are ready to be published during next years. Their scientific level is high.
I am receiving abstracts, papers, news with good frequency and quantity from several countries. An editorial office was constituted and it is efficient enough.

year	pages	papers	lectures	books-reviews	abstracts	news	issues
1970	154	10	1	8	24	56	2
1971	160	11	2	11	32	23	2
1972	176	9	2	12	79	20	2
1973	206	10	1	27	123	24	3
1974	160	9	2	11	75	40	3
1975	250	19	2	29	102	55	3
1976	198	12	1	23	70	41	3
total	1304	80	11	121	505	259	18

The financial situation is good even if 1) many issues (20 %) go lost (we send duplicate), 2) postage became very expensive, 3) the cost of printing is very increased (about 1000 dollars for each issue), 4) many issues are not paid (we forward the Journal even if the subscription is not renewed: in 1977 there are people who still send money for their subscription of 1976 and 1975!), 5) many subscriptions are paid very few (only 6 or 7 dollars for "groupsubscriptions", only 8 dollars for individual subscriptions - just like in 1970 - even if the actual cost of a subscription is of 10 dollars).
We have about 400 subscriptions for a receipt of about 2800 dollars; we spend about 3000 dollars (each year) for printing and sending three issues. On the average, the publisher and I lose about 200 dollars each year. It doesn't matter for us, because, for me, the Journal is a dear hobby and, for the publisher, a note of prestige for his House. Let me add that the publisher is a dear friend of mine and that, for this motive, he has no profit from this activity.
I thank very much the publisher, all the collaborators (members of the Editorial Board, and people who send me papers, abstracts, news) and I beg them to continue to give me such an important help.
I would appreciate it very much if this collaboration increases and if the ISSP can help this editorial effort by paying a lot of further subscriptions. If the Journal cashes further 1000 - 1500 dollars each year, it can publish a fourth issue and become a more frequent and efficient means of comunication either between the Presidium and the base or among the fellows of the ISSP.

L'EFFECTIVITÉ DE LA MÉTHODE D'IDEOMOTORIQUE SUR DES DIVERSES ÉTAPES DE LA PRÉPARATION PSYCHOLOGIQUE DES SPORTIFS

BELKINE, A.A., Volgograd, U.R.S.S.

L'actualité de l'idéomotorique au sport contemporain est affirmée par des recherches des savants A.Pouni, 1958; P. Roudik, 1966; A. Belkine, 1965; R. Steblenze, 1969; D. Chik, 1970; B. Chmidte, 1972; G. Tivalde, 1973; S. Kolvine, 1974; M.Tiffe, 1974; F. Baoume, 1974; A. Koglère, 1975 et d'autres.
D'après les résultats des recherches psychologiques, physiologiques et pédagogiques, l'auteur a élaboré un complexe des formes de la préparation d'idéomotorique qui contribue à l'éducation aux sportifs les habiletés à éveiller et à analyser des idées musculaires et motrices du mouvement et de l'action et sur la base de cela à diriger des mouvements sportifs compliqués.
Les recherches ont montré que les procédés de la préparation d'idéomotorique exercent une influence positive sur le processus de la formation, du perfectionnement et de la reconstitution des perceptions précises des paramètres de l'espace, du temps et de force des mouvements et des actions. Le plan des entraînements incluant la préparation d'idéomotorique augmente l'activité consciente des sportifs dans le processus de l'assimilation, du lustre et du rétablissement de la technique des exercices. Tout cela augmente considérablement l'efficacité d'enseignement et rétablissement des mécanismes et des actions troublés par des maladies, des traumes ou oubliés après une intervalle durable.
L'entraînement d'idéomotorique avant des compétitions diminue le sentiment de grande émotion et d'inquiétude et augmente grandement les performances des sportifs.
Alors, la méthode d'idéomotorique est efficace sur toutes les étapes de la préparation psychologique. Le résultat et la sûreté de l'action sportive y dépendent de la représentation musculaire et motrice et de la variante de leur reproduction d'idéomotorique.

METHODOLOGICAL PROBLEMS IN SPORT PSYCHOLOGY

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In recent years the interest in methodological problems in sports psychology has increased intensively. With the development of sports psychology as a new science and the wide-spread research in this field, methodological difficulties and limits have been encountered both in studies of pure theoretical interest and in applied sport psychology research.
Many sport psychologists have noted these problems and some have attempted to solve them in different ways. (Almer, 1974; Bielefeld, 1975; Blaser and Schilling, 1976;, Bouet, 1973;, Cassel, 1973; Chiffers, et al, 1976; Cratty, 1974; Feige, 1975, Geron, 1973, 1976; Godbout and Leblanc, 1973; Goldstein and Arms, 1971; Hahn, 1974, 1975; Kaminski, 1975; Kroll, 1970; Müller, 1973; Rodionov, 1974; Rushall, 1975, 1976; Schellenberger and Doil, 1971; Voskovoinikov, 1974; and others.)

Our meeting at this round table should open a discussion on these problems and give us the opportunity to inform each other of our opinions and experiences in solving them. The subject of this discussion can be stated quite definitively. Should psychological research in sport use the same methodological means, criteria, and approaches as all other psychological research, or are specific changes in methods and in their assessment criteria needed?

Three factors in sport motivate this question; 1) the specific situation in which the subjects studied behave; 2) the different activities which they must perform in the different kinds of sports; 3) the limited number of subjects to be studied. The difficulties and limitations imposed by these factors necessitates specific design of the research situation, specific choice of the subjects and criteria of research, and the use of specific research approaches.

The main speakers in the meeting will analyze these problems as they appear through the application of different psychological methods such as experimentation, observation, socio-psychological methods, questionnaires, interviews and statistics used in both theoretical and psychodiagnostic studies.

Opening the round table meeting I would also like to propose for discussion the following two additional general methodological questions related not to the use of definite methods but to sport psychological research in general.

1) The problem of generality- specificity in sport psychology
2) The role of situational factors in psychological research in sport.

1) The problem of generality-specificity in sport psychology is not a new problem. It has been discussed for many years and still has not been fully answered. This problem has some theoretical aspects, but it is also closely related to the application of methodological approaches.

In general the problem reduces to this alternative: are sport abilities general or are they different for each kind of sport and for each kind of movement behavior? In its methodological aspect, this problem appears concretely as the question: can we use the same measurement criteria for each kind of sport or should criteria be differentiated? In general psychological studies the assessment criteria do not differ according to human participation or activity. This is because general psychology studies the human being in general. In some circumstances the athlete can also be tested just as a human being, but when we study him in relation to his performance in some specific activity, we encounter serious difficulties in using general criteria. This is, in my opinion, the reason for some specific phenomena appearing in psychological research in sport such as: the lack of correlation between performance in fine and gross motor tasks, (Cratty, 1962; Fleishman, 1958; Kohlmann, 1958), the contradictory results concerning the relation between perceptual-motor abilities and motor performance or perceptual-motor abilities and intelligence (Arnett, 1968; Ismail, 1965; Kulcinski, 1945; and others). These contradictions are partially understood and overcome in discovering that intelligence correlates with some specific motor abilities (Ismail, 1965, 1967, 1972), and that the relation between perceptual-motor abilities and motor performances changes during motor learning (Fleishman and Fruchter, 1960; Hinrichs, 1970). In studying intelligence and motor abilities in children gifted in gymnastics (Geron, 1976) we also found that motor abilities related to a specific sport do not correlate with general intelligence, but do correlate with aspects of it. In recent years a broad investigation undertaken by Roland Singer and others (1976) in the German Federal Republic, threw new light on the relationship between motor performance and perceptual-motor abilities. The results of this research demonstrated that different motor abilities correlate with

performance in different track and field events. Along with this it was also found that the correlations are higher between specific track and field motor performances and complexes of motor abilities than between this performance and isolated abilities. But each complex of motor abilities includes abilities also found in other complexes and related to other track and field performances. According to these findings (which undoubtedly should be checked with other kinds of sport performances as the authors themselves suggest) motor abilities can be adopted simultaneously as general abilities related to many kinds of sport performances and as specific abilities which predict a particular motor performance through a complex of abilities always related to some specific performance. A graphic representation of these relationships is presented in Figure 1. This is a simplified hypothesis about relations between sport abilities and sport performances.

