

**CONFORMITY WITH THE PATTERN OF MALENESS AND  
COGNITIVE-MOTIVATIONAL DETERMINANTS OF ASPIRATIONS  
FOR SUCCESS IN WOMEN**

**H. Mroczkowska**

*Dept. of Psychology, Institute of Sport, Warsaw, Poland*

**Abstract.** The aim of the present study was to estimate differences in the cognitive-motivational parameters of women presenting with dissimilar cultural patterns of “masculinity” which are associated with psychophysical costs of the (undertaken) activities. Altogether, eighty-two professional female fencers and judokas of similar age ( $\bar{x}$  18 years) and experience in doing sports ( $\bar{x}$  6 years) were assayed. Taking account of the psychological gender criterion the subjects were divided into those of high (n=28) and low (n=36) expression of the “masculine” pattern. The following questionnaire techniques were employed: Psychological Gender Inventory; Questionnaire “Delta” for measurement of the individual sense of control; the KA-TN Scale, for estimation of the motivation to achieve; two techniques measuring self-evaluation of predispositions and capabilities; and measurement of the subjective probability of success. The controlled cognitive-motivational parameters specifically describe women of the weakly developed “masculine” pattern. Female athletes of this type, when placed in a rivalry situation, express the definitely fearful motivation of achievements which translates into perceiving threats rather than factors favouring arrival at the desired goal. Secondly, in contrast to their counterparts with the well-developed “masculine” pattern, these athletes during the goal-oriented actions present with the markedly lower self-evaluation of own psychophysical abilities resulting in the weaker perspective of the future success in sport.

*(Biol.Sport 24:275-284, 2007)*

*Key words:* Cultural “masculine” pattern - Motivation for achieving – Feeling of authorship - Self-evaluation

**Introduction**

Deliberations on “how much in us is biology and how much social convention” contain the theory of gender schemes which provides substance for a hypothesis

---

Reprint request to: Dr. Helena Mroczkowska, Dept. of Psychology, Institute of Sport, Trylogii 2/16, 01-982 Warsaw, Poland; E-mail: psycho@insp.waw.pl



that sex dimorphism is a cultural product resulting from transformation of biological differences into social ones [1]. Generally, we may assume that within European culture social expectations towards women are ambiguous and asymmetric, the fact which is drastically illustrated by the view that no repertoire of the feminine behaviours exists which could explicitly and unconditionally guarantee them a positive estimate. Freedoms of the choice of behaviour, profession or roles played by women are curbed by both natural conditioning and social stereotypes. Desirable features in the woman's stereotype such as emotional sensitivity, protectiveness and tenderness contrast with the view of a man of success which assumes willingness to compete, stubborn pursuance of goals and high aspirations.

In the feminine sex stereotype both actions and their goals are perceived in interpersonal categories and are burdened with emotional charge. In the masculine stereotype the actions and their goals are characterized by instrumentalism and hierarchical value structure in which one wins his position through fighting, rivalry and risk taking [14].

If a woman's identity is determined by social relations and a man's identity - by his position in a social hierarchy, then we assume from the outset asymmetry of female abilities and chances of their fulfilment within every area of activity in which an element of rivalry plays a role. Such views suggest that, from the social and personal perspective, work, success, and ambitions as well as possibilities to carry them out mean something else for each gender and that the associated psychophysical costs incurred by men and women are also different.

The world of sport, whose immanent features consist in permanent achieving, exceeding the standards of performance, and competing with oneself and an opponent, is a wonderful area of exploration. On the one hand, it reflects the level of social maturity, approval of a typicality, as well as the scope of overcoming barriers and cultural prejudice. On the other side, it allows to estimate the extent to which sex differences are not universal or absolute (but individual), how much training and experience in doing sports shape these differences and how far can we go in conclusions about the costs incurred by ambitious women put in a situation of rivalry.

