		Coh	esion		Adaptability			Communication				
Family habits and rules	no	yes	T- value	p	no	yes	T- value	p	no	yes	T- value	p
 are your parents willing to bring you by car to your sports ? 	60.9	67.2	-3.9	<0.001	26.1	24.5	1.6	ns	3.2	3.7	-1.6	ns
- do your parents think it is important for you to exercise ?	64.0	67.4	-2.9	<0.005	26.0	24.1	2.5	<0.05	2.6	4.1	-6.9	<0.001
- do your parents encourage you to exercise ?	65.5	67.0	-1.4	ns	25.0	24.5	0.8	ns	2.7	4.5	-9.2	<0.001
- do your parents value the physical courses at school as much as the other courses ?	66.0	66.9	-0.8	ns	25.0	24.3	0.9	ns	3.4	4.0	-2.5	<0.05
- are you sometimes exercising together with your parents ?	65.4	69.0	-3.0	<0.005	25.2	23.7	2.0	<0.05	3.5	4.1	-2.5	<0.05
 do your parents complain because you spend to much time in exercising ? 	67.0	62.5	2.8	<0.01	24.4	26.8	-2.4	<0.05	3.6	4.0	-1.3	ns
 do your parents sometimes forbid you to exercise because you did something wrong ? 	66.6	64.8	1.1	ns	24.6	25.2	-0.6	ns	3.6	4.3	-2.2	<0.05

TABLE 4. Differences in Family Cohesion, Adaptability and Communication for Family Habits and Rules

The role of the family in physical activity

DISCUSSION AND CONCLUSIONS

Results show a clear influence of family habits and rules on the physical activity of the adolescents. It would be important for parents to explain to their children that exercise is important for health (social norm). They can do that by encouraging their adolescent children to exercise, by valuing the physical courses at school as much as the other courses, and also by exercising together with their children. All these activities will probably result in a higher level of physical activity in the adolescents. Our results do not confirm the hypothesis based on the operant learning principles that if parents complain about exercise or use exercise as a punishment, their adolescents who exercise most and who value exercise high whose parents complain or use it as a punishment, however with little effect on physical activity.

Communication about physical activity in the home has a direct influence on physical activity or vice versa. On the contrary, family cohesion and adaptability do not correlate with physical activity, they are more general process variables influencing family variables and rules from the background of a general family climate. A higher cohesion among the family members, defined as a high degree of emotional bonding in the system (connected, enmeshed), and a lower adaptability, defined as a low degree in changing the roles and rules of the system (structured, rigid), seems to result in family rules and habits which are related with a higher level of physical activity. As our data show, the social and emotional climate in the family is an important moderating factor in the process leading to physical activity. It is premature to suggest specific health interventions based on these data, but the overall pattern of results may have implications for parenting. Congruent with the results of Hansell & Mechanic (1990), we suggest that parents might be effective by establishing a positive, intimate atmosphere in the home and a well structured pattern of roles and rules.

Till now, very few is known about the various interpersonal mechanisms that are useful in health behavior change programs (Olson & Stewart, 1991). Future research may focus on the influence of general styles of adaptation that underlie daily routines, on diverse health behaviors as drug and alcohol use, eating habits, and exercise.

REFERENCES

Buurmeijer, F. & Hermans, P. (1985). De Gezins Dimensie Schalen als hulpmiddel bij gezinsdiagnostiek. <u>Tijdschrift voor Psychotherapie</u>, 11, nr. 5, pp. 336-346.

The role of the family in physical activity

Buurmeijer, F. & Hermans, P. (1988). Gezinsfunctioneren en individuele stoornissen. Een vergelijkend onderzoek naar het functioneren van gezinnen met en gezinnen zonder manifeste stoornissen bij een van de gezinsleden. Proefschrift. Amsterdam : Swets & Zeitlinger.

Crombie I, Lee A, Smith W, & Tunstall-Pedoe, H. (1990). Levels and social patterns of self-reported physical activity in Scotland. <u>Health Education Journal</u>, 49, 2, pp. 71-74.

Dishman RK, Sallis JF, & Orenstein DR. (1985). The determinants of physical activity and exercise. <u>Public Health Reports</u>, 100, 2, pp. 158-171.

Hansell, S. & Mechanic, D. (1990) Parent and peer effect on adolescent health behavior. In K. Hurrelman & F. Lösel (Eds), Health hazards in adolescence, Berlin : Walter de Gruyter, pp. 43-65.

Hollis, J., Sexton, G., Connor, S., Calvin, L. et al (1984). The family health dietary intervention program : Community response and characteristics of joining and non-joining families, <u>Preventive Medicine</u>, 13, pp. 276-285.

Olson, D. & Stewart, K. (1991). Family systems and health behaviors, In H. Schroeder (Ed) New directions in health psychology assessment, London : Hemisphere publishing corporation, pp. 27-64.

Olson, D., Porter, J. & Lavee, Y. (1985) Family adaptiability and cohesion evaluation scales (FACES III). Published Monograph. Family social science, St. Paul, Minnesota : University of Minnesota.

Olson, D. Russell, C. & Sprenkle, D. (1983) Circumplex model VI : Theoretical update. <u>Family Process</u>, 18, pp. 3-28.

Olson, D., Porter, J. & Bell, R. (1982). Faces II : Family adaptability and cohesion evaluation scales, Family social sciences, St. Paul, Minnesota : University of Minnesota.

Powell K, Spain K, Christenson G, & Mollenkamp M. (1986). The status of the 1990 objectives for physical fitness and exercise. <u>Public Health Reports</u>, 101,1, pp. 15-21.

Sallis J, Hovell M, & Hofstetter C. (1992). Predictors of adoption and maintenance of vigorous physical activity in men and women. <u>Preventive Medicine</u>, 21, pp. 237-251.

Sallis, J. & Nader, P. (1988). Family determinants of health behaviors. In D. Gochman (Ed), Health behavior : Emerging research perspectives, New York : Plenum Press, pp. 107-124.

Stephens T, Jacobs DR, & White CC. (1985). A descriptive epidemiology of leisuretime physical activity. <u>Public Health Reports</u>, 100, 2, pp. 147-158.

Zimmerman, R. & Connor, C. (1989). Health promotion in context : the effects of significant others on health behavior change, <u>Health Education Quarterly</u>, 16, 1, pp. 57-75.

Birth Date and Success in Dutch Tennis

BIRTH DATE AND SUCCESS IN DUTCH TENNIS

988

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KEY WORDS

Birth date & Elite performance, Tennis.

INTRODUCTION

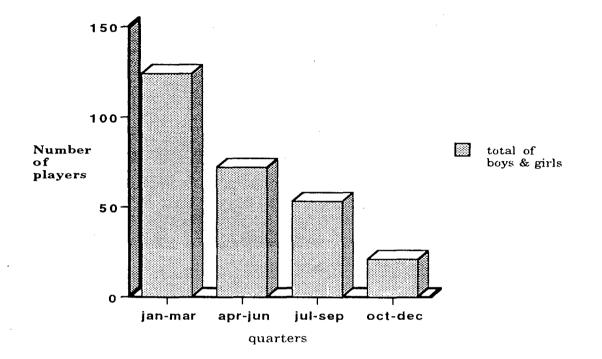
In organized sport, talent is considered predominantly in terms of physical skills, and the influence of social and psychological factors is often ignored or underestimated. After his publication (Nature, VOL 368, 1994), concerning his research of birth date and professional soccer players in the Netherlands, Dudink was asked by the NOC*NSF (Dutch Olympic Committee*Dutch Sports Federation) to conduced a similar study for youth tennis players. Birth dates of 12-16 year old top-ranking players (n=270) participating in the Dutch youth league were analysed.

METHODS

A chi-square test was used to indicate the uniformity of the distribution and a regression analysis to demonstrate the relationship between month of birth and number participants. Birth dates were tabulated by month and compiled into quarters.

	· · · · · · · · · · · · · · · · · · ·						
	jan-mar	apr-jun	jul-sep	oct-dec	total	chi-square	sig.
girls 12	21	17	6	1	45	116.128	p<.0001
girls 14	20	13	9	3	45	27.314	p<.0001
girls 16	18	10	9	- 8	45	4.57	p<.0261
boys 12	25	12	7	1	45	115.252	p<.0001
boys 14	20	11	8	6	45	9.748	p<.0208
boys 16	20	9	14	2	45	47.712	p<.0001
total	124	72	53	21	270	132.956	p<,0001

RESULTS TABEL 1: Number of Players in Birth Date Quarters and Statistics.



Birth Date and Success in Dutch Tennis

Fig. 1. Total Age Group Position Effect in Dutch Tennis

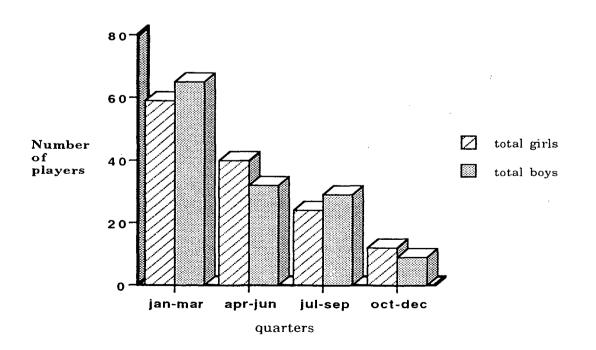


Fig. 2. Age Group Position Effect for Total Girls & Boys in Dutch tennis

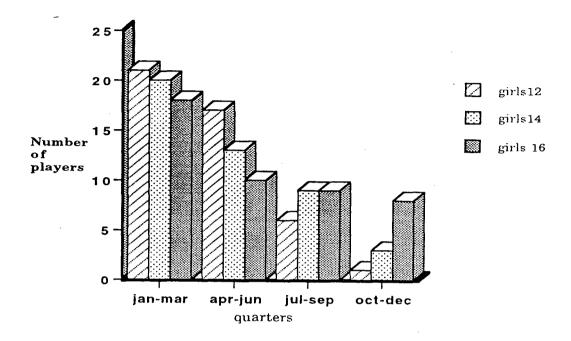


Fig. 3. Age Group Position Effect for Girls (12-16) in Dutch tennis

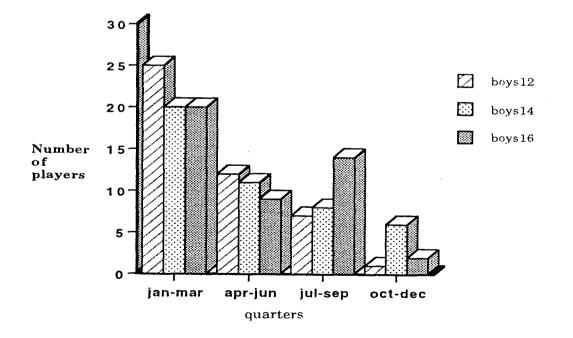


Fig. 4. Age Group Position Effect for Boys (12-16) in Dutch tennis

990

Birth Date and Success in Dutch Tennis

Birth Date and Success in Dutch Tennis

DISCUSSION AND CONCLUSIONS

The relationship found cannot be attributed to the distribution of births in the Netherlands, as this is highly uniform. These age group position effects are responsible for the high incidence of players born in the first quarter of the competion year. Birth date related effects in sports have much in common with findings in the educational contexts. There is a wellknown relationship between date of birth and educational achievement (Shearer, E. (1967); Doornbos, K. (1971); Sharp, C., Hutchison, D. & Whetton, C. (1994)). Children who participate in sports are also placed in age groups, and the results imply that many athletes may never get a fair chance because of this method of classification.

EXPLANATIONS

- 1. Physical development: more strength etc. .
- 2. Psychological: cognitive (self-concept), emotional (regulation of affect), social (self-fulfilling prophecy, attribution: social-comparison).

SUGGESTIONS

- 1. To divide the competion year in two halves.
- 2. When a player has his/her birthday, he or she goes to next year group.
- 3. To combine two year groups, so that a player is once the youngest and once the oldest as well.
- 4. To give younger players more credits for their performances (handicapsystem).
- 5. To make trainers/coaches and scouts aware of this phenomena.

REFERENCES

Dudink, A. C. M. (1994). Birth date and sporting success. <u>Nature</u>, 368, 592.

Doornbos, k. (1971). Date of Birth and Scholastic Performance. Groningen: Wolters-Noordhoff.

Sharp, C., Hutchison, D. & Whetton, C. (1994). How do season of birth and length of schooling affect children's attainment at key stage 1? <u>Educational Research</u>, 36, 107-121.

Shearer, E. (1967). The effect of date of birth on teachers' assessments of children. <u>Educational Research</u>, 10, 51-56.

MUSCLE FATIGUE ADAPTATION AFTER 12 WEEKS OF PHYSICAL TRAINING IN HIGH TOP VOLLEYBALL ATHLETES

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INTRODUCTION

Muscle fatigue has been considered as a functional sign of muscle damage and structural changes due to high intensity exercise (1). Top volleyball athletes are submitted to extreme performance requirements to the competitive level that will be necessary to promote a physiological, psychological and technical adaptation.

Volleyball has an important performance characteristics due to anthropometric (25), metabolic (12) and neuromotor (4,11) fitness to reach high performance level that supports the success on competitions of international level. Many studies (5,13, 21) have been pointing out the importance of delaying muscle fatigue in athletes, mainly considering metabolic and neuromotor profile. The anaerobic alatic fatigue is explained due to changes on cell pH, disturbance on fiber architecture, low glycogen and ATP-CP level, motor enervation control, CK and LDH enzymatic activity and motor-neuron activation.

