

MILTIADIS PROIOS¹, IOANNIS ATHANAILIDIS², KAROLINA WILIŃSKA³,
ARVANITIDOU VASILIA², PIOTR UNIERZYSKI³

¹ Department of Physical Education and Sport Science Aristotle University of Thessaloniki, Greece

² Department of Physical Education and Sport Science Democritus University of Thrace, Greece

³ University School of Physical Education, Poznan, Poland

MORAL DEVELOPMENT AND GENDER DIFFERENCES IN SPORT

Key words: moral reasoning, gender, sport.

ABSTRACT

The aim of this study was to investigate differences in moral reasoning between the two genders. The research sought to examine the development of moral reasoning according to the age, education level, training experience, sport type and the form of participation in sport for men and women separately. The participants were 441 persons (n = 315 men and n = 126 women), aged 14 to 33 years (M = 21.52, SD = 4.74), who were asked to fill the Defining Issues Test [58]. The results indicated that the differences between the genders in moral reasoning were not significant. Moreover, the results supported the mediatory role of age in moral development of both men and women, as well as in the effect of athletic experiences and the women's moral development. Deductively, the present study failed to support Gilligan's points of view on moral development concerning gender.

INTRODUCTION

Moral development has been studied diachronically through various models. The current dominating model is Kohlberg's structural-developmental model [68], according to which, theoretical attention is concentrated on age-related shifts in moral reasoning [43]. However, Kohlberg's theory was criticized for not dealing with the way morality can be perceived by women [30]. Carol Gilligan [30] claims that Kohlbergian hypothetical dilemmas which frame moral problems in terms of competing rights force some people to resolve hypothetical dilemmas in ways foreign to their natural modes of thinking; secondly, she also thinks that Kohlberg's method of coding these dilemmas does not sufficiently recognize the adequacy or maturity of these

alternate modes; and third that women and girls are more likely than men and boys to utilize these alternate modes of thinking.

Gilligan [30] in her interpretation of gender differences responsible for the development of a separate socio-cognitive model of development in women, borrowed evidence from Chodorow's neo-Freudian theory. According to Chodorow [19], the main effect of identity development and adoption of respective roles between the genders should be sought in the kind of experience acquired by a person through his or her relationship with his or her mother and not by working out interpersonal conflicts, as the orthodox Freudian theory claims [6]. Gilligan [30] asserts that moral reasoning in women tends to reflect care orientation (e.g., orientation reflecting an ideal of attachment, loving and being loved, listening and being listened to, and

responding, and being responded to), whereas men usually adopt justice in order to deal with moral dilemmas (e.g., justice orientation reflecting an ideal of equality, reciprocity, and fairness between persons). The above gender-related differentiation in moral reasoning (care-versus justice-oriented) was claimed to be evident [29], and it was asserted that care and justice imply different ways of judgment, the motives of which have different consequences [51, 54, 55]. Previous research in the social context suggested that there were gender-linked differences in moral maturity in boys/men and girls/women [21, 75].

Apart from forming their own opinions on the gender-related differentiation in moral reasoning, researchers have supported that gender differences in moral reasoning are quite controversial [77]. Overall, it seems that both genders display both justice and care orientations, and use them differentially, depending on a variety of contextual and background factors [38].

The existence of significant differences in moral maturity between the genders has been mentioned in other sport-related research as well [33, 69]. Bredemeier and Shields [13] investigated the existence of gender-related differences in moral stages. After examining 22 female and 24 male high school and collegiate basketball players, they found gender differences in moral reasoning. Gender differences have been referred to in more recent studies as well. More specifically, Kavussanu and Roberts [41], after examining 56 male and 143 female college basketball players aged 17 to 25 years, found significant gender differences in moral functioning (i.e., moral judgment, intention and behavior). Similar results were obtained in a study of 365 boys and 340 girls, aged 13 to 16 years [1]. Furthermore, in another study of 365 boys and 340 girls aged 15-16 years, gender-related differences in moral functioning (judgment, reasoning, intention and behavior) were also mentioned [46].

However, apart from the above mentioned references, research on gender-related differences in moral reasoning in sport contexts has been rather insignificant. Bredemeier and Shields in their [14] study examined differences in 50 high school students (non-athletes and basketball players) and 70 collegiate students (basketball players, swimmers and non-athletes) in their life and sport moral reasoning. Furthermore, Bredemeier examined differences between 42 girls and 64 boys

in their life and sport moral reasoning [11] and between 110 girls and boys in grades 4 through 7 [12].

