THE RELATIONSHIP OF MORAL REASONING TO CONDUCT PROBLEMS AND INTELLIGENCE

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Abstract

The purpose of this study was to determine the way Kohlberg's stages of moral reasoning is related to conduct problems and intelligence. According to Kohlberg's theory of moral development, children functioning at the preconventional level of moral reasoning (stages 1 and 2) have an orientation based on their self interest and the consequences of their actions. Their viewpoint is both egoistic and hedonistic. On the other hand, children reasoning at the conventional level (stages 3 and 4) realize that group interests, rules, and expectations are more important than the instrumental desires of the individual. They are oriented to please and help others, and to maintain the social order. It follows that children at the conventional level should be more inclined to exhibit adaptive classroom behaviors than those children at the preconventional level since their more advanced reasoning is likely to be based on the accepted standards and rules set forth by the school. One would also expect more intelligent children to be advanced morally, since both intelligence and moral reasoning involve similar cognitive processes. Kohlberg believes that brighter children should also demonstrate greater variability in their moral reasoning. If correct, then a curvelinear relationship should be found between the two traits. This study tested the following hypotheses:

Hypothesis 1. Children functioning at the higher stages of moral reasoning display fewer conduct problems in the classroom than those functioning at the lower stages. Furthermore, higher stage children exhibit less variability in their conduct.

Hypothesis 2. Children with higher intelligence tend to employ higher stages of moral reasoning than those with lower intelligence. More specifically, the relationship between moral reasoning and intelligence is curvilinear. The relationship is strongly positive with children of lower intelligence, but near zero with children of higher intelligence.

Furthermore, an exploratory objective which has less bearing on Kohlberg's approach but nevertheless is of broader interest is to determine if moral reasoning is related to the personality problem and inadequacy-immaturity dimensions of behavior.

Subjects were 60 sixth-grade students in a central Iowa city. Moral reasoning was assessed by Kohlberg's Moral Judgment Interview, Form A. The vocabulary scale of the Stanford Achievement Test was used as a measure of intelligence. Conduct problems, personality problems, and inadequacy-immaturity were assessed by teacher ratings on the Behavior Problem Checklist and SES information was obtained by use of the Warner Revised Occupational Rating Scale.

Hypothesis 1 was tested by an an analysis of covariance (controlling for intelligence, SES, and sex) and Bartlett's test of homogeneity. The hypothesis was supported: conduct problems were found to systematically decrease in frequency and variability with increasing moral maturity.

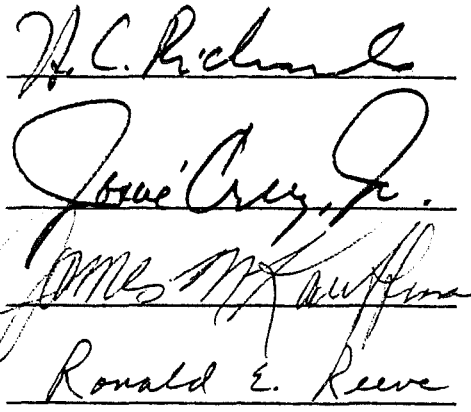
Hypothesis 2 was partially supported. A one-way analysis variance and a Scheffé multiple comparison procedure revealed that children with higher intelligence were morally advanced. However, an analysis of covariance revealed no significant differences after the influences of SES and sex were adjusted for. Variability in moral reasoning

scores was similar across levels of intelligence. The relationship was found to be linear, not curvelinear.

Moral reasoning was found not to be related to the personality problems and inadequacy-immaturity dimensions of behavior.

It was concluded that although the relationship found between moral reasoning and behavior was not strong, but of moderate magnitude, the findings do suggest that the use of Kohlberg's approach may be worthwhile, particularly when one considers that the other values and moral curriculum programs used in the schools have essentially no empirical foundation.

The dissertation by George G. Bear II, Relationship of Moral Reasoning to Conduct Problems and Intelligence, hereby stands approved by:



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Chapter 1
Introduction

The study of moral development and moral education has received increased attention in America during the past decade. This renewed interest has been precipitated by a concern about such social and moral issues as capital punishment, the Viet Nam war, Kent State, abortion, Watergate, drugs, and crime. Although for centuries philosophers have studied "why" man behaves morally or immorally and have argued at length about what constitutes "moral" behavior, it has not been until recent years that empirical research has examined the area of moral development and extended this research to the classroom. The most notable exceptions to the scarcity of research prior to the 1960's were the classical studies of moral character conducted by Hartshorne and May (1928, 1929, 1930). Hartshorne and May concluded that traditional moral instruction, consisting essentially of direct teaching of "good" and "bad" behavior, had little influence upon the moral conduct of students. The attendance of character education classes, Sunday School, and Boy Scout membership had negligible effects on moral behavior as measured by specific tests of honesty. Behavior was shown to be mainly situationally determined. A general character trait of honesty was not found; the way an individual behaved during one situation was not predictive of his behavior in another situation.