Concentric and eccentric muscle potential work will significantly decrease in fatigue condition promoting low performance level. The intensity of jumps that the modern volleyball is performed will result in training volume, intensity and frequency preparation to adapt anthropometric, metabolic and neuromotor variables for high performance capacity. The training season promotes distinct and progressive changes on athletes physical fitness and in the playing modalities skills that results on development of motor performance during the games.

Considering the importance of training control to volleyball performance, the purpose of this study is to examine the possible changes on physical fitness profile, muscle fatigue and power of Brazilian Women Volleyball National Team during 12 weeks competive season.

METHODS AND PROCEDURES

Ten athletes of Brazilian Women Volleyball National Team were followed during whole year of 1994 and this study was especially designed to control the training effect during the last 12 weeks of training season in preparation to of 1994 Women World Championship. The analysis was to determine anthropometric and neuromotor changes at competitive training period. The athletes were 23.50 \pm 3.22 years old and presented at that time 8.30 \pm 3.53 years of experience in the modality. The athletes were evaluated in two periods of the competitive training program specified as pre (PR I) in the beginning and post (PR II) and at the end of 12 weeks competitive season, through the physical fitness battery of test standardized by our laboratory (18).

Anthropometric measurement included : a)body weight(BW) ; b)height (HT) ; c)adiposity through skinfolds thickness at seven sites : biceps , triceps , subscapular , supra-iliac , middle axillary , abdominal and calf (x 7 SF) and d)leg girth (LG). The neuromotor fitness was analyzed by vertical jump performance without (VJWo) and with(VJW) help of arms , stand long jump (LJ) and shuttle run agility test (SR). The determination of muscle fatigue was conducted indirectly through the high box jump performance test (HB) that allow us to analyze the maximal jump capacity during 60 seconds(sec). The procedure was established by Montgomery (20) that consisted in start jumping from the write side to the top of a cubic box (40 cm) and jump back to the floor at the other box side. It was determined the number of jumps (NJ) every 10 sec (10;20;30;40;50 and 60 sec) and the fatigue (FAT) level was mathematically calculated considering the number of jumps each 10 seconds as it follows in the fig. 1:

% Fatigue = (<u>NJ 10 to 20</u>) - (<u>NJ 50 to 60</u>) × 100% (NJ 10 to 20) FIG.1. Formula to calculate muscle jump fatigue through HB test

The muscle power (MP) was assessed from 10 to 60 seconds HB performance test and the influence of body weight, box height (0.40 meters) and number of jumps at each time (NJT) in sec was considered. The fig. 02 demonstrates the theoretical identification of muscle power : Muscle Power = Body Weight (Kg) x 0.40 m

NJT

FIG.2.formula to calculate muscle power through HB test

The training program were shared into physical, technical and tactical development at two distinct moments: April/94 and July/94. The intensity, frequency and duration in competitive season PRI (0 week) and PR II (12 week) was 75% to 85% of VO₂ max. (endurance); muscle strength 85% of 1 RM; anaerobic power (explosive strength and speed) by sprints and short terms activities at 90 to 95% of VO₂ max. and muscle power in 70%. The frequency of training was 5 times per week and duration between 6 to 8 hours daily. The volume per weeks of training session are as follow for each component:

% TRAINING VOLUME	PRI	<u>PR II</u>
WEEKS TRAINED PERIOD	10	10
TOTAL HOURS WEEK	35	30
ENDURANCE	5%	2%
MUSCLE STRENGTH	5%	1%
EXPLOSIVE STRENGTH	10%	15%
GAMES PARTICIPATION	20%	35%
TECHNICAL AND TATIC SKILLS	65%	47%

The physical training in average was divided in 3-5 days per week with 20% in PRI and 18% in PR II of total volume.Games participation was 20%-35% of total volume and represented 2-3 matches per weeks and the playing skills was 3-5 days week training with in 50% of volume

The reliability was analyzed and showed values in anthropometry : .99 to height ; . 99 to weight ; . 90 to skinfolds and .97 to leg girth . The neuromotor results were : .95 (VJWo) ; .97 (VJW) ; . 95 (LJ) and .84 (LG) . Muscle fatigue reliability was .98 for 10 to 60 sec. and .98 to muscle power. The statistical analysis procedures were the Student t test (p.<05) and percentile differences ($\Delta \%$).

RESULTS

The muscle fatigue, muscle power and changes on physical fitness variables have been frequently mentioned in the international literature (1,2,3,11,13) in different modalities and periods of analysis. The anthropometric results indicate low magnitudes variations for BW (-2.43%) comparing pre and post training period with values between 69.50 Kg to 67.81 Kg, however no changes on height was observed in the season training. Significant decrease was found in adiposity level (x 7 SF) comparing PR I and PR II results with range of variability in 12.23%. The indirect muscularity level measured by leg girth presented increase of 8.32% with absolute values of 31.58 to 34.18 cm. The absolute anthropometric values and percentile differences are presented in table 1.

Table 1 - Anthro	pometr	ic changes or	o competitive	e season
	•	<u>PR Ī</u>	<u>PR II</u>	<u>∆ %</u>
WEIGHT	x	69,50	67.81	-2.43
	S	7.67	7.95	
HEIGHT	х	179.18	179.18	0.0
	S	6.32	6.32	
7 SF	x	10.47	9.18*	-12.23
	S	3.35	2.47	
LG	x	31.58	34.18	8.32
	8	3.11	3.09	

Neuromuscular variables presented in general significant changes during both periods of evaluation (table 2). Vertical jump performance was one of the variables that changed the most specially the VJWo that reached in the beginning values of 38.30 cm and increased to 41.77 cm after the follow-up. The second evaluation evidenced significant

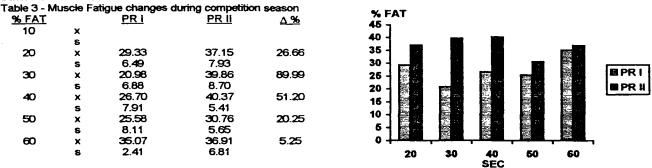
improvement on muscle performance in vertical jump with help of arms comparing to previous evaluation with +8.52% in the total height (44.60 cm to 48.40 cm). Low percent changes on long jump performance was found in this group after training program with 1.27% increase. Agility was one of the physical fitness variable that changed less during 12 weeks with only 5.71% increase.

Table 2 - I	Veuromuscular	changes or	n competitive	season
		PRĪ	<u>PR II</u>	Δ %
VJWo	x	38,30	40.77*	9.07
	8	6.19	6,26	
VJW	x	44.60	48.40*	8.52
	S	6.19	6.26	
IJ	x	28.10	231.00	1.27
	S	11.14	11.32	
SR	×	10.68	10.07*	-5.71
	S	0.93	0.30	

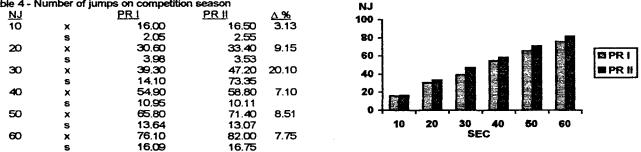
Muscle fatigue and number of jumps analysis from 10 to 60 sec are presented in table 3 and 4 respectively. HB jump test presented low magnitude changes each 10 sec test performance in PR I and PR II. Increase in muscle fatigue at post training was observed with distinct trend compared to PR I. The percent fatigue difference values were smaller

among 10 to 20 to 30 to 40 to 50 to 60 seconds in PR II than in PR I. Decrease in low limbs muscle strength and consequently increase in muscle fatigue was delayed in post training with deep loss between 40 to 50 sec, compared to 20 to 30 sec in PR I that in general presented higher values in PR

II than in PR I. The 30th and 40th sec post 12 weeks training were 40.37% fatigue while in PR I the higher fatigue average was at 50th to 60th s seconds (31.07%). Similar value was found in PR I at same tests seconds.



The number of jumps presented evolution in PR II, when compared to previous results (PR I). At 10 seconds the percent difference was only 3.13% and 9.15%; 20.10% respectively to 20 and 30 seconds. It might suggest increase in muscle performance and positive training adaptation in 12 weeks. However as more prolonged was the test, closer was the differences after 40 sec with 7.10%, 8.51% (50 sec) and 7.75% (60 sec), that did not represent the evolution of absolute number of jumps that for all seconds evaluated (10 to 60 sec) PR II exhibit better performance capacity. Table 4 - Number of jumps on competition season



Muscle power jump capacity after 12 weeks training period was indirectly assessed considering the body weight, box height in meter (m) and physical work capacity practically determined by number of jumps at specific time test in seconds. Data evidenced slight increase in muscle power in PR II, however the initial MP characteristics was maintained. No significant modifications were observed in absolute values however the $\Delta\%$ range was 0.16% (10 sec) to 17.91% (30 sec). The highest result muscle power in PR I period was in 10 sec with 44.48 Kg.m/sec and postponed to 20 sec with 45.30 Kg.m/sec in PR II. Similar muscle power results were observed in the beginning and the end of the test for both periods (table 5).

Table 5 - Mus	cle power on con	npetition season		MP							
MP	PRI	PRII	<u>∆%</u>	50 -							
kg.m/seg				2 0 1							
10	44.98	44.75	0.61			·.	-				
Sec				40 -	臺				·		
20	42.53	45.30	6.51		2010年1月1日	離			調調		
Sec				30 -		3	**				PR I
30	36.42	42.68	17.19		靈						PR II
Sec				20 -	2			虌			
40	36.16	39.87	10.26			蠿					
Sec			,	10 -		靈	臺			188 - I	
50	36.58	38.73	5.88		調調	制制					
sec			0.00	0 -	- B						
60	35.26	37.07	5.13		10	20	30	40	60	60	-
SEC			0.10		10	20		EC			

DISCUSSION AND CONCLUSION

Physical fitness changes after a training program have been reported as important component of motor performance. Hakkinen in 1994 (14) presented that volleyball female athletes did not changed metabolic, strength and muscle performance after 21 training weeks. The literature present the influence of specific anthropometric, metabolic and neuromotor characteristic for high performance level volleyball athletes (4,10,12).

The anthropometric component is a important criterion for selected high performance players and gifted children for modality practice (4). Our primary evaluation data after 12 weeks of training effect on body weight revealed decrease of 2.43% and significant loss (p<.05) on adiposity results (-12.23%) and increased the leg circumference in 8.32%. Changes on body composition is associated with percent intensity, frequency and duration of aerobic training (9,21) that in our study was determinate to 75 to 95% VO₂ max.; 3 to 4 days per week and 4 to 6 hours each session. The decrease of body weight, skinfolds and increase muscle mass may suggest specific physiological adaptation for each fitness component once lean body mass is associated to the maximization of physical performance to high level athletes (26) as well the increase of VO₂ max. values (ml/Kg/mim), resulting on cardiorespiratory capacity, mithocondrial density increase (1,3,5,12), metabolities removal and somatotype characteristics that are important physical fitness component to modality performance.

Neuromuscular adaptation leads to evolution on muscle circumference, muscle hypertrophy, muscle power and strength, motor control, metabolic mechanisms to delay fatigue and exhaustion (7,13,15,22). Neuromotor function was studied through vertical and horizontal jump, agility and anaerobic fatigue/exhaustion test (HB). Vertical jump presented significant evolution between PR I and PR II with 9.07% that might be explained by increase of leg circumference, muscle strength and power. The exposed training stimulated the athletes to improve maximal motor control and metabolic recovery. Studies that focused volleyball athletes (16,19, 24) presented the importance of high vertical jump results to support playing skills as blocking, spiking and service. The latic anaerobic requirements to vertical jump performance without and with help of arms movements seems to be associated with explosive and muscle power training as well central nervous system control(6,11,23) that may explain the fatigue delay found in this study. Training volume established in this study association between 15% might be evidencing that during the competitive session intensities physiological adaptation and explosive and 5% muscle strength may result in maximum performance development for vertical jump , however horizontal jump presented the smallest evolution among all neuromotor variables probably, due to volleyball requirement skills characteristics of playing .

The analysis of number of jumps evidenced an increment of 7.75% of the total performance (60 sec) with 76.10 jumps (PR I) and 82.00 (PR II), suggesting increase in muscle strength . Fatigue measured in the period (60 sec) presented evolution about 5.25% on muscle response . It might be explained due to relationship between intensity of jumps and fatigue symptoms . Sale (23) and Questali (22) presented that % fatigue decrease proportionally to the muscle work production after a period of training , but in absolute values the fatigue level is higher . Our data seems to present the same trend once it was observed increase in muscle power , number of jumps and muscle fatigue is associated with changes of concentric and eccentric contraction , that may be explained by central and periphery homeostasis modification , ATP-CP reduction concentration (8), lactate accumulation and removal, glycogen level , activity of CK and LDH enzimes , fibers damage among other physiological factors (1).

Muscle power after 12 weeks of training presented evolution at each period test with higher values in 30 seconds (PR II), however MP did not had the same trend in both evaluations.General decrease was observed trough the test seconds (10 to 60 sec) comparing PR I and PR II, where higher values was found in second evaluation period. Muscle strength and power are indicators of performance and are considered the primary base to development of playing skills in high volleyball players.

In conclusion the present findings demonstrate that changes on physical fitness during competition season are related to intensity, frequency and duration of training. The modifications on physical fitness variables are more feasible in neuromotor variables than in anthropometric (BW,SF,LJ) variables. Increase was observed on muscle power, muscle strength (VJWo-VJW) and number of jumps, that are important characteristics to volleyball performance. Muscle fatigue also increase, however slight influence seemed to be decrease with jump performance, suggesting positive effect of training program upon physiological variables during 12 weeks.