According to the structural-developmental theory, human development is directly related to age. Data by age group show that individuals develop through time [65] and that changes occur in moral reasoning and behaviors given an interaction of maturation and knowledge which in turn is associated with education and social experience [43, 44, 52]. Gilligan et al. [38] proposed that gender differences in moral orientation emerge in early childhood and persist throughout the entire life.

Jantz [39] found that boys aged 5-7 years and 8-12 years exhibited great differences concerning the level of moral maturity. Conversely, in three other studies investigating children's moral reasoning, no difference was found between 8-11 and 12-13 year-old athletes [11, 17, 18]. However, studies by Jantz [39], Bredemeier et al. [17, 18], and Bredemeier [11] were constrained by the short age spans of young children so the relevance of the findings to competitive sports remains uncertain. Recently, Proios and Doganis [57], in a cross-sectional study using 418 males and 117 females aged 14-49 years, suggested that moral reasoning was moderated by age.

Data from longitudinal studies show that education plays a significant role in the development of moral reasoning [46, 47, 63]. Colby, Kohlberg, Gibbs, and Lieberman [22] reported that the relationship between moral judgment and education was statistically significant. In addition, Proios and Doganis in their [57] study maintained the mediatory role of education in moral reasoning.

Additionally, sport experiences, form of participation and type of sport constitute three factors related to sport, which could probably play a mediatory role in the development of moral reasoning. The factor of sport experiences was included in the present study on the basis of the viewpoint that experiences contribute to the humans' cognitive development [53] as well as due to the fact that many researchers maintain that sport builds character [26]. However, Proios, Doganis, & Athanailidis [58] revealed that the length of participation in sport as well as the type of sport and the form of participation do not significantly affect the development of moral reasoning. Similar

results have been reported in other studies as well. For example, Bredemeier and Shields [15], investigated relations between sports participation and maturity of moral reasoning, and showed no significant relationship between sports experience and moral growth of high school athletes. These results support the claim that sport by itself does not bring the expected positive psychological results in children [69]. While, as far as the effect of the type of sport on moral reasoning is concerned, differences were revealed only between team and individual sports [4, 15]. With regard to the influence of the form of participation on moral reasoning, no other findings have been mentioned.

Finally, the fact that moral reasoning can be regarded as a possibility of systematic thought during the resolution of one's moral problems, accounting for one's values and convictions, which, however, are not contrary to the others' and society's convictions in general, raised the interest of the authors of the present study.

The study aimed at an investigation of gender differences in moral development as it is believed that such an investigation can constitute an additional aid in the framework of moral instruction of youth in sports, since sport is considered a place where the development of the character's virtues can be achieved [70]. Moral instruction is a solution in the attempt to prevent antisocial behaviors presented in sport, but cannot be considered a panacea. However, researchers' interest in the study of moral development in sport has been limited [16].

Apart from investigating gender differences in moral development, other reasons underlying the present study included limited research on moral development and, more specifically, limited investigation of mediatory variables in the development of moral reasoning in sport contexts. The present study focuses on individuals of different ages and levels of education, with long training experience, representing different forms of participation (athletes, coaches, referees) in various sports.

An initial review of literature revealed that differences concerning gender in moral development are not clear. However, considering Gilligan's statements concerning the development of moral reasoning, we assumed that moral development between men and women would be significant. Secondly, it was maintained that age and education play a mediatory role in the development of moral reasoning, contrary to sport

experiences, form of participation and type of sport that did not exhibit any similar role. Thus the hypotheses were that age and education influence in a different way the moral reasoning of men and women, while sport experiences, form of participation and type of sport do not have any significant effects on moral reasoning.

The main purpose of the present research was to investigate the existence of differences in the level of reasoning in moral dilemmas of life between the genders. It was also aimed to examine the mediatory role of variables such as age, education, sport experiences, form of participation in sports and the type of sport in the moral reasoning of men and women. Within this frame, the above mentioned differences were investigated using the Defining Issues Test (DIT), which provides information on moral maturity between the genders. The DIT was used to study the developmental course of morality in the social context [60] as well as in sports [13, 56, 57, 58]. However, the number of studies that demonstrated significant differences between the genders has been vary low [64].