Educators and researchers have continued to challenge the effectiveness of traditional methods of moral education. Foremost among the critics of the direct inculcation method of teaching moral values is Lawrence Kohlberg (1968, 1969, 1975). According to Kohlberg, in order for moral education to be effective it needs to redirect its focus from the teaching of moral knowledge (as was the focus of the Hartshorne

and May studies) to the development of moral reasoning, which is seen to follow a developmental sequence of hierarchial stages, each higher stage dependent upon its predecessor. The role of the moral educator is to facilitate each child's progression through the stages. To assist the educator, Kohlberg and his followers have produced many articles, books, filmstrips, and workshops describing specific strategies to use in translating Kohlberg's work into a viable classroom approach to moral education. Although the effectiveness of the "Kohlbergian" approach has not been demonstrated (Rest, 1974), it continues to receive widespread attention in the literature and is frequently advocated in many nontechnical articles. As will be shown in the sequel, application may be premature.

In emphasizing moral reasoning, Kohlberg adopts a deontological position, i.e., he focuses on the "intent" and not the consequences of behavior. As such, he emphasizes the principles of justice, equality, and fairness; he stresses the concept of "right versus wrong" rather than "good versus bad" (Aron, 1977). Although Kohlberg emphasizes moral reasoning and not moral behavior, he does not view one as functioning independently of the other. In fact, he has maintained that moral reasoning is "the single most important or influential factor yet discovered in moral behavior" (1964, p. 50). Intuitively, one would expect a linkage between the two, and would expect the relationship to be evident in the classroom. According to Kohlberg's theory, children functioning at the preconventional level of moral reasoning (stages 1 and 2) have an orientation based on their own self interest and the consequences of their actions. Their viewpoint is both egoistic and hedonistic. On the other hand, children

reasoning at the conventional level (stages 3 and 4) realize that group interests, rules, and expectations are more important than the instrumental desires of the individual. They are oriented to please and help others, and to maintain the social order. It follows that children at the conventional level should be more inclined to exhibit adaptive classroom behaviors than those children at the preconventional level since their more advanced reasoning is likely to be based on the accepted standards and rules set forth by the school. Furthermore, because the preconventional viewpoint is based on heteronomy (i.e., external morality), preconventional children should exhibit greater variability in their behavior than conventional level children who are more autonomous in their functioning.

As will be evident in Chapter 2, research has not tested the above arguments which are logically derived from Kohlberg's theory. Although several studies have indicated that the most advanced stages of moral reasoning (stages 5 and 6, which appear only during adulthood, if then) are empirically related to moral behavior, no research has yet demonstrated that preconventional and conventional stages of moral thought are linked to conduct in the classroom.

The rationale for the present study is based on the belief that before educational material is introduced into a school's curriculum, something should be known about its probable effects on children's behavior. Kohlberg himself maintains that before a moral education program is implemented in the classroom, research must demonstrate that moral thought is related to observable behavior (Kohlberg & Turiel, 1971). Nearly everyone agrees that the development of reason is vital to the growth of each individual, but so is social conduct. Classroom

teachers, overwhelmed with misbehavior problems, prefer to see specific observable changes in social behavior rather than indirectly detect the less observable changes in the child's ability to reason morally. Documentation that advanced moral reasoning is related to fewer behavior problems in the classroom would provide much needed support for the usefulness of Kohlberg's recommendations for the classroom.

The purpose of the present study is to examine the association between moral reasoning and behavior problems in the classroom. In particular, attention will be focused on conduct problems, something in which most teachers are interested. It is predicted that upper elementary school children who display many conduct problems in the classroom are likely to employ lower stages of moral reasoning than children who exhibit fewer such problems. The converse would also be true -- children exhibiting few conduct problems should be more inclined to employ conventional moral reasoning (higher stage reasoning for this age group). Because it is likely that any relationship found between moral reasoning and conduct can be attributed to the effects of other factors that may covary with moral reasoning and conduct, the predicted relationships are examined both before and after the influences of intelligence, socioeconomic status, and sex are controlled.

Before proceeding, it is important to mention that the present study is not intended to help validate Kohlberg's theory generally, for the target behaviors are not presumed to be "immoral," per se, although some philosophers would agree that several of them (e.g., stealing, fighting, disruptiveness, disobedience, and swearing)

are "immoral" by their very nature. Rather, the behaviors studied are those that concern most teachers, those which frequently interfere with everyday classroom instruction. However, finding a relationship (or, conversely, no such relationship) between moral reasoning and behavior would have some bearing on the validity of the overall theory of moral development since the link between antisocial behavior and moral reasoning can be logically inferred from the theory. Although the construct validity of the theory would be enhanced by demonstrating the link between stage of moral reasoning and conduct, the primary purpose of the present study is to generate information bearing on the usefulness of such an approach for understanding the etiology of classroom conduct problems and effectively reducing them.

