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ABSTRACT

The purpose of this study was to compare the relative merits of two causal models in which moral reasoning, sex, and social class were used to predict classroom behavior problems. Model A implied that conduct problems would decline linearly as moral maturity increased. Model B implied that the lowest as well as the highest levels of moral maturity would be associated with fewer conduct problems, and posited a curvilinear association. Participants were 60 rural Virginia fourth- and eighth-grade students, 33 boys and 27 girls, most from lower-class families. Subjects were assessed for moral reasoning with Kohlberg's interview method and Standard Issue Scoring. Teachers independently rated classroom conduct with the Conduct scale of the Behavior Problem Checklist. Two path analyses were conducted to test the merits of the respective models. Results did not support Model A, but accorded well with Model B. Higher social class standing, being female, and scoring toward either extreme of the moral maturity continuum all contributed independently to a reduced incidence of teacher-rated conduct problems. When the 28 subjects who exhibited more than 10 percent Stage 1 reasoning were removed from the analysis, results accorded well with the more linear findings of other investigations. Over 40 references are cited.
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Moral Reasoning and Classroom Conduct:

A Closer Look

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Running Head:

Moral Reasoning and Conduct

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Abstract

The purpose of the study is to compare the relative merits of two causal models in which moral reasoning, sex, and social class were used to predict classroom behavior problems. Model A implied that conduct problems would decline linearly with increasing moral maturity. Model B, that lowest as well as highest levels of moral maturity would be associated with fewer conduct problems. 60 rural fourth- and eighth-graders (33 boys and 27 girls), most from lower class families, were assessed for moral reasoning using Kohlberg's interview method and Standard Issue Scoring. Teachers independently rated classroom conduct. Two path analyses were conducted to test the merits of the respective models. The results failed to support Model A; they accorded well with Model B. Higher social class standing, being female, and scoring toward either extreme of the moral maturity continuum all independently contributed to a reduced incidence of teacher-rated conduct problems.

Moral Reasoning and Classroom Conduct:

A Closer Look

Kohlberg's (e.g., 1981, 1984) theory of moral development is intriguing in that stage structures are purported to exert an indirect influence on behavior extending across situational contexts. In a comprehensive review of 75 studies linking moral development to behavior, Blasi (1980) found that more than three quarters contained evidence of significant relationships. The strongest were reported in studies that compared delinquent youngsters to nondelinquents (delinquents used lower levels of moral reasoning). Although not every investigator detected the theoretically expected effects, Blasi concluded that there was "considerable support for the hypothesis that moral reasoning and moral action are statistically related" (p. 39).

In some of the studies cited by Blasi, the relationship between moral development and the classroom conduct of children was examined. In the oldest of these, Kohlberg's (1958) dissertation, the moral reasoning of fourth-, seventh-, and tenth-grade boys was found to correlate with teacher ratings of fairness and conscientiousness, and with peer ratings of moral character. Similar relationships were observed in later research linking moral reasoning to peer judgments of cooperation, helping, consideration of others, sharing, and defending victims of injustice (Harris, Mussen and Rutherford, 1976). Children's conceptions of distributive justice, an important component of moral maturity, have also been linked to teacher ratings of

honesty, leadership, generosity, sensitivity, gregariousness, friendliness, and humor (Damon, 1975).

Since Blasi's review, moral maturity has been linked to classroom observations of successful resolution of social interactions among first graders (Enright & Sutterfield, 1980) and to teacher ratings of the prosocial behavior of preschoolers (Eisenberg, Cameron, Pasternack & Tryon, 1988). In a study of sixth graders, Bear and Richards (1981) reported that conduct problems, as rated by teachers, declined monotonically with advances in moral reasoning--a decline that was evident even when the effects of sex, social class, and IQ were statistically controlled. More recently, growth in moral reasoning following classroom moral discussions was found to coincide with a decrease in behavior referrals, tardiness, and police/court contacts (Arbuthnot & Gordon, 1986). Finally, the sociomoral reasoning of sixth-grade boys was found to be related to self-reports of socialized aggression and conduct disorders once verbal ability and social class were controlled (Bear, in press).

