

PhD Thesis Abstract

**The Examination of Psychological Factors
Influencing the Unfolding of Football-Giftedness**

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1. THE TOPIC AND THE OBJECTIVES OF THE DISSERTATION

According to Szegedi (Internet 1.) the general supposition stating that “the standard of the Hungarian football is more and more falling” is as old as the Hungarian history of this sport. On one hand the “burial” of the Hungarian football is not a recent phenomenon, on the other hand certain objective indices (for example the Hungarian national eleven stay away from the world cups, or the club-teams’ international poor results) show that in the last decades the Hungarian football has been quite unsuccessful in international comparison. Vincze (2008) refers to another general opinion in connection with Hungarian football; according to this opinion the decline of this sport can be stopped only through the development of the junior team. In sport-psychology the positive reframing is a common means; applying this technique on the previous sentence we can say that the prosperity of this sport can be furthered definitely by the development of the junior team.

The main points of our dissertation have aimed at that the positive processes of the Hungarian football in the field of raise up the junior team, which can be observed in the last few years, can be furthered by building upon scientific results. That is why our aim has been to study psychological factors in the background of the unfolding of football-giftedness. Our supposition is that these factors are in an inseparable connection with other (physical, familial, social-environmental, and societal) factors influencing the unfolding of football-giftedness, and these factors influence each other. Accordingly the main objective of our research has been that professionals be able to apply the results of the investigation of the Hungarian football-players’ junior team, the practical conclusions and suggestions stemming from these results, when they think about training and development. So we can assist the development of football-giftedness and the further development of the Hungarian football. Our long-term plan is that these examinations be longitudinal ones. The longitudinal study can assure an objective picture about the connection between recent and later results, too.

The secondary objective of this research concerns the unfolding of sport-giftedness in general. We have wanted to answer the question whether the results of examinations executed on a sample being considered as big in sport-psychological researches can support the integrated approach of the development of sport-giftedness in an indirect way? Our hypothesis here has been that numerous factors would appear in the background of the opinions about giftedness. That is players who are considered as the most gifted would differ also in affective, cognitive, and social factors from those who are considered as the least gifted.

In order to study psychological factors influencing the unfolding of football-giftedness we have invoked the discipline of sport-psychology. One main field of interest of the modern sport-psychology is the process how psychic functions and characteristics of the personality influence reaching successful achievement (Nagykálldi, 2002). In the theory and practice of sport-psychology different psychological approaches (such as cognitive or humanistic one) and domains (for example developmental, personality, and social psychology) get integrated in an excellent way. Sport-psychological researches prove that considering and development of factors beyond physical abilities are indispensable in the field of professional sport today if the aim is outstanding sport-achievement (that is the fulfilment of sport-giftedness) (Aidman – Schofield, 2004; Williams – Krane, 2001).

In order to establish the theoretical background of our research we have reviewed the most important models of development and giftedness and we have put the concept of football-giftedness into an integrated approach. This means that we have embedded the models of general giftedness with broad spectrum (Czeizel, 2004; Gagné, 1999) and the concepts of specific football-giftedness into a transpersonal and system-approach. Now we are emphasizing the following among the important statements of the integrated approach:

- The individual development trends toward self-actualisation. Self-actualization can be defined as the fulfilment of the potentials within the individual. Giftedness can be considered as the potentials of the personality waiting for fulfilment. From this point of view the aim of the development of giftedness can be to further the fulfilment of abilities and potentials within the individual. The development of sport-giftedness in a wider approach can mean that we strengthen factors supporting self-actualization and prevent inhibiting factors.
- The individual development is a multidimensional process determined by numerous factors, it happens parallel at many levels, and the interactions of these factors and levels must be taken into consideration in the development of giftedness. Intra-, inter, and transpersonal, social-economic, societal, and cultural factors can have a serious impact on the development and fulfilment of individual potentials. These factors are in interaction with each other. From this point of view sport-giftedness is not a constant personality-trait; it is rather a factor, which is being formed as a result of a dynamic interaction of numerous components.