METHODS

Four hundred and forty-one subjects, men ($n = 315$) aged 14 to 33 years ($M = 22.01$, $SD = 5.30$), and women ($n = 126$), aged 15 to 33 years ($M = 20.45$, $SD = 2.81$) representing all levels of education: junior high school ($n = 43$), senior high school ($n = 186$), university ($n = 203$), graduate ($n = 9$), participated in the research. The participants were randomly selected from several areas of Northern Greece. They participated in sport activities as athletes ($n = 344$), referees ($n = 80$) and coaches ($n = 17$); in soccer ($n = 129$), volleyball ($n = 165$) and basketball ($n = 127$). The length of their sport experience ranged between 1 and 32 years ($M = 6.87$, $SD = 4.15$).

First, the participants were asked to provide information on a set of demographics, such as age, level of education (junior high school, senior high school, university, graduate), form of participation in sport (athletes, referees, coaches), type of sport they practiced (soccer, basketball, handball) as well as the length of their sport experience. Then, they were asked to fill in the Defining Issues Test (DIT) [59], which consisted of 6 stories describing ethical dilemmas. The Greek version of the DIT was used

[48], more specifically, a short version comprising three stories. The three stories in the short form (Heinz, Prisoner, Newspaper) were chosen on the basis of their having the highest correlation of any 3-story set with the full 6-story set [60]. Each story had 12 issues, and the respondents were asked to evaluate them on a 5-point scale, according to the importance he/she attributes to the dilemma. Then, the subjects considered a set of 12 items and ranked the four most important ones. The majority of these items correspond to the stages of moral judgment development [43]. From this ranking, a P score was derived as the sum of weighted ranks given to stage 5 and 6 items, which is the most used index from the DIT. This score was interpreted as the relative importance a subject gave to principled moral considerations in making a decision about moral dilemmas [62].

According to Rest, Narvaez, Mitchell, and Thoma [64], test-retest reliabilities for the P scores are generally in the high 0.70 s or 0.80 s. The Cronbach Alpha index of internal consistency is generally in the high 0.70 s, and it was calculated by determining a participant's stage score for each story, and then by checking the consistency of the stage score across all scenarios. In the present study, the internal consistency of the DIT was assessed using Cronbach's [23] alpha coefficient. The estimated alpha coefficient for the DIT was 0.73.

According to the DIT manual, there are two checks on the reliability of each subject's questionnaire. The first check is the M score [60]. The M items do not represent any stage of thinking but rather a tendency to endure statements on their pretentiousness rather than on their meaning. The second check on subject reliability is the so-called consistency check, which involves a comparison of a subject's rating with his/her ranking. Both checks were applied in the present study.

The participants had participated in organized sports performing different roles; thus, the procedure for the filling in of the questionnaire was different as well. First of all, the respective referees' associations were asked to give their permission for the referees' (soccer, handball, basketball) participation to the study. Then, a researcher came personally in contact with the referees at the office of each sport association. Those referees, who did not contact the researcher personally, were sent the questionnaires by mail. The number of the referees who participated in the study directly and indirectly was nearly the same.

Secondly, the coaches were asked by phone to give permission for their participation in the study. The researcher came in contact with those who agreed to participate at the training place, in order to have the questionnaire filled in. Finally, the team to which each athlete belonged was asked to grant permission to these athletes to participate in the study. The questionnaire was filled in at the training place of each athlete in the researcher's presence.

The SPSS ver. 12.0 was used for statistical analysis. Prior to analysis, descriptive statistical and correlation analyses were computed to test variables, while the alpha coefficient, as well as both the controls provided on the DIT were used to examine its reliability. To determine differences in moral reasoning according to gender a univariate analysis of variance (ANOVA) was conducted as suggested in the Defining Issues Test manual [64]. Finally, to examine the possible moderating role of age, education, sport experiences, type of sport and form of participation in predicting moral reasoning for men and women separately, multiple regression analyses were conducted.

RESULTS

The descriptive statistics (Table 1) revealed women's P scores of $M = 30.63$ ($SD = 13.92$) and men's P scores of $M = 28.84$ ($SD = 15.52$). A univariate analysis was used in order to test the significance of differences between mean P scores of men and women. Simple correlations were calculated to determine the relationships between gender and age, education, sport experiences, type of sport and form of participation. Participants' gender was positively related to the type of sport ($r = 0.34$, $p < 0.01$), form of participation ($r = 0.14$, $p < 0.01$) while it was negatively related to the age ($r = -0.15$, $p < 0.01$). A one-way ANOVA was conducted with P scores as a dependent variable and Gender as an independent variable. The results did not reveal any significant differences between men and women with regard to the P scores ($F(1,440) = 1.27$, $p > 0.05$; $M = 28.84$ vs. 30.63). In addition, effect sizes (ES) were calculated. Although the sample size was different the effect size was not significant ($ES = 0.01$). Cohen (1988) advocated that for the social and behavioral sciences an effect size (ES) of 0.2 was to be considered small, 0.5 – moderate, and 0.8 and above – large.