In sum, Blasi's contention that moral reasoning exerts an important influence on behavior has received support in studies of classroom behavior. It is tempting to conclude that moral maturity contributes to improved classroom conduct, though to a modest degree. But such a conclusion may be premature. In none of the cited studies was this notion tested across Stages 1, 2, and 3--the three that dominate the thinking of school-age

children. In all cases in which recent versions of Kohlberg's scoring system were used, only Stages 2 and 3 were well represented. Though the hypothesis that moral behavior improves monotonically as a function of stage is certainly plausible, it has been demonstrated with Stage 1 subjects only in laboratory experiments involving cheating (Kohlberg & Candee, 1984).

An alternative hypothesis is consistent with the findings cited so far. It can be argued on the basis of structural considerations that Stage 1 as well as Stages 3 and 4 reasoning will inhibit classroom misconduct. Stages 1 and 2 are both pre-conventional, but there are major structural differences between them. Stage 1, though egoistic, entails obedience to a superior power and avoidance of punishment. A child reasoning at Stage 1 would likely have a "trouble-avoiding set" (Kohlberg, 1984, p. 44.). In classrooms with clearly defined, routinely enforced rules, such heteronomous reasoning would predispose a Stage 1 child to defer to a teacher's authority and inhibit misbehavior.

Like Stage 1, Stage 2 thinking is contingent on the situational context. But the instrumental exchange perspective would contribute to greater variability among children and less conformity to teacher expectations. In a classroom context, this "look out for me and I'll look out for you" style of reasoning often translates into "you hit me and I'll hit you back, tease me and I'll tease you." For this reason, classroom misconduct at the pre-conventional level would be more associated with Stage 2

than Stage 1. If this argument is valid, conduct would deteriorate as youngsters advanced from Stage 1 to Stage 2, then improve again as they consolidated their thinking at the conventional level.

Whichever of these two hypotheses is entertained, the consistent finding that classroom conduct (and other behaviors) improve as children restructure and consolidate their reasoning at the conventional level (in most cases, Stage 3) is entirely consistent with Kohlberg's theory. For conventional reasoners, the valuation of societal norms is less situation specific than at earlier stages. Conventional reasoners understand normative expectations, engage in more empathic role taking, express prosocial intentions, and experience feelings of guilt (Kohlberg, 1981). Inside the classroom, this more mature form of reasoning encourages orderly behavior (Bear & Richards, 1981). Outside, it differentiates delinquents from nondelinquents because it serves as a cognitive buffer against antisocial influences and temptations (Gibbs, Arnold, & Cheesman, 1984).

To summarize, there are two competing ideas about how moral reasoning might influence classroom conduct. The first, call it Hypothesis A, is that moral conduct continuously improves with advances in moral maturity (Kohlberg, 1984; Candee & Kohlberg, 1987). Like other aspects of cognitive development, good behavior and developmental maturity are intertwined. In this view, Stage 1 children would be the worst behaved; conventional

children the best. The second, Hypothesis B, is predicated more on Stage 1 structural considerations. Conduct would deteriorate as youngsters move from Stage 1 to Stage 2, then improve once again as they consolidate their thinking at the conventional level (Stages 3 and 4). In this view, the relationship between development and conduct is curvilinear--the least and the most mature children would be the best behaved.

A number of exogenous variables also influence classroom behavior, moral reasoning, or both. For example, social class standing is a predictor of both classroom conduct and moral development. Although findings are inconsistent, there is some evidence that middle and upper class children are better adapted to school than lower class children (Rutter & Garmezy, 1983); in general, teachers find them better behaved. Likewise, there are significant correlations between social class indices and moral development (Colby, Kohlberg, Gibbs, & Lieberman, 1983; Colby & Kohlberg, 1987); the higher the social class, the more advanced the moral reasoning.

Another key variable is sex. There is overwhelming evidence that girls are less likely to misbehave at school than boys (Center & Wascom, 1987; Cullinan, Polloway, & Epstein, 1987; Drabman, 1987; Eme, 1979; Greiger & Richards, 1976). Though some writers (e.g., Baumrind, 1986; Gilligan, 1977, 1982; Holstein, 1976) have argued that gender-related socialization practices also influences the manifestation of moral reasoning (presumably,

girls and women tend to score at Stage 3 on Kohlberg's dilemmas), there is little direct evidence that this is so--at least when education, social class, and occupational choice are controlled (Walker, 1984). In the absence of data to the contrary, we will assume that when social class is controlled, stage of moral reasoning tends to be independent of sex.