Demands of competitive sports have been described as a set of instrumental behaviours aimed at achieving a goal that match a social stereotype of "maleness" and exemplifies a man of success. Hence, some authors a priori assume that competence (in sports) is much more a consequence of using this set of behaviours typical for the "masculine" stereotype than the result of utilising the forms of activities belonging to the "feminine" stereotype [14].

It is highly likely that a woman who gets down to participating in a competitive sport learns the behaviours from the “masculine” repertoire which provides tools and means for success. This does not have to be tantamount to unconditional resignation from her own femininity or to mental “masculinisation”. A model of adaptation and assimilation appears to be a typical feminine way to succeed in sports.

According to such premises, among women participating in competitive sports are those with a well as well as those with a poorly developed “masculine” pattern. One can even hazard a guess that the rule applies also to the most successful women in sports, which means that among the female champions both the strongly and weakly “masculine” individuals can be encountered. The question remains, however, about the way to success, i.e. about the psychological costs paid by those female athletes who use the “masculine” stereotype only to a minor extent. As suggested by the published evidence, the impact of the cultural gender schema does not necessarily translates into the actual behaviours. Moreover, these behaviours can vary and be specific for different areas of human mental functioning [5]. In the present paper we have focused on the cognitive-motivational structures of personality that are responsible for determination of pursuit of success in sports and for self-perception as a ‘doer’, including:

- motivation to achieve;
- sense of internal versus external control;
- self-evaluation of own predispositions and chances of success in sports.

Achievement motivation in sports, viewed as a need for competing and being a success in an athletic competition, is one of the crucial parameters of the “masculine” pattern. Opposite to this is the competitive anxiety, avoidance of the rivalry situation and a tendency to view all such circumstances as threatening. Internal sense of control is, in turn, such a strong motivation to act that no motive to achieve can exist without a sense of individual causativity, a sense of being in charge of the situation as well as a belief of taking command of what is to be achieved [15]. Despite the fact that activity in sports is by definition conscious and intentional, an athlete not always attributes to him- or herself the choice of action and its effectiveness or ineffectiveness. The sense of such understood causativity affects the choice and direction of actions as well as the perseverance in pursuing a goal. What is the role of a sense of internal control is well illustrated by the behaviour of a person in a situation viewed him or her as a random incident (e.g., coming by a hundred-zloty note) and in a situation viewed as dependent upon his or her predispositions (e.g., a long-lasting preparation for the competition). Investigations carried out in Polish Olympic athletes demonstrated that the stronger

is the sense of one's causativity the more pronounced is the motivational expectation of a future success and the weaker is the tendency to react with anxiety and to use a defence strategy of protecting oneself against failure [7].

As late as by the 1970s it had been taken as read that men and women function differently when placed in rivalry situations. In view of the uneven biological potentials and dissimilarity of social functions culturally assigned to men and women a concept of "a motive of fear of success" was coined which was supposed to be typical for women in a competitive situation [3,5]. It was assumed that in situations traditionally viewed as masculine – such as sport – women bear higher psychophysical costs owing to maladjustment of success to the feminine pattern. A significant feature of professional sport is the permanent external pressure to achieve success and surpass what has already been achieved as well as the constant internal pressure to be better and better in competition with oneself and with an opponent. Meeting such requirements of the record-seeking sport is undoubtedly favoured by readiness to follow behaviours attributed to the "masculine" pattern. Some psychologists claim that, at a similar level of motivation in sports, women are oriented more than men on personal goals and standards while men concentrate more on winning and leading in the ranking. Consequently, it can be assumed that the former differ from the latter not by the willingness to achieve but by the goals of the achievements.

According to other authors, what actually differentiates men from women is a stronger conviction expressed by the former for the chances of success rather than the desire to compete and win – the crucial parameter of a "masculine" stereotype, which is similarly pronounced in both sexes. On the other hand, my previous results suggested that women, despite their lower perception of own abilities and chances of success, are more than men persistent in actions what, consequently, protects them from rapid and easy resignation or withdrawal in difficult situations [8,9].

