

# The relationships between personality and the system of values in the case of the National Team female field hockey players

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## Summary

The aim of the study was to determine the predictors of female sports success by examining the relations between personality and the system of values in female field hockey players. The research was conducted among the members of Polish National Field Hockey Team. The average age was 21,42 ( $SD = 4,49$ ).

The study suggested that within the examined group the most important terminal values were Happiness and Family Security, and the least important – Salvation and A World of Beauty. Among instrumental values the most important were Love, Ambition, Responsibility and Honesty. The least important values in the group were Imagination and Obedience.

The personality type was related to the system of values. The study suggested that among the examined sports-women the dimension Neuroticism was connected with the importance of Freedom, A Comfortable Life and Wisdom. Openness was related to the importance of A World of Beauty, Self-Control, A Sense of Accomplishment, and Family Security. Extraversion was connected with the decrease in Obedience, A World at Peace and Equality values, but with the increase of the importance of Independence. Conscientiousness was connected with the increase of the importance of Responsibility and Self-Respect, but with the decrease of the importance of Helpfulness, Forgiveness and Imagination. Agreeableness was related to the increase in Forgiveness.

**Keywords:** field hockey, female athletes, values, personality

In contemporary competitive sports, a tendency is being observed to open the door of particular disciplines wide for everyone, regardless of the biological sex. As McCallister et al. report [2003], stereotypically women used to be associated with such sport disciplines as softball, cheerleading, dance, ballet or artistic gymnastics. Meanwhile, the sport disciplines regarded in the past as typically “masculine”, nowadays are being done also by women. Men are most frequently perceived as “strong”, dominant, competitive, independent, open to the external world, experimenting in the sexual sphere, with rigid beliefs, analytical, cheerful, easily falling into addictions, having a clout, and clever. In contrast, women are perceived as delicate (that is, at the same time “weaker”), emotionally sensitive, carrying, impulsive, using analytical intelligence, intuitive, having difficulties with synthetic and unifying vision of the whole, brave, patient, conscientious, persistent, vain, ready to provide help, with sense of aesthetics, reflective, delicate, timid, naive, gossiping, choosy, concerned about their appearance, more neurotic, anxious [McCallister et al. 2003, Fedeli

2003, Mroczkowska 2006, Mikołajczyk 1998]. The stereotypical view of feminine characteristics stand in contradiction to desirable characteristics of an athlete. An individual in sport activities is required to focus on the task and have such traits as aggressiveness, individualism, strength, i.e., characteristics generally assigned to men. The following study analyses the system of values and the type of personality of field hockey players – a discipline stereotypically considered as masculine.

There are different understandings of values. Gordon [1975] defined values as constructs representing behaviours and mental states significant from the point of view of an individual, and stated that despite the possibility of them being altered, values exhibit a tendency to remain unchanged in spite of the passage of time. According to Lachman, Nedd & Hinings [1994], major (unchangeable) values and peripheral (modifiable) values can be distinguished. At the same time, the moral values hierarchy determines the choice of decisions made. Values are not singular components of personality, but create hierarchical systems in various combinations. Thanks to this it

can be stated that certain values are more important to an individual than other and, as a consequence, influence psychological life of a person (perception, thinking, emotional-motivational processes, attitudes) as well as their behaviour to a greater extent than the less important values. Rokeach [1973, p. 5] defined a value system as an “enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance”. Two types of values may be distinguished: terminal and instrumental. The former point to the goals that people strive for, the latter refer to the behaviour and personality traits enabling the goals to be reached. What it means is that instrumental values are beliefs formulated as: “I believe that a given behaviour is preferred in all situations and towards every object”, while terminal values can be described as: “I believe a given final aim of existence is worth fighting for”.

Amongst terminal values Rokeach listed: National Security (e.g. protection against assault), Family Security (concern for the loved ones), Mature Love (sexual and spiritual closeness), A Comfortable Life (prosperity), Wisdom (mature understanding of life), A Sense of Accomplishment (bringing the lasting contribution), Self-Respect (self-esteem), A World at Peace (a world free of war and conflict), True Friendship (close companionship), Pleasure (pleasurable feelings, lack of haste), Inner Harmony (lack of internal conflicts), Equality (brotherhood, equal opportunities for all), Happiness (joy, contentment), A World of Beauty (the beauty of nature and art), Social Recognition (respectability, admiration), Freedom (personal independence, freedom of choice), Salvation (salvation of the soul, eternal life), An Exciting Life (active, stimulating) [Brzozowski 1989].