Finally, moral development is age-related (Colby et al., 1983). Since older children are found in higher grades in school, grade should also be positively correlated with developmental indices of moral reasoning. We know of no theoretical or empirical reason to expect, however, that children in higher grades would be better (or worse) behaved in class than those in lower grades.

According to theory and the empirical literature, then, moral maturity should be positively influenced by social class standing (higher social class implies greater maturity) and grade in school (older children should be more advanced than younger), but not by sex. Classroom conduct should vary as a function of sex (girls tend to be better behaved than boys), social class (children of higher social class tend to behave better than lower), and moral development. If Hypothesis A is valid, conduct problems should decline monotonically with advancing moral maturity. The collection of these causal hypotheses will be referred to Model A. A structural diagram illustrating this model is shown in Figure 1. Signs indicate the direction of

relationship. For example, the consequence of higher social class would be fewer conduct problems.

Insert Figure 1 about here

If Hypothesis B is valid, moral maturity is not a unitary continuum, but an amalgam of qualitatively distinct kinds of reasoning. The prevalence of either conventional (high moral maturity) or heteronomous (low moral maturity) reasoning, not moral maturity per se, would inhibit the occurrence of conduct problems. Fewer conduct problems would be associated with extremes of moral maturity. Social class and sex would influence conduct in the same manner as in Model A. Model B represents the causal hypotheses that reflect this line of reasoning. A structural diagram of Model B is shown in Figure 2. The term "folded" refers to absolute deviations from predominantly Stage 2 reasoning. None of the exogenous variables (Sex, Grade, or Social Class) should be correlated with the folded continuum.

Insert Figure 2 about here

Method

Subjects

Subjects were drawn from the 4th and 8th grades of two elementary schools and one high school located in a rural western Virginia county. Although every social class was represented,

the students were predominantly from low income homes (57% were lower class; 35% middle; 8% upper). All were white. Following an initial screening of more than 150 students to insure optimal variability on the construct of interest (viz., moral reasoning), 60 youngsters, 31 fourth-graders (18 boys and 13 girls) and 29 eighth-graders (15 boys and 14 girls) remained in the study.

Measures

Social class. Social class (SES) standing was determined on the basis of parental occupation. The various occupations were indexed according to the Warner Revised Occupational Rating Scale (Warner, Meeker and Eells, 1964). The Warner consists of seven occupational categories with assigned values ranging from 1 to 7. The major criteria used to rate occupations are the skill requirements and social prestige of the job. To facilitate interpretation, the Warner scale was inverted directionally from the customary scoring. That is, higher scores were used to designate higher social class standing.

Moral Reasoning. Moral reasoning was assessed according to the procedures and protocols published in Volumes I and II of the Standard Issue Scoring Manual (Colby & Kohlberg, 1987; Colby, Kohlberg, Speicher, Hewer, Candee, Gibbs, & Power, 1987). We used Form A. In this assessment, three moral dilemmas are presented that entail six moral issues: life and law (e.g., should Heinz steal a drug to save his dying wife?), punishment and conscience (e.g., should a judge sentence Heinz for stealing

the drug?), and contract and authority (e.g., should Joe refuse to give his father money he earned so that his father could go on a fishing trip?).

Scores indicating the "proportions" of reasoning at Stages 1, 2, 3 or 4 were obtained by applying the standard scoring protocols to the interview data (See Colby et al., 1987). From these proportions, two kinds of scores were obtained: Moral maturity scores and modal reasoning scores. Moral maturity scores represent a weighted average of stage proportions across all the issues of the interview. In theory, moral maturity scores can range from 100 (pure Stage 1 reasoning) to 500 (pure Stage 5). (As a practical matter, little reasoning above Stage 3 and none above Stage 4 is likely to be found with children and early adolescents.) Details about how these scores are computed can be found in Colby & Kohlberg (1987). A modal score indicates the stage most typically exhibited throughout the interview. That is, it denotes the subject's "major" stage of reasoning.