The above described results do not contradict the generally accepted view that women react more emotionally and bear higher psychophysical costs and that the time to regain their emotional balance is longer than in men [10,12]. Is then the women's capacity to act in a stressful environment a consequence of the pronounced expression of the "masculine" pattern.

Based on the above described differences between men and women it is interesting to determine whether analogous distinctions occur between women of strongly and weakly pronounced "masculine" patterns. Exploration and explanation of such relations is the aim of the present study.

## Materials and Methods

Within the "Athens 2004" pre-selection a group of professional female fencers and judokas (n=82) were tested. The athletes were 17 to 21 years old (mean ~18 years) and their experience in doing sport (training experience?) ranged from 4 to 8 years (mean ~6 years). Based on the level of expression of the masculine pattern all the athletes were divided into the following two groups:

- 1) SM – those with the strongly expressed masculine pattern (n=28);
- 2) WM - those with the weakly expressed masculine pattern (n=36).

The following questionnaire techniques were used:

> Psychological Gender Inventory – PGI (A. Kuczyńska), for independent measurements of the level of "masculinity" (maximum 75 points) and "femininity" (maximum 75 points) [6]. All the tested subjects were arbitrarily divided into the two groups according to the thesis that the influence of cultural schemes is associated more with the level of "masculinity" than with the level of "femininity." The SM group was composed of athletes scoring at least 55 points on the "masculinity" scale and the WM group was composed of athletes who scored 50 or less points on the "masculinity" scale.

> Measurement of the chance of success using the 0-10-point Thurstone-type scale. The tested subject estimated her chance of success on the no-numbers straight line: the closer to the 10 number, the higher the chance.

> Measurement of the self-evaluation of psychophysical abilities (talent, effort, predispositions) using two techniques:

- closed questions with cafeterias, from very high (5 pts) to very low (1 pt). The results ranged from 3 to 15 points (SOO<sub>1</sub>);
- linear continuous scales. The results range from 0 to 30 points (SOO<sub>2</sub>).

> The "Delta" questionnaire (R. Drwal), for measurements of the sense of internal control. The results range from 0 to 14 points. The higher the score, the lower the sense of internal control [2].

> The KA-TN scale (experimental version, H. Mroczkowska), for measurements of the motivation for achievements as the product of aspirations for success and the motivation to avoid failure. The results range from 11 to 55 points. The higher the score, the stronger the motivation to achieve success.

The results were statistically analysed using the Student's t test for independent trials [13].



## Results and Discussion

In Table 1 the numbers and percentages of the tested women with strongly and weakly expressed “masculine” stereotype versus their estimation of the chances of success are presented.

**Table 1**

Representation of the women with strong (SM) and weak (WM) “masculine” stereotype versus the estimation of their chances of success

Chances of success	Low (0-4 pts)	Moderate (5-7 pts)	High (8-10 pts)
SM women (n=28)	2 7.1	14 50.0	12 42.9
WM women (n=36)	13 36.1	18 50.0	5 13.9

In the group of women with the strongly shaped “maleness” 50% of the athletes regard their chances for success as moderate, ~43% - as definitely high, and only 7% - as low. In turn, 50% of the athletes with the weakly expressed “masculinity” also estimate their chances of success as moderate, but only ~14% and as many as 36% of the subjects regard these chances as high and definitely low, respectively. Apparently, ~95% of the SM female athletes expect a future success with a moderate and high probability and a similar fraction (~86%) of the WM athletes view such chances as moderate and low. In turn, it occurs from comparison of the scores on the 10-point scale of estimation of the chances of success that the mean values for the SM and WM groups equal to 7.8 and 4.3 pts, respectively, with the difference being statistically significant (Table 2). This means that athletes with a strongly developed “maleness” perceive their future success with the markedly greater probability than do their poorly “masculine” counterparts. Table 2 shows mean  $\pm$  SD values of the self-evaluation of own psychophysical predispositions and the estimations of the chances of success.