Table 1. Descriptive statistics for Gender on p scores

| Men (n = 315) | | Women (n = 126) | |
|---------------|-------|-----------------|-------|
| M | SD | M | SD |
| 28.84 | 15.52 | 30.63 | 13.92 |

Following Aiken & West [2], regression analyses of interaction for the age, education, sport experiences, type of sport and form of participation were used. Aiken & West note that regression is often more appropriate than ANOVA for natural sciences that involve measured variables and for unequal-cell-number cases as they appeared in the present study [42]. Furthermore, regression analysis allows for a test of expected interaction effects without the loss of information resulting from transforming a continuous variable into a dichotomous one, as well as in some other variables that are more continuous in nature (e.g., age, sport experiences) to be used without decreasing the variability.

It was hypothesized that age, education, sport experiences, type of sport and form of participation would affect the level of moral reasoning of men and women. Multiple regression analysis [74] was conducted to examine the possible moderating role of age, education, sport experiences, type of sport and form of participation in predicting moral reasoning of men and women.

Table 2. Multiple regression analysis (stepwise method) of Age, Education, Sport Experiences, Type of Sport and Form of Participation on Moral Reasoning

| Variable | R ² | B | t | p |
|-------------------|----------------|--------|-------|-------|
| Men | | | | |
| Age | 0.045 | 0.212 | 3.43 | 0.001 |
| Women | | | | |
| Age | 0.047 | -0.344 | -2.43 | 0.01 |
| Sport Experiences | 0.098 | 0.255 | 2.04 | 0.05 |

Multiple regression analyses using a stepwise method were performed on both men and women applying the input "Selection variable box and click Rule" to the variable Gender in the SPSS regression program. In both analyses the same predictor variables (age, education, sport experiences, type of

sport and form of participation) were used. The results (Table 2) for the men show that only age constitutes an adequate predictor for moral reasoning ($F(1,249) = 11.80, p < 0.001$), accounting for 5% of the variance. As regards women, the results once again showed that age constituted an important predictor of moral reasoning ($F(1,84) = 4.18, p < 0.05$), accounting for 5% of the variance. Moreover, it was found that sport experiences also constitute a predictor of moral reasoning in women ($F(1,83) = 4.63, p < 0.05$), accounting for 5% of the variance.

DISCUSSION

The main aim of the present study was to examine whether moral reasoning differs with regard to gender. In addition, the study also examined the role of age, education, sport experiences, form of participation in sport and type of sport in the shaping of moral reasoning of men and women separately.

The results did not confirm the initial hypothesis as they demonstrated that the differences in moral reasoning between men and women were not significant. This finding is similar to the results of other researches [11, 12, 14] who failed to find support for the Gilligan model. More specifically, the results of the present study did not support the statement that there are two different moral 'voices' – 'justice' and 'care' [22, 32] that direct individuals to the apprehension of moral problems in two different ways as well as to the adoption of different strategies of problem resolution. Although in the present study the justice and care orientations were not thoroughly evaluated in the context of gender differences, yet, on the basis of the statement that men and women perceive and resolve moral problems in different ways, significant differences in scores between the genders were expected.

The results of other studies show that regarding perceived sports participation, both caring and fairness traits were equally acceptable for any respective gender [40]. Jaffee and Hydy [38] in a meta-analysis of 113 studies on moral reasoning (160 independent samples measuring care and 95 measuring justice) came to the conclusion that care and justice orientations are not strongly gender differentiated. Moreover, this was also verified by Kohlberg's claim [45] that there are

no significant gender-based differences in moral reasoning, and that the issue remains quite controversial [3, 31, 34, 75, 76]. At the same time, the present research enhanced the assertion that sport is an environment that offers unique opportunities for a wide range of moral decisions which reflect both concepts related to the justice or fairness and considerations of care [27].

The fact that both concepts of justice and care can be developed within the context of sport might be the reason why no differences were revealed between the genders in the present research. A study examining the moral reasoning of professional female bodybuilders revealed that the subjects used both justice and care reasoning in their considerations of moral dilemmas encountered in the bodybuilding context [27]. On the contrary, another study acknowledged that individuals can employ both justice and care orientations, but asserted that only one of them (either justice or care) prevails in people's thinking [32].