Conduct problems. Teacher ratings of conduct were obtained from the Behavior Problem Checklist (Quay & Peterson, 1979). The reliability and validity of the checklist has been demonstrated repeatedly (Kauffman, 1977; Martin, Hooper, & Snow, 1986), and factor analytic studies have consistently revealed three dimensions of problem behaviors: Conduct, personality, and inadequacy-immaturity (Greiger & Richards, 1976; Werry & Quay, 1971; Gajar & Hale, 1982). The 17 items of the conduct scale

(e.g., "disruptiveness", "tendency to annoy and bother others", "fighting", "disobedience", "difficulty in disciplinary control", "profane language", etc.) reflect aggressive conduct commonly associated with poor interpersonal relationships (Quay, Routh, & Shapiro, 1987). Elevated scores on the conduct scale also have been associated with academic underachievement (Glavin & Amesly, 1971), delinquency recidivism (Mack, 1979), and cheating on experimental tasks (Lueger, 1980).

Procedures

The procedures were nearly identical to those described by Bear and Richards (1981). Prior to formal individual assessment of moral reasoning, potential subjects were screened through the written form of Kohlberg's interview. To minimize difficulties caused by reading problems, the instructions, dilemmas, and related questions were read aloud in each class by a male research assistant. Results of the screening were used to target children who would likely score at all relevant stages of moral reasoning. In this manner, the broadest variation in moral reasoning scores was ensured by identifying a sufficient number of children likely to score at the extremes.

The selected children were orally administered the Moral Judgment Interview, Form A. The interviews were conducted by a male graduate student in a separate room during school hours at a time convenient to the teachers. (The student who conducted the interviews and scored the protocols was trained in scoring by

someone who had completed a workshop in Kohlberg's scoring system at Harvard's Center for Moral Education.) Each subject's answers were recorded verbatim. The interview transcripts were then coded and scored according to standard instructions given in the Scoring Manual (Colby et al., 1987). Once all the data were scored, interview responses from 12 randomly selected subjects were independently evaluated by a second individual. The interjudge correlation for the moral maturity scores was .94.

Finally, classroom teachers were asked to assess each of their students on the Conduct scale of the Behavior Problem Checklist. Teachers rated these behaviors at about the same time as the moral development interviews were conducted. They were not aware of the results of the interviews or the prescreening assessment. The conduct problem ratings obtained from teachers proved to have a high internal consistency ($\alpha = .90$).

Data Transformations

In accordance with Model B, moral maturity scores were "folded" so that subjects at the extremes would be assigned high scores. This was accomplished by subtracting the mean (viz., 230) from each score and taking the absolute value of the resulting difference. For example, a subject with a moral maturity score of 133 would have a folded score of 97 (the absolute value of $133 - 230$); someone with a 300 would have a folded score of 70 (the absolute value of $300 - 230$).

Only the conduct scale of the Behavior Problem Checklist was used. Conduct problem ratings were computed by summing across the appropriate 17 items of the checklist. Although there is evidence that such ratings are reliable and valid, they produce highly skewed distributions in normal populations. For this reason, less skewed conduct problem category scores were obtained. Categories were assigned in the following manner: a "1" was assigned for conduct problem ratings of 0 or 1; a "3" was assigned for ratings of 2, 3, or 4; and a "5" was assigned for ratings greater than 4.

Results

Path analysis (Asher, 1976; Keith, 1988) was the statistical technique used to determine which of the two causal models accord better with the data. According to Model A (recall Figure 1), moral maturity, social class, and sex (being female) should reduce the prevalence of conduct problems. The model also predicts that grade in school and social class will positively influence moral maturity, and that grade will not influence conduct once the effects of moral maturity are controlled. According to Model B (Figure 2), moral maturity will not influence conduct in a linear fashion. Rather, only the folded scale (together with social class and sex) should affect the incidence of conduct problems. In other respects, the two models generate similar predictions.

Preliminary Analysis

Means, standard deviations, and the intercorrelations among the variables are shown in Table 1. Some preliminary analyses were also conducted to determine if linkages not depicted in the respective models were, in reality, absent (or nearly so). For example, Model A was based in part on the assumption that grade in school (4th or 8th) will not directly influence conduct problems (CP). The plausibility of this assumption can be tested by examining the partial correlation between grade and conduct with the effects of social class (SES), sex, and moral maturity (MMS) controlled. It was also assumed that sex would bear little relationship to moral maturity and the three exogenous variables (sex, grade, and SES) would not be intercorrelated. The relevant zero-order and partial correlations are shown in Table 2. As can be seen in the table, none of the coefficients is statistically significant (nor do any exceed .15). Thus, the data accord well with the restrictive assumptions of Model A.