REFERENCES

- 1. Appell,H.J.;Soares,J.M.C.,& Duarte,J.A.R.(1992).Exercise,muscle damage and fatigue <u>Sp.Med</u>,13 (2):108-115.
- 2. Ashley, C.D., & Weiss, L.W. (1994). Vertical jump performance and selected physiological characteristics of women. J. of Strength and Conditioning Research, 8(1):5-11.
- 3. Asmussen, E. Muscle fatigue. (1979). Med. and Sc in Sp and Exerc., 11(4):313-321.
- 4. Azzi,M.;Duarte,C.R.;Dianno,M.V.,& Figueira Junior,A.J.(1989).Physical Fitness profile of female Brazilian volleyball national team.<u>Annals of VI Brazilian Cong on Spor Sciences</u>,45.
- 5. Babcock,M.A.,Pegelow,D.,&Dempsey,J.A.(1993).Fitness effects of exercise-induced diaphragm fatigue.<u>Canadian Journal of Applied Physiology</u>,18(4):397.
- 6. Baker, D., Wilson, G., & Carlyon, R. (1994). Periodization: The effect on strength of manipulating volume and intensity. Journal of Strength and Conditioning Research, 8(4):235-242.
- 7. Behm,D.G., & St-Pierre,D.M.M.(1994).Neural and contractile properties of the quadriceps and plantarflexors, pre and post fatigue.<u>Canadian Journal of Applied Physiology</u>,19:3.
- 8. Bilcheck,H.M.,Kraemer,W.J.,Maresh,C.M.,& Zito,M.A.(1993). The effects of isokinetic fatigue on recovery of maximal isokinetic concentric and eccentric strength in women. Journal of Strength and Conditioning Research, 6(2):43 50.
- 9. Butts,N.K.,& Price,S.(1994).Effects of a 12 week weight training program on the body composition of women over 30 years of age.<u>J.of Strength and Cond. Research</u>,8(4):265-269.
- 10.Figueira Junior,A.J.,& Matsudo,V.K.R.(1990).Values of proportionality index correlation of neuromotor variables of volleyball players. Ann. of XVII Inter. Symp. on Sports Sciences, 98.
- 11.Figueira Junior,A.J.,& Matsudo,V.K.R.(1991).Muscle fatigue on anaerobic performance in high top volleyball athletes.<u>Annals of Panamerican Congress of Sports Medicine</u>,92.
- 12.Figueira Junior,A.J.;Andrade,D.R.;Rocha,J.R.,& Matsudo,V.K.R.(1994).Four weeks of physical fitness detraining in volleyball court and bench players.<u>Annals of XIX Inter.Sym.on</u> <u>Sp.Science.</u>125.
- 13.Fleck,S.T.,& Kraemer,W.J.(Eds)(1987).Desingning Resistence Training Programs,Illinois,USA, Human Kinetics Publishers.
- 14.Häkkinen,K.(1993).Changes in physical fitness profile in female volleyball players during the competitive season. Journal of Sports Medicine and Physical Fitness, 33, 223-232.
- 15. Hickson, R.C.; Hidaka, K., & Foster, C. (1993). Skeletal muscle fiber type, resistance training and strength-related performance. <u>Medicine and Science in Sports & Exercise</u>, 25(5):s48.
- 16.Higajo,N.,Andrade,D.R.,& Pereira,M.H.N.(1991).Relationship between flexibilityand low limbs strength in Volleyball players of high level.<u>Brazilian Journal of Sc. and Movement</u>,5(3):7-12.
- 17.Lafranboise, J., & Cafarelli, E. (1993).Influence of the neuromuscular system on the contractile characteristics of human muscle. <u>Canadian J. of Applied Physiology</u>, 18(4):415.
- 18. Matsudo, V.K.R. (Eds) (1987). Testes em Ciências do Esporte, São Caetano do Sul, SP, Burti.
- 19.Mola,I.C.;Andrade,D.R.,& Souza,M.T.(1994).A inter-relação das variáveis técnicas do voleibol . Anais do XIX Simpósio Internacional de Ciências do Esporte,084.
- 20.Montgomery,D.L.;FigueiraJunior,A.J.;Souza,M.T.;Oliveira,R.;Duarte,C.R.,&Matsudo,V.K.R. (1989). Comparison of 50 meters run,shuttle run test,40 seconds run test,and high box jump test.<u>Brazilian Journal of Science and Movement</u>,3(3):35–41.
- 21.Mosher,P.E.,Underwood,S. A.,Ferguson,M., & Arnold,R.O.(1994). Effects of 12 weeks of aerobic circuit training on aerobic capacity, muscular strength, and body composition in college age women. Journal of Strength and Conditioning Research, 8(3):144-148.
- 22. Oueslati, H., & Gardiner, P.F. (1993). Effects of fatigue of rat EDL in situ on metabolism of phosphoinositides. <u>Canadian Journal of Applied Physiology</u>, (4):426.
- 23.Sale, D.G. (1992). Neural adaptation to strenght training. Komi, P(ed). Stength and Power in Sports, London, Blackweell Scientific Publications.
- 24.Silva,M.F.;Andrade,D.R,& Figueira Junior,A.J.(1993).Influencia das medidas antropometricas sobre a capacidade de saltos e agilidade em atletas de volibol.<u>Anais do XIX_Simpósio</u> Internacional de Ciências do Esporte,152.

25.Silva,R.C.,& Rivet,R.E.(1988).Comparison of physical fitness profile accordig to match position. <u>Braziliam Journal of Science and Movement</u>,2(3):28-32.
26.Smith,J.C.,& Hill,D.W.(1993).Stability of parameter estimates derived from the power/time relationship. <u>Canadian Journal of Applied Physiology</u>,18(1): 43-47.

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KEY WORDS

social representation, sport psychologist, team sport

INTRODUCTION

Investigating the social representation of the sport psychologist by high-level athletes and coaches seems to be an essential starting point for those psychologists who are working in the field of sport. Studies suggest that athletes who will consult a sport psychologist are perceived negatively by their teammates and lose a part of their notoriety in the sport setting (Linder, Pillow and Reno, 1989). Our interest focuses on the sport psychologist working with high-level teams.

The social representation is defined as "a manner of interpreting and of thinking in our daily reality, that is, a form of social consciousness; and correlatively, the mental activity employed by individuals and groups in asserting their position in relation to situations, events, objects and communications which concern them" (Jodelet, 1984). Social representation can be seen as a form of current knowledge, commun sense, presenting the following characteristics :

- It is socially elaborated and shared because it is based on our experiences, but also on information, knowledge, and thinking models that we receive and transmit through tradition, education and social communication. Social representation is not simply an individual judgement, the fruit of personal reflections. It is a construction based on elements transmitted within a group. This elaboration is situated on the crossing between individual and collective, psychological and social.

- It has a practical goal of organisation, of mastering the environment (material, social, etc.), and of behavior orientation and communication. Through this representation sport psychologists get pertinent information about the image which is immediately attributed to them. It would be naïve to believe that athletes and coaches have no opinion about the sport psychologist. We think that the intervening sport psychologist should strive to erase or at least weaken this prejudice before starting to work with the sportsmen.

Our research is comprised of two principal objectives:

1) to obtain the social representation of the sport psychologist in the sports world (structure and value) with the help of a word association test

2) to locate the performance factors which contribute to this representation : what is the perceived responsability of the sport psychologist, taking into consideration the nature of the team's objective and its performance ?

METHOD

Eighty athletes and coaches of team sports (rugby, volleyball, water polo, basketball) among the French national elite have participated in this research. The athletes' ages vary between 18 and 35, and the coaches between 35 and 45.

PROCEDURE

The data collection was achieved by using a questionnaire which included a fictive scenario and a word association test.

First part (fictive scenario): Team X is presented to the subject. It is composed of a coach, a physical trainer, a sport psychologist, a physiotherapist and a sport physician (the players are not taken into consideration). The content of the scenario varies according to the two following variables: the objective of the team (*high* : finishing among the first three teams in the league vs. *moderate* : remaining in the league) and performance (objective realised vs. objective non-realised) during a season. For each of the four conditions, the subject is asked to attribute a part of the responsability to each member of the staff by allocating percentages so that the total is 100%. Each subject answers only to one condition.

The second part (word association test) consists of the association of three to eight words with the notions of SPORT, SPORT PSYCHOLOGIST, COACH and to indicate if the used words have a positive (+) or a negative (-) meaning. We chose to accompany the term "sport psychologist" by those of "coach" and "sport" so that the subjects attention is not exclusively focused on the stimulus word "sport psychologist".

RESULTS

Social Representations of Sport Psychologists by Team Atheletes

<u>Composition and value of the social representation</u>. The content analysis of the answers to the word association test allowed us to extricate the composition of the social representation of the sport psychologist through the most common categories (six categories and 13 sub-categories) and their respective values (+ or -).

We propose three axes of analysis : (a) the sport psychologist's contribution within team sports, (b) the way he intervenes, (c) the way he is perceived in terms of status.

a) The sport psychologist's contribution can be divided into three categories :

- the individual contribution encompasses the sub-categories linked to "motivation", to "confidence", to "concentration", to the notion of "mental" and to other characteristics of the team athletes' personalities.

- the contribution to the group includes the phenomena linked to collective life, group management (i.e. cohesion, group spirit, ...)

- the general contribution exceeds the aspects of individual and group contribution (i.e. cultivation, solutions, performance ...)

b) The category "method" regroups the different types of intervention (i.e. sophrology, therapy, mental preparation, ...) and the type of support (i.e. advice, help)

c) The category "perceived status of the sport psychologist" deals with his position within the group (i.e. leader, analyst, scientist, ...) and his competence (i.e. professional, high-level)

d) The category "other" regroups the non-classified answers (i.e. abstract, weapons, ...)

In all, 83% of the associations concerning the sport psychologist received positives values whereas 17% of the scores were negative.

ad a) More than half of the associations (53,9%) are linked to what the sport psychologist can contribute to an individual (34,5%), a group (5,8%) and a general (13,6%) level. While the individual and group contributions are perceived positively, the general contribution receives almost as much negative (5,9%) as positive (7,8%) answers.

ad b) About a quarter of the given answers in the category "method" have almost exclusively positive values.

ad c) The position within the group and the competence of the sport psychologist are represented in 13,6% of the answers most of which are positive.

CATEGORIES	global score	Sub-categories	score	positive score	negative score
	50010	Motivation	3,8	3,8	0
		Confidence	3,5	3,5	0
Individual contribution	34.5 %	Concentration	6,3	6,3	0
		Mental	6,3	6,3	0
		Personality	14,6	12	2,6
					
Contribution to the group	5.8 %	Collective	5,8	5,8	0
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		global	11	5,9	5,1
General contribution	13.6 %	Linked to performance	2,6	1,8	0,8
Method	24.3 %	Type of intervention	13,8	13,8	0
		Supprt	10,5	10,1	0,4
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Perceived status of the sport psychologist	13.6%	Position within the group	9,6	7,4	2,2
		Competence	4	4	0
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Other	8.2 %	Other	8,2	2,3	5,9
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TOTAL	100 %		100%	83%	17%

TABLE 1: Frequency and value of the representational categories

<u>Structure of the social representation</u> Through the analysis of the correlations between the different categories we obtain a certain structure of the representation of the sport psychologist. As seen on the graphical representation (fig. 1), there are three groups of relations which are

apparent. We can observe a central part which regroups several categories with strong correlations. This chain includes the sub-categories "concentration", "motivation", "performance" "confidence" and "personality" with a stronger link in the beginning than in the end of this sequence. Furthermore two peripherial groups are visible, although less important. One of them unifies "method" and "mental" which could mean that the method used by the represented sport psychologist is interested in "mental" aspects. The other peripherial structure links the status of the sport psychologist within the group to his general contribution. In other words, this link reveals that the subjects associate the sport psychologist's general contribution to the fact that his place within the group is well-defined.

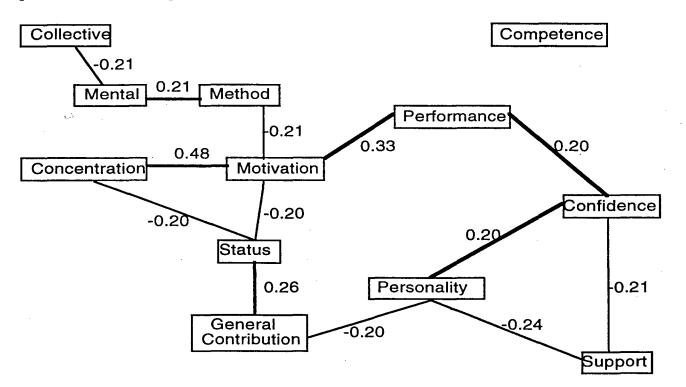


Fig. 1. Structure of the sport psychologist's social representation

Besides these groups of co-occurences, we also find relations of avoidance, of negative correlations, that are necessary for the comprehension of this social representation of the sport psychologist. First of all the category "support" is negatively linked to two other categories, "confidence" and "personality". This result could suggest that if the sport psychologist means a support, an aid to the team members, then the perception of this intervention is very vague.

Furthermore this perception is not associated with the "performance" category nor with the personal categories. If we have a look at the "motivation" category, it becomes evident that it presents negative correlations towards the categories "method" and "status of the sport psychologist". These results reinforce those of the preceding reports, namely that the team members do not relate motivation with any particular method nor with a defined status of the sport psychologist.

The Deviation of Responsability of the Sport Psychologist concerning Objectives and Performance

Generally, the sport psychologist's share of the responsability is quite weak compared to the other members of the staff, particularily to the coach, the physical trainer and the physiotherapist. More precisely, the results show on the one hand that there is no specific answering structure linked to the objectives of the team. On the other hand, a performance-effect can be observed : the responsability of the sport psychologist becomes more important when the team faces a situation of failure (objective non-realised) than in situation of success (objective realised), F (1, 76) = 3,98, p < .05. This result is mainly due to the effect of failure on a moderate objective, F(1, 38) = 4,79, p < .05.

