

AGE AND EDUCATION IN MORAL JUDGMENT OF PARTICIPANTS IN TEAM SPORTS¹

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Summary.—The present aim was to investigate the effect of age and education on the moral reasoning of the same 535 individuals in sports for whom nature of sport experience was reported. All 535 participants (M age = 24.9 yr., SD = 8.3) were involved in sports at the time of the study as athletes (n = 342), referees (n = 145), or coaches (n = 48), and had a wide range of education. Analysis of variance of scores on the Defining Issues Test of Rest showed moral judgment in sports differs significantly amongst different age groups ($F_{5,510} = 5.37$, $p < .001$) and amounts of education ($F_{4,511} = 6.24$, $p < .001$). Generally, with more education, higher moral judgment can be expected. It is apparent that moral development in sport is related to age and education, as also holds for a wider social setting.

According to Bredemeier and Shields (1994) sports constitute a social reality wherein a large number of moral dilemmas are present. Moral dilemmas occur when people do not make decisions based on common moral principles in part because individuals are not always at the same stage of moral judgment. According to Kohlberg (1969), moral judgment develops in six stages, and at each stage there are qualitative differences in individuals' thought processes as observed in different age groups also. The stages are Preconventional level: Stage 1—Respect for power and punishment wherein the physical consequences of action determine goodness or badness regardless of the human meaning or value of these consequences. For Stage 2—Individualism and Exchange right action consists of what instrumentally satisfies one's own needs and occasionally the needs of others. For Conventional level: Stage 3—Good interpersonal relationship good behavior is whatever behavior pleases or helps others and is approved by them. At Stage 4—Maintaining the social order good behavior is what pleases or helps others and is approved by them. For Postconventional level: Stage 5—Social contract and individual rights right action tends to be defined in terms of general individual rights and standards which have been critically examined and agreed upon by the whole society. At Stage 6—Universal ethical principles right is defined by the decision of conscience in accord with self-chosen ethical principles that appeal to logical comprehensiveness, universality, and consistency.

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Kohlberg (1969, 1976) maintained that the differences in thought processes follow the same order of appearance in each individual. The stages of the development are characterized by hierarchical order wherein every stage depends upon, overlaps with, and reorganizes the previous one, thereby providing new perspectives and criteria, so that the individual can make moral evaluations. In other words, the elements of a moral judgment change as the person develops.

According to Kohlberg's cognitive-developmental theory (1969), human development is directly related to age. Data by age group show people developing over time (Rest, Deemer, Barnett, Spickelmeir, & Volker, 1986), and changes occur in moral reasoning and behaviors given an interaction of maturation and knowledge which in turn is associated with education and social experience (Piaget, 1932/1965; Kohlberg, 1969, 1976). Also, data from longitudinal studies showed education plays a significant role in the development of moral reasoning (Rest, Davison, & Robbins, 1978; Lind, 2000a). And, Colby, Kohlberg, Gibbs, and Lieberman (1983) reported that the relationship between moral judgment and education was statistically significant.

Although moral development plays a significant role in moral behavior (Blasi, 1980; Bredemeier & Shields, 1994), the developmental characteristics of age, education, and social experience have not attracted much attention of sports scientists (Kleiber & Roberts, 1981; Bredemeier & Shields, 1998). A number of studies have examined some characteristics of moral development in sports, one of which is the relationship of moral development and age. In particular, Jantz (1975) examined knowledge of basketball rules among 5- to 7-yr.-old boys and noted that their moral maturity was lower than that of boys of age 8 to 12 years. Conversely, in three other studies investigating children's moral reasoning, no difference was found between 8- to 11- and 12- to 13-yr.-old athletes (Bredemeier, Weiss, Shields, & Cooper, 1986, 1987; Bredemeier, 1994). However, the studies by Jantz (1975), Bredemeier, *et al.* (1986, 1987), and Bredemeier (1994) were constrained by the small age spans of young children so the relevance of the findings to competitive sports is uncertain.