Insert Tables 1 and 2 about here

A parallel analysis was conducted to test the restrictive assumptions of Model B. As with Model A, it was assumed that the exogenous variables would be uncorrelated, that grade would be uncorrelated with conduct when sex, social class, and moral reasoning were statistically controlled, and that folded moral maturity scores (MMS-folded) would be uncorrelated with the

original moral maturity scale, sex, grade, or social class. The relevant partial and zero-order correlations are also shown in Table 2. As can be seen, all the tabled coefficients are of small magnitude (the highest is .10) and none is significant. As was true for Model A, the data accord well with the restrictive assumptions of Model B.

Path Analysis

Two restricted structural equations were used to generate the Model A path coefficients: (a) moral maturity (MMS) was regressed on grade and social class (SES); (b) conduct problems (CP) on sex, SES, and MMS. One structural equation was used to generate the Model B path coefficients: (c) CP was regressed on sex, SES, and folded moral maturity (MMS-folded). A summary of these equations, a parallel set of unrestricted equations, and the resulting multiple correlations are shown in Table 3. As can be seen in the table, little additional variance is accounted for by relaxing the restrictive assumptions of either model.

Beta weights for the restricted structural equations were used to estimate path coefficients for both models. They are shown in Figures 3 and 4. As can be seen in Figure 3, the two exogenous variables are positively linked to moral maturity (as expected), social class and sex are negatively linked to conduct problems (as expected), but moral maturity bears virtually no linear relationship to conduct (beta = -.01). The latter finding is at variance with the hypothesis that moral maturity tends to

reduce the incidence of conduct problems. Thus, in this respect, the data do not support Model A.

Insert Table 2 and Figures 3 & 4 about here

The path coefficients in Figure 4 accord well with the predictions of Model B. The sign of every coefficient is in the direction predicted, and all are significant. More importantly, sex, social class, and the folded moral maturity scale each independently contribute to the reduced occurrence of conduct problems. Taken together, the three indices account for a sizable chunk of the conduct problem variance--more than 38% ($R = .62$). By way of contrast, the three indices of Model A only account for about 23% ($R = .47$).

Discussion

Model B provides a better accounting of the conduct problem variance than Model A. Contrary to the position held by Kohlberg (1984), our data suggest that sociomoral reasoning and conduct are not linearly related--at least when there are many low level reasoners in the sample. But when we excluded the 28 subjects who exhibited more than 10% Stage 1 reasoning from the analysis, moral maturity proved to be a an good predictor of conduct ($r = -.50$). With these subjects removed, our results accord well with the more linear findings of other investigations (e.g., Bear, in press; Bear & Richards, 1981).

Most of the research reviewed by Kohlberg and Candee (1984) was based on adult samples in which little Stage 1 reasoning was exhibited. Only two studies--one by Simpson and Graham, the other by Krebs and Kohlberg--included Stage 1 children. Both were studies of cheating at games in laboratory settings; both yielded similar findings. Cheating was most prevalent among Stage 1 children. But most of these low level reasoners probably cheated because "the authority gave no indication that the usual requirements would be enforced" (Kohlberg and Candee, 1984, p. 552). There were neither penalties for dishonesty nor rewards for honesty. More importantly, from the perspective of Stage 1 youngsters, there were no concrete rules to guide behavior. Since Stage 1 reasoners lack moral autonomy (in the sense implied by Piaget, 1948), it is easy to understand why cheating was so rampant in the absence of explicit sanctions.

But conditions were very different at the three schools in the present study. There were clearly stated rules of classroom conduct and well publicized sanctions for violators. Moreover, the teachers had received assertive discipline training (Canter & Canter, 1976). Good behavior, then, was consistent with the structural qualities of Stage 1. Children who still exhibited a great deal of Stage 1 (scored less than 175 on the moral maturity scale) may have behaved themselves for all the wrong reasons--out of deference to authority or avoidance of punishment--but they caused little classroom disruption.