The relationship between moral reasoning and intelligence is another aspect of Kohlberg's theory needing clarification. Because both moral reasoning and intelligence involve cognitive processes, these two variables should be found to be empirically related. Moral reasoning requires social judgment, linguistic ability, logical reasoning, and related skills commonly measured by intelligence tests. As stated by Hoffman (1977, p. 28):

> One could reasonably expect more intelligent children to be less concrete and more flexible in their thinking, possess a higher level of conceptual ability, and have greater insight into the social processes than less intelligent children, and that these factors should have a significant impact on their perceptions and evaluations of moral issues.

One would not only expect brighter children to be more advanced morally, but they should also be more variable in their moral reasoning. Kohlberg (1969) believes this is true because persons of low intelligence are restricted to lower stages of moral reasoning, whereas persons of high intelligence are able to consider a wide variety of moral responses; consequently, their responses are less predictable. If correct, then a curvilinear relationship should be found between the two traits. There should be a strong linear correlation between intelligence and moral reasoning with subjects of below average intelligence, but there should be little, if any, relationship between the two traits with brighter subjects.

Generally, studies have found a moderate correlation between intelligence and stage of moral reasoning. Correlations have ranged from .02 to .55, but have typically been in the .30's, supporting a contention of Kohlberg's that although linked to intelligence, moral reasoning "is not simply general verbal intelligence applied to moral problems" (Kohlberg, 1969, p. 391). However, researchers (including Kohlberg) have not tested for curvilinearity. If the relationship can more adequately be approximated by a curvilinear function, then it is possible that the linear coefficients reported have grossly underestimated the true degree of the relationship. An objective of the present study is to test for the curvilinear trend that should exist if Kohlberg's hypothesis is correct.

Although the relationship of moral reasoning to conduct problems and intelligence is the primary focus, the relationship between moral reasoning and both personality problems and inadequacy-immaturity will also be explored as well. Little is known about such a relationship,

but it is expected that a negative association between moral reasoning and inadequacy-immaturity problems will be found since both are age related -- moral reasoning advances and inadequacy-immaturity declines with age. Children judged to be inadequate and immature would be expected to use less mature moral reasoning. Furthermore, because conduct problems are more directly linked to moral reasoning, it is expected that moral reasoning will be more related to conduct problems than to personality problems or inadequacy-immaturity.

In summary, the primary hypotheses to be tested are as follows:

Hypothesis 1: Children functioning at the higher stages of moral reasoning display fewer conduct problems in the classroom than those functioning at the lower stages. Futhermore, higher stage children exhibit less variability in their conduct.

Hypothesis 2: Children with higher intelligence tend to employ higher stages of moral reasoning than those with lower intelligence. More specifically, the relationship between moral reasoning and intelligence is curvilinear. The relationship is strongly positive with children of lower intelligence, but near zero with children of higher intelligence.

Finally, an exploratory objective which has less bearing on Kohlberg's approach but nevertheless is of broader interest is to determine if moral reasoning is related to the personality problem and inadequacy-immaturity dimensions of behavior.

Chapter 2
Review of the Literature

For many decades, theorists have attempted to explain how a child moves from an amoral stage of morality to an understanding of the social order, or to principled thinking. These attempts to explain moral development have emanated mainly from theorists representing the fields of psychology, philosophy, education, and sociology. In order to provide a greater understanding of how man becomes a "moral being," Kohlberg incorporated many earlier theorists' ideas into his own cognitive-developmental theory of moral development. The thoughts of such eminent intellectuals such as Immanuel Kant, J.M. Baldwin, G.H. Mead, and to a much larger extent John Dewey and Jean Piaget, are all reflected in his theory. Thus, many of the ideas propounded by Kohlberg have already been advocated by several outstanding theorists. Indeed, he has referred to many of his expressed ideas as "largely warmed-over Dewey" (Kohlberg, 1972, p. 14). Likewise, it has been noted that in the development of his six popular stages of moral development, Kohlberg's goal was to "retain the best of Piaget's schema and fit it into a more refined, comprehensive, and logically consistent framework," (Hoffman, 1970, p. 276). Several key assumptions of Kohlberg's theory, e.g., (a) moral development progresses through invariant stages, (b) changes in stages are qualitative, not quantitative, (c) progression through the stages requires cognitive stimulation, and (d) social interaction facilitates the reorganization of earlier psychological structures, were first espoused by both Dewey and Piaget (Kohlberg, 1975). Kohlberg adopted these and other assumptions, and by refining and

expanding earlier theories, he developed a much more comprehensive and practical theory of moral development.