Amongst instrumental values Rokeach [1973] listed Ambition, Broad-Mindedness, Capability, Cleanliness, Courage, Forgiveness, Helpfulness, Honesty, Imagination, Independence, Intellect, Logic, Love, Cheerfulness, Obedience, Politeness, Responsibility, Self-Control.

Although there exists a great diversification between individual values and systems of goals, a plausible range of variability of value hierarchy within a given culture group can be predicted [Rokeach 1973]. This defined range results from socialization processes common for a particular culture. Feather [1977] stated that value systems evolve with age. Di Dio et al. [1996] claimed that it is possible to define typically female and male value systems. The research, in which participants were to assess which of the values listed by Rokeach are “masculine” and which “feminine”, showed that “male” values were mostly action-oriented, whereas “female” ones – community-oriented. It might confirm the specificity of gender socialization, in which each sex is to develop personally in one of the two selected, major directions. At the same time the authors [Di Dio et al. 1996] confirmed that both types of values are connected with a general concept of masculinity and

femininity, i.e., certain stereotypical personality traits and models of behaviour. What needs to be stressed is that differences between genders are more easily perceivable in Western cultures than in Asia [Guimont et al. 2007]; in collectivist cultures, to which Asian cultures belong, less attention is paid to social comparison, which in turn leads to inter-gender differences being less emphasized [White & Lehman 2005]. Mahoney, Heretick & Katz [1979] stated that men and women possess diversified profiles of terminal and instrumental values important to them. They concluded that for women three dimensions may be distinguished: “Creative Self-Determination versus Submissive Dependency”, “Personal Gratification versus Sociopolitical Consciousness” and “Existential Responsibility versus Traditionalism”. For men, on the other hand, the following dimensions were recognized: “Communal Idealism versus Entrepreneurial Pragmatism”, “Hedonism versus Egalitarianism” and “Sybaritic Bohemianism versus Traditional Sobriety”. The enumerated dimensions of significant values and a given direction of a solution were explained by the extent to which feminist outlook on life was absorbed by women and accepted by men. It means that, according to Mahoney, Heretick & Katz [1979], it is possible to distinguish certain more traditional systems of male and female values and systems based on feminist view of the world.

It has been suggested that a value system influences political views [e.g., Schwartz 1992], commitment [e.g., Celsi & Olson 1988], lifestyle [e.g., Kahle, Beauty & Homer 1986], goals [Nelson 2004], attitude [e.g., Hansen 2008] and behaviours [e.g., Krystallis, Vassallo, Chryssohoidis & Perrea 2008; Rokeach & Ball-Rokeach 1989]. Values contain an appraising element, which is not to be found in personality traits. They refer to what we think, while personality – to what we have a natural tendency to [Parks & Guay 2009]. Moreover, personality traits are relatively innate predispositions [Olver & Mooradian 2003], while values are learnt, socially accepted beliefs necessary to adjust one’s own needs to what is socially approved of [Rokeach 1972]. Values are also much more dynamic structures than personality traits, since they can be modified if an individual gets close to a different, new environment [Rokeach 1973], while personality traits are relatively stable through one’s life [Judge et al. 1999; McCrae et al. 2000].