In the sports literature, research related to moral judgment is rare. The few studies have dealt primarily with school and collegiate rather than competitive club sports. The aim of the present study was to examine age and education in the moral judgment of participants in competitive team sports. The hypothesis was that moral judgment in sport develops with age and education so with greater age and education, higher scores of moral judgment would be expected. The present analyses were performed on the same sample described by Proios, Doganis, and Athanailidis (2004) in presenting initial analyses closely related to the structure and nature of experience in sport.

METHOD

Participants

Ages of the 418 males and 117 females of Greek nationality ranged from 14 to 49 years ($M=24.9$, $SD=8.3$), and their education varied from junior high school, senior high school, university, through postgraduate work. Six age groups were formed (14–16, 17–19, 20–23, 24–27, 28–35, 36–49 yr.) to correspond to participants' ages or different amounts of education (ages 14–27 years) to the initial stages of professional orientation (ages 28–35) and to professional establishment (ages 36–49). Similar age groups have been tested by Rest (1976, 1986) and Lind (2000a). The subjects participated in soccer, team handball, or basketball as athletes ($n=342$, $M=20.2$ yr., $SD=4.0$), referees ($n=145$, $M=32.6$ yr., $SD=7.2$), or coaches ($n=48$, $M=35.6$ yr., $SD=5.6$).

Materials

All subjects were asked to complete the Defining Issues Test (Rest, 1979), which consists of six stories describing ethical dilemmas. In the present study, the Greek version was used (Markoulis, 1989) and specifically, the short version of three stories (Heinz, Prisoner, Newspaper). Every story relates to 12 moral issues, which the subject is asked to rate on a 5-point Likert scale according to the importance attributed to the dilemma. The participant considers the set of 12 items and ranks the four most important. From this ranking, a P score is derived, which is the sum of weighted ranks given to Stages 5 and 6 items, and has been the most often used index. This score corresponds to the relative importance a person attributes a moral decision, based on principled moral considerations (Rest, 1986). In addition, it is recommended that, when the distinction of moral judgment is required, the following P score ranges should be used, "low" for 0–27.9, "medium" for 28.0–45.0, and "high" for 45.1 and up (Rest, Narvaez, Mitchell, & Thoma, 1998).

Procedure

The procedure for the completion of the questionnaires began when researchers contacted the athletes and coaches in their training sports installations and the referees in their administrative offices. Before contact, the appropriate permission for the cooperation of the athletes and trainers was requested and granted by the leagues and corresponding authorities for the referees. A small number of questionnaires were mailed only to referees, as they could not be contacted personally. No participant was compensated for taking part in the study.

Statistical Analysis

For the statistical analysis of data the SPSS Version 10.0 was used. Two

separate univariate analyses of variance were performed for each independent variable, as suggested in the technical manual for the Defining Issues Test (Rest, *et al.*, 1998).

RESULTS

Age

Examination of mean P scores showed differences amongst the age groups. Means and standard deviations of the variables examined in the present study are reported in Table 1. These aggregated data do not show a clear trend between the development of moral judgment and age.

TABLE 1
MEANS AND STANDARD DEVIATIONS FOR P SCORES BY AGE AND EDUCATION

		<i>n</i>	<i>M</i>	<i>SD</i>
Age, yr.	14–16	60	21.9	10.6
	17–19	127	28.4	14.1
	20–23	126	33.3	16.2
	24–27	48	28.7	12.9
	28–35	112	31.1	16.0
	36–49	62	27.4	14.3
Education	Junior high school	53	19.5	11.1
	Senior high school	188	28.7	14.0
	University	265	31.0	15.3
	Postgraduate	29	34.4	17.5

The hypothesis was that moral development increases across age groups so a univariate analysis of variance was applied to check for statistically significant differences in mean P scores by age group. The results confirmed statistically significant differences among age groups ($F_{5,510} = 5.37, p < .001$). Effect sizes (ES) estimated power as moderate ($ES = .05$) between sample sizes of the age groups. A Tukey's *post hoc* analysis showed significant differences for the age group 14–16 yr. versus the age group 20–23 yr. ($M = -11.44, p < .001$) and the age group 28–35 yr. ($M = -9.22, p < .005$).