Kohlberg's Six Stages

Kohlberg's six stages of moral development were derived basically from his doctoral dissertation (Kohlberg, 1958), during which he interviewed 72 middle-class and lower-class boys (ages 10, 13, and 16). By analyzing his subject's answers to ten moral dilemmas, Kohlberg was able to delineate three levels of moral reasoning, each level consisting of two stages. Since their original development, the stages have continually been modified as new data are examined. The three levels and the corresponding six stages of moral reasoning are commonly cited in the literature as follows:

Preconventional level (stage 1 and 2). The preconventional level is often referred to as the "premoral" level because actions are usually based on self-interest and the consequences of action. The individual's viewpoint is both egoistic and hedonistic. This level of reasoning is characteristic of most children below the age of 10, although some adolescents and many law offenders reason at this level.

Stage 1: punishment and obedience orientation. At this stage behavior is based on its physical consequences: good behavior is that which is rewarded and bad behavior is that which is punished. The individual does not understand the meaning of the consequences but unquestioningly accepts the superior power of those who administer them. Compliance is not based out of respect for the moral order, but on avoiding punishment. The intentions of others are not considered.

Stage 2: instrumental relativist orientation. Reasoning at this

stage is largely hedonistic and instrumental in perspective. Actions are mainly based on the child's own benefit, although the child may occasionally act to satisfy the desires of others that he cares about. The beginnings of reciprocity appear; however, the reciprocity is not based on loyalty, gratitude, or justice. Reciprocity is pragmatic: "you look out for me, and I'll look out for you." Hence, reciprocity is essentially based on the exchange of favors. Behavior is comparable to that of the market place. The individual realizes that right is often relative since each person has his own interests.

Conventional level (stages 3 and 4). The majority of adolescents and adults in all societies operate at this level. Individuals at this level consider social order as being a more important basis for behavior than reward or punishment. Behavior is based on conformity to social expectations and on the maintenance of the social order of one's family, religious group, nation, or other group. Behavior is based not just on conformity to social expectation, but on a loyalty to it and a sense of belonging to the social order. At this level one identifies with a group or society and with its rules, and seeks approval from its members. A concern for the welfare of others exists.

Stage 3: interpersonal concordance or "good boy-nice girl" orientation. At stage 3, moral reasoning is based on approval from others and pleasing and helping others. One trys to be "nice" or "good" in order to gain approval. The individual conforms to societal standards and expectations not because he necessarily identifies with the institutions of law and society, but because he is aware that group interests, laws, and expectations are more important than

individual interests. He conforms to stereotypical behavior of the group. Behavior based on reciprocity or equality is considered as being just. For the first time, the individual considers the intentions of others: whether or not a person "means well" is now important. Hence, one follows the "concrete Golden Rule" by putting oneself into the other person's shoes.

Stage 4: law and order orientation. At stage 4, the individual now considers himself a member of society, not just a participant as in stage 3. Right behavior is behavior that follows society's fixed rules and contributes to society or the group. Rules are followed and authority is obeyed in order to maintain the social order. However, laws can be violated under extreme circumstances if they conflict with more important fixed social duties.

Postconventional level (stages 5 and 6). The postconventional level is considered the level of principled thinking. At this level reasoning is based on principles that the individual has thought through and adopted. These principles may not be the same as those of the group to which the person identifies. In order for one to accept society's laws and values, the individual's values and principles must not conflict with those of society. Right behavior is that which is rational. This level of moral reasoning is rarely obtained by adolescents, and is obtained by only a few adults.

Stage 5: social-contract legalistic orientation. At this stage, law is no longer perceived as being fixed, but as being subject to change for social utility. One orients to principles beyond law and order. However, laws are obeyed because one has made a social contract to do so. Laws are valued that protect individual rights;

if they do not, they should not be obeyed, but should be changed. Equality and democracy are highly valued. The United States government and the Constitution are examples of stage 5 functioning.

Stage 6: universal ethical principle orientation. Stage 6 is often considered the stage of "principled thinking" and "individual conscience." One personally chooses to adopt ethical principles that have logical comprehensiveness and universality. Individualism is emphasized, individual principles are valued more highly than laws. These principles are always abstract and ethical, such as the "Golden Rule" and Kant's "Categorical Imperative." These principles are based on universal justice, fairness, equality, and the dignity of all individuals.

Key Assumptions of Kohlberg's Theory

Kohlberg maintains that his cognitive-developmental theory of moral development has the following inherent characteristics:

1. The six stages form an invariant sequence of progression in morality. All individuals progress step-by-step, never skipping a stage, from stage 1 to higher stages. No individuals regress to earlier stages, although some individuals may become fixated at a certain stage.

2. Stages are structural wholes. Changes in moral reasoning reflect qualitative changes in cognitive structures. Each higher stage integrates reasoning at lower stages. Individuals prefer reasoning at the highest level of which they are capable.

