Safet Kapo[1], Branko Cikatić[1], Haris Ćutuk[1], Erdoan Kafedžić[2] and Nedžad Ajnadžić[3]

Trends in the importance of applying hypothetical personality dimensions during top level heavyweight K-1 fights

[1] Faculty of Sports and Physical Education, Sarajevo, Bosnia and Herzegovina
[2] Fourth Gymnasium, Sarajevo, Bosnia and Herzegovina
[3] Ministry of Veterans Affairs, Canton Sarajevo, Bosnia and Herzegovina

Abstract

Therefore, the quality of an athlete's performance is determined by the weakest link in his preparation chain. Since the psychological process indicators and psychological state manifestations among top level K-1 fighters are heavily influenced by personality traits and characteristics manifested in those fighters' activities and formed under the influence of different factors during their year-long engagement in K-1, this research is important in terms of both theory and practice. This research has been carried out on a sample of 96 top level super heavyweight (over 91 kg) male fighters participating in final K-1 tournaments in Japan from 1993 to 2004 (in 84 matches and 205 rounds). The age of the examinees varied from 21 to 39 years. The research aimed at analysing the indicators of assessment of hypothetical personality dimensions with K-1 fighters during their fights at the final K-1 tournaments from 1993 to 2004. This paper was based on the explorative approach to K-1 phenomena in a situational condition. This resulted in a thorough sectional view of the most successful fighters, helping to determine an absolute criterion for defining what a quality fighter is, as the final tournament gathers only the 8 best fighters. It follows therefore that the examinees in this paper were the most able K-1 fighters in the world. The abovementioned fighters have been, after a detailed, studious and meticulous review of the recordings, described by a group of hypothetical personality dimension variables. The gathered data on hypothetical personality dimensions have been processed with the descriptive statistic method and presented according to the total frequency of their application. By means of trend analysis we examined the development trends in the significance of hypothetical personality dimension variables in the sense of their increase and decrease in the period of 12 years, as to obtain data on hypothetical personality dimensions state of a K-1 fighter. Through the analysis of the fights at the final K-1 tournaments (GP Tokyo Dome) we identified the hypothetical personality dimensions which had been manifested during the fights. These clearly indicate that a fighter needs to possess certain character traits if he wishes to achieve his maximum in K-1. These characteristics are not merely "advisable" but almost an obligatory component of a group of characteristics including stability, discipline, perseverance, motivation, an ethical quality, absence of uncontrolled aggressiveness and anxiety etc.committee.

Key words: **K-1, top level fighters, super heavyweight, frequency, trend**

Introduction

Orandum est ut sit mens sana in corpore sano / We should pray (to the gods) to have a sound spirit in the sound body. This Latin quotation reflects the belief that was and still is dominant in some areas of the society, when it comes to psychological aspects of engagement in sport. Namely, the importance of psychological factors in sport performance, recreation, and other segments in the lives of athletes, artists and other people has been ignored considerably. The erroneous dogma that identifies physical preparedness, stamina, and performance as the basic and dominant links that inhibit most of the „negative" mental influences has lost its credibility and gave way to recent scientific information on tremendous influence of mental factors on all aspects of life. The psychologists analysed a personality from several different points of view. We should point out a situational approach which indicates that the behaviour is largely conditioned by the situations or environment and an interaction approach where the situation and personality traits are taken into account as behavioural co-determinants, as variables that jointly determine behaviour. In other words, our knowledge of both, meaning the traits and situations, may help us understand better the behaviour of K-1 fighters during the fights. In view of this, psychological features constitute predisposition for a particular behaviour of a person,