**Table 2**

Mean  $\pm$ SD values of self-evaluation and of the chances of success estimated in women with high and low level of "maleness"

Self-perception	SOO <sub>1</sub>	SOO <sub>2</sub>	Chances for success
SM women (n=28)	11.82 $\pm$ 1.69	24.02 $\pm$ 2.84	7.8 $\pm$ 1.4
WM women (n=36)	8.91 $\pm$ 1.49*	11.96 $\pm$ 2.71**	4.3 $\pm$ 1.2**

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

As indicated, the two measures of self-evaluation significantly differentiate women of various levels of "maleness"<sup>1</sup>. Female athletes with a strongly expressed readiness to use the "masculine" pattern rate their psychophysical features, efforts and capabilities in sport markedly higher than their counterparts with the weakly expressed "masculine" pattern.

Table 3 below presents mean  $\pm$ SD values measuring motivation to achieve regarded as the resultant of the motive of the hope to succeed and the motive of the fear of failure as well the sense of internal versus external control.

**Table 3**

Mean  $\pm$ SD values of the motivation to achieve and the sense of control in women of high and low level of "maleness"

	Motivation to achieve	Sense of control
SM women (n=28)	38.6 $\pm$ 7.2	4.5 $\pm$ 2.9
WM women (n=36)	29.3 $\pm$ 7.4***	5.3 $\pm$ 3.2

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

If the obtained results are interpreted based on the group norms then women with the pronounced "masculine pattern" will show a mixed tendency with respect to the motivation to achieve in which the motive to succeed and the motive to

<sup>1</sup>Free estimation of subjective self-perception scores on the linear SOO<sub>2</sub> scales appears to have greater discrimination power

avoid failure overlap. In turn, women with the poorly expressed "masculine" pattern present with the definitely anxiety motivation to achieve in which the motive to avoid failure significantly dominates the motive of the expectation of success. The differences between the two groups of women are statistically significant indicating that the SM athletes show the markedly more positive motivation to achieve than their WM counterparts.

With respect to the sense of internal versus external control no significant differences could be detected between the two groups of the tested women. Nonetheless, the subliminal values of  $t$  indicate that female athletes with a low level of "maleness" exhibit a slightly higher tendency to feel externally controlled than the athletes with the pronounced "masculinity". If the obtained crude results regarding the sense of control were interpreted based on the group norms then the two groups of the women would show the mixed tendency.

Based on the data presented above women who to a small extent use the "male" stereotype in their behaviour can be characterised as follows: Firstly, in the goal-oriented actions these women present the markedly lower self-evaluation of their psychophysical abilities giving evidence to the less pronounced self-confidence and self-trust compared to women utilizing the "masculine" stereotype. This is supported by the published results which, by refuting the commonly held view of women who - compared to men - express a lowered self-evaluation, suggest that - irrespectively of biological sex - the best self-esteem is expressed by people with the strongly developed "masculine" pattern [11,16]. Secondly, the lower self-evaluation in women with a weak pattern of "maleness" translates into the fainter perspective of the future success in sport. Compared to the women expressing a strong "male" pattern, for the WM athletes probability that their actions will succeed is subjectively markedly lower. Thirdly, athletes of the poorly shaped "masculine" pattern show the definitely more pronounced fearful motivation to achieve than their more "male" counterparts. This kind of motivation develops from fear of being placed in competitive situation, of the competitiveness itself as well as from perceiving the actions as threatening rather than conducive to arriving at the intended goal. According to coaches, in situations associated with a weak or moderate stress the differences in the level of functioning can be intangible. It is highly likely that the differences between the positively and the fearfully-motivated female athletes surface in circumstances associated with great tension and stress [4].