In spite of these disparities, it can be observed that certain terms may be used referring to values as well as to personality traits [Roccas et al. 2002], e.g., “competence” might relate to the tendency of being competent (a trait) as well as to the belief in the significance of manifesting one’s competence (a value). Values may mitigate behaviour resulting from expressing one’s personality, since they refer to rules and principles regulating the functioning of a given society [Parks & Guay 2009]. It has been suggested that the evolution of values hierarchy is deter-

mined not only by socialization but also by personality traits [Olver & Mooradian 2003]. Parks [2007] conducted a meta-analysis of relationships between values and personality traits, it needs to be stressed though, that the sample he used was rather small (11 surveyees). In spite of this, it may be concluded that the two constructs are correlated. Openness to experiences and Agreeableness seem to have the strongest relatedness to values, Conscientiousness and Extraversion exhibit weaker relatedness, while the weakest relatedness is to be found between values and Neuroticism [Parks 2007]. Last from the above-mentioned studies refer to the Big Five model by Costa & McCrae. According to the authors, these five factors constitute the universal, inherited and common to all people substance of personality. The mere structure of personality has a universal character and, at the same time, has the status of temperamental traits [Strelau 2002, 2006]. The concept was based on six postulates: basic intentions, objective biography, self-image, external influences, and dynamic processes [McCrae & Costa 2005, p. 226]. The structure of personality consists of five factors: Neuroticism, Extraversion, Openness to experiences, Agreeableness, and Conscientiousness [Strelau 2002, 2006, p. 189]. As suggested by the research quoted by Schmitt et al. [2008], the personality variables distinguished by Costa & McCrae reach different values in the cases of women and men. Women turn out to be more neurotic, extravert, agreeable and conscientious than men. In order to formulate such unambiguous conclusions about personality and gender, however, cultural differences need to be taken into consideration [Schmitt et al. 2009]. Similar conclusions, concerning the impact socio-cultural factors may have on personality, were also reached by Smits et al. [2011]. For it is possible that in addition to the Big Five other factors might be distinguished, which could be specific to a particular culture. Therefore, the structure of personality exhibits certain correlations with the system of values.

## Aim of the research

The aim of the study was to determine the relations between personality and system of values, and to describe values hierarchy of female field hockey players.

## Method

### Participants

The research was conducted amongst 19 female national field hockey team members. The average age was 21,42 ( $OS = 4,49$ ).

### Tools

In the present study M. Rokeach's theory of values [1973] and his Value Survey were used in order to determine and

interpret the value systems of participants. The questionnaire allows to determine preferred structures of values: 18 terminal and 18 instrumental. Terminal values comprise: National Security, Family Security, Mature Love, A Comfortable Life, Wisdom, A Sense of Accomplishment, Self-Respect, A World at Peace, True Friendship, Pleasure, Inner Harmony, Equality, Happiness, A World of Beauty, Social Recognition, Freedom, Salvation, An Exciting Life. Instrumental values consist of: Ambition, Cleanliness, Intellect, Love, Logic, Independence, Imagination, Responsibility, Courage, Broad-Mindedness, Cheerfulness, Helpfulness, Obedience, Honesty, Politeness, Capability, Forgiveness. A participant lists the values giving them ranks from 1 to 18. The most important value for a given person was labelled 1, the least important – 18.

Personality was measured with Revised NEO Personality Inventory by Costa & MacCrae [1992].

## Procedure

The study was conducted within one day during the team assembly in Biskupin, Poland. Participants were to fill in the questionnaire at the same time and place. Having completed the first questionnaire, each group was given a subsequent one and so on. Prior to distributing each test, it was stressed that participants need to get well-acquainted with the instruction placed on the first page of every questionnaire. If a participant had any doubts concerning the way a test should be completed or any other questions, they were provided with thorough instructions and explanations. Instructions to all questionnaires also contained information concerning the time in which it was to be completed. Participants did not exceed the time limit.

Before the beginning of the procedure, the whole group of participants was informed that the answers were anonymous. The participants were only asked to fill in their year of birth on the first page of each test, while the questionnaires themselves were coded, i.e., each person was assigned one number which was to be put down on the first page of every questionnaire.

## Statistical analyses

Calculations were done using statistical packages IBM SPSS Statistics 21 and Statistica 10. Due to the character of variables, nonparametric analyses were used, including analysis of Spearman correlation and Friedman's ANOVA together with Wilcoxon test (with Bonferroni correction).