but it does not imply that such a behaviour will be manifested with certainty in all situations. Regardless of how much a fighter is physically capable and talented; these two characteristics can be irrelevant in sport unless that person is adequately mentally prepared. Lack of appropriate preparation, anxiety over the performance, absence of self-confidence, can all have fatal consequences for a successful sport performance. The world of sport is full of individuals who have never achieved the kind of success inherent in their talent. Therefore, when we speak of K-1 sport we must keep in mind its complexity and incessant direction towards securing strong cohesive factors that would incorporate the requirements of various aspects and approaches to contact sport in general, merged in K-1. Naturally, this has already been far beyond practice in narrower terms, for integration of knowledge from various fields is simply inevitable. The personality traits and characteristics heavily influence the psychological processes and psychological state manifestations of top level K-1 fighters. The personality traits are manifested in the fighters' activities and formed under the influence of different factors during their year-long engagement in K-1. Various observations and analyses of fights (both live and on video recordings) by experts of different profiles (coaches, analysts, researchers, methodologists and other sport experts) have resulted in broadening and strengthen-

ing knowledge of different possibilities for applying and making the components of K-1 sport important for achieving success more concrete (**Valera** 1973, **Kapo** 2004, 2006, 2007, 2008. 2011, **Bajraktarević** 2004). Other combat sports have also conducted studies . That is why this research consisted of collecting information based on a set of hypothetical personality dimension variables in order to assess the significance of certain parametres during the fights of top level K-1 fighters at the final K-1 tournaments in the Tokyo Dome, Japan from 1993 to 2004. In view of all the above, the research objective was to analyse the assessment of hypothetical personality dimension application by K-1 fighters during their fights at the final K-1 tournaments from 1993 to 2004.

Methods

The situational aspect has been provided through video recordings of all fights held in the last 12 years (1993-2004) at the final Grand-prix tournament in Japan. This resulted in a thorough sectional view of the most successful fighters, helping to determine an absolute criterion for defining what a quality fighter is, as the final tournament gathers only the 8 best fighters. It follows therefore that the examinees in this paper were the most able K-1 fighters in the world. This research has been carried out on a sample of 96 top level super heavyweight (over 91 kg) male fighters participating in final K-1 tournaments in Japan from 1993 to 2004 (in 84 matches and 205 rounds). The age of the examinees varied from 21 to 39 years. Each of the 96 fighters that had managed to qualify for the final tournament was described with 13 variables used for the assessment of hypothetical personality dimensions, in order to evaluate, as detailed as possible, the importance of certain parameters during the fights of top level K-1 fighters.

The collected data on hypothetical personality dimensions were processed by descriptive statistics and presented in total frequencies. By means of trend analysis we examined the development trends in the significance of hypothetical personality dimension variables in the sense of their increase and decrease through the period of 12 years, as to obtain the data on the hypothetical personality dimension states of a K-1 fighter.

These data have been processed by a special algorithm (Bonacin 2006) which includes rescaling the initial data to a universal range from 1 to 5. This results in the unification of all entities in all variables, thus allowing them to be compared and processed even at the level of manifested variables. Based on the estimate of top K-1 fighters' fights (DVD and VHS recordings were used) made by competent professionals, different aspects of K-1 tactics necessary for attaining top results in K-1 have been classified.

Variables for assessing hypothetical dimensions of personality of K-1 fighters during the fights

1. HPDKONC - concentration
2. HPDSAMK - self-control
3. HPDANKS - anxiety
4. HPDAGRS - aggressiveness
5. HPDMOTI - motivation
6. HPDUPOR - persistence
7. HPDHLAD - coldness
8. HPDDISC - discipline
9. HPDMORA - moral
10. HPPOPSB - possesses positive relation towards the weaker opponent
11. HPPOPBB - possesses positive relation towards the stronger opponent
12. HDLPPNO - behaviour after the knockout
13. HDTAKLU - tactfully cunning

Results and Discussion

The indicators of psychical process and manifestation of psychical conditions of K-1 fighter are heavily influenced by the traits and features of K-1 fighter's personality, displayed in the activities, and formed in the course of long-term K-1 training, which includes the influence of various factors. This research analyses the set of variables in hypothetical dimensions of personality to perform the assessment of significant parameters in the course of the activities in K-1 competitions. Chart and Graph 1 present the values that K-1 fighters realised in the contests. The highest value is indicated by the variable that relates to positive attitude towards a strong fighter (HPPOPJB) (4.3) which implies a considerable respect among the fighters who most probably had no negative attitude towards their own personality, and where the fighters attempted to identify the weaknesses in the opponent's personality in order to achieve their own success.