The present study also examined whether such factors as education, age, length of training experience, form of participation in sport and type of sport exert an influence on the development of moral reasoning of men and women separately. The results partly confirmed the hypothesis that the moral reasoning of men and women is influenced by age and education. More specifically, age, contrary to education, was proved to play a clearer role in the development of moral reasoning for both men and women. The lack of significant relationships between moral reasoning and education on the one hand, and between moral reasoning and gender on the other, is contrary to the results of another study which showed that moral development differs with regard to the education level in individuals associated with sports [57]. In addition, it is contrary to the statement that the years of formal education are more intensely related to the development of moral reasoning [60]. Anyway, the relationship between moral reasoning and education level has been proven by trial and error [47, 61]. Additionally, in terms of the relationship between moral reasoning and education in others studies in sport contexts, no significant school-level (i.e. between children of different school ages) differences in either sport or life moral reasoning were found [9, 11]. In the researcher's opinion, these results could be attributed to the non-significant difference between the participants' chronological age. Therefore, the fact that there are

no clear findings confirming the influence of age and education level on moral reasoning in the sports context, does not permit us to compare those findings with the results of the present research.

The present study assumed that the form of sport participation can affect the modulation of moral development. The subjects being individuals participating in sports as athletes, referees or coaches can have different goals, values and principles. For example, a referee may perceive good performance as a combination of fairness in decision making, accuracy of judgments, and consistency [50, 78]; however, in the present study it did not seem to considerably influence the moral reasoning of men or women. This finding supports the results of another study which showed that the form of participation does not constitute a strong factor in the formation of moral development [56]. In addition, it contradicts Bredemeier's claim [10] that moral reasoning is affected by the character of the task. More specifically, she claims that some tasks can constitute neutral arenas, while some others may actually create or magnify gender-related responses.

Another objective of the present study was the formation of moral reasoning by each gender in relation to the type of sport. The results of the present study revealed no significant impact of the type of sport on both male's and females' moral reasoning. This result seems to be related to the findings of other studies that showed that differences in moral reasoning exist only between team and individual sports [4, 15].

Participation in sport is the way to acquire different values and life skills such as co-operation and teamwork [67, 73]. In addition, it constitutes an important learning environment with role-play learning and discipline regarding rules, regulations, and goals [5]. The main effect of sport experience on women's moral reasoning shown in the present research can be most likely attributed to the fact that the values of co-operation and teamwork are acquired more quickly by women than by men. According to Gill [28] such results can be expected because boys and girls are socialized differently into competitive sport. In the opinion of Bredemeier and Shields [14] however, the influence of sport on girls' moral reasoning development can be attributed to the different influence of sport commercialization on women than on men, to different career opportunities as well as to the way women's participation in sport is perceived in

individual cultures. The discovery of the main effect of sport experience on girls' moral reasoning demonstrates that girls are affected by the kind of experience, i.e. experience of their participation in sport, other than experience of their relation with their mother.

According to Shields and Bredemeier [70] differences in moral reasoning development in relation to gender should not be surprising. They are contributed to typical gender socialization and to the traditional role of sport in the socialization process; while men's moral reasoning may be more influenced by the egocentric aspects of competitive sport [7, 8]. However, the latter claim has not been confirmed in the present study. This supports the viewpoint that further research is necessary to examine these issues [70].

The finding of the present study concerning the influence of sport experience on women's moral reasoning partly asserts the opinion that sport builds moral character spontaneously [36, 69]. At the same time, this finding reveals that particular attention should be paid to the experience acquired by women during their participation in sports since this factor plays a decisive role in the development of their moral reasoning. On the contrary, the fact that no main effect of sport experience on men's moral reasoning was revealed enhances the assertion that the question whether sport can be used as a means of character development, needs to be examined by trial and error [36, 37, 69].

It can be concluded that the moral reasoning of life dilemmas does not entail significant gender-related differences. Gender is a factor that determines a different development of moral reasoning. Age constitutes a mediatory factor for the development of moral reasoning as well as the years of participation in sports but only in women. It is suggested that the present research should be expanded also to cover other sports (individual and team sports) so that we are able to arrive at a more integral view of gender-related differences in sport.