3. The invariant sequence of stages is universal. All cultures value the same principles of justice, equality, and respect for human dignity. Cultural factors play a minor role in moral development.

4. Social interaction and participation in the social structure are necessary for advanced moral reasoning.

5. Cognitive development is necessary, but not sufficient, for stage progression. Piaget's stages of cognitive development parallel Kohlberg's stages of moral development.

6. Moral reasoning is an important factor influencing behavior.

Studies that have examined these key assumptions will now be examined. In addition, studies which have investigated the influence of sex differences and personality on moral reasoning will also be surveyed since these two variables are included in the study.

Invariance, Structured Wholeness, and Universality

Considerable research has focused on two criteria which are most crucial to the construct validity of Kohlberg's theory: (1) each stage is a reorganization of the earlier stage; thus, the later stages are better than earlier stages, and (2) all people move through the stages in a forward invariant sequence.

Kohlberg (1971) has argued that each stage is logically superior to earlier stages. Kohlberg claims that moral reasoning at the higher stages is better because higher stage reasoning is characterized by a greater understanding and acceptance of the universal concept of the principle of justice, the epitome of morality. Moreover, Kohlberg believes that higher stage reasoning is more likely to solve moral problems because reasoning at the higher stages is more differentiated and integrated.

Among others, Alston (1971) and Simpson (1974) have voiced major criticisms of Kohlberg's "higher is better" logic. Both stated that

just because one stage depends on an integration of the earlier stage, this does not mean that the higher stage is better. Alston noted that Kohlberg does not consider that although an individual may possess the understanding and acceptance of stage 4, 5, or 6 concepts, he may not use them in his reasoning. Alston also noted that Kohlberg fails to consider the role of "habit" in moral reasoning and behavior. Alston believed "habit" to be of utmost importance since an individual may be capable of stage 6 thought but out of habit operate at lower stages.

Kohlberg (1963, 1969, 1972, 1973) often cites his own cross-sectional studies as empirical evidence of his stage invariance and universality assumptions. In these studies, Kohlberg found age trends in moral development in children in America, Turkey, Taiwan, and Mexico. White (1975) reported similar findings with children in the Bahamas. However, these studies have been the focus of much criticism. As stated by Kurtines and Grief (1974): the data from Kohlberg's cross-sectional studies have not been published, the "sample size is unspecified, characteristics of subjects are omitted, actual percentage scores are absent, range and standard deviation of scores are not reported" (p. 461). Kurtines and Grief also reported that based on the little data given, age trends tended to appear only at the first three stages; stages 4, 5, and 6 were seldom found in other than Western cultures. In examining Kohlberg's cross-sectional findings, Kurtines and Grief (1974) and Brown and Herrnstein (1975) maintained that even though similar age trends were found in different cultures, the findings failed to demonstrate individual sequential progression because the data were cross-sectional, not longitudinal.

The need for long-term longitudinal studies to support Kohlberg's theory is clearly evident. The only published long-term longitudinal studies have been based on Kohlberg's original sample (Kohlberg, 1958; Kohlberg & Kramer, 1969). Two short-term longitudinal studies have recently been published. Kuhn (1976) examined the moral judgments of 50 children between the ages of six and eight over a one-year period. Although Kuhn failed to find significant changes six months after the first assessment, significant stage progressions were found at the end of the one-year period. Holstein (1976) found significant progressions with adolescents and adults after a three-year period, but the advancements were only from the preconventional level to the conventional level. Subjects were not found to advance from the conventional to the postconventional level, and more importantly, stage to stage movement was not significant. Kuhn and Holstein both found individuals who regressed to lower stages over time, a finding which seriously challenges the validity of Kohlberg's invariant progression assumption.

The retrogression problem was also found in the follow-up interviews of Kohlberg's original sample (Kohlberg & Kramer, 1969). Kohlberg's "retrogressors" consisted of 20% of his subjects. They were all middle-class subjects who were mixtures of stage 4 and 5 in high school but retrogressed to stage 2 (characterized by hedonistic relativism) during college. Kohlberg and Kramer circumvented the retrogression problem by maintaining that this was not a true reversal of reasoning because the retrogressors: (a) continued to use some stage 4 and 5 reasoning, (b) gave straight stage 4 answers when asked what the world regarded as a high moral response to given dilemmas and

(c) eventually returned to stage 4 and 5 after college. Kohlberg (1973) added a new stage, stage 4 1/2, in order to incorporate these retrogressors into his theory and scoring procedures. Stage 4 1/2 is characterized by reasoning based on emotions and hedonism rather than conscience. At this stage reasoning is arbitrary and relative. Brown and Herrnstein (1975) stated that by modifying his scoring and adding stage 4 1/2, Kohlberg handled the retrogression problem "in a way that leaves his invariant moral progress theory unscathed" (p, 318). However, they questioned Kohlberg's solution of merely adding a transitional stage. They stated that "if whenever the supposed hypothesis of invariant stepwise sequence appears to be disconfirmed by data, a new scoring system is devised that will confirm the hypothesis, then the hypothesis is no hypothesis at all but an article of faith" (p. 318).