The concentration variable (HPDKONC) (4.1), indicates that K-1 fighters were focused on their tasks and forms of attention scope, which are essential for achieving success in K-1 sport. The self-control variable (HPDSAMK) (4.1), indicates that K-1 fighters, in the course of a match as well as during the K-1 tournament, held their potentials within expected limits, without displaying huge oscillations and emotive fluctuations. The motivation variable (HPDMOTI) (4.1), indicates that K-1 fighters demonstrated a desire to win, i.e. they directed their behaviour towards a set objective, expressing their comprehension that the victory can be achieved step by step and their readiness to stick to that to the end.

The moral conduct variable (HPDMORA) (4.1), indicates that K-1 fighter were behaving in accordance to K-1 rules and actual social norms that implied adherence to particular rules and customs during the tournaments. The variable of positive attitude toward inferior fighter (HPPOPSB) (4.1) indicates that the fighters did not demonstrate underestimation, but respect towards the opponent's person and weaknesses, without insulting one's person.The persistence variable (HPDUPOR) (4) also displays high readings, because persistence in K-1 sport is very important. A fighter has to demonstrate endurance, patience, not giving up the set objectives, and one should not feel that the fight is a challenge because one must win three successive fights in one evening, which is not possible without having this hypothetical dimension of personality. The other variables display lesser values, but play an important role. These variables are: coolness (HPDHLAD) (3.9), which indicates that K-1 fighters expressed enviable presence of mind in decision making and control over ones' emotions; discipline (HPDDISC) (3.9) that indicates that K-1 fighters executed given tasks in the course of a match; shrewdness in tactics (HDTAKLU) (3.8), which indicates that K-1 fighters žsaw well through' their opponents, and made a wise analysis of the situation and person they were fighting against, and choose the most effective strategy, respecting the established moral norms and accepted code of conduct. It is obvious that the logic of reversed metric orientation is valid for some variables in this hypothetical aspect, as it was the case of fight simulation (training) process in tactical education. Therefore, it would be justified to wonder if an average value of these variables indicates exactly reversed position in direction that is evaluated by these values. If we accept this supposition,

and seems that we have to, concerning that we are talking about K-1 fighters, than the low average will seem entirely as expected.

The anxiety variable (HPDANKS) (1.7), indicates that prior to match and in the course of it K-1 fighters expressed no psychical tension, anxiety, fear and insecurity that would affect the success in fight. The uncontrolled aggressiveness variable (HPDAGRS) (1.4) indicates that K-1 fighters did not express anger, rage, and they did not seek for the reasons to launch direct or indirect attack. They also did not express intolerance, quarrelsomeness etc. in the course of final K-1 tournaments. The variable of behaviour upon the knockout (HDLPPNO) (1) indicates that although the subjects of research were top-level K-1 fighters, they were not capable to re-enter the fight after they made errors and received blows during the fight, and this is confirmed by the smallest assessment of all hypothetical parameters monitored in this research. The obtained statistical indicators suggest that, from the point of view of psychology, K-1 fighters certainly represent selected fighters who possess highly determined psychological abilities[1] that affect the success in K-1 sport.
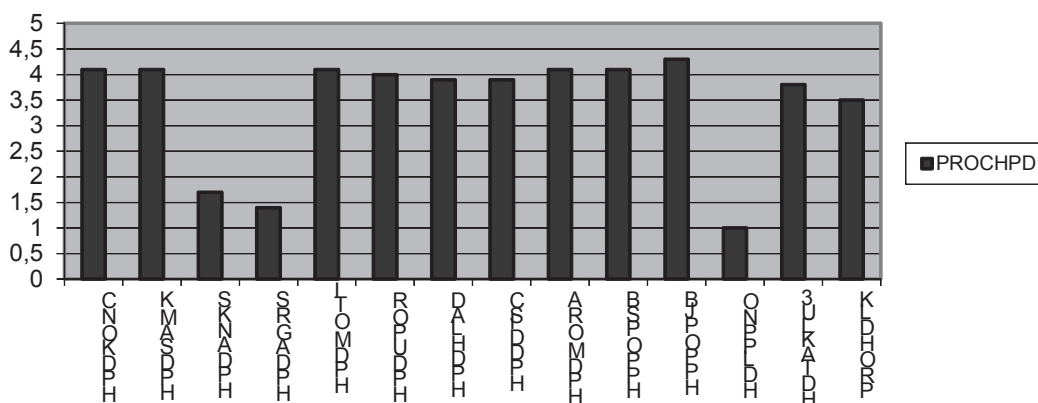
Total average of three reversely orientated, abstracted variables (HPDANKS, HPDAGRS, HDLPPNO) was (1.37), which indicates that negative aspects of personality exerted a very low level of influence on fight outcome, or the fact that they placed in final tournament. The average value of the other ten variables was (3.99), most certainly a high value, which again suggests that positive aspects of personality exerted strong influence on the fight outcome, i.e. participation in final K-1 GP tournament in Japan.