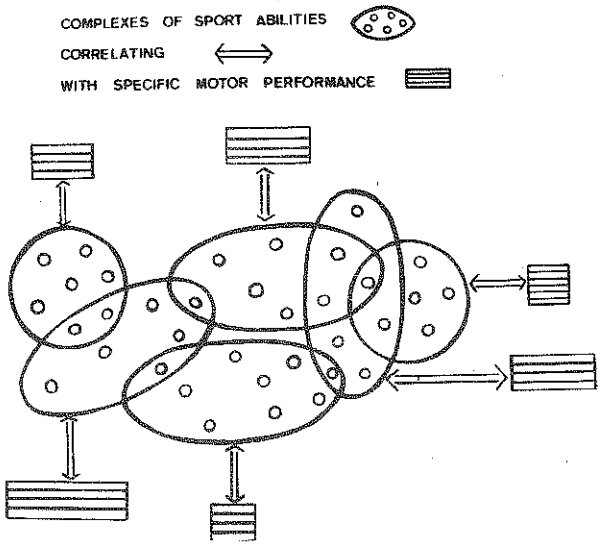


Fig. 1

Methodologically it implies the need to determine specific complexes of abilities which can offer prognoses for different kinds of sport performances. A methodological difficulty arises from the fact that sport performance depends on very complicated complexes of abilities which encompass abilities of different types measureable by differing parameters. These abilities not only connect one to another in different ways, but sometimes can replace and compensate each other to varying degrees. These complications in the relationships between sport abilities make the direct prognosis of sport performances through measurements of separate abilities almost impossible.

Thus one of the methodological demands in sport psychology now is the elaboration of synthetic assessment approaches which can use different parameters and measure complexes of abilities with relatively different significance and different mutual relations. Such an approach to sport abilities denies the alternative generality-specificity because it includes the two poles of this alternative together.

The generality-specificity problem has, however another so called micro-aspect. It appears in the fact that every psychological function or ability considered to be general and significant for some activities appears in each of these activities in distinct ways. Measurements of psychological functions and abilities show that athletes in different kinds of sports reach best performances in different test criteria.

For example, measurements of concentration ability (with the Schulte test, d_2 test and the Rubin test) on athletes of four different sports (Table 1) show that concentration in gymnasts appears better in a long span concentration on an object, in the case of swimmers in the speed and precision of the mental activity and in volleyball players in the quantity of mental work. Parallel assessment measurements of the intellectual profile of gymnasts and volleyball players (with the Raven test and Mieli test) show that athletes of these two sports (Fig. 2) reach their best performances in solving different intellectual tasks and therefore have a different intellectual profile (Geron, 1976-77). Measurements of muscle sense through reproducing a definite level of hand dynamometer pressure demonstrated that gymnasts (Fig. 3) reach more precise pressures during repetition of sub-maximal efforts and weight lifters during repetition of maximal efforts (Geron, 1973). Thus, general abilities such as concentration, intelligence, and muscle sense which have great significance in almost all sport activities appear in a specific way in athletes of different sports and therefore can be measured with different criteria.

Psychological factors in sport are general psychological functions, states or qualities. Each of them is significant in many sport activities. However, their general validity in sport derives from the specific aspects in which they appear in various sports and in their specific relationships to other functions, states or qualities which together determine particular sport performance. Therefore a simple measurement of different psychological factors cannot have prognostic validity in sport.

TABLE 1. Measurements of concentration with different test criteria

Sport	n	Schulte test (worktime in sec.) $\bar{X}$	Rubin test (concentration time in sec.) $\bar{X}$	Test d2	
				letters checked $\bar{X}$	% of errors $\bar{X}$
gymnastics	24	48.85^{++}	14.57	355^{+}	6.15^{++}
weightlifting	18	49.62^{++}	11.75^{+}	348^{+}	7.44^{++}
swimming	18	40.81	11.84^{+}	315^{++}	3.98
volleyball	20	43.14	7.98^{++}	386	8.64^{+}

Difference from best performance
+ $p < .05$
++ $p < .01$

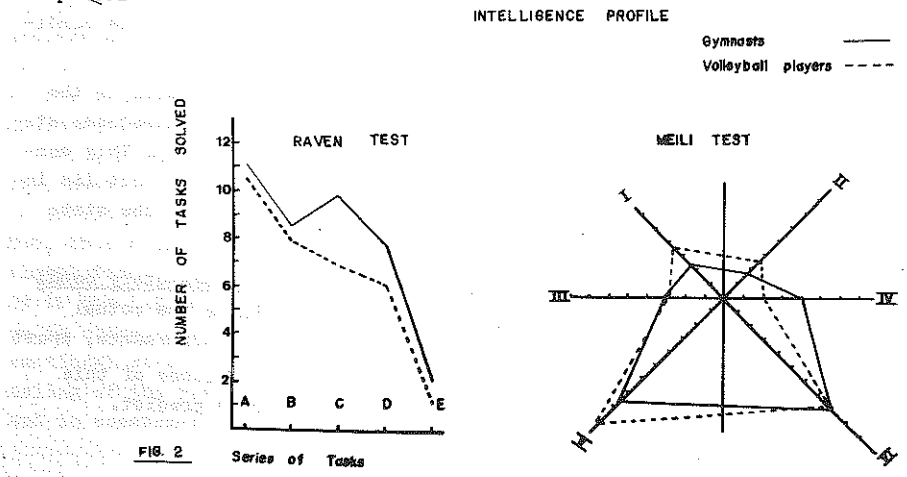


FIG. 2

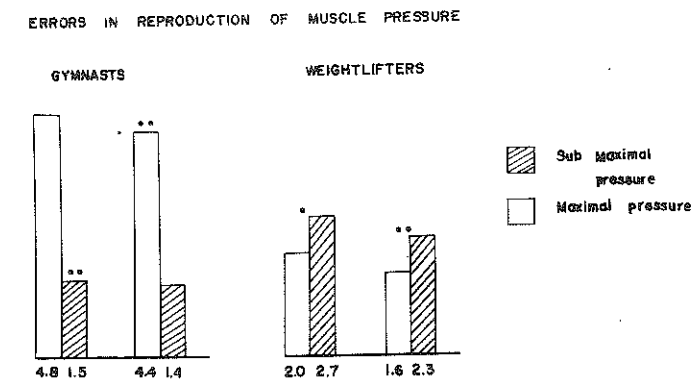


FIG. 3

2) Situational factors in psychological research in sport play a more significant role than is widely recognized. Sport activity by nature is always a game. Even in circumstances when an opponent does not exist, changes in the sport situation often put the athlete in a state of uncertainty. He must always be ready to change and redirect his behavior. The game situation in sport increases the sensitivity of the athlete to situational influences. Even in those kinds of sports such as weightlifting and gymnastics in which activity depends more on the athlete himself, changes in the situation very strongly influence the athlete's behavior. This influence appears in individual factors of performance such as motivation level, attitudes, level of arousal, skills, perceptual-motor functions, mental activity and others. It is therefore necessary during psychological research in sport to always foresee and to monitor the situational factor, i.e. the situational influences on the athlete's behavior.

The problem is to define what this situational factor includes and how we can predict and monitor its influence on psychological studies.

The situational factor in sport, in my opinion, includes three types of conditions:

a) The conditions that are particular to each sport. Their main characteristic is their specificity. Each sport influences the behavior of its participants in a distinct manner. These specific conditions are the most stable conditions and are strongly determined by the kind of sport.

b) The second type of condition influencing the behavior of athletes is the condition of sport as a game and competition in general. It introduces states of effort, stress, contest, result expectancy and publicity. This condition is relatively stable. It accompanies all kinds of sport, but its influence on athletes' behavior changes according to the level of the state occurring.

c) The third set of conditions in sport is the occasional or momentary condition. This is the most unstable and changeable. It includes the actual opponent during competition, changes in his behavior and performance, sport accidents, climate and other variable conditions. The influence of this condition is irregular and is very difficult to monitor or predict.

Every situation in sport is usually a complicated combination of these three sets of conditions simultaneously influencing the behavior of athletes.
The role played by the situational factor in determining the behavior of athletes causes one of the main methodological problems in sport psychology. This concerns the validity of the psychological research in the prognosis of the specific behavior of athletes in sport. To what extent does psychological research characterize not only the general psychological features of the athlete as a personality, but also his specific behavior in a sport situation? An attempt to answer this question can be based on developing approaches which create the opportunity to introduce and check specific sport situational factors during psychological research. These approaches, in my opinion, should be adapted to the different types of conditions included in every sport situation. Stable conditions of sport activity have to be introduced as a constant element of the research situation. Recently, many attempts have been made in this direction (Almer, 1974; Bouet, 1973; Orick, 1974; Rushall, 1975). However, occasional or momentary conditions should be maximally isolated in more general studies and emphasized by momentary diagnostics which illuminate concrete behavioral acts.
I would like to propose to this discussion my personal opinion and experience in introducing situational factors in sport psychological studies through the following two seemingly contradictory approaches.