TABLE 2 :	Results of	<u>responsability</u>	according to	conditions

Conditions		COACH	PHYSICAL TRAINER	PHYSIO- THERAPIST	SPORT PSYCHOLOGIST	SPORT Physician
OBJ++	M	50.7	22.8	15.7	7.2	4.4
PERF++	s	14.7	10.2	10.5	10.4	6.2
OBJ++	M	51.9	20. 6	9.6	9.4	6.6
PERF	s	13.7	<i>9</i> .8	5.9	5.4	4.5
OBJ	M	48.5	22.6	12.7	5.9	8.9
PERF++	S	11.2	10.1	9	8.7	9.9
OBJ	M	51.5	20	12.5	13.2	5.7
PERF	S	16.1	10.2	9	12.9	4.5

M : mean

sd : standard-deviation

OBJ++: *high* objective: finishing among the first three teams in the league OBJ--: *moderate* objective: remaining in the league PERF--: objective realised PERF++: objective non-realised

DISCUSSION AND CONCLUSIONS

Indeed, it is not enough to know and to reflect upon the forms of intervention of the sport psychologist to discern his true status in sport practice. The sports world perceives the sport psychologist in a certain way, it constructs a social reality in his place.

The results of this study contribute to deepening our knowledge of the social representation of the sport psychologist. We realise that it is a weakly structured social representation in which no perceived relation exists between the method used by the sport psychologist and the effects of his psychological intervention. One exception is the notion "mental", a word with no definite meaning in the sports setting. This absence of a link between method and effects of psychological intervention questions the real significance of our results. Should we consider the positive value of the words associated with sport psychologists or focus on the lack of structure?

To answer this question, it is necessary to refer to the results of the scenarios. If we take the analysis of variance into consideration, solutions to this question become more evident. The analysis of variance permits us to evaluate the standing of the sport psychologist in the structure of the team according to the team performance. Indeed, the sport psychologist is judged more responsible in a situation where the objective is not realised than in a situation where the objectives are clearly reached.

Through these different results between social representation and attribution of responsability we could ask ourselves if there does not exist two sub-representations of the sport psychologist. When there is reference to the sport psychologist in general, although the social representation is weakly structured, the response is nevertheless positive. On the other hand, when the sport psychologist is presented in concrete situations of intervention (as a member of the staff) his image becomes more negative.

Our study contributes in this way to the continuation of the debate around the position of the sport psychologist (Linder, Brewer, Van Raalte & de Lange, 1991) by adding a supplementary element of reflection. Maybe it is no longer sufficient to answer positively (Kirkby, 1991) or negatively to the nature of the link between the sport psychologist and the sports setting, but to propose a more specific procedure which indicates that this link varies according to precise situations. This arbitrary image of the sport psychologist enables him to modify it, in particular by sensitizing the sports world to dimensions other than performance (Levêque, 1984).

REFERENCES

- Jodelet, D. (1984). Représentation sociales : phénomènes, concept et théorie. In Moscovici, S. (Ed.)(1984). <u>Psychologie sociale</u>. Paris : P.U.F., pp. 357-378.
- Kirkby, R. J. (1991). Use of Sport Psychology Techniques by Professional Australian Football League Players. *Perceptual and Motor Skills*, 73, 1224.
- Levêque, M. (1984). Le psychologue en milieu sportif : Une implication singulière. Bulletin de Psychologie, XXXVII, n° 364, 359-369.
- Linder, D. E., Pillow, D. R. & Reno, R. R. (1989). Shrinking Jocks: Derogation of Athletes Who Consult a Sport Psychologist. Journal of Sport & Exercise Psychology, 11, 270-280.
- Linder, D. E., Brewer, B. W., Van Raalte, J. L. & de Lange, N. (1991). A Negative Halo for Athletes Who Consult Sport Psychologists: Replication and Extension. *Journal of Sport* & Exercise Psychology, 13, 133-148.

Sport Psychology Counseling AN INTEGRATIVE APPROACH TO SPORT PSYCHOLOGY COUNSELING Jay McKnight, Scott B. Martin, and Charles L. Thompson; The University of Tennessee, Knoxville, USA

Key words: Sport Psychology Counseling; Athletes; Reality Therapy; Behavioral Counseling; Goal Attainment Scaling

INTRODUCTION

A Sport Psychology Counselor (SPC) can play a significant role in educational counseling programs provided for the athletic population. A SPC can help athletes maximize their skill development and help them cope with the external pressures associated with competitive sport. Further, a major role of the SPC is to provide the proper environment that may enable athletes to develop self-teaching skills. Similarly, the ultimate goal of many counselors is to teach their clients to counsel themselves. Since the SPC procession is relatively new and growing and has a close relationship with counseling, it would seem reasonable to adopt some general counseling methods in counseling athletes. Combining counseling methods with the sport-related expertise of the SPC (e.g., player, coach, researcher, etc.) provide an optimal environment for facilitating the athletes' learning and development. The SPC can provide relevant examples and terminology related to the athletes' particular sport(s) within a counseling framework. Furthermore, an individualized, integrative counseling approach provides the essential elements necessary for a successful SPC-athlete relationship because the SPC's can adapt their styles to fit the athletes' learning styles. A practitioner may use several combinations of counseling methods and techniques throughout the therapeutic process. The combination of Behavioral Counseling, Reality Therapy, and Goal-Attainment Scaling provides an appropriate, integrative approach for counseling athletes. The purpose of this article is to: (a) explain the appropriateness of using Educational Counseling techniques with athletes, and (b) demonstrate an integrative counseling approach for athletes.

BEHAVIORAL COUNSELING

It is the belief of behaviorists that behavior is learned and can be unlearned. Further, the goal of a behaviorist is to observe behaviors and determine those that are helping and not helping the individual. The behaviors that are not helping the individual must be unlearned and replaced by new, helping behaviors. More specifically, behavioral counseling is designed for: (a) identifying the problem category, (b) identifying the problem type, (c) determining the cause of the problem, and (d) selecting a problem solution. The goals of behavioral counseling are to alter

maladaptive behavior by teaching the decision-making process and to prevent problems by teaching new behaviors and skills.

Many of the problems brought to counseling by athletes involve observable and measurable behaviors (e.g., increasing free-throw percentage, increasing length of long jump). Furthermore, many of these problems involve unlearning a behavior and replacing it with a new one. For example, a pitcher may have to unlearn his stride to homeplate because he is crossing over his body and putting too much stress on his throwing elbow; therefore, the intervention goal would be to teach him to open up his stride so he does not throw across his body. Goals for counseling athletes should be individualized and compatible with, though not identical to, the values of the SPC. The counselor and the athlete identify the problem to be solved. Data are collected to verify the baseline frequency rate for the occurrence of the undesired behavior. Next, the counselor and the athlete set mutually acceptable goals. Specific counseling techniques are evaluated for observable and measurable change. If the selected counseling techniques are not effective, the plan is appropriately changed to allow the program to work. However, if the techniques prove effective, a maintenance plan is developed for maintaining the new behavior changes. The ultimate goal of Behavioral Counseling is to help the client become more selfsufficient.

REALITY THERAPY

Reality Therapy (RT) is a counseling method that challenges many of the beliefs of conventional therapy. Conventional therapists devote considerable time and effort to identify problem causes often rooted in the past and in the unconscious. In contrast, reality therapists focus on helping clients with their present, conscious concerns. Thus, the intent of reality therapists is to help their clients meet realistic performance and achievement goals through the development of self-regulating strategies. Extremely unrealistic standards of performance as well as unproductive behaviors are evaluated and, if rejected, discarded in favor of new goals and plans. The objective of intervention is to create achievable, measurable, and progressive goals, developed by the athletes that lead to responsible behaviors, and a better feeling about their performance.

Major Differences Between RT and Traditional, Conventional Counseling Methods

RT differs from conventional methods in six focus areas: (a) mental health is emphasized over mental illness; (b) the present rather than the past is treated; (c) transference relationships are discarded in favor of person to person relationships; (d) conscious motivation replaces

Sport Psychology Counseling unconscious material; (e) ethical and moral issues are treated; and (f) education methods replace healing methods. The following explanation of the different belief areas will make the case that RT is more suitable for intervening with athletes than conventional counseling methods.

Mental health versus mental illness. The RT view suggests that people who are given a "labeled" illness tend to use this "classification" to make excuses for their irresponsible behavior (mental illness). Reality therapists suggest that the term "pathologies" should be replaced by "irresponsibility" and that the goal of the counselor is to teach people more responsible ways to meet their needs. Individuals who learn to take responsibility for themselves will be more capable of meeting their needs/goals (mental health).

<u>Focus on the here-and-now</u>. The past may influence the reasons for current irresponsible behavior. However, the past cannot be changed, only the way a person chooses to behave in the present can be altered. A change in behavior will affect feelings and thinking. This change in perspective will have an affect on how an individual meets present and future goals and needs. In order for the change to happen the person must become aware of: (a) those "old" behaviors that are not fulfilling their needs, and (b) what "new" behaviors may fulfill their needs. People can develop inner strength and confidence and free themselves from anxieties limiting their potential by choosing new behaviors and methods for meeting their needs.

Become involved as yourself. Often times, counselors find their clients relating to them as someone other than a counselor. Clients may have transferred their feelings toward a parent, teacher, boss, friend, or over to the counselor. The counselor's responsibility is to maintain the here and now, counselor-client relationship. Relationship problems outside the counseling relationship that may be hindering the athlete's progress can be treated within the counseling session without the client transference.

<u>Unconscious motivations</u>. Searching the unconscious for reasons excusing irresponsible behavior has nothing to do with RT. When the logical and natural consequences accompanying irresponsible behavior become too costly, the client will be motivated to make some changes in behavior. The RT road to better feelings lies in finding better ways to meet one's needs without infringing on the rights of others as they attempt to meet their needs; Glasser (1965) referred to this practice as being responsible.

<u>The issue of right and wrong</u>. Unlike conventional therapists, reality therapists address the issue of right and wrong. Clients are asked to evaluate their behaviors in the light of how it

makes them feel and how it makes others feel. In addition, clients are asked to consider if their behavior is in touch with reality. In other words, is the client able to accept the consequences of their behavior? Attempts to avoid these consequences are considered departures from reality.

<u>Teaching better behaviors</u>. Individuals behaving irresponsibly may not have the knowledge or skills to make a change. The counselor may provide opportunities for the client to learn better behaviors. Providing homework assignments between sessions are ways that the counselor can help the athlete assimilate new learning and make progress through small, achievable steps.

GOAL-ATTAINMENT SCALING

Goal Attainment Scaling (Kiresuk, Smith, & Cardillo, 1994) is designed to help clients individualize their goals based on five levels of attainment ranging from best possible outcome (+2) to worst possible outcome (-2). The middle-level outcome (0) is designated as an acceptable level of outcome with a (+1) level being better than acceptable and a (-1) level being less than acceptable. For example, a hockey player who wishes to reduce the amount of time he spends in the penalty box because of fighting. His (0) level outcome may be to stop initiating further fights, his (+1) level outcome may be to not respond to another players' initiation of a fight, and his (+2) level outcome may involve becoming a leader on the ice, helping others regain their focus by not initiating fights. On the other hand, his (-1) level outcome could be his initiation of another fight, and his (-2) level outcome may ultimately be his release from the league.

Goal attainment scaling works well for as many as four or five goals. Each goal is given a weight corresponding to its importance to the client. Weights generally range in value from 10 to 80 points. Level numbers and weights are combined in a formula for determining any change that might result in a client's progress (see Kiresuk, Smith, & Cardillo, 1994). With goal attainment scaling, athletes can make self-assessments and select the appropriate strategies that will allow them to maintain their focus on the task-at-hand. The goal attainment scale is easy to understand and readily adaptable to graphing the degree of goal attainment (Dowd & Kelly, 1975). Additionally, the graph is used to chart the results of periodic follow-up checks on the maintenance of athletic and counseling goals (Martin & Thompson, in press). Material for further counseling sessions follows from the improvement or lack of improvement within the goal attainment scale or assessment questionnaires.

Once a goal attainment scale is developed for the critical behaviors that the athlete is interested in changing, the counselor can evaluate the athlete's commitment to those goals on a daily or weekly basis. Evaluating the athletes' ability to effectively control their emotions during competition can be performed by the athletes or the athletes and their counselors. Athletes should rate themselves before, during, and after the competition. Consultants and athletes can track and adjust the scale or goal at any given time allowing the counseling process to continue throughout the season or until athletes are able to set and achieve goals on their own (Thompson & Rudolph, 1992).

THE COUNSELING PROCESS

The first step, and the most significant in all of counseling, is building a good relationship with the client. Counselors want to develop positive relationships that are honest, open, and unencumbered. The goal is to build the kind of trust and climate in which clients feel free to express their innermost fears, anxieties, and concerns (Thompson & Rudolph, 1992). Building a good rapport is important but not necessary before advancing to the next step in the counseling process. The relationship, in many cases, is developed as the counselor and client work together to meet the clients' goals and needs.

The next step in the counseling process is for the SPC and the client to identify the nature of the problem. Although the counselor and client may be aware of the problem brought to the counseling session, many are not aware. The behavioral flowchart (see Figure 1) is one method that allows the client to identify the problem, how they are involved in the problem, and what the problem cause may be. Knowing this information allows the client to become more aware of the problem itself and it provides the counselor with a means to select appropriate interventions.