Table 1 Assesment of hypothetical personality dimensions of participants at the final K-1 tournaments (1993-2004)

VARIABLES	UKZB3PR	PROCHPD
HPDKONC	2061	4,1
HPDSAMK	2085	4,1
HPDANKS	861	1,7
HPDAGRS	729	1,4
HPDMOTI	2051	4,1
HPDUPOR	2031	4
HPDHLAD	1979	3,9
HPDDISC	1963	3,9
HPDMORA	2044	4,1
HPPOPSB	2069	4,1
HPPOPJB	2157	4,3
HDLPPNO	337	1
HDTAKLU	1944	3,8

The trend increase in the assessment of hypothetical personality dimensions state in the period between 1993 and 2004 clearly indicates an increase of the **HPPOPJB variable (positive attitude towards a strong fighter)** which implies a considerable respect among the fighters. They most probably did not have a negative attitude towards their own personality and attempted to identify the weaknesses of the opponent in order to achieve success (Graph 2). **The variable of positive attitude toward an inferior fighter (HPPOPSB)** also has an increasing trend, most likely because the fighters did not demonstrate underestimation but respect towards their opponent and his weaknesses. (Graph 3).
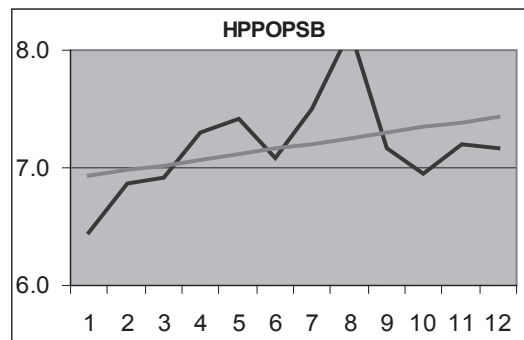
Graph 2.

Graph 3.

Graph 1

Assessment of hypothetical personality dimensions of participants at the final K-1 tournaments (1993-2004)
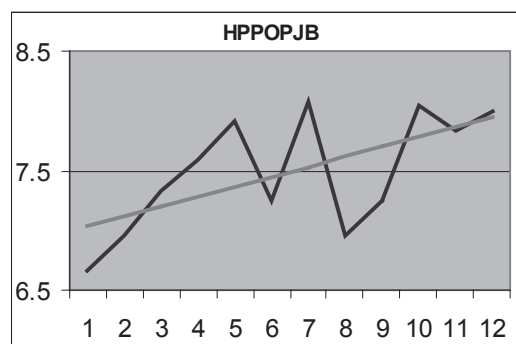