The review of the Hungarian (for example Budavári, 2007; Lénárt, 2002; Oláh, 2005) and international (for example Aidman - Schofield, 2004; Reilly – Williams - Richardson,

2003; Williams - Krane, 2001) literature confirmed that the role of self-esteem and self-confidence, anxiety and stress-coping, the coping mechanisms of the personality, attention and concentration, intelligence, and familial factors, peers, and trainers is important, and if the unfolding of football-giftedness is in question, these factors are worth further studying.

2. OUTLINES OF METHODS APPLIED

In our dissertation we have investigated the influence of intra- and interpersonal factors described previously upon the unfolding of football-giftedness. We carried out this investigation among football-players and their trainers. These football-players take part in the 1st Class Men Junior and Adolescent Football Championships of the Hungarian Football League. 425 players and 21 trainers of 22 teams took part in the investigation. These teams belong to 5 clubs altogether. As far as location is concerned two clubs from the capital and three clubs from other towns of the country have been involved in the research.

During the examinations players filled in a questionnaire about the player's background, the Tennessee Self Concept Scale, a questionnaire to estimate sport-mates, the Psychological Immune-System Inventory (PISI), the Athletic Coping Skills Inventory (ACSI-28), and the intelligence test: Advanced Progressive Matrices by Raven. Each team filled in the questionnaires and tests in the same order as listed. The trainers were asked to fill in a so called Trainer's questionnaire which has been developed specifically for this research.

- The questionnaire about the player's background has been developed so that we can reveal familial factors influencing the unfolding of sport-giftedness.
- Applying the Tennessee Self Concept Scale we have examined the players' self-description on the ground of different intra- and interpersonal dimensions (physical, moral-ethical, personal, social, and family).
- The questionnaire to estimate sport-mates has been developed so that we can gain information about the athletes' conceptions of giftedness and about how they describe their mates.
- Applying the Psychological Immune-System Inventory (PISI) we have examined the football-players' maturity and efficacy of psychological immune-system that is we have revealed what kind of skills do they have in coping with stress?
- Applying the sport-specific Athletic Coping Skills Inventory (ACSI-28) we have examined the players' characteristics manifested in sport-situations. We have

measured Confidence, Achievement motivation, Freedom from worry, and Concentration.

- The trainer's questionnaire has been developed so that we have information about the professionals' conceptions of giftedness and about how they characterize their players.

Statistical tests have been carried out by SPSS. During the processing we have formed a ranking that can provide us with the best map about the players' giftedness. The final ranking has been formed as a result of three variables executing factor analysis using the extraction method principal component analysis. The three variables are the following:

1. Ranking by trainers: how they rank their players on the ground of their giftedness (the trainer's ranking)
2. Ranking by sport-mates: how they rank the players on the ground of their giftedness (sport-mate's ranking)
3. Who do sport-mates predict successful future?

As the final ranking can be considered as an ordinal measurement, we did not think about connections like correlation, instead of it we have carried out a stepwise analysis of discriminant functions with 45 psychological variables in our study. With this method we have wanted to find a grouping which helps us distinguish players on the ground of their giftedness. Finally the most adequate solution was to split the giftedness-ranking into two in the first step, so we have had two groups as a result: a group of players who are considered as being gifted, another group of players who are considered as being less gifted. Our further examinations pointed to the fact that there would be cardinal differences also among the players in the first half of the ranking in their psychological characteristics. That is why our second step was to split the most gifted players' group into further four groups by applying statistical analyses, separating the most gifted players' 12,5 per cent in the sample (the players' who are considered as the most gifted 1st group). So when we tested our hypotheses we could think in moderate conditions (when the players' best 50 per cent are compared to the weakest 50 per cent) and strict conditions (when the upper 25 per cent of the best 50 per cent – that is the most excellent – are compared to the 75 per cent of the rest).