Another assumption of the theory of motivation implies that both the motivation to succeed and the motivation based on anxiety (avoidance of defeat) manifest themselves most profoundly in cases when an athlete aims at a realistic goal



accordingly to his or her own capabilities. By relating this assumption to the obtained data one can anticipate that women with the poorly shaped "maleness" tend to avoid moderately difficult tasks and prefer very simple or very complicated tasks. In other words, during athletic contest these women will opt for confronting either a much better or a much worse rival rather than an even one. Confronting a weaker opponent guarantees success whereas a loss to a champion is excusable, both in the eyes of the colleagues and by self-perception of the loosing athlete with the anxiety-based motive. By making such choices women of the weak "masculine" pattern and with the motivation to avoid failure deprive themselves of reinforcement through the lack of a strong sense of individual autorship. It is highly probable that female contestants presenting with the above described cognitive-motivational construct tend to explain the attained success by external influences and, when defeated, do not attempt to escape such as possibility in the future. In summary, the above regularities suggest that in a rivalry situation a woman without mental readiness to use the "masculine" pattern fares much worse than her counterpart presenting with a pronounced willingness to enjoy the man-like repertoire of behaviours.

(Caveat:) Owing to the small number of the subjects assayed in the present investigation as well as to limiting the choice of the athletes only to those representing combat sports, the described observations cannot be generalized and should be treated with caution.

## References

1. Bem S.L. (1981) Gender schema theory: A cognitive account of sex typing. *Psychol.Rev.* 88:354-364
2. Drwal R.Ł. (1979) Opracowanie Kwestionariusza Delta do pomiaru poczucia kontroli. *Studia Psychol.* 18:167-184 (in Polish)
3. Gill D.L. (1986) Competitiveness and competitive anxiety. In: *Psychological Dynamics of Sport.* Human Kinetics, Champaign, IL., pp.55-79
4. Halvari H. (1985) Relationship between motive to achieve success, motive to avoid failure physical performance. *Scand.J.Sports Sci.* 5:2
5. Hayes S.D., P.R.E.Crocker, K.C.Kowalski (1999) Gender differences in physical self-perception, global self-esteem and physical activity: Evaluation of the physical self-perception profile model. *J.Sport Behav.* 22:1-14
6. Kuczyńska A. (1992) Inwentarz do oceny płci psychologicznej. Pracownia Testów Psychologicznych PTP (in Polish)
7. Mroczkowska H. (1995) Predictors of psychophysical functioning of Polish Olympic athletes. In: *Proc. IX European Congress of Sport Psychology.* Part I, pp.481-487

8. Mroczkowska H. (2001) Task and ego motivation, evaluation of own possibilities and chances of success in women and men. *Phys.Educ.Sport* 3:299-308
9. Mroczkowska H. (2001) Percepcja szans sukcesu sportowego i jej psychologiczne implikacje dla kobiet i mężczyzn. *Med.Sportowa* 17:386-390 (in Polish)
10. Mroczkowska H. (2005) Cultural gender schemes vs. emotional parameters of men and women functioning in professional athletes. *Biol.Sport* 22:271-279
11. Nideffer R.M. (1992) *Psyched to Win. How to Master Mental Skills to Improve your Physical Performance*. Leisure Press, Champaign, IL.
12. Obmiński Z., H.Mroczkowska, R.Stupnicki (1995) Pre-exercise cortisol and testosterone levels in relation to selected psychoemotional variables in male and female junior rowers. *Biol.Sport* 12:43-48
13. Sokal R.R., F.J.Rohlf (1998) *Biometry*. 3rd Ed. W.H. Freeman & Co., San Francisco, CA.
14. Spence J.T., R.L.Helmreich (1981) Androgyny versus gender scheme: A comment on Bem's gender schema theory. *Psychol.Rev.* 88:365-368
15. Weiner B. (1985) An attributional theory of achievement motivation and emotion. *Psychol.Rev.* 92:548-573
16. Wing Yee Ho, R.C.M.Chan, S.S.C.Hui (2001) Comparing male and female college athletes global self-esteem and physical self-perception. W: A.Papaionnou, M.Goudas, Y.Theodorakis (eds.) Proc. 10<sup>th</sup> World Congress of Sport Psychology, ISSP, Greece, 4, pp.262-263

Accepted for publication 24.04.2007