1) <u>To bring the study situation closer to the real activity of the athletes</u>. Some psychologists interpret this approach to mean direct study of the real situation itself through observation or field experiment. But this is not always the right way to approach reality. Such an approach is often very difficult and also unsuccessful because of the simultaneous influences of many situational factors. Explanation of the actual relationships between factors is often easier by means of an artificial experimental situation in which the factors studied can be isolated. The problem is to simulate in such an experimental situation the conditions of reality. This involves including in the research situation these stable situational conditions which correspond to the specific sport or to the general competitive conditions. So, for example, it is more relevant to assess intellectual capabilities not generally but in conditions of physical effort and stress, time pressure or in a group activity. During a diagnostic assessment of the Men's National Israeli Handball Team we inferred that handball players often achieve better performances in mental activity (measured by means of the Raven test) when the test is administered in a situation of physical stress (running on the treadmill) (Table 2). They achieve better coordination performances (measured by means of the two-hand coordination test of Mode) in a cooperative execution of the test (Table 3) and they had to overcome fear reactions (to electric shock punishment resulting from errors in coordination) by competitive motivation.
To bring psychological research nearer to the real activity of athletes emphasis also needs to be placed on the simultaneous influence of many situational factors. To provide research in a situation where many factors act together is not reliable. But, this requirement can be realized by a constant study of the different situational factors and their mutual relationships. For example, if what we want to study is the influence of the information feedback of results on movement speed, we have to check to what limits this influence depends on different levels of fatigue, emotional stress, level of aspiration, kinds of motivation, etc. Such a varied modeling of the research situation has a specific significance in diagnostic studies and in assessment of the relative stability of the athletes behavior.

TABLE 2. Raven test

Number of tasks performed of a total of 30
Israeli national handball team

Player	Situation	
	normal	under physical stress
1. E.B.	19	21
2. J.R.	12	14
3. D.S.	12	16
4. I.R.	17	13.5
5. Z.Z.	12	15
6. D.L.	17	16.5
7. B.G.	16	16.5
8. E.V.	14	16.5
9. U.G.	12	15
10. R.B.	19	16
MEAN	15	16
Sd.	2.9	2.1

TABLE 3. Means data for the two hand coordination test
(Israeli national handball team)

n = 14

+ $p < .05$
++ $p < .01$

Assessment criteria	In normal situation			Under stress	Difference
	Individual work	Cooperative work	Difference		
Work time in sec.	338	230	-108^{++}	210	-128^{++}
Number of errors	22	21	-1	20	-2^{+}
Correction time of errors (in 1/10 s.)	168	134	-34^{+}	111	-57^{++}

Another way to verify situational influences is the introduction of many experimental and control groups in the same research. The influence of different situational factors can be differentiated by comparing the behavioral particularities of groups influenced by different conditions. Because the subjects in the compared

groups have to be selected according to many common traits of age, sex, sport, level of sport conditioning, etc. their number is going to be limited. This raises a new problem ---- the need to introduce statistical approaches for small groups.
A very important methodological problem in sport psychology related to the attempts to bring sport psychological studies closer to sport reality is the problem of validation of research criteria. Validity is usually assessed through the level of correspondence to the psychological characteristics studied. This assessment appears in the correlation coefficient between the new data and the data of previous test criteria relating to the same characteristics. However, such validity is not sufficient for psychological studies in sport. As the behavior and the psychical characteristics of athletes depend to a great degree on the specific situational conditions in sport these conditions also have to be introduced in the validation procedures.
The problem is that methods and criteria during psychological research in sport should measure not only the psychological characteristics themselves, but also their specific manifestations in sport. For this reason validation procedures must also be brought closer to the real situation in sport. My experience shows that a successful approach in this direction can be the correlation of test data with corresponding data of the real behavior of athletes registered through observation. By using different test measurements of a psychological characteristic and relating each of these measurements to observation data of the same characteristic (Tables 4 and 5 illustrate such a case) we can choose the test criteria which correlate to a higher degree with its real manifestation in sport. In this manner we can assess the validity of the psychological instruments in measuring not only definite psychological characterisitics, but also their specific manifestations in sport. This is, in my opinion, the importance of the observation methods in sport. Observation cannot serve as an immediate diagnostic assessment because of the long and difficult work required. However, it is the best means to validate other psychological intruments (tests, questionnaires, scales).

2) Isolating the influence of situational factors during psychological research is the second approach towards their prediction and check. This approach has the greatest importance in regard to occasional and momentary conditions. These conditions arise very often in sport and cause serious difficulties especially during naturalistic research. The high dynamics of sport situations cause athletes' behavior in real situations to be unstable and its objective measurements almost impossible. This is the reason I cannot justify the praise for naturalistic methods in sport. Many psychologists accept the naturalistic methods of observation and field experiment as basic psychological methods for research in sport. Everyone who practices them, however, knows how difficult it is to reach objective scientific conclusions through these methods, particularly in sport where situational changes are continual and dominant. This is the reason that isolation of occasional factors in psychological investigations has great significance. The question is how to achieve this?
One of the ways to isolate occasional influences is through repetitive observation. This approach is, however, limited by the non-repetitiveness of natural behavior. Therefore collection of behavioral data in this manner is very time consuming and not very reliable (like trying to find a needle in a haystack). There are two alternatives: to limit observations of behavioral manifestations to those which are relatively stable and reliable (Table 6 presents an attempt to measure reliability of observation criteria for different behavioral characteristics) and to use statistical methods to analyze changeable data.

TABLE 4. Validity of test criteria for emotional stability

(Validity criteria : level of emotional stability in competition according to a 7 degree observational scale)

subjects: 24 gymnasts

\+ $p < .05$
++ $p < .01$

Test criteria	Validity coefficient
1. Disturbance coefficient (Pauli test)	$-.76^{++}$
2. Level of self control (Osgood's differential technique)	$.73^{++}$
3. Level of coordination distortion by electric shock influence (two hand coordination test)	$-.46^{+}$
4. Level of the influence of failure (tapping test)	$-.45$
5. Level of the influence of failure (in dynamography)	$-.45$
6. Variability of reaction time to red signals	$-.42$

TABLE 5. Validity of test criteria in space orientation

(Validity criteria: level of space orientation in competition according to a 7 degree observational scale)

subjects: 28 gymnasts

\+ $p < .05$
++ $p < .01$

Test criteria	Validity coefficient
1. Reaction time of associative discriminant reactions to signals in different space positions	$-.23$
2. Number of errors of associative discriminant reactions to signal in different space positions	$-.82^{++}$
3. Extent of error in reproducing a space position	$-.45^{+}$

TABLE 6. Reliability of observations of behavioral characteristics during competition

(N = 42 gymnasts)

+ $p < .05$
++ $p < .01$

Behavioral characteristics	Coefficient of reliability
Level of aspiration	.10
Attitude towards achievement	.13
Attitude towards competition	.15
Discipline	.22
Overcoming of fear	.24
Patience	.36
Self confidence	$.39^{+}$
Pre-concentration time	$.42^{+}$
Precision	$.45^{+}$
Emotional stability	$.49^{+}$
Emotional expression	$.49^{+}$
Number of balance fluctuations	$.56^{+}$
Readiness to sacrifice	$.52^{++}$
Independence	$.67^{++}$
Attitude to sport	$.70^{++}$
Competitiveness	$.73^{++}$
Number of errors	$.75^{++}$
Extent of balance fluctuation	$.75^{++}$
Comradeship	$.95^{++}$

The more useful and reliable method for isolating occasional factors in psychological research is modeling. It is also very common in sport psychology (Whiting, 1974) and can be used in field experiments, too (Geron, 1954) where the use of natural motions overcomes the contradictory results we sometimes note when studying fine motoric reactions.

Summarizing the above mentioned point on introducing situational conditions in sport psychological research we can stress the importance of the following methodological approaches in this research.

Modeling sport situations in research when situational conditions typical in sport are introduced in a research situation.

Introducing consistent variation of different conditions and groups of subjects.

Validating and selecting of psychological research instruments through their correspondence to the real manifestation of the psychological characteristics in sport.

Strengthening reliability of natural observation through their repetition and to direct them to relatively stable behavioral characteristics.

Adapting statistical methods for analysis of changeable manifestation and data of a limited number of subjects.

BIBLIOGRAPHY

1. Almer, H. Zur Diagnostik der Leistungsmotivation: Konstruktion eines sportspezifischen Fragebogens, Abrensburg, 1974, 202.