By way of contrast, our Stage 2 reasoners were pragmatically opportunistic. As theory would predict, they were not impressed by authority and less inclined to follow rules. And, since justice would not be viewed as immanent (again, in the Piagetian sense), their behavior would be less regulated by fear of punishment. Since immediate reinforcement and peer-oriented reciprocity would be the most salient considerations, the rewards of classroom misconduct would outweigh the risk of authority-imposed punishment. For this reason, children who displayed the most serious conduct problems also exhibited a great deal of Stage 2 reasoning (scored between 175 and 275 on the moral maturity scale).

Finally, the improved behavior of children who reasoned at higher levels (those who scored above 275) can plausibly be attributed to an increasing respect for the rights of others, a greater concern for pleasing the teacher, a developing sense of responsibility, and an emergence of internalized standards of conduct (viz., guilt). In highly structured settings such as the classrooms in the present study, guilt and fear of punishment appear to be equally powerful motivators. Thus, compliance with the rules of classroom conduct may or may not be due to moral maturity. More than behavioral data are needed to decide if good conduct is the result of conforming to externally imposed sanctions or respecting the rights of others.

As children move beyond the lower levels of moral reasoning there is likely to be a temporary deterioration of classroom conduct. This trend should be reversed, however, as they consolidate their reasoning at the conventional level (Stages 3 and 4). For teachers interested in facilitating moral thinking, a great deal of patience is required. Encouraging moral development is not the most direct route to a peaceful classroom. But it is the surest. For once young people truly understand the limitations of preconventional thinking, it is likely they will choose for themselves acceptable standards of conduct. As conventional moral thinking emerges, the need for explicit rules, authority-backed sanctions, and watchful behavior management programs declines.

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Table 1

Means, Standard Deviations, and Intercorrelations

Variable	Mean	SD	MMS	Sex	Grade	SES	CP
MMS-Folded	43.97	25.69	.07	.02	.10	.04	-.42**
MMS	230.10	51.24		.15	.40**	.35**	-.18
Sex	1.45	.50			.06	-.09	-.31**
Grade	5.93	2.02				-.10	.00
SES	2.73	1.76					-.33**
CP	3.07	1.73					

**p < .01 (one tailed test)

Table 2

Zero Order and Partial Correlations Indicating the
Appropriateness Model A and Model B Restrictive Assumptions

Variables	Controlling for:	Correlation
<u>Exogenous</u>		
Sex with Grade		.06
Sex with SES		-.09
Grade with SES		-.10
<u>Model A</u>		
Sex with MMS		.15
Grade with CP	Sex, SES, MMS	-.01
<u>Model B</u>		
MMS with MMS-Folded		.07
Sex with MMS-Folded		.02
Grade with MMS-Folded		.10
SES with MMS-Folded		.04
Grade with CP	Sex, SES, MMS-Folded	.04

Note. If model assumptions are valid, all tabled values should approach zero.

*p < .05

Table 3

Mutliple Regression Summaries for Model A and Model B
Structural Equations

Criterion	Predicted From:	R	R ²
<u>Model A (Restricted)</u>			
(a) MMS	Grade, SES	.56**	.32
(b) CP	Sex, SES & MMS	.47**	.23
<u>Model A (Unrestricted)</u>			
(a) MMS	Sex, Grade, SES	.59**	.34
(b) CP	Sex, Grade, SES & MMS	.47**	.23
<u>Model B (Restricted)</u>			
(c) CP	Sex, SES, & MMS-Folded	.62**	.38
<u>Model B (Unrestricted)</u>			
(c) CP	Sex, Grade, SES & MMS-Folded	.62**	.38