3. RESULTS

3.1. Integrated approach of sport-giftedness

Our results support the necessity of the integrated and multilevel development of sport-giftedness, because they show objectively that the coexistence of numerous psychological and familial factors of different levels is necessary beyond physical aptitudes and abilities when the unfolding of giftedness is in question. In the case of moderate conditions we compared the players' groups applying independent-samples T-test. There has been significant difference between the two groups in 27 among 48 measured variables. That is players in the first half and ones in the second half of the giftedness-ranking are significantly different in their psychological characteristics. Those who are considered as being more gifted can be described with more favourable values in all the 27 variables rather than their less gifted mates. In the case of strict conditions we applied one-way analysis of variance (and contrast analysis within it) in order to reveal the differences among the players' four groups who are considered as being more gifted. According to our results the most excellent (the players' 1st group who are considered as being more gifted) differ significantly from the others in the following 11 dimensions (Table 1):

Name of Variable	Significance
High achievement in high risk situations	0,009
Concentration	0,017
Freedom from worry	0,001
Flexibility, undertaking challenges	0,019
Sense of self-efficacy	0,024
Social generativity	0,016
Physical self-concept	0,027
Moral-ethical self-concept	0,046
Personal self-concept	0,025
Social self-concept	0,018
Total self-concept	0,013

Table 1: What do the most excellent differ in from the other players' groups who are considered as being more gifted?

The data show that even in the case of strict conditions there are differences between the groups in cognitive (for example Concentration), affective (for example Freedom from worry), physical (Physical self-concept), and interpersonal (Social generativity, Social self-concept) characteristics; in these variables the players who are considered as being more gifted show a more favourable picture.

The results of our study are in harmony also with the football-players' and their trainers' conceptions about giftedness that is certain psychological skills are highly important in the fulfilling of football-giftedness and in the successful football-player's career. It seems that also the presence of numerous good-quality factors beyond body-components is necessary if somebody wants to get to a high level in the (Hungarian) football today. The unfolding of sport-giftedness is subjected to conditions, which may further reaching the high standard to a great extent (such as favourable family background, high intelligence); and there are factors, without which the chance for reaching the excellent level is very low (such factors are for example the effective coping mechanisms of the personality, the ability of concentration, treating anxiety in a proper way, general self-esteem, and self-confidence).

3.2. The role of intrapersonal factors in unfolding of football-giftedness

The results confirm the high importance of intrapersonal factors in unfolding of sport-giftedness. In the case of moderate conditions players who are considered as being more gifted differ significantly from those who are considered as being less gifted in the following:

- all dimensions of self-concept, that is the more gifted players have more favourable individual (Physical, Moral-ethical, and Personal self-concept) and social (Family and Social self-concept) characteristics in their own opinion;
- treating Anxiety caused by achievement-situations, that is the more gifted players evaluated themselves more positively in how they can treat this anxiety;
- the more gifted players evaluated their Attention and Concentration better;
- the more gifted players' Sport-specific self-confidence and achievement motivation were higher;
- the more gifted players proved to be stronger in 9 factors of the coping capacity of their personality (Positive thinking, Sense of coherence, Self-respect, Sense of growth, Flexibility – Undertaking challenges, Sense of self-efficacy, Social generativity, Ability of synchronization, Ability of working hard steadily);

- the more gifted players achieved in the Advanced Progressive Matrices by Raven better.

In the case of strict conditions the most excellent can be described even more favourably than the more gifted players' other groups in certain fields. The most excellent players' opinion is that:

- challenges provided by high risk situations motivate them to a greater extent, they are able to achieve better in such situations;
- they are able to concentrate better in championships and trainings and they are more able to filter disturbing factors;
- the anxiety about circumstances damages less their achievement;
- they are more flexible, they are more open-minded to novelties and to undertaking challenges;
- they are more convinced that they are able to carry out behaviours that help them accomplish the aims set by themselves;
- others tend to observe and imitate them to a greater extent in group-activities and in fulfilling common aims;
- they are more satisfied with their physical characteristics;
- their moral-ethical characteristics are more positive;
- they have higher general self-esteem and self-confidence;
- they have more favourable social relationships.

Analysis show that treating anxiety, self-esteem, self-confidence, concentration, and social skills are the most stressed ones among the intrapersonal factors influencing the unfolding of giftedness. These important factors appear together or in connection with each other in the tests of the hypotheses. This means that the results support the model of system-approach which states that individual factors have their influence on the unfolding of sport-giftedness in an interaction with each other.