2. Arnett, C. Interrelationships between Selected Physical Variables and Academic Achievement of College Women. Research Quartely, 1968, May.

3. Bielefeld, J. Zur Prognostizierbarkeit sportlich aktiven Verhaltens aus der Messung sportbezogener Einstellungen, in British Proceedings of Sports Psychology, 1975, Edinburgh, 43.

4. Biro, V. A contribution to the evaluation of activation states with athletes. (Czech). Teor. Praxe. těles. Vých. 1975, 2: 80.

5. Blaser, P. and G. Schilling. Personality tests in sport. International Journal of Sports Psychology, 1976, 1: 22.

6. Bouet, M. Uber die Methode der Projectionstest in der Psychologie des Sports, in: III Europaisher Kongress fur Sportspsychologie, Schorndorf, 1973.

7. Cassel, K.J. The usefulness of a temporal correlation technique in the assessment of human motor performance on a tracking device, Med. and Biolog. Engl. 1973, 11: 755.

8. Chiffers, J.T.F., B. Lowe and R.D.Harrold. Sport spectator behaviour assessment by techniques of behaviour analysis, International Journal of Sport Psychology, 1976, 1:

9. Cratty, B.J. A comparison of the learning of a fine motor skill to learning a similar gross motor task, based upon kinesthetic cues. Research Quarterly, 1962, 33: 212.

10. Cratty, B.J. Criteria for evaluating superior athletes. Bull Phys. Ed. 1974, 10: 19.

11. Feige, K. Hypothetisch konstruierte und empirisch objectivierte Anforderungsprofile als Grundlage der Eignungsdiagnostik, in: H.Rieder und Andere (Hrsg), Empirische Methoden in der Sportpsychologie, Schorndorf 1975, 36.

12. Fleishman, E.A. An analysis of positioning movement and static reactions. Journal Exper. Psych., 1958, 55: 13.

13. Fleishman, E.A. and W.F.Hempel. Changes in factor structure of a complex psychomotor test as a function of practice, Psychometrika 1954, 19: 239.

14. Fleishman, E.A. and B.Fruchter. Factor structure and predictability of successive stages of learning morse code. J. Applied Psychol. 1960, 44: 97.

15. Geron, E. Die spezifische Anwendungen psychomotorischen Tests in den verschiedenen Sportarten, in: III Europaischen Kongress fur Sportpsychologie, Schorndorf, 1973, 101.

16. Geron, E. Psychologische Probleme bei der allgemeinen Erklarung der Talentsuche im Sport, in: H. Rieder and E. Hahn (Hrsg.), Sportmotorik und Sportliche Leistung, Schorndorf, 1976, 178.

17. Geron, E. Differences between sport form and physical fitness from a psychological point of view, International Journal of Sport Psychol. 1976, 3: 133.

18. Godbout, P. and C. Leblanc. Development et validation d´une echelle d´attitude generalisable a tout sport, Mouvement, 1973, 8: 157.

19. Goldstein, I.H. and R.L.Arms. Effects of observing athletic contents on hostility. Sociometry, 1971, 34: 83.

20. Hahn, E. Psychodiagnostik wofür? in: Shilling, G. and Pilz, G. Sportpsychologie wofür? Basel, 1974.

21. Hahn, E. Probleme der psychologischen Beobachtungen in Wettkampfen, in: British Proceedings of Sports Psychology, 1975, Edinburgh, 95.

22. Hammer, W.H. and T.A.Tutko. Validation of the athletic motivation inventory, International Journal of Sport Psychology, 1974, 1: 3.

23. Hempel, W.F. and E.A.Fleishman. A factor analysis of physical proficiency and manipulative skill. Journal of Applied Psychology, 1955, 39: 12.

24. Hinrichs, J.R. Ability correlates in learning a psychomotor task. Journal of Applied Psych. 1970, 54: 56.

25. Ismail, A.A. Predictive power of coordination and balance items in estimating intellectual achievemnt, in: Antonelli, F. (ed.) Psychologie dello sport, Rome, 1965.

26. Ismail, A.H. and I.I.Gruber. Motor Aptitude and Intellectual Performance, Columbus, Ohio, 1967.

27. Ismail, A. Integrated development, in: Kane, J. (ed.) Psychological Aspects of Physical Education and Sport, London, 1972.

28. Kaminski, G. Einige Progleme der Beobachtung Sport motorischen Verhaltens, in: Rieder, H. (Hrsg.) Empirische Methoden der Sportpsychologie, Schorndorf, 1975, 44.

29. Kohlmann, T. Die Psychologie der motorischen Begabung, Wien-Stuttgart, 1958.

30. Kroll, W. Current strategies and problems in personality assessment of athletes, in: L.E.Smith (ed.) Psychology of Motor Learning, Chicago, 1970.

31. Kulcinski, L.E. The relation of intelligence to the learning of fundamental muscular skills. Research Quarterly, 1945, 16: 266.

32. Mikšík, O. Ascertainment of the dynamics of actual psychic states by means of the "supos" test. Theor. a prexe těl. Vých. 1973, 21: 473. (tsch.)

33. Müller, S. Motorische Tests als psychodiagnostische Mittel im Sport, III Europaischer Kongress für Sportpsychologie, Schorndorf, 1973, 110.

34. Orlick, T.D. An interview schedule designed to assess family sports environment, International Journal of Sports Psychol. 1974, 1: 13.

35. Rodionov, A.D. Psychodiagnostik of sport abilities, (Russ.) Moscow, 1974.

36. Rushall, B.S. Applied behaviour analysis for sport and physical education, International Journal of Sport Psychol. 1975, 2: 75.

37. Rushall, B.S. Environment specific behaviour inventories: Developmental Procedures, in: British Proceedings of Sport Psychology, 1976, 183.

38. Schellenberger, B. and W. Doil. Sportpsychologische Untersuchungsmethoden, in: Studien Material zum Komplex Allgemeine Trainingslehre, D.H.F.K., 1971, Leipzig.

39. Schellenberger, B. Möglichkeit und Notwendigkeit der sportartspezifischen Gestaltung psychologischer Untersuchungen, Theorie und Praxis der Korperkultur, 1977, 10: 23.

40. Schilling, F. Neue Ansatze zur Untersuchung der Handlung Fingergeschicklichkeit im Kindersalter, Sportwissenschaft, 1974, 3: 276.

41. Singer, R., H.J.Rehs, I.Berndt, D.Witt. Problem der Beziehung zwischen der Leistung bei motorischen Tests und bei ausgewahlten Sportdisziplinen, in. Rielder, H. and E. Hahn (Hrsg.) Psychomotorik und sportliche Leistung, Schorndorf, 1976.

42. Thomas, A. Die Entwicklung handlungs psychologisch psychomotorischer Verhaltensanalysen in ihrer Bedeutung fur Sport und Leibeserziehung Sportwissenschaft, 1974, 3: 258.

43. Voskovoinikov, F.A. An attempt at using the Eysenck test to find out the emotional stability of gymnasts (Russ.) Těoria i praktika fizičeskoj kulturi, 1974, 8: 32.

44. Whiting, H.T.A. Acquiring Ball Skill, Philadelphia, 1969.

INTERNATIONAL JOURNAL OF SPORT PSYCHOLOGY

HAHN, E., Bad Neuenahr, Bundesrepublik Deutschland

1. Das Journal kommt zu selten und unregelmässig
   - Journal muss eine Quartelung werden mit festen Auslieferungsdaten

2. Die Beiträge im Journal sind häufig schon etwas älteren Datums
   - Das Editorial Board sollte anders zusammengesetzt werden.
     Chief Editor bleibt Prof. Antonelli
     Ihm zur Seite ein Board von nur 4-6 Mitarbeitern, die intensiv mitarbeiten.

3. Aktuelle Forschungen fehlen.
   - Berichte über laufende Projekte sollten eingeholt bzw. von nationalen Gesellschaften erstellt werden.

4. Das Journal muss mehr als bisher Verbands- und Informationsorgan werden.
   - Informationen dürfen nicht nur abgedruckt, sie müssen systematisch erfragt werden.

5. Dokumentation
   Sie ist bisher willkürlich und von einzelnen Mitarbeitern abhängig.
   - Sie muss als integrierter Bestandteil eingebaut werden.
     Vorschläge werden von mir in Prag gemacht.

6. ISSP - FEPSAC - Verbandsorgan
   Ich schlage vor, dass das Journal Verbandsorgan beider Organisationen wird.
   - FEPSAC muss in der Gestaltung mitverantwortlich sein.