There are four steps that are followed when conducting a behavior analysis designed to determine causes of and solutions to performance problems. The first step is to identify the category of problem. The problem may be that of: (a) performing a task, or (b) dealing with people. A baseball player may have trouble with hitting the curveball (performing a task) or he may be having problems with his coach (dealing with people). Upon determining what category the problem is associated with, the next step would be to identify if the problem is related to: (a) being unable, or (b) being unwilling to solve the problem. That is, could the problem be solved if their life depended on it? If the answer is "no" then they are unable, if the answer is "yes" then they are unwilling.

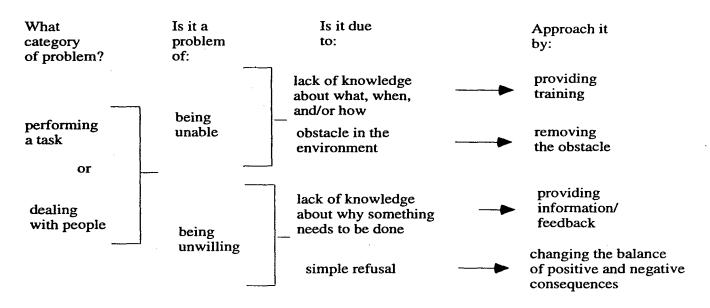


Figure 1. A Process Model To Determine Causes Of And Solutions To Performance Problems

If a client is unable to solve a problem, the next step would be to determine if the problem is due to: (a) the client's lack of knowledge about what, when, and/or how to do something (e.g., the ball player does not know how to keep his hands back in order to adjust to the decreased velocity of the curveball; he lacks communication skills necessary to deal with his coach), and/or (b) an obstacle in the environment (e.g., the ballplayer has trouble seeing the ball because of a "glaring" background in centerfield behind the pitcher; he is afraid that his coach will stop playing him if he brings up the issues that are bothering him).

Otherwise, if a client is unwilling to solve a problem, then the problem is due to: (a) the client's lack of knowledge about why something needs to be done (e.g., the ballplayer feels that hitting the curveball is not important as long as he can hit the fastball; he thinks that it is his coach who is the cause of the problem), and/or (b) the client may simply refuse to do something about the problem (e.g., the ballplayer has lost confidence about hitting the curveball and fears even attempting to try; he fears talking to his coach about his limited playing time and continues to sit on the bench).

When the source of the problem has been identified, then certain types of approaches can be implemented. These approaches can take the context of a goal attainment scaling technique. For lack of knowledge about what, when, and/or how, the counselor should try to enable the client toward some type of training (e.g., the ballplayer may set a goal of hitting an extra 50 curve balls per practice session concentrating on keeping his hands back; he may decide to attend

1012

a communication seminar). However, if the problem is associated with an obstacle in the environment, then trying to remove the obstacle (e.g., the ballplayer may suggest that the team buy different lights that will reduce the glare in centerfield; he may schedule a meeting to talk with his coach about the problem) might be the most appropriate approach.

A problem that is associated with a lack of knowledge about why something needs to be done may be approached by providing the client with information and/or feedback (e.g., the ballplayer needs to realize that if he does not start hitting the curveball he will sit on the bench; his problems with his coach will disrupt the cohesiveness of the team which may lead to him to be terminated from the team). Conversely, a problem due to simple refusal may be approached by changing the balance of positive and negative consequences. The counselor and client need to determine those things that reinforce the undesired behavior and those things that punish the desired behavior. Reinforcement of the undesired behavior and punishment of the desired behavior must be decreased or eliminated while performance of the desired behavior is reinforced (Thompson & Rudolph, 1992). This can be achieved through a self-management plan. The baseball player may set a goal to find a left-handed pitcher who will throw him an extra thirty balls after the regular practice is over. If he achieves this goal (e.g., for the next five practices) he will reward himself with a steak dinner and a pitcher of beer. If he fails to reach his goal he will give the money, that he would have used for the dinner and beer, toward a charity of his choice.

Once the problem behavior has been identified the counselor then suggests that the client brainstorm for better ways of meeting his/her needs. The baseball player would be asked to come up with a variety of behaviors that he thinks will help him improve his ability to hit the curveball. The clients are required to select one or more alternative behaviors and develop, and commit to a plan. These plans can be in the form of self-management (as described above), goalsetting, goal attainment scaling, or any other manner in which the behaviors can be measured.

After the plan has been signed by the client and the counselor, follow-up sessions are needed to determine the ongoing success of the plan. If clients do not succeed with their initial plans then new plans are developed. Counselors do not accept excuses because excuses are designed to avoid punishment, and if clients learn that goals are not always reached and can be re-designed without punishment, there will be no need for excuses. For example, the ballplayer may have set a goal to find a left-handed pitcher to throw thirty extra balls after practice five times, over the next seven practices, but was only able to accomplish it three times. Therefore, the athlete and the SPC may reset the goal to three or four times over the next seven practices.

CONCLUSIONS

Most athletes are interested in increasing their sport performance level and request techniques or advice that can help them improve. Thus, SPCs might provide training in psychological skills (e.g., visualization, relaxation, imagery, thought-stopping, coping self statements, or positive self-talk) or give athletes new insight about a situation (e.g., obstacle in the environment or behaviors that might be changed). Moreover, it is recommended that counselors working with athletes take on the role of educator and/or facilitator by presenting and promoting a process model that is suitable for their client's individual needs. Following a process model that incorporates RT, Behavioral Counseling, and Goal Attainment Scaling allow athletes to achieve success in their sport.

REFERENCES

Dowd, E., & Kelly, F. (1975). The use of goal attainment scaling in single case study research. Goal Attainment Review, 2, 11-21.

Glasser, W. (1965). <u>Reality Therapy : a new approach to psychiatry</u>. New York: Harper and Row.

Kiresuk, T., Smith, A., & Cardillo, J. (1994). <u>Goal attainment scaling: Applications, theory, and measurement</u>. Hillsdale, NJ: Lawrence Erlbaum Associates.

Martin, S.B., & Thompson, C.L. (in press). Reality therapy and goal attainment scaling: A program for freshman student athletes. Journal of Reality Therapy.

Thompson, C.L., & Rudolph, L.B. (1992). <u>Counseling children</u>. (3rd Ed.). Monterey, CA: Brooks/Cole.

SPORTSMEN'S "PALAVER" SESSION (SPS) , AN EXPERIMENT IN THE PSYCHOLOGICAL PREPARATION OF SOCCER PLAYERS IN THE ZAIREAN CONTEXT (*)

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A.KEY-WORDS :

"Palaver", bewitching, NGANGA (fetish-man).

B. INTRODUCTION

Anyone involved in the technical training of athletes and team sport players in Black Africa will have very rapidly noticed the place that traditional beliefs have in the interpretation of such events as succes, failure, defeat, etc. It suffices to observe the liking of magico-fetishistic practices on the eve big competitions or sporting events such as of wrestling, basketball , soccer, etc. These beliefs serve as explanation, as response to a state of the soul. They even become a symbol representing not only the reality of the outside world as it is perceived by the individual but also the individual's inner world which needs to be satisfied. When this inner world of needs is not adequately satisfied, the individual responds by some form of abnormal behaviour. The belief is, in this case, a weapon which the individual possesses in order to restore the meaning of his life when it is in "sports jeopardy. And, the attitude of the psychologist" or that of the informed trainer toward the use of these traditional beliefs by the athlete or player may positively or negatively affect his performance. To ignore or to declare the athlete's interpretation as futile is to ignore not only the influence of culture on the development of personality but also the individual's own existence.

Athletes and players in Black African milieux frequently evoke bewitching as one of the fundamental traditional beliefs. As a concern within soccer clubs, the problem of bewitching naturally relates to the interpersonal relationships which must exist among the

* KISANGANI, capital of HAUT-ZAIRE PROVINCE, capital of Zaïre's third economic area, located in the north-east (At 2,000 Km from kinshasa).

members of these micro-communities. And in Africa's traditional communities, the "palaver" has proved, and proves even nowadays, to be a priviledged technique for the solution of conflicts between individuals, and an efficient tool in the solution of problems of health, unhappiness, barrenness, failure, and even death.

In the sub-Saharan world of relationships, the universe, space and time are limitless, past events or events that occur in an individual's parentage, may affect the individual. Distance does not prevent the members of a community or clan to communicate, because they are, as asserted by H.H. Price, linked to one another by the collective subconscious, by a field of interactions (RYZL, M., 1970, 188); a force that maintains them together. The soccer team, being a small living community, everything occurs in this field of relational forces as if a magnetic force encompassed the members and linked them to one another beyond time and space, so much so that the interruption of this magnetic force following from conflicts and other problems, could bring lack of success and technical cohesion, failure and defeat. When good relationships among all people involved are safeguarded, the club, as immunised body, is protected against adverse an attacks. In fact, the Black African believes that if relationships are 'sick', the living are also sick, and if human relationships are not healed, no plant, no medicine the sick may heal person (MAKANZU, M., 1985, 346).

In this cultural context, the AFRICAN PALAVER, adapted to sport seemed to be an efficient weapon for the solution of defeat, negative technical results, of amateur soccer teams that I had to technically train in Kisangani (ZAIRE). What did my adaptation of the African palaver consist in as an instrument in the psychological preparation of athletes in team sports in general, and in soccer in particular?

C.- METHOD AND PROCEDURE.

1).-THE RAISING OF CONSCIOUSNESS ABOUT THE PROBLEM TO SOLVE.

The team I had to train had aligned a series of unexplained and inexplicable defeats, mainly against its great rival. In spite of its technical superiority in the dynamic occupation of the field and the high number of missed scoring opportunities at each match, which was an evident sign, as far as the administrative

area was concerned, of the high technical level reached by my team after a laborious training (physical, technical, and tactical), the team's misfortunes continued. So, I understood that the reasons for those defeats would be found elsewhere: in the players' motivation, in their inferiority complex vis-à-vis other players, in their belief in fetishistic practices, and "maraboutage", or in the differences between the members of the team, etc. These reasons had to be identified and the situation restored. This analysis led me to organise sessions of "palavers" in the African way. So was born the sportsmen's palaver sessions (hereunder referred to as SPS).

2).- THE SPORTSMEN'S PALAVER SESSION (SPS).

SPS comprised 4 main stages, which are: - The summoning of members,

- The presentation of the goals and objectives of the meeting,
- The "palaver" proper,
- The reinforcement of attitudes and behaviours.

a).- The summoning of club members.

As in the case of any other African palaver, the SPS organiser (the trainer or team's psychologist) summons all the club members (managing staff, players, supporters, etc.) for an immediate collective diagnosis and a plan of action. Thus, like the clan elder (the family chief, or the traditional healer) during the traditional "palaver", he plays the role of intermediary between the members of this community. During this session, he is at the same time a conductor, an actor, and mainly a leader.

b).- The presentation of the goals and objectives of the meeting.

The conductor presents in a precise way the technical situation of the club and invites all the members to join in the search for pertinent solutions and explanations out of the impasse.

c).- The "palaver" proper.

This stage comprises two essential steps: the presentation of problems and the confession (or the blaming).

- The presentation of problems.

At this stage, each member will present the problems which explain the team's disaster, beginning

with particular problems before tackling general problems, mainly for the active sporting agents, the athletes. At this level of the session, the problems most frequently evoked relate to technical fitness (physical heaviness, quick fatigue, failures to score, interference with technical actions, lack of resistance, etc.), and psychological fitness (mainly, bewitching).

- The confession or the blaming.

This is a very delicate stage during which moral and spiritual problems are tackled very specifically. At this stage, the blaming of the wrongdoer is allowed, bewitching seems to take the central place in the explanation of people's behaviours and the team's failures. This is the stage when accusations are brought against one another, the stage when evil is denounced, the stage when people bring accusations against themselves, before reaching the cleansing of each and all, the cleansing of each man, of the whole man.

d).- The reinforcement of attitudes and behaviours.

At this stage, it is a question of establishing new expected ideas, thoughts, attitudes and behaviours. The directive method is used at this stage in the offer of suggestions to participants. And this reinforcement goes on beyond SPS, at any time, and in all the circumstances of life, mainly at the end of physical, technical and tactical training sessions where the learning of the rules of "mental hygiene", "a set of precautions and measures meant to maintain psychic equilibrium and to prevent mental disorders, while facilitating the adaptation to unforeseen events" (RIOUX, G. & THILL, E., 1982, 13, my translation).

D.- RESULTS.

1).- BEFORE THE IMPLEMENTATION OF SPS.

Before resorting to SPS, my team had suffered 11 defeats, 7 of which were successively inflicted by its main rival. And the level of belief in bewitching was high enough among the 27 athletes who composed my amateur soccer team. 13 players (that is, 48,2%) were convinced that there were bewitchers (or wizards) among their team mates, long-serving players were particularly targeted, because, the accusers would say, "they use fetishes (ritual objects) to diminish our

physical forces, or to make our luck and technical power which they lack their own". So, they would demand that the most famous NGANGA (fetish-man) be consulted to pull them out of these occult chains and to cleanse them of the opprobrium. 10 players (that is, 37,0%), among whom there were 5 of the long-serving players (that is, 18,5%), while believing in the possibility of bewitching among them, cast the fault on the managing staff, whom they judged less strong, on a mystical plane, to ensure the protection of the athletes and of the team against their adversaries' bewitching. The last 4 players (that is, 17,3%) were undecided, their belief in the occult, in bewitching, in ill fate was mitigated. As far as they were concerned, the evil was to be mainly looked for in the bad relationships entertained within the team: the lack of love among certain' members, the lack of sincere understanding and collaboration on the field would bring negative technical results; resort to prayers and to God was necessary, etc.

2).- DURING SPS.