[1] *High psychological stability of K-1 fighters in this research is most probably the result of long-term, strenuous trainings and vast experience that the K-1 fighters acquired during fights.*
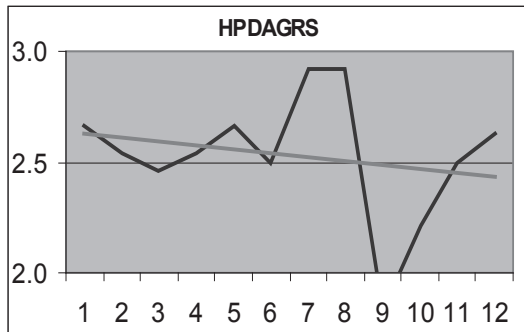
The trend increase in the assessment of hypothetical personality dimensions state in the period between 1993 and 2004 clearly indicates an augmentation in the assessment of anxiety (HPDANKS), most likely due to an increased psychological tension or an insecurity prior to but also during the fight. The fighters were anxious about the opponents they had already fought against during the tournament which added to their anxiety and, consequently, influenced their performance during the fight. K-1 fighters expressed the highest level of anxiety during the 1998 and 2002 tournaments (Graph 4). The HPDAGRS hypothetical personality dimension variable (uncontrolled aggressiveness) showed a decrease probably because these were experienced, top level fighters who did not express anger, rage, did not seek for reasons to launch direct or indirect attack nor expressed intolerance, quarrelsomeness in the course of final K-1 tournaments.

Graph 4.

HPDANKS

Graph 5 .

HPDAGRS
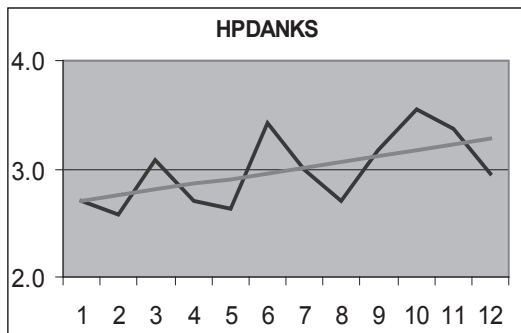
The trend in the assessment of **HPDDISC hypothetical personality dimension variable (discipline)** indicates an equal application throughout the analysed tournaments, suggesting that K-1 fighters had in the course of the match succeeded in fulfilling the tasks they were given before the fight (Graph 6). The moral conduct variable (HPDMORA), indicating that K-1 fighters were behaving in accordance to K-1 rules and actual social norms that implied adherence to particular rules and customs during the tournaments (Graph 7).

Graph 6.

HPDDISC
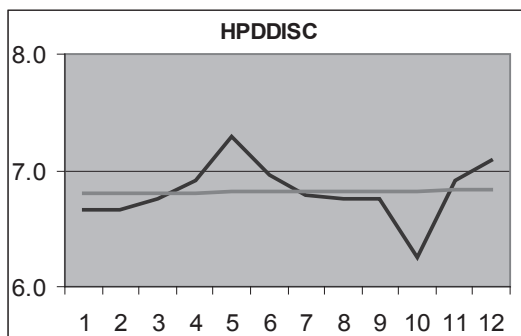
The trend in the assessment of HDLPPNO **hypothetical personality dimension variable** (behaviour after the knock out) shows an increase. That suggests that all the fighters had probably come to these tournaments well prepared and thus able to recover after a knockout during the match more quickly and efficiently. (Graph 8).

Graph 8.