*p < .05

**p < .01

Figure 1
Causal Model A

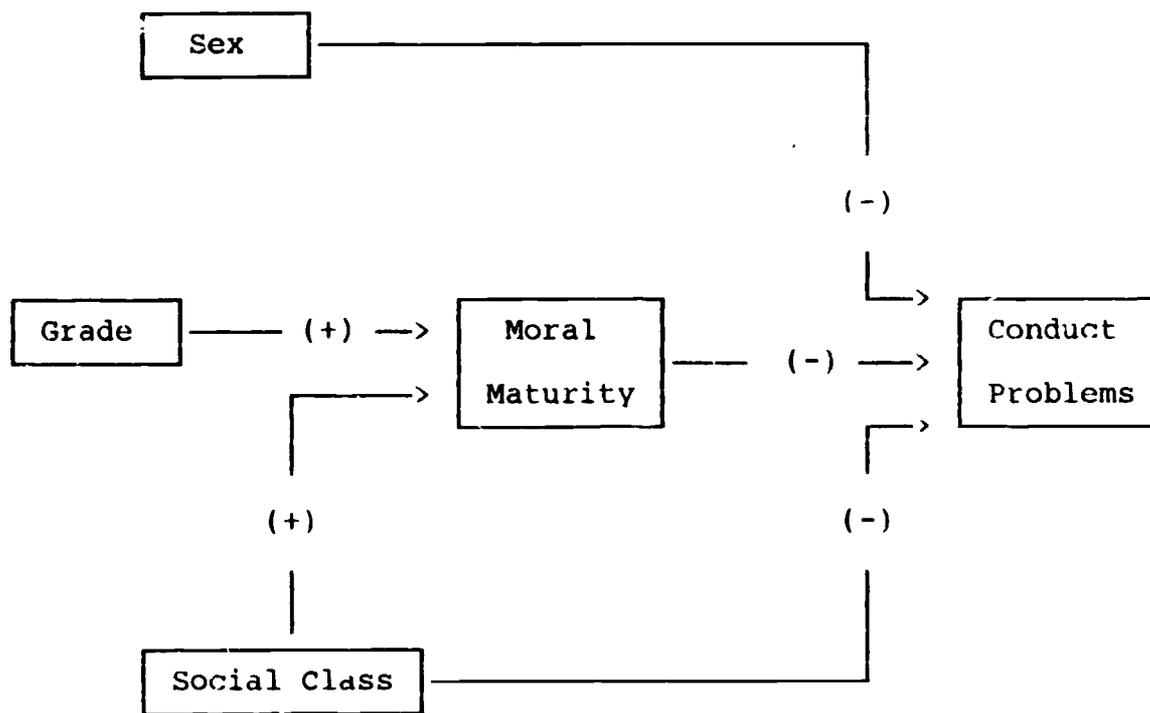


Figure 2
Causal Model B

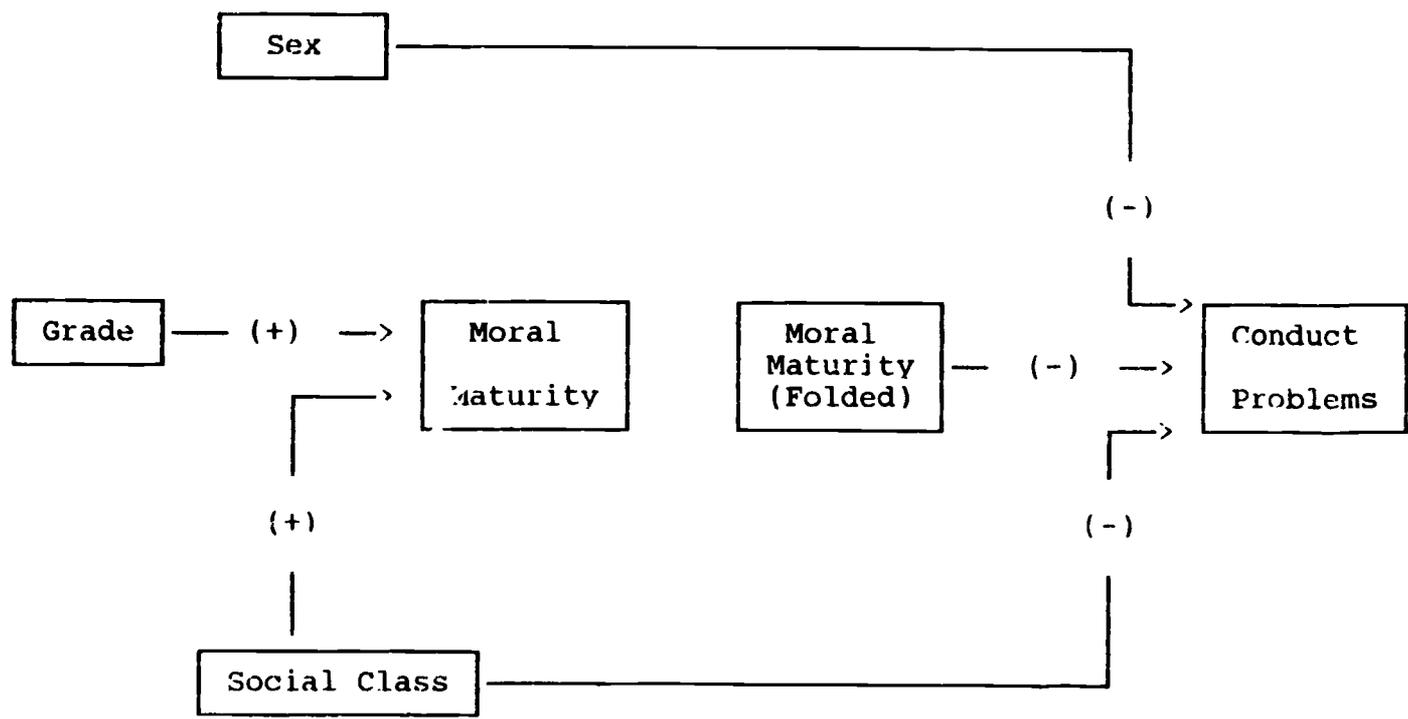