## Results

The statistically significant differences between the mean positions of values in the system of terminal values (ANOVA  $c^2$  ( $N = 19$ ,  $df = 17$ ) = 124.349;  $p < .001$ ) and the

**Table 1.** Terminal value hierarchy.

Terminal Values	<i>M</i>	<i>SD</i>
Family Security	3	5.43
Happiness	5	2.93
True Friendship	6	4.06
Mature Love	6	5.23
Wisdom	7	4.27
Freedom	8	3.50
Equality	9	4.80
Self-Respect	9	5.89
Inner Harmony	10	3.53
An Exciting Life	10	3.54
A World at Peace	11	4.66
National Security	11	4.28
A Comfortable Life	11	3.13
A Sense of Accomplishment	12	2.96
Pleasure	12	3.21
Social Recognition	13	3.6?
Salvation	14	4.36
A World of Beauty	15	4.26

**Table 2.** Instrumental values hierarchy.

Instrumental values	<i>M</i>	<i>SD</i>
Love	4	3.16
Ambition	5	3.96
Responsibility	5	4.05
Honesty	6	4.16
Helpfulness	6	4.48
Independence	8	4.49
Courage	9	4.38
Politeness	9	3.27
Forgiveness	9	4.96
Intellect	10	4.49
Cheerfulness	11	5.04
Logic	11	4.37
Broad-Mindedness	12	5.07
Self-Control	12	3.30
Cleanliness	12	5.15
Capability	12	4.05
Imagination	14	3.27
Obedience	15	3.58

**Table 3.** Relations between personality traits and terminal values.

Personality	Terminal Values	Spearman's <i>r</i>
Neuroticism	A Comfortable Life	.66
	Wisdom	.49
	Freedom	-.60
Extraversion	A World at Peace	.45
	Equality	.57
Openness to experiences	Family Security	.50
	A Sense of Accomplishment	-.52
	A World of Beauty	-.58
Conscientiousness	Self Respect	-.46

instrumental value system were observed. Tables 1 and 2 show results for the mean position for given value in the hierarchy – the lower the mean, the higher position in the value system.

In the group under the study the most important terminal values were Family Security and Happiness, whereas the least important were Salvation and A World of Beauty.

The most important instrumental values among the sportswomen surveyed were: Love, Ambition, Honesty,

and Responsibility, whereas the least important were Imagination and Obedience.

Consecutive analyses concerned the relations between personality traits and terminal values. Statistically significant results were showed in Table 3.

Regarding terminal value system it was observed that among the sportswomen surveyed the growth of the level of Neuroticism was correlated with reduction of importance of A Comfortable Life and Wisdom values, while the importance of Freedom value increased. With the

**Table 4.** Relations between personality traits and instrumental values.

Personality	Instrumental Values	Spearman's <i>r</i>
Extraversion	Independence	-.48
	Obedience	.70
Openness to experiences	Self-Control	-.52
Agreeableness	Forgiveness	-.51
Conscientiousness	Imagination	.49
	Responsibility	-.71
	Helpfulness	.55
	Forgiveness	.64

higher level of Extraversion, the importance of A World Peace and Equality values decreased. The growth of the level of Openness to experiences was correlated with reduction of importance of Family Security value, whereas the importance of A Sense of Accomplishment and A World of Beauty values increased. With the higher level of Conscientiousness, the importance of Self-Respect increased. Statistically significant relations between the level of Agreeableness and the terminal values scale were not observed.

Subsequently analysed were the relations between personality traits and instrumental values. Statistically significant results were presented in Table 4.

With regard to instrumental values it was observed that among participants of the survey with the growth of the level of Extraversion the importance of the Obedience value decreased, but the Independence value increased. With the higher level of Openness to experiences the importance of Self-Control value rose. The growth of the level of Agreeableness correlated with the increased importance of Forgiveness value. With the higher level of Conscientiousness the importance of Imagination, Helpfulness, and Forgiveness values decreased, but the importance of Responsibility value rose. No statistically significant relations between the level of Neuroticism and instrumental values were observed.