HDLPPNO
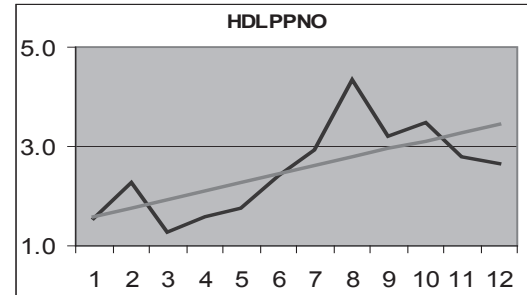
Conclusions

These data should help shorten the time period needed to create a top quality K-1 fighter. As we all know, in all martial arts and, consequently, K-1 a fighter is at his best usually around the time when his age is already becoming a problem, forcing him to stop fighting. For this reason,it is essential to identify the most important techniques and principles in this sport and thus shorten the period needed for creating a top level K-1 fighter. This would, of course, also help prolonging a fighter's career in sport. Through the analysis of the fights at the final K-1 tournaments (GP Tokyo Dome) we identified the hypothetical personality dimension states which had been manifested during the fights. These clearly indicate that a fighter needs to possess certain character traits if he wishes to achieve his maximum in K-1. These characteristics are not merely "advisable" but almost an obligatory component of a group of characteristics including stability, discipline, perseverance, motivation, ethical quality, absence of uncontrolled aggressiveness and anxiety etc. The above mentioned characteristics are already known to have an enormous positive influence on the person of an athlete in general. The only difference is that this positive influence has been proved by this research. That comes to no surprise as it is very difficult to imagine a K-1 tournament winner who is unmotivated, undisciplined, superficial, unethical, anxious, uncontrolled, etc. This sporting activity as such does not allow athletes to have these characteristics, because such fighters will be eliminated in the simplest possible way: they will be defeated in the preliminary rounds! The trend analysis shows that the application of following variables increased: HPPOPJB, HPPOPSB, HPDANKS, HDLPPNO, HPDMORA, whereas the HPDDISC variable has an almost identical level throughout all these tournaments.

Graph 7.

HPDMORA
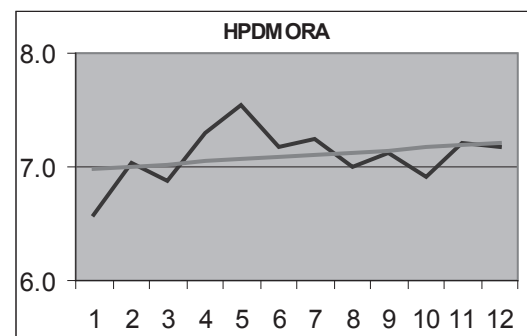
The HPDAGRS variable was decreasing probably because these were experienced, top level fighters who did not express anger, rage, did not seek for reasons to launch direct or indirect attack nor expressed intolerance, quarrelsomeness in the course of final K-1 tournaments.

References

Bajraktarević, J. (2004). The Secret of Success in Sport – Psychological Preparation, Prosperitet, Sarajevo

Bonacin, D. (2004). Uvod u kvantitativne metode. Kaštela, Vlastito, izdanje.

Kapo, S. (2006). *Structural analysis and model of K-1 top level fighters.* Disertation (In Bosnian). Faculty of sports and physical education, University of Sarajevo. BiH

Kapo, S., D. Bonacin, I. Rađo, H. Kajmović, B. Cikatić, (2008). Situation development profile of K-1 tournament winners. Acta Kinesiologica Contents, 2 (2), str. 38-44

Kapo, S., Rađo, I., Kajmović, H., Bonacin, D. (2007). *K-1 SPORT DEVELOPMENT ON THE BASIS OF INDICATORS OBTAINED FROM ALL FINAL GRAND-PRIX TOURNAMENT FIGHTS (1993-2004).* 12th ECSS Congress 11-14 July Jyväskylä,Finland.

Kapo, S. I. Rađo, H. Kajmović, B. Cikatić, (2008). Evalution of K-1 fighter's application of tactical means; World Congress of Performance Analysis of Sport VIII (WCPAS 8), Magdeburg, Germany.

Kapo, S., I. Rađo, H. Kajmović, Kafedžić E., Hasanović, E.: DIFFERENCES IN THE USE OF TECHNICAL AND TACTICAL ELEMENTS BY WINNERS AND DEFEATED K-1 SUPER HEAVY-WEIGHT FIGHTERS, JAPAN 16th Annual Congress of the European College of Sport Science (ECSS),06-09 July Liverpool, 2011, UK.

Kapo, S., I. Rađo, H. Kajmović (2004). Analiza K-1 turnira "King of the Colosseum" - Sarajevo 2002; u časopisu:Homosporticus, broj 1. str. 77 – 84

Valera, D. (1973). *Karate la competition.* Paris: Ed Serdirey.

Corresponding author:
PhD **Safet Kapo**
Faculty of Sport and Physical Education, University of Sarajevo, B&H
Patriotske lige 41, 71 000 Sarajevo, Bosnia and Herzegovina
E-mail:kapo.safet@gmail.com