7. Journal-workshop

   Mindestens bei jedem ISSP-Kongress findet eine Arbeitstagung des Editorial-Board statt, dessen Mitglieder vom ISSP-Executiv-Board bestätigt werden.

МАССОВЫЕ СРЕДСТВА СВЯЗИ И ПСИХОЛОГИЯ СПОРТА

ЯКУБЧИК,В.И., Краснодар, СССР

В своем выступлении я хотел коснуться двух вопросов. Во-первых, массовую информацию, роль в достижении спортивного результата которой так красноречиво осветил глубокоуважаемый председатель г-н Норске, следует, хотя бы условно, разделить на предварительную, т.е. предшествующую соревнованиям и итоговую, резюмирующую их ход и результаты. Суть такого разделения состоит в способности предварительной информации существенно влиять на судейскую оценку, а следовательно и на турнирное положение спортсмена в состязании, особенно в видах спорта, использующих в качестве критерия деятельности спортсмена не количественные (метры, секунды, килограммы), а качественные показатели (гимнастика, акробатика, фигурное катание и др.). Не случайно ведь в целом ряде соревнований по этим видам спорта введен запрет диктором представлять участников с перечислением титулов и званий накануне подхода. Предварительная информация должна строиться на основе принципа "пусть победит сильнейший", тем более, что восхваление одного, объективно, всегда служит средством унижения и дискредитации остальных участников состязаний, а подчас и дезинформации зрителей и судей.

Суть второго вопроса - в недоумении по поводу чрезмерной популярности и спортивных журналистов объяснения неудач спортсменов психическими срывами, слабой психической подготовкой и пр. Согласитесь, что в этом объяснении содержится некий элемент фатальности, не всегда побуждающий к анализу подлинных причин неудачи, способный к тому,же при определенных обстоятельствах привести к конфликту с тренером, усматривающим причину неудачи в каких то иных факторах, ну скажем - в недостаточно добросовестном отношении к тренировочному процессу. В этой связи мне особенно хотелось бы подчеркнуть правильность, а точнее сказать мудрость решения этого вопроса в ГДР, где, как следовало из выступления д-ра Миллера, подлежащая огласке

информация о спортсмене не только согласуется, но и исходит от тренера.
Таким образом, предварительной информации должны быть чужды рекламные цели, ибо, став на путь глашатая, журналист подает в опасность не только нарушить девиз спорта, но и оказаться плохим оракулом.
По поводу второго вопроса позволительно предположить, что за литературным штампом прячется недостаточная осведомленность ряда журналистов в специфике спортивного поединка.

О МЕТОДОЛОГИЧЕСКИХ ПРОБЛЕМАХ ПСИХОЛОГИИ СПОРТА

КЛИМЕНКО,В.В., Киев, СССР

Мне хотелось бы остановиться на анализе ряда проблем методологии психологии спорта. К сожалению они мало обозначены в программном докладе круглого стола и почти не затронуты выступавшими в обсуждении содержания доклада.
Мои научные интересы частично касаются методологии и логики научного исследования. Углубляясь в эту область знания, невольно убеждаешься в том, что психолог сейчас находится в положении Приама, сидящего на развалинах Трои.(Это сравнение было верным пол столетия назад и им пользовался А.Н.Леонтьев в 1966 году на XУ1-ом Всемирном конгрессе психологов). Действительно, вокруг психолога неисчислимое множество фактов, маленьких и больших теорий (они увеличивают свое число почти каждый день) - материала из которого предстоит построить целостное здание психологии спорта. Но обильность строительного материала - только предпосылка созидания. Чтобы создать целосность, необходимы формообразующие и цементирующие связи, которые и позволят устранить разночтения, непонимания и относительную самостоятельность отдельных пластов психологии живого, мыслящего и действующего человека и личности.
(Психология желающего, действующего и мыслящего человека закончилась учебником Вольфа в 18-ом веке. Затем стал доминировать аналитический способ изучения того же человека. Вместо человека стали усиленно изучать его части, элементы - ощущение, восприятие, память и т.д. - а психология спорта расчленила его по своему - на виды подготовки, психологическую,техническую, сенсомоторную. Или же на сферы - эмоциональную, волевую и т.п. - измельчая и углубляясь до молекулярных и атомарных частичек. В результате накоплена огромная информация о ничтожно малых элементах человека - информация почти ни о чем.)
Действительно создалось критическое состояние в психологии и психологии спорта. Ведь не зря же методологические проблемы психологии спорта включены в программу нашего конгресса.
Выход из этого критического состояния мне представляется один - необходимо обратиться к диалектике и логике, являющимися методологией научного исследования. Они могут дать психологу спорта формообразующие и цементирующие связи, чтобы собрать воедино огромные джунглии информации, упаковать ее в компактные блоки, упростить.
(Подобные ситуации известны истории науки. От критического состояния геометрии страдали древние вавилоняне; для вычисления площадей треугольников у них существовало множество способов. Сколько разновидностей треугольников, столько было и методов. Пифагор открыл один закон - формулу для вычисления площади треугольника - и тем самым резко упростил трудноразрешаемые задачи. Единая формула охватила

все мыслимые и существующие треугольники во всем их разнообразии. Информация о площади треугольника и способах их вычисления была сжата. Ее стало меньше, проще, но она получила огромную разрешающую способность.)

Предметом научной методологии исследования и, в том числе, психологии спорта являются: системы объектов, подлежащих исследованию; системы знаний об этих объектах и система методов добивания знаний. Это ее три главные составляющие, три клина, на которых покоится здание науки, развивается и задает стратегию деятельности ученого.

Теперь есть смысл остановиться на характеристике (весьма краткой) компонентов, составляющих методологию психологии спорта.

Первое, что изучает методология - это систему объектов - человека во всех существующих или пока что мыслимых формах его жизнедеятельности. Множество этих деятельностей включает всегда: а)психическое отражение; б) проектирование деятельности; в) порождение себя в деятельности с новыми качествами и свойствами личности. В противном случае, то есть без учета основных функций человека - психического отражения, проектирования и порождения себя в деятельности - человек предстанет перед психологом в виде механической структуры, работа, идущего на поводу программ, которые в него закладывают педагог и психолог.

Второе, что изучает методология - это систему знаний или концептуальных моделей форм жизнедеятельности человека, сконцентрированных в категориях науки. Образно говоря, система знаний есть репродукция живого действующего человека. Если, например, действия спортсмена могут быть воспроизведены только вторичным исполнением самого автора, но языковая модель этого же действия - текст, включаясь в акты коммуникации ученого с ученым, тренера с учеником в начале задает, а затем расширяет границы мысли и активизирующей процессы порождения. Значит и касается процессов управления и регуляции деятельности. Языковые модели деятельности человека - тексты работают на будущее, прогнозируют его, создают его проекты, основываясь на знании о прошлом. Знание лишается ценности, если оно теряет способность в потребное русло - вести к намеченной цели. С помощью знания постигается неизвестное, заполняется брешь к деятельности, прерванной проблемной ситуацией. Оно позволяет вести селекцию новых возможностей познания и действия человека.

В противном случае знания - тексты становятся текстами с тайной, которую иногда и никому не удастся узнать. Они непонятны - в них нет структуры мысли а, следовательно, и того, что они отображают, репродукцией чего они есть.

Несколько слов о семантической ценности текста.

Со стороны потребителей информации - психолога, тренера и даже спортсмена, текст требует понимания или расшифровки смысла, заключенного в нем. Каждый из них по мере сил и возможностей извлекает для себя смысл, заложенный в тексте. Каждый берет из текста то, что ему необходимо. Но не из каждого вида текста можно получить желаемую информацию. В этом отношении минимальная семантическая информация содержится в тексте, построенном на простейших языковых моделях - наименованиях. (Это предполагает дать имена вещам и чувствам, которые люди еще не умели назвать.) Наименование имеет узкие границы мысли или фрагмента осмысленного. Фрагмент - еще не целостность. Наименование определяет только один слой, сторону, видение части целого, тогда как все остальные - а их множество - остаются в тени, не существуют рабочим материалом мышления и действия человека. Больше содержания семантической информации в тексте - описании. Это более сложные языковые модели. Они строятся на установленных между наименованными фрагментами целостности. Понятно, что каждое описание, отношение или же достаточно большая структура отношений в рамках целостности имеют для потребителя самостоятельное значение. Но ведь деятельность человека во всех мыслимых фор-

мах ее проявления - это смысловая арена, где встречаются, проектируются и отражаются друг в друге знания и деятельность и превращаются в активных деятелей. Описание, в силу своей специфики, не в состоянии охватить и отобразить данную единораздельную целостность. Успешно решает подобную задачу текст - изображение, которое содержит в себе в явной или завуалированной форме все элементы, составляющие целостность. (Катание ребятишек на коньках А.С.Пушкин передал нам текстом -"Мальчишек радостный народ коньками звучно режет лед." Целостность охвачена минимальными отношениями понятий.) Текст - изображение языковыми моделями не столько называет или описывает деятельность человека, сколько охватывает целостность во всем мыслимом ее содержании, имеющем бесконечное число значений, равное числу элементов, выделенных в целостности. Текст-изображение образная конструкция с огромной семантической информацией в свернутом, упакованном в блоке виде. Усвоив эту информацию, психолог, тренер и спортсмен создают для себя перспективу развития на основе разворачивания и порождения всей целостности, которая представлена в языке и средствами языка. Каждый из них включается в процессы порождения всего того, что может быть, что разрешено природой человеческого тела, что может быть использовано в нем для достижения поставленных целей.