The problem of "stage-skipping" found in Kohlberg and Kramer's (1969) study was also addressed critically by Kurtines and Grief (1974) and Brown and Herrnstein (1975). Brown and Herrnstein indicated that the "stage-skipping" finding was the result of poor research design. Moreover, Kurtines and Grief maintained that the retrogression and stage-skipping demonstrated that Kohlberg and Kramer's longitudinal study provided "no clear evidence for either the invariant developmental sequence or the reorganization of stages" (p. 463).

Experimental studies have also tested Kohlberg's assumption that stage progression is invariant and involves the reorganization and reintegration of lower stages into a higher stage. Blatt and Kohlberg (1975), Keasey (1973), Rest, Turiel, and Kohlberg (1969), Tracy and

Cross (1973), and Turiel (1966) claimed that their studies documented that sequential progression in moral development is natural and invariant by showing that forward stage movement could be induced by exposure to moral reasoning one stage higher than the subject's predominant stage. Furthermore, they purported that their findings indicated a stage hierarchy of complexity in which the higher stages are more differentiated, integrated, and adequate. These studies found that when subjects were exposed to moral reasoning at stages above and below their predominant stage, they rejected persuasive arguments based on the lower stages of moral reasoning and accepted arguments based on reasoning one stage above their own stage. Other studies failed to demonstrate a preference for reasoning one stage above a person!s predominant stage (Arbuthnot, 1975; Holland, 1976; Rest, 1973).

In sum, the validity criteria of stage invariance, structural wholeness, and universality have been examined both empirically and philosophically by numerous researchers and in general the criteria have not been supported without substantial contradictory evidence.

Differences in Socioeconomic Status

Based on his research, Kohlberg (1968, 1969, 1971) stated that both middle-class and lower-class children move through the stages of moral development in a similar manner, although lower-class children move slower and tend to fixate at lower stages. Kohlberg attributes this retardation to the lack of exposure to various perspectives of thought and the absence of role-taking opportunities, which he believes are important determinants of moral development (Kohlberg, 1972). According to Kohlberg, limited participation in the social

order, which is characteristic of members of lower-class, causes them to perceive law and government differently than members of the middle-class and upper-class. Lower-class people tend to equate law and government with authority and power, whereas middle-class people are more likely to perceive law and government as a means of maintaining order and avoiding social chaos. Upper-class people tend to believe that law and order are derived from principles of justice, because they are given opportunities to be strongly involved in the government (Kohlberg, 1969). Thus, Kohlberg does not believe that class differences in moral reasoning are the product of different value systems, but sees the differences as being caused by different opportunities for social participation. This is partially supported by several studies which have shown moral reasoning to be related to social participation and social-perspective taking. For example, Keasey (1971) found that social participation, whether judged by self, peers, or teacher, was positively related to stage of moral development. Likewise, other studies (Arbuthnot, 1975; McGeorge, 1974; Moir, 1974; Selman, 1971) have documented the importance of social-perspective taking, especially during the conventional stages.

Few studies have examined the role of socioeconomic status in moral development. With a group of 110 children, aged 9 to 18, Fleishman (1973) found a direct positive relationship ($r = .44$) between socioeconomic status and stage of moral development and contributed this finding to differences in social opportunities. Similarly, Tracy and Cross (1973) reported a significant correlation of .26 with a group of 76 male 7th graders. However, Cauble (1976) found no significant differences in moral reasoning across five

socioeconomic status groups. Thus, although several findings have indicated that socioeconomic status is a significant factor in moral development, the findings are not consistent. The likelihood that socioeconomic may have a confounding effect on the relationship between moral development and selected variables is suggested.

Cognitive Development

The influence of cognitive development, based on Piaget's theory, is of central importance to Kohlberg's theory of moral development. Kohlberg (1969, 1971, 1973) maintains that changes in the structure of moral development are dependent on changes in the structure, not the content, of cognitive functioning. Kohlberg (Kohlberg & Gilligan, 1971; Kohlberg, 1973) asserts that concrete operational thought (categorical classification and reversibility) is necessary for preconventional moral reasoning, some formal operational thought (inverse of the reciprocal) is required for conventional thought, and that advanced formal thought is required for posconventional moral reasoning.

In general, research has supported Kohlberg's assertions concerning the relationship between cognitive structure and moral reasoning. Studies by Cauble (1976), Colby (1973), Langford and George (1975) and Tomlison-Keasey and Keasey (1974) found formal operational thought to be a necessary, but not sufficient, condition for principled reasoning. Keasey and Weston (cited in Keasey, 1975) found concrete operational thought to be a necessary requirement for stage 2 moral reasoning. Moreover, a study by Arbuthnot (1973) illustrated that moral development was related to the structure and not the content of cognitive functioning.