Education

With regard to education, the examination of mean P scores showed there were differences amongst the educational groups (see Table 1). The mean of the P scores for junior high school students was 19.5 ($SD = 11.1$), for the senior high school students was 28.7 ($SD = 14.0$), for the university 31.0 ($SD = 15.3$), and for the postgraduate group 34.4 ($SD = 17.5$).

A one-way analysis of variance confirmed the statistically significant differences on mean P scores ($F_{4,511} = 6.2, p < .001$). Effect sizes indicated a moderate difference ($ES = .05$) between these education groups, given their sizes. A Tukey's *post hoc* analysis showed that the differences were between indi-

viduals with junior high school education and postgraduate education, and university and senior high school, respectively ($M = -14.8$, $p < .01$, $M = 9.2$, $p < .01$). The highest mean P score in the first comparison was that for those with postgraduate education and, in the second, that of those with a university education.

DISCUSSION

The present study examined differences in moral reasoning scores of individuals whose participation in sports was examined previously. They were classified into groups by age and education. Since studies relying on the cognitive developmental model necessitate examination of changes by age (Rest, *et al.*, 1986), the present study examined these. Analysis confirmed the hypothesis that there would be age group differences on the P score of the Defining Issues Test with an increase in mean P scores from age groups 14–16, 17–19, and 20–23 years, which may be attributed to these participants being in the education system throughout (Rest & Thoma, 1985; Walker, 1986). During early adulthood (24–35 years), P scores remained unchanged, perhaps reflecting that most people do not continue their formal education. This finding is consistent with the claim that moral development may reach a plateau at the beginning of adulthood (Rest, 1979), but, for adults (36–49 years), there was no increase in mean P scores, expected from cognitive-developmental theory (Kohlberg, 1969, 1976). This finding is congruent with previous research conducted by Dortzbach (1975) and Coder (1975), who observed no improvements in moral development in age groups older than forty years. Although Rest (1979) referred to these studies, he does not agree with this inconsistency related to age and moral reasoning but attributed it to the lower education of these adult participants. This latter claim does not hold for the present study as education of the adult participants was high (university and above 32.3%, senior high school 58.8%, and junior high school 8.9%). Apparently, moral judgment may develop in concert with general social development (Rest, *et al.*, 1986). However, in sports, there are no similar studies for comparison with present findings.

The claim by Rest (1979) that moral development may reach a plateau at the beginning of adulthood agrees with present findings. Overall mean age changes suggest that in these sports, as in the broader social setting, moral judgment changes across groups as education also increases. Longitudinal studies confirm the pattern of results in settings other than in sports (Rest & Thoma, 1985; Walker, 1986; Lind, 2000b). However, these researchers also noted that despite support for a relation of moral development with education, the theoretical significance is not clear, as there may also be other influences. For instance, these effects may be attributed to the relationships with others. Rest, Cooper, Coder, Masanz, and Anderson (1974) claimed

that persons often make moral judgments under the influence of judgments of other people. In sport, however, few studies have addressed that issue, so the above results have not been confirmed (Bredemeier, *et al.*, 1986; Bredemeier, 1994). This absence of significant differences in sport by age groups yet in school as reported in some studies (Bredemeier, *et al.*, 1986; Bredemeier, 1994), may reflect a too narrow chronological age span of the participants.

The present conclusion agrees with cognitive developmental theory and is consistent with moral reasoning of people involved in sport developing across age and education groups as in wider social settings. Researchers should also compare athletes, coaches, and referees involved in individual and team sports to provide better understanding of the effect of different socialization patterns, inherent in individual and team sports, on the moral judgment of participants.

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