И так, семантическая информация знаний заряжает, сообщает энергетический потенциал для осуществления потребного будущего. В этом-то и состоит производительная сила знания-категории методологии науки -, которая развивается по своим собственным законам.

Третье, что изучает методология - это систему методов добывания знаний. Данный компонент методологии изучен более подробно и останавливаться на его анализе нет смысла. (Образно говоря, исследовательские средства лежат в диапазоне - от карандаша и бумаги до летающих космических лабораторий - , которые и поставляют науке факты в самом широком значении этого слова.)

Между тем еще есть и много белых пятен на карте методов добывания знаний. Это касается методов определения психометрических способностей спортсмена, возможностей его психического отражения и порождения деятельности со строго заданными свойствами. Само собою разумеется,то, что есть границы и отражения и порождения движений спортсмена, которые разрешены природой человеческого тела и составляют его константы. (Константами пользуются многие науки; постоянная Планка, скорость света, абсолютное черное и твердые тела и т.п., которые используются для целей вычисления и проектирования в области техники.) В психологии спорта можно выделить ряд подобных констант, связанных с психометрическими способностями человека. И каждый конкретный спортсмен может быть легко отнесен к той или иной зоне психометрической шкалы, например, нормированной от нуля к единице - границе высшего, предельного совершенства его психометрических способностей. То есть, можно определить на сколько диапазонов шкалы он отличается от идеального спортсмена, который, разумеется, существует только в прообразе, нашем воображении.

В наших исследованиях определены некоторые модельных характеристики психометрических способностей идеального спортсмена. Первая психометрическая константа. Идеальный спортсмен не делает ошибок при запоминании, сохранении и воспроизведении собственных движений действий. Нулевые ошибки - верхняя граница шкалы. И чем дальше он расположен от этой границы, тем меньшими психометрическими способностями он обладает.

Вторая психометрическая константа. Идеальный спортсмен способен информацию мышечного чувства перерабатывать как осмысленное сообщение о событиях, разворачивающихся в его системе движений. Без этой способности не возможны акты аутокоммуникации.

Третья психометрическая константа. Идеальный спортсмен точно сличает и оценивает собственные движения: при их микрорегуляции, разворачивающейся в интервалах сотых долей секунды; сличать и оценивать точность выполненного действия по отношению к предварительному намерению или образу, проекту этого же действия; точно сличать и оценивать уровень своих психометрических способностей с идеалом-константой, к которой он стремится. Четвертая психометрическая константа. Идеальный спортсмен должен знать все правила, в соответствии с которыми выполняется действие и осознавать заложенный в нем основной принцип, выраженный средствами языковых моделей того же действия.

"PERSPECTIVES FOR THE ISSP JOURNAL"

SHEEDY, A., Montréal, Canada

1. Object: The object is not to proceed to a formal evalution of the ISSP Journal, but to receive the reactions of the members as to the content and quality of the Journal, as well as some perspectives of development.

2. Procedure followed: a) An informal one-page questionnaire was sent to 14 members (individuals who have contributed to the ISSP and/or to their national associations) of the ISSP.

   b) A special letter was sent to Prof. Antonelli informing him of the object of this Round Table and asking him for basic data and projections for the ISSP Journal.

3. Results obtained: a) Seven of the fourteen questionnaires were returned. Only six of those can be used.

   b) As of September 27th, no reply from Prof. Antonelli.

4. Tentative trends: A cursory analysis of the questionnaires reveals that:

   a) half of the respondents is satisfied with the quality and content of the Journal, while the other half is highly critical of its contents.

   b) the majority of the respondents suggest that more theoretical and methodological articles be published.

   c) the majority of the respondents asks for an explicit "conception" of the ISSP Journal as this element is determinant for the orientations, concents and selection of the editorial board members.

   d) every respondent is aware of the present situation and of the unique contribution of Professor Antonelli; ther, the question is raised: Has the ISSP the means - human and material - to improve on the present situations.

   e) many additional suggestions are made, but the previous four points need to be studied first.

5. Tentative propositions:

a) The Round Table discussion should provide the ISSP, the members of the Managing Council and the Editorial Board members of the ISSP Journal with additional comments and reactions.

b) If the Journal is to be representative of our Society, an attempt at defining the conception of the ISSP Journal should be made by the members.

Options:
1) Research and professional (combined)
2) Research or professional
3) Research plus News Bulletin (separate)
4) Others

Issues:
1) What is needed to realize the chosen option?
2) Can the ISSP provide or afford it? How?
3) Are the already existing research journals sufficient for our purposes?
4) The language issue?
5) How about documentation?

THE TRAINING OF HIGHLY SKILLED ATHLETES: PSYCHOLOGICAL CONSIDERATIONS

SINGER, N. Florida, U.S.A.

The quest to develop athletes to attain their maximal potential truly depends on scientific and intuitive foundations. At these meetings, we are primarily concerned with the scientific, and more particularly, psychological factors associated with training.

The very nature of the discipline of psychology suggests a vast array of considerations for the coach and athletes as we look to ways in which to understand athletes and how athletic performances can be changed and improved upon. Clinical, developmental, social, physiological, learning, and personal psychological perspectives mutually overlap and help to provide valuable information to the sporting world. The science of sports psychology has become increasingly refined in terms of research and practical import as we examine international activities. And yet, many questions still defy satisfactory answers. I would like to raise some crucial questions for sports psychologists which need to be resolved somewhat in the near future. They are not meant to be exhaustive of all the possibilities but rather representative of the areas usually associated with sports psychology. They are characterized under the headings, youth, interpersonal relations, and personal resources.

Youth

The quest to improve an athlete's potential for ultimate maximal achievement has led to an analysis of many alternative contributory factors. One such consideration is the nature and extent of sport experiences during the youth of the athlete. There are advocates of the position that the athletic training of specially identified youth should be early in life, highly specialized, and exceptionally intensive. Others suggest that time and maturation along with modest training in youth will bring about the best circumstances. These contradictory positions lead to some interesting and perplexing questions, since each can be defended on philosophical

grounds in the absence of the benefit of direct scientific evidence.
How early in life should an athlete be exposed to a particular sport? How specialized and intensive should the training be at a specific chronological age? Are there particular psychological and physiological considerations that can be identified that would suggest the "readiness" of the young athlete to be trained formally and involved in competition? Are there guidelines to these kinds of questions for categories of sports activities?
For those youth who are involved in comprehensive and technical athletic training, how many in fact will become elite athletes? How many of them would have reached the same status under more normal developmental conditions? How many of them will quit the sport in their youth due to negative psychological reactions to training and competition, never to resume interest in the activity or perhaps any sports activity?
With the development of more youth sport programs and intensified athletic preparation at earlier and earlier ages, questions such as these need to be studied. Indirect evidence from sub-human research on the long-term effects of early training is helpful. Cross sectional studies with athletes can also provide useful information. But the real answers can only be approached through well-controlled longitudinal studies.

Interpersonal Relations

Human relations, cooperative and competitive, are manifested in different circumstances in the world of sport. The athlete is involved in situations where interactions occur with other athletes (in the contest and away from the contest) and those with responsibilities to coach and manage. Naturally, a number of concerns have arisen in the socio-psychological area.
To what degree is team conformity to rules and values (versus individual integrity) important? How much should group cohesion be emphasized? To what extent is athlete-coach harmony a necessity, in that the athlete's manner of behavior accommodates that of the coach? This question is especially pertinent in view of recent research which seems to indicate that traditional attitudes are associated with more positive experiences in organized sports as well as greater success. Jones and Williamson[b] (1976, p. 100) ask "Do athletes who maintain an acceptable attitude toward the traditions of sports get systematically socialized into a role and performance style that assures them success (or maybe acceptance is a better characterization)?"
In other words, it may very well be that survival and success in sport is as much related to athletic skills and personal resources as it is to social skills and learning to adjust to situations and others. Being "different" or a loner or a dissident may be detrimental to success in sport, in that opportunities to develop and compete may diminish if a coach is not understanding and tolerant. Who has responsibility here: the coach or the athlete?