Moral reasoning is not related as clearly to IQ as it is to

Piaget's stages of cognitive development. In his original study, Kohlberg (1958) ascertained a correlation of .31 between IQ and stage of moral reasoning. Moreover, he has stated that the variables are curvilinearly related, in that moral reasoning and IQ correlate positively with children of below average intelligence and non-significantly with children of above average intelligence (Kohlberg, 1969, p. 391).

Several studies have replicated the finding of a moderate correlation. Tracy and Cross (1973) found a correlation of .33 ($p < .01$) between scores on the Culture Fair Intelligence Test and scores on Kohlberg's Moral Judgment Interview. Both measures were administered to 76 males in the seventh grade. Similarly, Modgil (1975) derived a correlation of .31 between intelligence, as assessed by the Raven's Standard Progressive Matrices, and moral maturity. Modgil also found moral maturity to correlate .35 with scores on the Mill Hill Vocabulary Scale. Both correlations were significant at the .001 level of significance and were ascertained from a sample consisting of 231 children, 13 to 15 years of age, who were attending secondary schools in England. Consistent with these correlations, a correlation of .35 ($p < .01$) between scores on the Differential Ability Tests and the Defining Issues Tests (a multiple choice format of Kohlberg's scale) was documented with a sample of 73 children enrolled in the ninth grade (Rest, 1974).

Although Kuhn, Langer, Kohlberg, and Haan (1977) found a significant correlation of .30 between moral reasoning and scores on the Wechsler Intelligence Scale for Children and the Wechsler Adult Intelligence Scale with a sample of 265 subjects aged 10 to 50

years, the same authors obtained a nonsignificant correlation of .11 with a secondary sample of 75 fifth through seventh grade children. Likewise, Holstein (1976) found both significant and nonsignificant correlations, depending on the age and sex of the subjects. Whereas scores on the California Test of Mental Maturity and Kohlberg's scale correlated .42 at age 13 and .45 at age 16 among boys, with girls the scores correlated .39 at age 16 and .06 at age 13, the only nonsignificant correlation. With a sample of 60 children aged 8 to 10, Selman determined a correlation of .29 between scores on the Peabody Picture Vocabulary Test and stage of moral reasoning. Although nonsignificant, the correlation closely approximated the significant coefficients obtained in the studies cited above.

A study by Arbuthnot (1973) ascertained correlations ranging as high as .55 between moral reasoning and scores on a battery of various mental tests. Subjects consisted of junior and senior high school males, predominantly of lower-middle class background, ranging in sample size from 18 to 46 with various tests. Because of apparent methodological shortcomings in the study, the results are equivocal. The investigator failed to describe the moral reasoning scores, did not state which of Kohlberg's dilemmas nor how many of the dilemmas were used, whether the format was oral or written, how the responses were scored, nor provide interrater agreement measures. Moreover, means and standard deviations were not provided for the scores.

As a secondary component of their investigation, Harris, Mussen, and Rutherford (1976) documented a correlation of .52 between vocabulary scores on the Stanford Achievement Test and the total scores on

nine of Kohlberg's dilemmas administered individually to a sample of 33 fifth grade boys. As in the Arbuthnot (1975) study, the authors failed to provide interrater agreement measures and furnished neither means nor standard deviations of the moral reasoning scores; thus limiting a clear interpretation of the results.

Studies have also shown that the moral reasoning of mildly retarded children and normal children do not differ when mental age is controlled (Kahn, 1976; Taylor & Achenbach, 1975). The finding of no difference between normal children and the mildly retarded was interpreted by Taylor and Achenbach as indicating that social experience is less important in the development of moral development than believed by Kohlberg. However, as argued by Kahn, the findings do not clearly support either position, but they do suggest that cognitive functioning is perhaps more critical than social experience in the development of moral reasoning.

Overall, the relationship between moral reasoning and intelligence remains unclear. Correlations in the .30's are generally found, but have ranged from .02 to .55. None of the studies reported have examined for curvilinear trends. Methodological differences across studies hamper cross-study comparisons. Likewise, differences in intelligence and moral reasoning measures employed and subject characteristics (most importantly chronological age, SES, and range of intelligence), limit comparisons and the generalization of findings to other populations. The need for further examination of the relationship between moral reasoning and intelligence is most evident.

Moral Reasoning and Behavior

As noted in Chapter 1, Kohlberg (1971) maintains that there is

a direct relationship between moral judgment and moral behavior. Several studies have recently tested this assumption by examining the relationship between moral reasoning and measures of delinquency, honesty, justice, civil disobedience, and conformity.