REFERENCES

- [1] Abrahamsen F.E., Roberts G.C., Moral functioning in youth soccer, (in:) R. Stelter, ed., *Proceeding of the XIth European Congress of Sport Psychology*, Copenhagen 2003.
- [2] Aiken L.S., West S.G., eds., *Multiple regression: Testing and interpreting interaction*, Sage, Newbury Park, CA 1991.
- [3] Baumrind D., Sex differences in moral reasoning: Response to Walker's (1984) conclusion that there are none, *Child Development*, 1986, 57: 511-521.
- [4] Beller J.M., Stoll S.K., Moral reasoning of high school student athletes and general students: Empirical study versus personal testimony, *Pediatric exercise Science*, 1995, 7: 352-363.
- [5] Bloom G.A., Smith M.D., Hockey violence: A test of cultural spill-over theory, *Sociology of Sport Journal*, 1996, 13: 65-77.
- [6] Brabeck M., Moral orientation: Alternative perspectives of men and women, (in:) P.T. Knowles and G.F. McLean, eds., *Psychological foundations of moral education and character*, University Press of America, Boston Way 1986.
- [7] Bredemeier B., Gender, justice, and non-violence. *Perspectives*, 1982, 9: 106-113.
- [8] Bredemeier B., Sport, gender and moral growth, (in:) J. Silva and R. Weinberg, eds., *Psychological foundations of sport and exercise*, Human Kinetics, Champaign, IL 1984, pp. 400-414.
- [9] Bredemeier B., Moral reasoning and the perceived legitimacy of intentionally injurious sport acts, *Journal of Sport Psychology*, 1985, 7: 110-124.
- [10] Bredemeier B., "And ain't I a woman" Toward a multicultural approach to gender and morality, *Quest*, 1992, 44: 179-209.
- [11] Bredemeier B., Children's moral reasoning and their assertive, aggressive, and submissive tendencies in sport and daily life, *Journal of Sport & Exercise Psychology*, 1994, 16: 1-14.
- [12] Bredemeier B., Divergence in children's moral reasoning about issues in daily life and sport specific contexts, *International Journal of Sport Psychology*, 1995, 26: 453-463.
- [13] Bredemeier B., Shields D., The utility of moral stage analysis in the understanding of athletic aggression, *Sociology of Sport Journal*, 1984a, 1: 138-149.
- [14] Bredemeier B., Shields D., Divergence in moral reasoning about sport and everyday life, *Sociology of Sport Journal*, 1984b, 1: 348-357.
- [15] Bredemeier B., Shields D., Moral growth among athletes and nonathletes: A comparative analysis, *The Journal of Genetic Psychology*, 1986, 147(1): 7-18.
- [16] Bredemeier B., Shields D., Moral assessment in sport psychology, (in:) J.L. Duda, ed., *Advances in sport and exercise psychology measurement*, Fitness Information Technology, Morgantown WV 1998, pp. 257-276.