Figure 3

Model A Path Coefficients

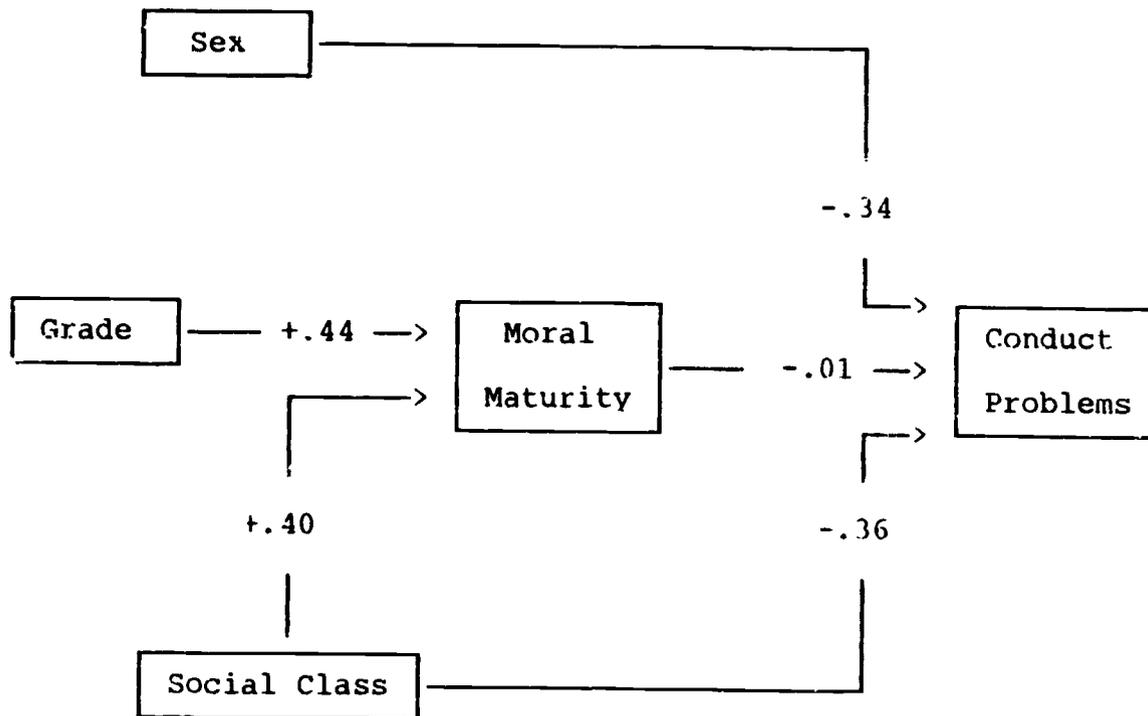


Figure 4

Model B Path Coefficients