3.3. The role of interpersonal factors in unfolding of football-giftedness

According to our conclusions the familial factors as interpersonal giftedness-determinants assure mostly the background for the unfolding of giftedness. In the case of moderate conditions the more gifted evaluated the role of emotional support, financial support, and help from the family greater in getting to the sport-matches. They think to a

significantly higher extent that their mother considers them as being more successful and that both their mother and father believe to a higher extent in that they would be able to accomplish their aims in the future. In the case of strict conditions there have been no significant differences among the more gifted players' groups on the ground of familial points of view. Data show that the family helps the football-player financially, emotionally, and literally, actively, without all this the player could not stay in the system of football, and he could not reach the level of first class. On the other hand the family establishes the personal background too (the family plays for example an important role in forming the athlete's self-esteem, treating of anxiety, or the belief in success). From the previous it follows that athletes who do not have a supporting family in the background have a disadvantage in unfolding of giftedness. For compensating this disadvantage it would be worth considering programs, which could give their support to football-player talents in less advantageous situations from the early beginning.

The peers' in the sport-team influence upon the football-players' present development seems to be more direct in this phase of the sport-career. Social factors appear to have strong impacts on unfolding of giftedness. Our results show that the football-players perceive their sport-mates' intrapersonal characteristics quite well. The results of the sport-mates' opinions – who they consider as being the most popular, the best team-player, the one having the greatest self-confidence, or showing the highest anxiety before sport-matches – have been in harmony with the players' self-descriptions. Presumably the sport-mates' opinions and self-descriptions influence each other (for example if somebody is “written off” by the others, because he is too unsure, he can become more unsure of himself, and he would have difficulties in achievement; or if somebody gets only positive feedbacks, his self-esteem would get stronger). The opinions about giftedness have a strong connection with the popularity within the team and with social skills. The Spearman's rank correlation between the place in the summarized giftedness-ranking and popularity within the team is $-0,585$ (Sig 0,01), between the summarized ranking and whom they consider as being the best team-player is $-0,729$ (Sig 0,01). It is most likely that the most gifted players are perceived as the most popular and the best team-players in the team, and the most gifted feel their own social place and relations more favourable in general. (Their social self-concept is scored significantly higher). All this can have a strong positive effect upon their own motivation and can inspire their further development.

The harmony between the results of self-descriptions and peer-descriptions experienced in the tests of the hypotheses refers also to that the football-players described

themselves honestly and trustworthily when they filled in the psychological tests. This last statement is confirmed also by the fact that the index of self-criticism in the Tennessee Self Concept Scale did not differ significantly when we compared the more gifted and the less gifted.

3.4. The role of psychological measuring methods in the identification of football-giftedness

We have tested whether psycho-diagnostic methods can be applied in the identification of football-giftedness: we have applied the stepwise analysis of discriminant factors. Splitting the sample into two halves we have found that grouping based on sport-specific self-confidence and achievement motivation, self-efficacy (as the dimension of the coping capacity of the personality), and the intelligence achievement (as a cognitive component) accords in 61 per cent with the actual grouping (that is based on the sport-mates' and the trainer's opinions).

All this means that those who are considered as being more gifted by applying psycho-diagnostic methods belong there also in reality with 61 per cent probability. But as we tried to separate the more gifted players' narrower and narrower range from the less gifted players' range merely by applying psychological methods we were less and less able to predict the probability of belonging to the gifted players' group. Data show that with the applied psychological measuring methods we can separate football-players being considered as gifted from those being considered as less gifted to a certain extent, nevertheless these methods on their own provide not enough means for the identification of football-players being considered as highly gifted. This is reasonable, because numerous other important factors have a role in the realization of high giftedness beyond psychological characteristics. Let us think for example about the physical and physiological aptitudes or the feel for the ball.

As a summary we can claim that psychological methods can help the identification of football-giftedness, but they on their own are not enough for it. Our opinion about the psycho-diagnostics of football-giftedness is that diagnosing embedded in development and the combined appliance of diagnostic methods are useful. Diagnosing embedded in development means that psychological measurements are worth applying many times in the different phases of the developmental process, and the result must be used indirectly in the developmental process. In this case psychological measurements do not serve as predictors; they are for the assessment of the state. The combined appliance of diagnostic methods means

that different psychological measuring methods, physical tests, and observations in sport-matches and trainings must be applied parallel with each other.

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