With the worsening of the workers' standards of living in Zaire's urban centres, I had expected that the problems that the athletes would raise during SPS would turn round the social and the economical, as is the case under other skies. Curiously, without insisting, the players touched on issues of motivation through money, presents and healthy food, while their likes in Europe, for example, would think in terms of money, bonuses, decent material life. They insisted on diabolic possession, on bewitching, on the laxity of the managing staff in resorting to the services of the NGANGA (fetish-man).During this session, I noticed a strong agressiveness and a form of open hatred by the younger players on their seniors, by the new comers on long-serving players in the team. Younger players and newly signed ones would evoke their team mates' jealousy which, coupled with selfishness, prevented them from performing properly and freely during the matches. The senior and elderly players spoke of the lack of experience and the non integration of their accusers which prevented the latter from asserting it openly, themselves better; without saying they seemed to badly tolerate the prowesses and the intrepid competition of the junior and newly signed players. The climate of suspicion and antipathy set in among the team members, it undermined the life of the club and destroyed mental cohesion, team spirit and, ipso facto, led the athletes to play without heart and conviction, without any thirst for victory.

3).- AFTER SPS.

Two weeks before a friendly tie with the great rival team, I had organised SPS twice. The virulent agressiveness of the first session shaded off at the second which devoted more time to technical and moral advice, to the reinforcement of new attitudes and behaviours. The fellowship spirit began to grow again and to become firm; the players started to pay visits to one another and to walk together in groups varying between 5 and 8 out of the training area.

And, the 2-2 draw in fact established the end of the tragedy and the beginning of great hopes as, because of my insistence, the fetishes were no longer used. The two great goal missers, who considered themselves to be bewitched, scored goals when our team was down. This was a match of psychological rescue as it took place after 7 successive defeats without a single goal scored by my team.

After each training session, I devoted at least 30 minutes to the REINFORCEMENT SESSION during which, while listening to the players, I would suggest expected attitudes and behaviours, and give necessary prophylactic advice. As to the recorded negative behaviours, I would make those who had them discover them, denounce them before I asked all the group to participate in the correction and construction of positive attitudes and behaviours.

Two months later, my team started a series of wins against its main adversary and against the other great sporting clubs in the area

E.- DISCUSSION AND CONCLUSIONS.

SPS allowed the detection of three categories of constant opposition. The first group plavers in (48, 28)comprised the players who believed their negative results to originate from their team mates (the bewitchers); the second group (37,0%) made up of those who found that the great part of the responsibility was incumbent upon the managing staff who failed to ensure protection and luck to their players; and the last group (18,5%) included the undecided ones who would want to surrender to God for the restoration of good relationships among the team members.

SPORTSMEN'S "PALAVER" SESSION

In general, the observation of these three domains of antinomic forces and the analysis of the technical actors'attitudes and behaviours revealed that:

1°- The resort to the symbolism of bewitching to explain defeat and negative performance was but a means for the expression of long-repressed hatred, hostility, frustration and anxiety. In fact, thanks to the defeat, the "bewitched" seemed to punish his "brother enemies" (his team mates) by depriving them the joy of a resounding win. It was some kind of revenge.

2°- That the accusations openly brought against the others by name, were but the expression of personal tensions caused by the distortion in the perception and interpretation of the other's technical gestures. The other being identified as the "bewitcher", his actions seemed to prevent the positive and dynamic expression of the bewitched's game.

3°- That the true motives of failure, at the individual and collective levels, were to be looked for mainly in the mistrust which had settled among the team members. This brought in suspicion, antipathy, lack of confidence and self-assuredness, etc.

By favouring the expression and the externalisation of the negative feelings and thoughts buried in the inner self, SPS allowed the freeing of "minds" subjected to hatred, frustration and anxiety. public confession was also a kind of This selfaccusation which, in fact, constituted an attempt to break the link with evil and unhappiness, for as said by A. BOISEN, being convicted of one's sin is the first in the process of salvation... The step acknowledgement of a difficulty and the desire to grapple with it are the prerequisites to growth and self-fulfilment (BOISEN, A., 1955, 207).

By restoring team spirit and self-confidence, and the confidence in the true technical values of the team, SPS solved the problem of inferiority complex vis-à-vis the rival team and, gradually succeeded in detaching athletes from the blind belief in the power of fetishes. The athletes understood that victory and positive performance were prepared by judicious training sessions and by the observance of certain prophylactic rules. In addition, my procedure allowed to reduce the tensions within the team, to increase mental cohesion, to accrue concentration, to revive determination, involvement and thirst for wins.

Meanwhile, it needs to be noted that the positive results and the clear improvement in the athletes'

SPORTSMEN'S "PALAVER" SESSION

performance on the field were not accounted for by the only SPS. At this stage, it is very difficult to assess the precise parts played by purely technical, specific training sessions, and by SPS. One thing is certain: even if the deep surface of the psychological dynamism at work in each person's problem is not everybody acknowledged the evil reached, and his consciousness was raised so as to help him get out of the contradictions of his being and to make him progress toward the maintenance of his security and discovery of his personal force, of his harmony and of his responsibility. I am convinced that a systematic "sustenance psychopathology" action would help to reach the athletes' subconscious in order to lead them to a necessary liberating form of catharsis, knowing that my departure from the team and their town did not prevent them from going back to their first passions: fetishistic practices and belief in bewitching.

In this cultural context where the occult seems to invade a very large domain and causes an oppressing anxiety (or fear) of bewitching, SPS demystified the power of the NGANGA (fetish-man), the great manipulator cultural signifiers, considered as the only of "psychological trainer" of the athletes and teams in Black Africa's sporting milieux. The matches won "occasional without the help of these sports' psychologists" constituted a very great victory for the sports psychologist and for sports psychology among us. must be sustained by the "sports' This effort psychologist" himself beforehand. This is why once I arrived in Kinshasa (ZAIRE), I participated in radio and T.V. broadcasts to talk about "sports psychology" as science and scientific investigation.

SPS is a path to be perfected in the field of "sports psychology". It set up a small landmark in this very vast, unexplored field in ZAIRE and elsewhere in Black Africa.

BIBLIOGRAPHY.

- 1.- Boisen, A. (1955). Religion in crisis and custom. New York, Harper and Brother.
- Makanzu, M. (1985). Quand Dieu te gêne...
 Wuppertal- Allemagne Fédérale, Edit. VEM.
- 3.- Rioux, G. & Thill, E. (1982).Compétition sportive et Psychologie, Journées Européennes de Psychologie du Sport. Paris, Editions CHIRON SPORTS.
- 4.- Ryzl, M. (1970). Parapsychology. New York, Hawthorn.

SPORTS IMAGES: WHAT DO GERMANS THINK ABOUT BASEBALL?¹ Andreas Schlattmann

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KEY WORDS

baseball, sports images, image profile, sponsoring

INTRODUCTION

About 210 million people in the world play baseball. Therefore, this kind of sport is one of the four most important sports in the world, but baseball is not very widely known in Europe. In Germany, too, baseball players are more a peripheral group of 20.000 activists organized in 460 clubs (vgl. Deutscher Sportbund, 1994).

Whether and to what degree a person is interested in a certain kind of sport most likely depends on what images someone has about the sport. Such images are modified via perception. They lead to a certain attitude in which, for example, a person is very interested in one kind of sport and less in another. To create such images it is not really necessary that people are active in this sport.

In sportpsychological research we find some studies which show a subjective rating of ones own fitness and the relation to sport activities (see for example Christian, 1969; Gussis, 1971; Leonardson, 1977; Smith, 1968; Schlattmann, 1989; Marsh, 1993). Relating studies about theories which concern the outside world ("concept of environment") and the relation between these concepts (see the theory of action-oriented concepts by Nitsch & Hackfort, 1981) can not be found as often (see Schlattmann & Hackfort, 1993).

In this study this aspect will be taken up and the question will be asked, what kind of pictures a person has concerning this kind of sport. It is also of interest, what differences exist concerning sex, age and level of knowledge.

1

METHOD AND PROCEDURE

Procedure

In order to analyse the questions above, a special questionnaire has been developed for this study comprising 40 images which are especially interesting in this case. The images were rated on a scale starting with "1 = not relevant at all" to "5 = absolutely correct".

These ratings were supplemented by the question on how high the degree of knowledge is on the sport of baseball. Here we have 3 answers (1 = hardly known, 2 = relatively known, 3 = known well). Finally sex and age had to be stated.

Participants

Participants of this research comprised 127 women (42%) and 173 men (58%) at the age between 14 and 70 from different regions of the Federal Republic of Germany (N = 300). Data gathering was done in August / September 1994.

RESULTS

Level of knowledge

As to the question as to what degree the persons know baseball, we received 297 answers. Half of the participants (n = 155) stated that they know baseball to some extent and only 27 persons (9.1 %) stated that they knew baseball very well.

TABLE 1. Participants grouped	according to sex and leve	l of knowledge ($N = 300$)

	level of kr			
sex	hardly known	relatively known	known well	total
female	85 (67.5 %)	33 (26.2 %)	8 (6.3 %)	126 (100 %)
male	70 (40.9 %)	82 (48.0 %)	19 (11.1 %)	171 (100 %)
total	155 (52.2 %)	115 (38.7 %)	27 (9.1%)	297 (100 %)

開発機能感望からない ひっしんどうくう マンシン・ちょう

As shown in table 1, men more often then women stated to know baseball relatively well or rather well. Women expressed more often "hardly known". These differences are very significant ($\chi^2_{(2)} = 20.46, p < .001$).

Description of selected images

In this description we can't refer to all analysed images. We have to reduce the itempool to 15 selected images. Many of the people questioned relate baseball "not at all" to adventure (52.4 %). When further images are analysed, we see that the item "not relevant at all" and "somewhat correct", at least half of the people questioned do not see a relation to baseball concerning the following images

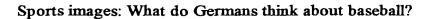
- □ adventure (78.2 %),
- \Box esthetics (60.1 %),
- \Box creativity (59.0 %),
- \Box respectability (56.2 %), and
- \Box exclusivity (51.9 %).

It is now of special interest to know which images are definitely brought in relation to baseball. Fully correct, baseball is often seen for speed (58.0 %) and team work (56.0 %). If we put together in a further step the items "fully correct" and "mostly correct", we see that more than 85 % of the people questioned relate baseball to the images speed (89.3 %) and team work (85.9 %).

Furthermore, we found images which are considered by the interviewed people as "fully correct" or "mostly correct" in relation to baseball:

- \Box precision (78.7 %),
- \Box fitness (61.0 %),
- \Box dynamics (59.8 %), and
- □ fairness (55.9 %).

These results show a specific and concise image profil. For further information see figure 1.



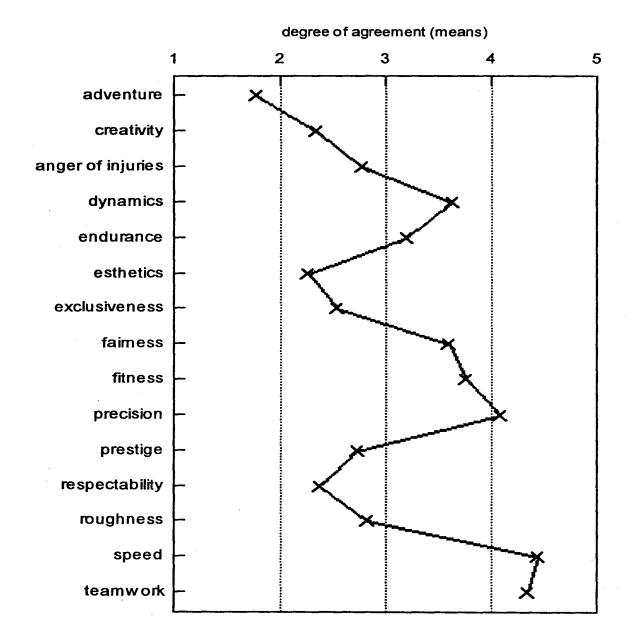


Fig. 1. Image profile baseball (N = 300).

Sex-specific comparison

If one looks at the average rating of women and men separately, then women say that exclusiveness, creativity, prestige, and respectability are less true for baseball than men state this. Men finally emphasized the image precision. On the other hand, women, compared to men, refer more to aspects like endurance, fitness and team work but also roughness and danger of injuries. An examination (Mann-Whitney-U-test) shows that these differences are significant (p < .05).

Age-specific comparison

Concerning the comparison of age the results show (Group 1: age 20, n =45; Group 2: age 20-39, n = 197; Group 3: age 39, n = 58) that people under 20 years have the most concise image rating. With increasing age the rating of images drops extremely. For the group of 20 - 39 year old people, we found in comparison to older and younger persons a lower rating concerning images as endurance, fitness and speed (Kruskal-Wallis H-test; p < .05).

Knowledge-specific comparison

Finally, we will examine whether due to knowledge differences in image estimation exist. Concerning knowledge, we found a constant picture: The better someone know baseball, the more they find the images adventure, esthetics, fairness, creativity and precision correct and the less baseball is connected to danger of injuries (Kruskal-Wallis H-test; p < .05).

DISCUSSION AND CONCLUSIONS

The results show, that for different groups of people, baseball has the image to be dynamic and technically demanding, in combination with speed, technique and team work. On the other hand, adventure, ethetics and creativity are not related to baseball. In further analysis we will examine, how far relations between sport images and self images exist. Comparisons to other activities are interesting in order to bring out strengths and weaknesses of different kinds of sports.

Overall we found that baseball has a positive image in the population, that means that it is possible that this kind of sport will find acceptance if more offers will be made by federations or clubs (for example organizing street events) and the mass-media. Then the number of active and passive comsumers (e.g. club-members, TV-onlooker) will rise even further.