- [17] Bredemeier B., Weiss M., Shields D., Cooper B., The relationship of sport envelopment with children's moral reasoning and aggression tendencies *Journal of Sport Psychology*, 1986, 8: 304-318.
- [18] Bredemeier B., Weiss M., Shields D., Cooper B., The relationship between children's legitimacy judgments and their moral reasoning, aggression tendencies and sport involvement, *Sociology of Sport Journal*, 1987, 4: 48-60.
- [19] Chodorow N., ed., The reproduction of mothering, University of California Press, Berkeley 1978.
- [20] Cohen J., ed., Statistical power analysis for the behavioral sciences (2nd ed.), Erlbaum, Hillsdale, NJ 1988.
- [21] Cohn L.D., Sex differences in the course of personality development: A meta-analysis, *Psychological Bulletin*, 1991, 109: 252-266.
- [22] Colby A., Kohlberg L., Gibbs J., Lieberman M., A longitudinal study of moral judgment, *Monographs of the Society for Research in Child Development*, 1983, 48: No. 1 (Serial No. 200).
- [23] Cronbach L.J., Coefficient alpha and the internal structure of tests, *Psychometrika*, 1951, 16: 297-333.
- [24] Davison M.L., The internal structure and the psychometric properties of the Defining Issues Test, (in:) J.R. Rest, ed., Development in judging moral issues, University of Minnesota Press, Minneapolis, MN 1979, pp. 223-245.
- [25] Davison M.L., Robbins S., The reliability and validity of objective indices of moral development, *Applied Psychological Measurement*, 1978, 2: 391-403.
- [26] Fejgin N., Participation in high school competitive sports: A subversion of school mission or contribution to academic goals, *Sociology of Sport Journal*, 1994, 11: 211-230.
- [27] Fisher L.A., Bredemeier B., Caring about injustice: The moral self perceptions of professional female bodybuilders, *Journal of Sport & Exercise Psychology*, 2000, 22: 327-344.
- [28] Gill D.L., Gender and sport behavior, (in:) T. Horn, ed., Advances in sport psychology (2nd ed.), Human Kinetics, Champaign, IL 2002, pp. 355-376.
- [29] Gilligan C., Woman's place in man's life cycle, *Harvard Educational Review*, 1979, 49: 431-466.
- [30] Gilligan C., In a different voice, Harvard University Press, Cambridge, Mass 1982.
- [31] Gilligan C., Remapping the moral domain: New images of self in relationship, (in:) T.C. Heller, M. Sosna and D.E. Wellberry, eds., Reconstructing individualism, Stanford University Press, Stanford, CA 1986, pp. 327-252.
- [32] Gilligan C., Attanucci J., Two moral orientations: Gender differences and similarities, *Merrill-Palmer Quarterly*, 1988, 34: 223-237.
- [33] Guivernau M., Duda J.L., Moral atmosphere and athletic aggressive tendencies in young soccer players, *Journal of Moral Education*, 2002, 31: 67-85.
- [34] Haan N., Processes of moral development: Cognitive or social disequilibrium? *Developmental Psychology*, 1985, 21: 996-1006.
- [35] Higgins A., Power C., Kohlberg L., The relationship of moral atmosphere to judgments of responsibility, (in:) W. Kurtines and J. Gewirtz, eds., Morality, moral behavior, and moral development, Wiley, New York 1984, pp. 74-108.
- [36] Hodge K.P., Character-building in sport: Fact or fiction? New Zealand, *Journal of Sports Medicine*, 1989, 17(2): 23-25.
- [37] Hodge K.P., Tod D.A., Ethics of childhood sport, *Sports Medicine*, 2001, 15: 291-298.
- [38] Jaffee S., Hyde J.S., Gender differences in moral orientation: A meta-analysis, *Psychological Bulletin*, 2001, 26: 703-726.
- [39] Jantz R.M., Moral thinking in male elementary pupils as reflected by perception of basketball rules, *Research Quarterly*, 1975, 46: 414-421.
- [40] Kalinske B., Mayer B.W., Chen K.L., Perceived benefits from participation in sports: A gender study, *Women in Management Review*, 2001, 16(2): 75-84.
- [41] Kavussanu M., Roberts G.C., Moral functioning in sport: An achievement goal perspective, *Journal of Sport & Exercise Psychology*, 2001, 23: 37-54.
- [42] Kleinbaum D.G., Kupper L.L., Muller K.E., Nizam A., eds., Applied regression analysis and other multivariable methods (3rd ed.), Duxbury Press, Pacific Grove, CA 1998.
- [43] Kohlberg L., Stage and sequence: The cognitive-developmental approach to socialization, (in:) D.A. Goslin, ed., Handbook of socialization theory and research, Rand McNally, Chicago 1969, pp. 347-480.
- [44] Kohlberg L., Moral stages and moralization: the cognitive-developmental approach, (in:) T. Lickona, ed., Moral development and behavior: theory, research and social issues, Holt, Rinehart & Winston, New York 1976, pp. 31-53.
- [45] Kohlberg L., ed., Essays on moral development: Vol. 2. The psychology of moral development, Harper & Row, New York 1984.
- [46] Lind G., The importance of role-taking opportunities for self-sustaining moral development, *Journal of Research in Education*, 2000a, 10: 9-15.