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[b]Jones, J.M., & Williamson, S.A. A model of athlete's attitudes toward sports programs. International Journal of Sport Psychology, 1976, 7, 82-106.

Personal Psychological Resources

A variety of personal equations help to determine proficiency in a sport. From a psychological point of view, we can identify many factors that enter the picture: motivation, emotions, self-concept, coping capabilities, pain tolerance, and the ability to concentrate, anticipate, analyze, strategize, and make instantaneous decisions are major considerations.

Ideally, the athlete would possess pervasive attitudes to persevere at practice, to practice well and long. Emotions and motivation would be suitable prior to and during competition. Mental toughness and competitive capabilities need to be displayed. Self-image or self-concept, locus of control, and attributions made about performances would be appropriately developed and directed. Personal living problems, coaching styles, and the team environment in general need to be coped with effectively. Pain must be endured and overcome on occasion. And finally, mental operations need to be finely tuned and applied as pertinent to situations. In essence and in trite terms, the athlete needs a strong mind and heart.

A comparison of world-class athletes suggests more and more that many of them may not vary measurably in skill and physical characteristics. Differences in achievement and success may be due to the presence of the ideal intermix of personal psychological factors. Can we identify this intermix? Can we predict athletic performance on the basis of these factors for team placement and special training considerations?

To what degree do desirable personal resources need to be present as the athlete begins training for a sport and to what extent can they be shaped and developed? Assuming that all, many, or some personal characteristics can in fact be modified with training, which techniques are most productive? Which characteristics are most vulnerable for change?

How valid and reliable are the various techniques used for the assessment of personal psychological characteristics? in other words, how much faith can we have in their utility and usage in sport? How helpful is the published research in assisting the sports psychologist, athlete, or coach to make perceptive analyses and intelligent decisions? More particularly, how do we help make athletes more aware of themselves, their strengths and limitations, in order to develop for themselves their personal resources that will contribute to proficient execution in sports competition?

A Final Statement

If athletes are to realize their potential, many developmental, socio-psychological, and personal resource variables must be recognized for their possible contributions. A number of them have been identified rather briefly in this paper. We must work toward greater understanding, to identify their relationship to successful athletic performance. Furthermore, means for assessment and prediction must be refined. And finally, techniques for self improvement or assistance from external sources (sports psychologists, trainers) need to be established.

Important strides have been made in research and direct working relationships between sports psychologists and athletic teams. There is still a long way to go as we attempt to make diagnoses and prescribe special training or give counsel based more on scientific thinking instead of only intuition and guesswork.

DIE PSYCHOLOGISCHE VORBEREITUNG VON SPITZENATHLETEN

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Erlauben Sie mir in der Kürze der gegebenen Zeit auf einen speziellen Problembereich des o.a. Thema's einzugehen und diesen in zwei statements zu fassen:

1. Psychoregulative Massnahmen, direkt am Athleten durchgeführt, sollten auf die Dopingliste gesetzt werden.

2. Die psychologische Vorbereitung des Spitzenathleten sollte letztlich und ausschliesslich vom Trainer durchgeführt und verantwortet werden.

Über die körperlich - schädigenden Auswirkungen von chemischen Aufputsch-, bzw. Aufbaumitteln bestehen unterschiedliche Meinungen. Über ihre Auswirkungen im psychischen Bereich sollte aber zumindest in einer Hinsicht Übereinstimmung bestehen:

> sie stellen einen massiven Eingriff in die Integrität der sich autonom und jederzeit bewusst regulierenden Sportlerpersönlichkeit dar.

Dieser Sachverhalt spiegelt sich in der gesamten, langfristigen und unmittelbaren Wettkampfeinstellung wider:

> nur dann trägt die feinst - abgestimmte, psycho-physiologische Regulation des Spitzenathleten auf einen Wettkampf hin alle Zeichen der Stabilität, wenn in jeder Phase, d.h. bis zum Einsatz, ein ständiger, bewusster Rückkopplungsprozess des Athleten mit situativen Merkmalen unter gleichzeitiger Aufschaltung energieauslösender Vorgänge abläuft.

Stabilität bedeutet hier auch: in jedem Moment der Veränderungswahrnehmung die "Dinge im Griff zu haben". Dies muss vor allem in der Phase höchster Erregbarkeit und Ängstlichkeit im Vorstartzustand gewährleitet sein.
Droht der Zusammenbruch dieses "empfindlichen Gleichgewichts" zwischen überreizter Selbstbeobachtung und Ursachenanalyse, so neigt der Prüfling im allgemeinen dazu, sich an Einzelobjekte, interner oder externer Art zu klammern.
In dieser Phase nun ist es von entscheidender Bedeutung, ob sich der Athlet in einem Abhängigkeitsverhältnis jeglicher Art zu diesem Objekt befindet. Das Objekt Dopingmittel wirkt hier direkt und stark.

Es manifestiert sich aus psychologischer Perspektive in:

a) dem Glauben, in höchster Belastung letzte Energiereserven zur Verfügung gestellt zu bekommen;

b) der Ausklammerung der bewussten Selbstkontrolle aus dem konzentrierten Ablauf aller energiemobilisierenden Massnahmen.

Mit dem Zeitpunkt des Einsatzes der o.a. Mitteln tritt eine Zäsur in der Entwicklung der Wettkampfstabilität ein:

> indem bereits in der Antizipation der Halt an die Energie- und Kraftspender miteinkalkuliert wird, schaltet der Gesamtorganismus vorsorglich einen Gang

zurück. Das Verhältnis von Einstellung zur realen erlebnismässigen Belastungssituation wird irreal; statt Abwägung und Einschätzung ist die Abhängigkeit getreten.

Mit der Verwendung von psychoregulativen Massnahmen, angefangen vom autogenen Training bis hin zur Hypnose, verhält es sich im Prinzip nicht anders. Man versucht hier mit den ursprünglichen Methoden der Krankentherapie das Bewusstsein des Athleten auf dem Schleichweg zu umgehen und über das Unterbewusstsein zu regulieren (manipulieren). Man geht hierbei - sicherlich oftmals erfolgreich - bereits bestehende Zustände der Verspanntheit, Fixierung, Angst oder Übersensibilität an. Man hält sich an die Symptome und hat dabei meist die Verursachung vergessen.

Die Abhängigkeit des Athleten besteht hier grundsätzlich darin, dass sich (im Sinne der selbstkontrollierten Einschätzung) die psychoregulativen Vorgänge nicht indemselben Masse gesamtintegrativ verarbeiten lassen, wie Erfahrungen und Erlebnisse, positiver und/oder negativer Art in Zusammenhang mit Training und Wettkampf. Sie sind eher globale Aufhänger in der kausalanalytischen Verarbeitung von Erfolg und Misserfolg und erhalten die feste externe Funktion, Störungen, Disregulationen und labile Zustände, die eigentlich immer konkrete Ursachen haben, global zu schlucken und zu nivellieren.
Wie auch bei den chemischen Mitteln schliesst ihre Miteinbeziehung bei der Einstellung auf Spitzenleistung die Erreichung eines wettkampfstabilen, konsistenten Gleichgewichtszustandes aus - ein Zustand, welcher in der Lage ist, einerseits situative Störreize flexibel und angepasst zu beantworten, andererseits jenes Mass an Konstanz und Beharrlichkeit zu zeigen, welches notwendig ist, um die Stützfunktion in der Phase höchster Störanfälligkeit zu übernehmen: ein schmaler Grat auf dem Höhenweg, welcher den Einsatz der gesamten, selbstbewussten Persönlichkeit fordert, nicht so sehr die Psyche des abhängigen, manipulierten Athleten.

Der Sportpsychologe sollte sich daher im Bereich des Spitzensports die primäre Aufgabe stellen, jene leistungsbestimmenden Faktoren zu erfassen, welche langfristig die Belastungsverarbeitung in Wettkampf und Training in Richtung Stabilität - Labilität bestimmen. Hierbei muss die gesamte Lebenssituation des Athleten miteinbezogen werden, d.h. alle motivationalen und bedürfnisrelevanten Erlebnisfelder des Athleten.