## Discussion

The obtained results indicate that among sportswomen surveyed, although doing a “male” sport which field hockey is recognised as, the stereotypically feminine terminal value hierarchy was preserved. Happiness, Mature Love, and Family Security are considered to be the most important terminal values for women, whereas for men these values have a lower location in the value hierarchy and the top value is Self-Respect [Di Dio et al. 1996]. Di Dio and associated researchers [1996] also observed that some values are more related with masculin-

ity than with femininity: An Exciting Life, A Comfortable Life, Social Recognition, National Security, Pleasure, and Freedom. All of these values had a lower position in the value hierarchy among surveyed sportswomen, which coincide with Schwartz's & Bilsky's [1987] division to individualistic values (e.g., A Sense of Accomplishment) and collectivist values (e.g. True Friendship), which, at the same time, correspond with motivational attitude. The stereotype of masculinity assumes focusing on accomplishments, which is a strongly individualistic mindset, whereas the femininity stereotype assumes a collectivist mindset. It might be correlated with the sportswomen's concentration on achieving championship and practicing cooperation skills, rather than on practicing prowess and increasing the status of life [Duda 1989, in: Mikołajczyk 1998]. The results obtained in the study is exceedingly interesting due to the contradiction with the common belief that sportswomen, compared to women who do not do competitive sports, are more capable in adjusting to men's norms of participating in sports [cf. Steinfeldt, Zakrajsek & Steinfeldt 2011].

Regarding the instrumental value hierarchy, among the surveyed sportswomen lower positions acquired the values, which play important role in adapting to new situations – Capability, Broad-Mindedness, Imagination, and the values related with intellect [Nęcka 2012]. Only Ambition, which might seem an obvious result in the case of athletes, was positioned very high. It might indicate that these traits are not required in women's sports, but were stressed during the players development. It might be worrisome inasmuch as the sports career tends to be brief and for some individuals even shorter than they expect (due to various random factors, e.g., injuries). It leads to necessary change of goals and the means of their achievement. In other words, there is a necessity to change the career path, which is never an easy thing to do. However, widely understood creativity helps to solve problems of this type. [cf. Nęcka 1994; Nęcka 2012].

As predicted, the study showed numerous relations between personality traits and the value hierarchy. In contrast to Parks's meta-analysis [2007], Agreeableness had the weakest correlations with values, whereas all the other personality traits were moderately or strongly correlated with values. Among surveyed sportswomen Neuroticism was correlated with value hierarchy, but only in terms of terminal values, namely, chosen goal. It might be observed that the rise of Neuroticism was associated with lower importance of A Comfortable Life value. It is possible that the decrease of emotional stability and the increase of anxiety as a trait caused the goal to be perceived as impossible to achieve, which led to lowering of its value. The study conducted by Kaiseler, Polman & Nicholls [2012] on 482 athletes of both sex showed that particular dimensions of the Big Five have an influence on perceiving the stress level, the ways of controlling stress, and the effectiveness of coping. The high level of Neuroticism is associated with stronger feeling of stress and lower control over stress, as well as with less adaptive, escape and emotional strategies of coping with stress.

Numerous relations between Conscientiousness and the value hierarchy were observed – particularly in the terms of instrumental values, especially Responsibility, which shows the importance of this trait for women doing competitive sports on high level. Interesting results were obtained regarding Extraversion. Among surveyed sportswomen Extraversion was more strongly associated with individualistic values, not with collectivist ones – the importance of Independence increased, whereas the importance of Obedience and Equality decreased, which indicates the correlation of this trait with competition. In his research Studenski [2004] observed, that correlation of Extraversion with willingness to risk and frequency of risky behaviours are stronger among women, than men. It was also confirmed by other researches on athletes [e.g., Tok 2011].

To summarize, it can be stated that personality, indeed, shows correlations with the value hierarchy, both in the terms of the importance of one's goals, and the means of achieving them. On the other hand, doing competitive sports, even recognized as male disciplines, does not prevent women from stereotypically feminine functioning. By reference to Mroczkowska's research [2010] which shows that stereotypically feminine women have lower self-esteem, lower confidence and trust in their own abilities (as compared with masculine women), and by reference to the values placed lower in the hierarchy (and connected with creativity), the following question arises: how will women who do well in sports competition cope with the necessity to profoundly change their life path? It also indicates that during the sportswomen's training, stronger stress should be laid on these traits, which will ease future self-reliant problem solving and adaptation to the changing environmental conditions.

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