- [47] Lind G., ed., *Ist moral lehrbar? Ergebnisse der modernen moralpsychologischen forschung*, Logos-Verlag, Berlin 2000b.
- [48] Margoulis D., Political involvement and socio-moral reasoning: testing Emler's Interpretation, *British Journal of Social Psychology*, 1989, 28: 203-212.
- [49] Miller B.W., Roberts G.C., Ommundsen Y., Effect of perceived motivational climate on moral functioning, team moral atmosphere perceptions, and the legitimacy of intentionally injurious acts among competitive youth football players, *Psychology of Sport and Exercise*, 2005, 6: 461-477.
- [50] National Officiating Program, *Who are officials?* Canberra, Australia, Australian Coaching Council, 1999.
- [51] Nunner-Winkler G., Meyer-Nikele M., Wohlrab D., Gender differences in moral motivation, *Merrill-Palmer Quarterly*, 2007, 53(1): 26-52.
- [52] Piaget J., ed., *The moral judgment of the child*. M. Gabain, trans, Free Press (originally published 1932), New York 1965.
- [53] Piaget J., "Piaget's theory." In Carmichael's manual of child psychology, Vol. 1, edited by P.H. Mussen, Wiley, New York 1970, pp. 703-732.
- [54] Power F.C., Higgins A., Kohlberg L., eds., *Lawrence Kohlberg approach to moral education*, Columbia University Press, New York 1989.
- [55] Power F.C., Makogon T., *The just community approach to care*. *Journal for a Just and Caring Education*, 1995, 2: 9-24.
- [56] Priest R.F., Bridges J., eds., *Development of values and moral judgments of West Point cadets* (Office of Institutional Research Report), United States Military Academy, West Point, NY 1983.
- [57] Proios M., Doganis G., Influence of developmental characteristics age and education on moral judgment in team sport, *Perceptual and Motor Skills*, 2006, 102: 247-253.
- [58] Proios M., Doganis G., Athanailidis I., Moral development and form of participation, type of sport, and sport experience, *Perceptual and Motor Skills*, 2004, 99, 633-642.
- [59] Rest J., ed., *Development in judging moral issues*, University Of Minnesota Press, Minneapolis 1979.
- [60] Rest J., ed., *Manual for the Defining Issues Test* (3rd ed.), Center for the Study of Ethical Development, University of Minnesota, Minneapolis 1986.
- [61] Rest J., Thoma J.S., Relation of moral judgment development to formal education, *Developmental Psychology*, 1985, 21(4): 709-714.
- [62] Rest J., Narvaez D., eds., *Ideas for research with the DIT* (ver. 1.3). Center for the Study of Ethical Development, University of Minnesota, Minneapolis 1997.
- [63] Rest J., Davison M., Robbins S., Age trends in judging moral issues: a review of cross-sectional, longitudinal, and sequential studies of the Defining Issues Test, *Child Development*, 1978, 49: 263-279.
- [64] Rest J., Narvaez D., Mitchell C., Thoma S.J., eds., *Exploring moral judgment: A technical manual for the Defining Issues Test*. Center for the Study of Ethical Development, University of Minnesota, Minneapolis 1998.
- [65] Rest J., Deemer D., Barnett R., Spickelmier J., Volker J., Life experiences and developmental pathways, (in:) J.R. Rest, ed., *Moral development, advances in research and theory*, Praeger, New York 1986, pp. 28-58.
- [66] Rest J., Narvaez D., Bebeau M.J., Thoma S.J., eds., *Postconventional moral thinking: a neo-Kohlbergian approach*, Lawrence Erlbaum, New Jersey 1999.
- [67] Roberts G.C., Treasure D.C., *Children in sport*, *Sport Science Review*, 1992, 1: 46-64.
- [68] Salkind N.J., ed., *Theories of human development* (5th ed.), Pataki (in Greek), Thessaloniki 1997.
- [69] Shields D., Bredemeier B., eds., *Character development and physical activity*, Human Kinetics, Champaign, IL 1995.
- [70] Shields D., Bredemeier B., *Moral development and behavior in sport*, (in:) R.N. Singer, H.A. Hausenblas and C.M. Janelle, eds., *Handbook of sport psychology* (2nd ed.), Wiley & Sons, New York 2001, pp. 585-603.
- [71] Shields D.L., Bredemeier B., Gardner D., Bostrom A., *Leadership, cohesion, and team norms regarding cheating and aggression*, *Sociology of Sport Journal*, 1995, 12: 324-336.
- [72] Stephens D.E., Bredemeier B., *Moral atmosphere and judgment about aggression in girl's soccer: relationships among moral and motivational variables*. *Journal of Sport & Exercise Psychology*, 1996, 18: 158-173.
- [73] Smith R.E., Smoll F.L., eds., *Way to go coach: A scientifically proven approach to coaching effectiveness*, Warde Publishers, Portola Valley 1996.
- [74] Tabachnick B.G., Fidell L.S., eds., *Using multivariate statistics* (3rd ed.), Harper Collins College Publishers, New York 1996.
- [75] Walker L.J., *Sex differences in the development of moral reasoning: A critical review*, *Child Developmental*, 1984, 55: 677-691.
- [76] Walker L.J., *Sex differences in moral reasoning*, (in:) W. Kurtines, and J.L. Gewirtz, eds., *Handbook*

of moral behavior and development: Vol. 2, Research, Erlbaum, Hillsdale, NJ 1991, pp. 333-364.

[77] Walker L.J., Sexism in Kohlberg's moral psychology? (in:) W. Kurtines and J.L. Gewirtz, eds., Moral development: An introduction, Allyn & Bacon, Boston 1995, pp. 83-107.

[78] Weinberg R.S., Richardson P.A., Psychology of officiating, Leisure Press, Champaign, IL 1990.