Die Analyse muss letztlich eines leisten können: zu erfassen, welche Massnahmen dem Sportler die Voraussetzungen bieten, seine Leistungen unmittelbar und in der Planung in seiner gesamten sozialen Umwelt verankert zu sehen. Konkret:

der Sportler muss über diese Massnahmen in die Lage versetzt werden, sich bei jedem Leistungseinsatz des Verhältnisses von Aufwand (cost level) und Belohnung bewusst zu sein. Er muss wissen, wofür er leistet, er muss seinen Sport in seine gesamten Lebenserwartungen integriert wissen. Die Stärke und Dynamik des Spannungsfeldes zwischen Aufwand und Belohnung aber wird bestimmt von dem Wechselbezug von eigener Leistungskapazität und den Leistungserwartungen der sozialen Bezugswelt, bzw. deren Belohnungsmechanismen. Labilität oder Stabilität hängen nicht zuletzt von der sensiblen Erlebnisverarbeitung dieser Erwartungen ab. Daher sollte es das Ziel des Trainers sein, diese Einflussfaktoren (Erwart. d. Öffentlichkeit,

z.B.) so zu relativieren, dass sich der Athlet ihrer Kontrolle bewusst bleibt.

Der Trainer ist gewöhnlich die wichtigste Bezugsperson im Sportbereich für den Athleten. Er ist Vertrauensperson, Fachmann, Organisator und nicht zuletzt aktiver Psychologe zugleich. Er vermittelt Richtung und Wertbezüge sportlicher leistungen. Daher sollte er auch derjenige sein, der die analytisch ermittelten Erfahrungen und Ergebnisse des Sportpsychologen in seine Trainings- und Wettkampfplanung mit einbezieht. Durch dieses Verfahren ist die Bedeutsamkeit des Sportpsychologen bei der psychischen Vorbereitung des Spitzenathleten keineswegs eingeschränkt, sie verlagert sich lediglich und ordnet ihm eine mittelbare Funktion zu.

Seine Tätigkeit konzentriert sich auf folgende Bereiche:

1. Die Ermittlung und Vermittlung leistungsbestimmender, psychologischer Faktoren. In Form von Vorträgen, Arbeitssitzungen und Gesprächen.

2. Erfassung ganzheitlicher biographischer Daten der Athleten. Über Fragebögen und/oder Trainer.

3. Erstellung methodisch-fundierter Verlaufsanalysen der betr. Spitzensportler in den Bereichen: Leistungskurven, Erwartungs - Realisations -, sowie Aufwands - Effektivitätsverläufe unter gleichzeitiger Einbeziehung auslösender und bestimmender Faktoren. Methode: Befragung.

4. Allgemein beratende Funktion für Trainer und, wenn erwünscht, für Athleten.

AUTOGENIC TRAINING IN SPORTS

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Mental training ought to be as natural a part of a training program in sports, as physical or technical training. The increased knowledge about the many psychological and environmental factors, which affect performance, has led to a considerable interest for psychological methods.
With a background of research in and clinical applications of hypnosis and autogenic training, I started to apply these methods to sports in the early seventies. The first two years were devoted to the identification and analysis of deterring and inhibiting factors in performance, and the investigation of the so-called "winning feeling".
This led to the construction of four different treatment programs, tested in close collaborstion with sections of the national teams within the track and field, shooting, tennis, bowling, skiing and swimming sports. The findings from those tests and from the Olympics in Montreal led to further modifications of the contents and application of the programs.

The present programs are comprised of the following sections:

I. A basic program for activation and tension regulation

Consisting of methods for increasing and decreasing the level of arousal, activation and tension, as well as methods for selecting the type of activation. The program should be used once a day for three weeks.
One of the applications of this first program is a changing between periods of relaxation with calming mental images and periods of activation with tensing of the muscles, fast breathing and arousing mental images connected with the forthcoming competition. This preparation should be made two to eight hours before the competition.

II. Dissociation and Detachment Training

The program is a continuation of the relaxation training in program I and a preparation for the "goal-orientated automation" in program IV. It also has the following purposes:

1. learning quicker and more effective ways of obtaining rest and recovery (especially important in connection with a series of performances with intermittent breaks).
2. application to situations where disturbing factors would otherwise negatively affect the performance.

III. Mental Rehearsal

This training by imagery is performed during deep relaxation and detachment (to be found in programs I and II). This kind of altered state of consciousness seems to activate the non-dominant hemisphere of the brain and accordingly also increase the ability of involvement and vividness of imagination.
The outcome of any performance is to a large extent influenced by expectations, which in turn, are based on the interpretation of former events. Mental rehearsal training makes it possible to select and reinforce suitable memories and experiences and, when necessary, also create new experiences, which will thus influence the frame of references, attitudes and expectations. A vivid, intensive and detailed imagination can have the same effect on the nervous system as a "real life" experience.
The program has two main parts:

1. Mental rehearsal of previous athletic achievement, for instance by reliving a very successful earlier competition. This exercise has two purposes:

   a) Motoric automation
   Based upon the principle of ideo-motoric reactions; the imagination of a movement will activate and create measurable reactions in the relevant muscles. Through imagery, the athlete can focus on kinesthetic and proprioceptive feedback which are essential to good performance and which, in turn, increases gain in the memories of successful real life performances. Experiments by Uneståhl and many other have shown that mental practice might be as effective as physical training, and that a combination of both seems to be the most effective way.

   b) Reactivating "the winning feeling"
   The winning feeling, a kind of rhythm or trance, when "everything runs smoothly of its own accord", implies direction from a lower level of

ciousness. It includes an automated performance which leaves memories afterwards which are very faint, in fact, sometimes there is no conscious memory at all. Reactivating a former winning feeling in another altered state of consciousness (compare with state dependent learning) will give increased possibilities of gaining control over this ideal state of mind.

2. Treatment of problem-awareness

All athletes experience situations in which former experiences of bad performance have created a problem-awareness which will very easily fixate the negative performance in the mind in the future. Mental practice - reliving the situation in an ideal way - will be an effective means of reducing problem-awareness and restoring the conditions for a better performance.

3. Preparation for forthcoming events

The use of imagination for going through future competitions in a relaxed and calm state of mind has two purposes:

a) Programming positive attitudes and expectations.

b) Desensitization - Decreasing the level of negative activation (worry, nervosity), which would otherwise have caused deterring reactions in thinking and behaviour.

Athletes will thus be able to identify long-standing habits of negative emotional and cognition responses to situations and, by using imagery of future events, may rehearse more positive responses.

IV. Goal-orientated Automation

This main feature of the winning feeling can be induced by applying the following principles:

1. Imagine in a positive and firm, but effortless, way what you want to happen - and then
2. let it happen - let the performance occur in a state of detachment, singlemindedness and blankness.

Conscious thought of what you are doing and emotional thoughts and feelings in connection with the performance will be a disturbing factor. In the same way, thinking of former or future performance will lower the results. The winning feeling implicates a functioning in the present - here and now.
Most athletes have experienced the winning feeling but very few of them know in advance when it will appear, and hardly any have any voluntary control over it. This ideal state of mind is not only blocked by a too high or too low level of arousal, but also by every conscious effort to induce it. Total concentration or involvement cannot be created by any voluntary effort. Instead there must be a passive absorbtion in the task.
In order to enhance free flow of performance in a state of cognitive blankness, I have tested various methods, of which I will mention a few:

a) Handing over the performance to the body.

See youself as two different individuals - mind and body. After these years of physical training, your body will most certainly know exactly what to do, in order to get certain results. When your mind has given the order, try to

have confidence in your body, let it decide how to do it, and let it then execute the performance without any interference from the mind. The mind is allowed to register, but without any emotional evaluations or reactions.

b) Meditation

In order to keep the mind occupied while the body is performing, a meditative technique may be of value. The passive concentration on a mantra (anything can be used as a mantra - a meaningless or meaningful word, the ball, etc.) releases the physical performance from the restraint of the mind, in the same way as a mantra is used to bring about a decrease of cognitive control.

c) Be someone else

Imagine that you are someone else, for instance someone very good in your field. - I started to work with this technique in the field of art, with painters and musicians. There, the need was the same - to release the potential abilities from inhibitions and consciously negative and deterring thoughts. I then applied the technique to some athletes and with very interesting results. The most effective results are obtained if more advanced techniques of hypnosis are applied.

With the exception of one or two of the aforementioned methods, in which athletes receive help with programming the mind, the main goal of these programs is to give the athlete himself greater control over his performance, thereby helping him to use his maximum potential ability - constantly and everywhere.

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