The clubs should strive to stabilize the image (for example teamwork, precision) and to reduce the weaknesses (for example esthetics). Such images may already be stabilized by means of higher awareness of baseball in the population. Proof for this assumption can be found in our image analysis, which shows that with increasing knowledge a lot of images may be changed to the positive (for example increase of esthetics).

On the other hand, clubs, federations and promoters have the possibility to introduce baseball to possible sponsors (see Salcher, 1978; Dreyer, 1968; Hermanns, 1988; Thiel, 1991). Companies who want to communicate via sponsoring can already find important hints through these studies. In a next step we "only" have to examine, how far product images can be matched with baseball images. Finally the questions concerning character of engagement (promotion of individual athletes, cooperation with associations, support of clubs, event-sponsoring etc.) has to be considered.

REFERENCES

- Christian, Q.A. (1969). Relationship between physical fitness and self-concept. <u>Dissertation</u> <u>Abstracts</u>, 2827-A.
- Dreyer, A. (1986). Werbung im und mit Sport, Göttingen, Cognos-Institut.
- Gussis, C. (1971). The influence of selected sport skills oriented-programs of physical education on the self-concept and body-image of boys in grades ten. <u>Dissertation Abstracts</u>, 1902-A.
- Hermanns, A. (1988). Sport- und Kultursponsoring (Studien- und Arbeitspapiere Marketing, Nr. 12), München, Fakultät für Wirtschafts- und Organisationswissenschaften, UniBw. Leonardson, G.R. (1977), Relationship between self-concept and perceived physical fitness. <u>Perceptual and Motor Skills</u>, 44, 62.
- Marsh. H.W. (1993). Physical fitness self-concept: Relations of physical fitness to field and technical indicators for boys and girls aged 9-15, Journal of Sport Psychology, 15, 184-206.
- Nitsch, J.R., & Hackfort, D. (1981). Streß in Schule und Hochschule, in J.R. Nisch (Ed.), Stress (pp. 263-311), Bern, Huber.
- Salcher, E.F. (1978). Psychologische Marktforschung, Berlin, de Gruyter.

- Schlattmann, A. (1989). Zur Manipulierbarkeit selbstbezogener Kognitionen nach einem sportmotorischen Test, in D. Hackfort, & A. Schlattmann (Ed.), <u>Wechselbeziehungen bei</u> psychischen und physischen Beanspruchungen (pp. 57-83), Köln, bps.
- Schlattmann, A., & Hackfort, D. (1993). Körperliche Symptome, Verhaltens- und Situationsmerkmale ausgewählter Emotionen beim sportlichen Handeln, in J.R. Nitsch, & R. Seiler (Ed.), <u>Motivation, Emotion, Stress. Proceedings of the VII European Congress of</u> <u>Sport Psychology 19991 in Cologne</u> (Vol. 1, pp. 159-168), St. Augustin, Academia.
- Smith, T.L. (1986). Self-concepts of youth sport participants and nonparticipants in grades 3 and 6, <u>Perceptual and Motor Skills</u>, 62, 863-866.
- Thiel, E. (1991). Sport und Sportler Image und Marktwert, Landsberg/Lech, Verlag Moderne Industrie.

A Study of Job Satisfaction among Hungarian Sports Psychologist and other Psychologists¹

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Key Words: Sports Psychologists, Psychologists, Job Satisfaction.

Introduction

Work is a social reality and social acceptance to which men seems to confirm. It is of central interest in an individual's life. It does not only provide status to the individual, but also binds him to the society. That work is simply a means of earning a living seems to be an over simplification. Work serves many other functions of an individual: an individual's sense of well being, doing something worthwhile, having some purpose in life. In a developing country like Hungary the problems of understanding job attitudes of employees is of great significance. In such countries the capital, technical and technological sources are scare and manpower is only asset. Development requires a high rate of production and the optimal possible utilisation of both human as well as material resources. An organisation is the rational co-ordination of the activities of a number of people, for the achievement of some common explicit purpose. This purpose can only be reached through experience and job satisfaction. Mottaz and Clifford (1984) suggested that education and work rewards may increase job satisfaction. Lee et al (1985) suggested that job satisfaction increased with age.

¹

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A Study of job satisfaction

Younger employees were less satisfied with their jobs, particularly the intrinsic characteristics of work. The older employees were more satisfied with extrinsic characteristics. Job satisfaction is not only a combination of performance and working ability, but also involves the relations with other employees and conditions on the working place etc. According to Chacko and Thomas (1983) satisfaction with supervision and salary had significant positive influence on life satisfaction. Fisher and Cynthia (1985) concluded in their study that the amount of performance variance that is individually rather than situationaly controlled, is an important moderator of satisfaction-performance relationship. Rosan (1961a, 1961b; Rosan & 1960) and Triandis (1959a, 1959b) studies paid attention towards hierarchical Weaver structure, especially management structure, as a factor influencing job preparation. Cooper and Cary (1985) discussed a number of potential stresses in a variety of different occupational settings, which have been found not to predict job dissatisfaction and ill health (both mental and physical). The discussed stresses included factors intrinsic to the nature of the job, role ambiguity and conflict, poor relationships at work, lack of career development, inadequate organisation, structure and climate and problems associated with interference between work and home life.

The purpose of the present study is: 1) to examine the relationship of background variables with job satisfaction of sports psychologists and other psychologists and the second question of experimenter is whether there is a difference in-between both groups about job satisfaction. Since the job satisfaction of the sport psychologist may influence the performance of their athletes.

Method and Procedure

This study was conducted in a National Congress of Psychology held at Peac (a city located in Hungary). A total of 27 (twenty-seven) sports psychologist (including those who are working in different sports clubs, with national teams and teaching sports psychology as a profession). A total of 31 (thirty-one) other psychologists (including different professional psychologists in various areas like psychiatrists etc..). The mean age for sport psychologist was 30.69 (S.D. 3.26) and for general psychologist was 42.39 (S.D. 9.16). A questionnaire with 32 items was distributed to all the subjects. For all 32 items the respondents were instructed to answer the questions by circling a number on a rating scale extending from 1 to 5. The numbers represents as: 1. If you strongly agree. 2. If you agree. 3. If you are neutral. 4. If you disagree. 5. If you strongly disagree. Respondents were advised not to write their name and affiliation to obtain the actual information and to keep the secrecy.

<u>Results</u>

To find out the reliability the Crombach Alpha was calculated with SPSS PC+ on both groups. The sports psychologists $\alpha = .81$ and $\alpha = .68$ among the general psychologists. In order to investigate the difference between both groups, a t-test was calculated. Table 1 indicates that the sports psychologist have significant difference in job satisfaction as compared to other psychologists at p = .055 when hypothesis at one tail t-test.

	Number of cases	Mean	Standard Deviation
Sports		- · · · ·	· · · · · · · · · · · · · · · · · · ·
psychologists	. 27	6.48	2.50
Other			- '
psychologists	31	7.38	1.54
	Separate varian	ce Estimate	,
t - value	Degree of		2 - tail probability.
-1.63	•	.06	.110

Table 1t - test for job satisfaction of sports and other psychologists

To examine if one or more of the factors of the questionnaire can explain this difference in job satisfaction a factor analysis was carried out. The analysis was computed to see the loading of factors on both groups. The number of subjects in both the groups was less, therefore there were some difficulties to compute the factor analysis in each group. The factor matrix and rotated factor matrix were computed to see the loading of factors. Table 2 shows that the two factors extracted from the rotated factor matrix. The item loaded with more than .40 value was taken into consideration to select the factor. The factor labelled as performance and work satisfaction showed $\alpha = .9062$, and the factor labelled as job attitude and work recognition have a quite lower but acceptable reliability. It is reliable because most question in the questionnaire were one-dimensional. Furthermore, job attitude and work recognition

are directly related with the work performance which is base of an individual's job satisfaction.

Table 2	
Rotated Factor matrix, Eigenvalue, Percentage of variance loading of items	among whole
population (N= 58)	

Items	Communality	Eigenvalue	Pct. Var.	Rotated Fa	ctor matrix
	·			Factor 1	Factor 2
1.	.15831	8.16812	25.5	.35354	.18254
2.	.18823	2.50338	7.80	.43377	00817
3.	.18856			.27043	.33974
4.	.08449			.11179	.26832
5.	.21832			06645	.46250
6.	.56852			.75233	.05025
7.	.22929			.07695	.47262
8.	.45764			.63909	.22182
9.	.21798			.41399	.21586
10.	.29932			.54176	.07622
11.	.27812			28289	.44508
12.	.52346			.72159	.05263
13.	.44915			.60176	.29502
14.	.61179			.68404	.37932
15.	.49408			.69414	.11070
16.	.36663			.52677	.29857
17.	.07535			.10891	.25197
18.	.44354			.63244	.20870
19.	.30796			.03210	.55402
20.	.34902			.55497	.20254
21.	.30697			.13180	.53814
22.	.36131			.05351	.59870
23.	.15041			.19466	.33544
24.	.01042			.02147	.09978
25.	.42301			.63861	12323
26.	.48203			.69427	00410
27.	.51100			.68061	.21857
28.	.57530			.71612	.24994
29.	.54841			.29467	.67939
30.	.27162			.25376	.45522
31.	.32525			.18302	.54014
32.	.19601			42518	12344

The rotated factor matrix loaded with two factors with 16 and 7 items together at .75233 in factor 1 and .67939 in factor 2 as item factor value. The correlation was computed to see the relation among the two factors in between both groups.

Subjects	Number of cases	Mean	Standard Deviation
Younger group	28	2.20	.477
Older group	30	2.29	.446
	Pooled variance	Estimate	
t - value	Degree of fr	reedom	- tail probability.
73	56		.470

Table 3Differences between both groups among age and job satisfaction

The correlation .3926 was significant, p < .01. The t-test was computed to examine the difference between the variables of the two loaded factors. Both factors do not have any significant difference compared to each other with two-tailed t-test, but factor 1 shows an almost significant difference, p = .10 if an one-tail probability is considered. Table 3 shows that their is no significant difference among the both groups with respect to job satisfaction and age.

Discussions and Conclusions

One of the questions of this study was whether sport psychologist have a different job satisfaction as general psychologist. The total score of the questionnaire showed that sport psychologist seemed less satisfied with their job. What is the reason for this? To answer this question some observations of previous studies needs to be considered. For instance, Rogger Harison (1961) examined in his study the job attitudes of industrial workers, by using Tryon's (1958) communality cluster analysis, and summarised that their was no significant difference among the cluster items of both groups. Mottaz and Clifford (1984) suggested in their study that if rewards are increased then the work satisfaction may also increase. However, these findings are not traced out in the present study, since the performance and work satisfaction loaded as factor 1 with 8.16 Eigenvalue and 25.5 percentage of variance. Furthermore, the t-test showed no significant differences between both groups. This means that the sport and general psychologist do not differ significantly with respect to rewards and working satisfaction.

Lee et al. (1985) showed that job satisfaction increased with age. Younger employees were less satisfied with their jobs. The groups of the present study are significantly different in age The mean age of the sport psychologist is 30.59 years (S.D. = 3.261) and of the general psychologists is 42. 38, (S.D. = 9.160). The t-value is 6.34 which is significant, p < .001.

However, the results of present study is different from Lee et al. (1985) because there is no significant difference in job satisfaction related to age within and between both groups (see table 3). Thus age does not explain the difference in job satisfaction between sport and general psychologists.

The findings of present study shows that, although there is an overall difference in job satisfaction, the sports psychologist are very close to the other psychologists. It was hypothesised that they should differ to each other because their job involvement is different to each other. There is no doubt that the population of both the groups is small and it is difficult to trace out the actual factors which influencing the job satisfaction. The question about relation performance and work recognition. The findings indicate that there is positive correlation between the performance and work recognition. It is important to mention here that the questionnaire used to analyses the job satisfaction have 60% of one-dimensional questions, which leads to a single factor.

In conclusion, because Raymond A Katzell et al (1961) study revealed that there is positive relationship between the job satisfaction and performance, it is important to increase job satisfaction among sport psychologist because this may lead to an increase in the performances of their athletes. Therefore further study with larger populations is necessary to find out the factors which influence job satisfaction among sport psychologists.

References:-

- 1. Chacko Thomas. I (1983), "Iowa state University, school of Business administration, Job and life satisfaction : A Causal Analysis of their relationship", <u>Academy of</u> <u>management Journal</u>, March, Vol. 26 (1) pp. 163-169.
- Cooper, cary. L. (1985), "The stress of Work: An Overview Fourth Annual aviation Symposium of the U.K. Association of Aviation Examiners, Stress in Aviation", (1984 Oxford, England): <u>Aviation, Space and environmental Medicine</u>, July, Vol. 56 (7), pp. 627-632.
- 3. Fisher, Cynthia D. (1985), "Source of Performance Variance as a Moderator of Job Satisfaction, Job Performance Relationship", Special issue, Job Satisfaction, International Journal of Psychology, April, Vol. 20 (2), pp. 169-178.
- 4. Lee et al. (1985), "Age Characteristics and Job Satisfaction: A Multivariate Analysis, <u>Human Relations</u>, August, Vol. 38 (8). pp. 781-791.

- 5. Motaz & Clifford, (1984), "Education and Work satisfaction," <u>Human Relations</u>, November, Vol. 31 (11), pp. 985-1004.
- 6. Raymond A. katzell et al. (1961), "Job satisfaction, Job Performance and Situational Characteristics", Journal of Applied Psychology, April, Vol. 45 (2), pp. 65-72.
- 7. Rogger Harrison, (1961), "Commutative Communality Cluster Analysis of Workers' Job Attitudes", Journal of Applied Psychology, April, Vol. 45 (2), pp. 123-125.
- 8. Rosen, H. (1961), "Desirable Attributes of Work: Four Levels of management Decribes their Job Enviourment", Journal of Applied Psychology, April, Vol. 45 (2), pp. 156 160. (a)
- 9. Rosen, H. (1961), "Managerial Role Interaction: A study of Three Managerial Levels", Journal of Applied Psychology, Vol. 44, pp. 30-34. (b)
- 10. Rosen & Weaver C. G., (1961), "Motivation in Management: A study of four Managerial Levels", Journal of Applied Psychology, Vol. 44, pp. 386-392.
- Triandis, H. C. (1959), "Categories of thought Managers, Clerks and Workers about Jobs and People in Industries", <u>Journal of Applied Psychology</u>, Vol. 43, pp. 336-344.
 (a).
- 12. Triandis, H. C. (1959), "Differential Perception of Certain jobs and People by Managers, Clerks and workers in Industry", Journal of Applied Psychology, Vol. 43, pp. 21-225. (b).
- 13. Tryon, R. C. (1958), "Cumulative Communality Cluster Analysis," <u>Educational</u> <u>Psychological Measurement</u>, 18,pp 3-35.

THE EGO PHENOMENON IN SPORT

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KEY WORDS

Outcome, desire, opponent, image stuff, here and now, anxiety.

INTRODUCTION

In everyday language the word ego is used in various contexts. Sometimes the word is used to characterize an arrogant person. In a sexual context the concept ego is used to strengthen the male image. This image is very subtly used in advertising. The most common use of the word ego is in the sense of egocentricity to denote a person's selfish tendencies. In the context of Sport Psychology ego is polarized by the concept task directedness of the participant, meaning that the participant forgets himself (ego) in such a way that he can focus totally on the sports task, while in the case of the eqo oriented participant the latter's attention is only partially on the task because the other part is focused on himself. The ego participant's attention is thus divided and it is this division that can be traced back to the primordial division which man has tried to cope with since the beginning of time. According to Versfeld some experts interpret the fall of man as the moment of man's being overpowered by selfconsciousness and becoming locked up in his ego (Versfeld, 1982:34). It is significant that this kind of reflection on man is echoed in modern Sport Psychology research. Even more significant is the fact that ancient thinkers and great religious author's definition of eqo fully synchronizes with its modern definition by sport psychologists.

METHOD AND PROCEDURE

The purpose of this article is to define the concept ego, although such a definition will not pretend to be exhaustive.

1037

This is an exploratory study. The aim is to gain new insights into the eqo phenomenon in sport. For this purpose an attempt will be made to describe the essentials (core - elements) characteristics of the ego in sport. A secondary aim is to determine whether modern sport strengthens or suppresses the ego. By means of a conceptual analysis an attempt will be made to specify the central dimensions of meaning on the ego phenomenon in sport in a logically systematic manner. For this purpose a study of relevant literature is essential. Logical inferences will be made to determine whether the ego phenomenon in sport is strengthened or suppressed. The research can be divided into two phases. The first phase involves a study of literature in general in the fields of inter alia Psychology and Philosophy to describe the core characteristics of the concept ego. The second phase will entail the application of these characteristics to sport to determine whether modern sport strengthens or suppresses the ego. In the second phase only literature in the fields of Sports Science and Sport Psychology will be studied. It is very important to note that different approaches (paradigms) were used and broaden the fascinating dimension of to uncover this phenomenon.

RESULTS AND DISCUSSION

Core characteristics of the ego

The participant's desire to beat the opponent and the tendency to view success relative to the performance of others Awareness of the opponent is one of the biggest distractions of attention in sport. Attention energy is divided into two forces. Poor attention is divided between the task and the opponent. This possibly accounts for the extensive problem of psychological sabotage in sport. In boxing the saying sometimes goes: "Make the opponent angry and knock him out". A principle of psychological sabotage is to divide or weaken an opponent's task attention. In a sport psychology test of Duda (1989), which is well-known for its reliability and validity, all ego oriented questions are

1038

directly linked to the opponent and fellow participants. This implies that the ego participant can be identified by looking at his relations with fellow participants and opponents. The following statements clearly indicate that success can only be experience if the ego participant has better and more than his opponent: "I can do better than my friends"; "The others can't do as well as me"; "Others mess-up and I don't"; "I score the most points goals / hits". It is this being more and better than others which gives the ego participant a false pride so that he looks down on all other participants, and it forces him to compare himself with fellow constantly participants and opponents.

The participant's desire for outcomes, results and by-products and the misuse of sport Frankl remarks that man's hankering after by-products shows a neurotic tendency. By directly striving for happiness and satisfaction, the outcome is elevated to a goal of life which must be pursued and satisfied, instead of happiness and satisfaction being by-products of a fulfilled meaningful life (Frankl, 1980:19). Duda links the ego oriented participant to this excessive outcome orientedness. She describes the task oriented individual as follows: "A task oriented individual is likely to focus on an activity as an end in itself" (Duda, 1989:330). The ego oriented participant as the opposite of the task oriented participant strives for outcomes, because he literally misuses sport to enhance his social reputation and status in his pursuit of a potential career and hidden motives (Duda, 1989). Pirsig, a world renowned author, hits the centre of meaning of this discussion in his description of the egomountain climber with the following words: "He was trying to use the mountain for his own purposes ... Any effort that has selfglorification as its final endpoint is bound to end in disaster" (Pirsig, 1985:205).

It should, however, be emphasized that winning or the outcome in itself is not an unforgiveable sin, but that winning is the result that can be enjoyed and which can serve as motivation for the participant. The secret is to maintain a greater desire for the task itself than for the outcome. Both can be enjoyed if the desires of the participant are right. The wonderful undivided attention which results in riding the crest of the wave depends on an intense task desire which binds the participant here and now to the task.

The eqo as isolated and separate identity Both Versfeld the philosopher and Fromm the psychologist claim that man was overpowered by his self-consciousness and became imprisoned in his eqo when the fall of man occurred (Versfeld, 1982; Fromm, fragment, Versfeld uses words like partitioning, 1985). imprisonment and isolation to indicate the isolation of the ego consciousness. Fromm uses expressions like "the prison of one's isolated ego" (Fromm, 1985:92), and "separated, isolated, selfish human beings who cannot overcome their separation" (Fromm, 1985:124). Versfeld and Harding both claim that this kind of isolation lays the foundation for fear and aggression (Harding, 1986; Versfeld, 1990). According to Harding in his man, existence, has actually become diminished and has withdrawn from the world into a kind of prison. "Instead of containing our world, it now contains us - what's left of us". (Harding, 1986:38). In recent research on top level sports people this separateness and isolation became evident (Steyn, 1991). A participant who finds himself in an ego state, experiences his body as a resistance, true contact with and closeness to the environment become lost, apparatus and and the opponent, spectators and fellow players are experienced as antagonists. The participant falls into isolated alienation.

The eqo participant's concern about his image (image stuff) and the tendency for self-centeredness The "concern about the participant's performance" is mentioned as one of the essential aspects of ego competition (Potgieter & Steyn, 1986:108). The Gestalt psychologist Perls follows the same thought in his description of the non-centered person who exhibits selfconsciousness and slight paranoid tendencies. Perls claims that such a person does not have his own eyes and ears, because his eyes and ears are situated in other people's heads. As such the ego conscious (self-conscious) person never looks away from himself, but always watches and listens via the fellow human being's eyes and ears that are fixed upon him (Perls, 1974). A participant whose attention is always focused on himself will be overly concerned about how well he does and what others think of his performance. Such a self-consciousness participant is unable to turn his undivided attention to his sports task. He will not be able to transcend himself and focus outside his head on the relevant task clues.

The question arises whether sport increases or eases this image problem. When one contemplates the unbelievable media coverage of sport, one has to conclude that few human activities can compete with the appeal and entertainment value of sport. One can even go so far as to say that the value of sport lies in the eye of the beholder. When a participant excels, his social mobility increases rapidly (Botha, 1993).

Anxiety as a sign of an ego oriented participant The ego participant's outcome directedness, a first characteristic of the ego phenomenon, can without a doubt increase his anxiety. Jennings (1993) refers to the experiences of top South African sports persons where good achievements added to stress because both participants and spectators expected outcomes to improve. In the heading "Don't put your ego on the line" Bell warns that the participant will encounter problems if he links his own value (ego value) directly to the outcome (result) of the competition (Bell, 1980:47).

There are few sport psychology manuals on the market which do not feature a chapter or section on anxiety or stress in sport. Headings like "Anxiety: The enemy within" (Terry, 1989:101), "Dealing with stress" (Jennings, 1993:145), "Handling the pressure" (Bell, 1980:46) are common in sport psychology manuals. The question is: Where does anxiety come from? Versfeld claims that fear and worries are signs of illness (Versfeld, 1985a). Jampolsky also links the ego phenomenon directly to fear: "Most of the time, our mind pays attention to this pseudo-director that we call ego, which is simply another name of fear" (Jampolsky, 1985:25). Jones (1958), Fromm (1985) and Harding (1986) all link fear to the ego phenomenon. One can actually in accordance with Versfeld state that fear is the result or by-product of something else. Fear or anxiety is a characteristic of the ego phenomenon, time its but at the same result. **All** the aforegoing characteristics of the ego phenomenon are factors contributing thus to anxiety. One can conclude that modern sports participation strengthens rather than alleviates anxiety.

<u>Dividedness</u> Experts see dividedness as the essence of stress. Dividedness can also be seen as the central result of an ego competition. All the different dimensions of the ego that are described in this article can be seen as ego contaminators that can contribute towards the participant's dividedness. A massive amount of literature and research have shown that dividedness is the number one enemy for the participant striving for excellence on the sportsfield (McCluggage, 1983; Steyn, 1991).

CONCLUSIONS

The core characteristics of the ego phenomenon which have been incidentally also the primary described, are distractions sport (dividers of attention) in (Steyn, 1991). ego The phenomenon is counter productive and if it is true that this phenomenon is strengthened in sport, then it means that counter productivity in sport is also strengthened. This, however, does not negate sports excellence and the experiencing of highlights. This is only an attempt to indicate that tension prevails between the two extremes: excellence and inability. Enough evidence has been found in the literature to support the claim that the ego phenomenon is strengthened rather than subdued. This assumption, however, is subject to further empirical research, therefore it cannot be accepted as an indisputable finding.

In conclusion, it should be noted that there are no separate ego or task participants. Both realities are present in the sports participant. A deeper dimension of sport means that a winner is judged by the extent to which he can conquer the ego instead of trophies and medals in a show-case.

REFERENCES

Bell, K. (1980). <u>The Nuts and Bolts of Psychology for Swimmers.</u> Austin: Mistyglen Circle.

Botha, J.L. (1993). Studiehandleiding vir B.A. (L.O.) Hons. Grondslae van die MBK: Module 2. Pretoria: Universiteit van Pretoria.

Duda, J.L. (1989). Relationship between Task and Ego Orientation and the Perceived Purpose of Sport among High School Athletes. Journal of Sport & Exercise Psychology, 11, 318-335.

Duda, J.L. (1993a). A goal perspective theory of meaning and motivation in sport. Paper presented at the Eighth World Congress in Sport Psychology, Lisbon, Portugal.

Duda, J.L. (1993b). Goals: A Social-Cognitive Approach to the Study of Achievement Motivation in Sport. In R. Singer (ed.), <u>Handbook of Research on Sport Psychology</u>. New York: MacMillan.

Frankl, V.E. (1980). <u>Sê ja vir die lewe</u>. Uit Duits vertaal deur Ferdinand Deist. Kaapstad: Tafelberg Uitgewers.

Fromm, E. (1985). To have or to be? London: Sphere Books Ltd.

Harding, D.E. (1986). On having no head. New York: Arkana.

Jampolsky, G.G. (1985). <u>Love is letting go of fear</u>. New York: Bantam Books.

Jeffers, S. (1987). <u>Feal the fear and do it anyway</u>. Great Britain: Century Hutchinson Ltd.

Jennings, K.E. (1993). Mind in sport. Cape: Juta.

Jones, E.S. (1958). <u>Christian Maturity</u>. London: Hodder & Stoughton Ltd.

McCluggage, D. (1983). The centered skier. Toronto: Bantam Books.

Perls, F.S. (1974). <u>Gestalt Therapy Verbatim</u>. New York: Bantam Books.

Pirsig, R.M. (1985). <u>Zen and the art of motorcycle maintenance</u>. London: Corgi Books.

Potgieter, J., & Steyn, B.J.M. (1986). <u>Sielkundige aspekte van</u> <u>fisieke aktiwiteite, spel en sport</u>. Stellenbosch: Universiteits-Uitgewers.

Steyn, B.J.M. (1991). <u>Sentrering as voorwaarde vir taakgerigtheid</u> <u>in sport</u>. 'n Ongepubliseerde Doktorale Proefskrif. Pretoria: Universiteit van Pretoria.

Terry, P. (1989). <u>The Winning Mind</u>. London: Thorsons Publishing Group Ltd.

Van Zyl, D. (1987). Die Dinamika van wen. SAMKOR Simposium. Die Primêre skoolkind en sy sport. Aangebied deur die Sportinstituut. Pretoria: Universiteit van Pretoria.

Versfeld, M. (1982). Tyd en dae. Kaapstad: Tafelberg Uitgewers.

Versfeld, M. (1985a). <u>Die neukery met die appelboom</u>. Kaapstad: Tafelberg Uitgewers.

Versfeld, M. (1985b). <u>Pots and Poetry</u>. Cape Town: Tafelberg Publishers.

Versfeld, M. (1990). <u>St. Augustine's Confessions and City of God</u>. Cape Town: The Carrefour Press.