The relationship of one's position on Kohlberg's hierarchy of moral development to delinquency was examined by Campagna and Harter (1975), Fodor (1972a, 1973), Hudgins and Prentice (1973), and Jurkovic and Prentice (1974). The studies compared the moral reasoning scores on Kohlberg's Moral Judgment Scale between delinquents and non-deliquents. All of them found delinquents to use lower levels of moral reasoning than nondeliquents, as is predicted by Kohlberg.

Regarding the relationship between moral reasoning and cheating, Kohlberg (1971) purports that only at the postconventional level of moral development can cheating be consistently predicted, because only at this level does an individual regularly value moral principles above social confomity. Studies by Krebs (1967) and Schwartz, Feldman, Brown, and Heingarter (1969) have attested this conclusion. Krebs found that 75% of the preconventional and conventional subjects in his study cheated, but only 20% of the principled subjects cheated. Likewise, Schwartz et al. found that approximately half of the conventional level college students in their study cheated, whereas only 11% of the principled level students cheated. A relationship between moral reasoning and noncheating has also been found with children below the postconventional level. Harris, Mussen, and Rutherford (1976) reported a correlation of .45 (.27 with intelligence partialled out) between moral reasoning and noncheating with a group of 33 fifth-graders. However, studies by Fodor (1972b) and by Nelsen, Grinder,

and Biaggio (1969) found no relation between cheating behavior and level of moral development among preconventional and conventional children. Likewise, Blatt and Kohlberg (1975) failed to find improvements in cheating behavior among a group of children after they had completed a program consisting of moral discussions, although most of them had advanced in moral reasoning. With the exception of the study by Harris et al., studies indicate that it is not possible to predict the moral reasoning level of those who cheat, since cheaters exist at all of the first four stages, but one can predict the level of consistent noncheaters, because only principled reasoners consistently do not cheat. In other words, "cheating itself is not a sign of low maturity of judgment but consistent noncheating is a sign of high maturity" (Kohlberg, 1971, p. 460).

In support of his assumption that moral reasoning predicts moral behavior, Kohlberg (1969; Kohlberg & Turiel, 1971) often refers to an unpublished study in which he examined 24 of the subjects involved in Milgram's (1963) classical study, where subjects were asked to shock another student as punishment for not learning. Kohlberg claimed that only subjects at stage 6 tended to act in a moral and just way, in that they refused to administer higher levels of electric shock (75% of stage 6 subjects refused compared to only 13% of the subjects at lower stages). However, as pointed out by Brown and Herrnstein (1975), little is actually known concerning this unpublished study, and therefore the reliability and validity of the study is highly questionable. A similar study by Podd (1972) examined the relationship between moral reasoning level and the level of shock administered and found no relationship between the two. In another study, McNamee

(1975) found that students who were more likely to help another student received significantly higher moral maturity scores than those unwilling to help. In the study, 102 college students were confronted with the decision of either helping another student, who appeared to be in need of assistance because of taking drugs, or remaining uninvolved. Only at stage 6 did all students help the distressed student. McNamee concluded that the results confirmed Kohlberg's assumption that moral behavior and moral reasoning are linked.

A study by Krebs and Rosenwald (1977) provided partial support for Kohlberg's position that moral reasoning is directly related to moral behavior. In an experimental situation, an experimenter paid 31 subjects, aged 17 to 54, $3.00 each upon the completion of two questionnaires, a questionnaire concerning demographic information and a short form of Kohlberg's measure of moral development. The experimenter also asked the subjects to complete several personality questionnaires and return them in a self-addressed envelope within one week. Subjects were informed that it was imperative that they return the questionnaires since their failure to do so would jeopardize the experimenter's chances of passing a college course. Results showed that stage 4 subjects were more likely to return their questionnaires than stage 3 subjects. Because only five subjects were found to be functioning at the remaining stages, further stage comparisons were not made.

The relationship between social-political student activism and moral reasoning was studied by Haan, Smith, and Block (1968), and more recently by Leming (1974). Haan et al., examined two samples of

college undergraduates and one group of Peace Corps volunteers who either did or did not participate in the original Free Speech Movement sit-ins at the Berkely campus of the University of California against the authority of the administration. Haan et al., found that 75% of stage 6, 41% of stage 5, 6% of stage 4, 18% of stage 3, and 60% of the stage 2 male reasoners in the study participated in the sit-ins, and were subsequently arrested. Similar findings were reported for the females in the study. Although the finding that a greater percentage of stage 6 reasoners participated than did those at other stages supports Kohlberg's theory, the finding that the second largest percentage in the sample reasoned at stage 2 raises serious questions concerning the discriminant and predictive validity of Kohlberg's stages (Kurtines and Grief, 1974).

In a similar study on political activism and moral reasoning, Leming (1974) studied two groups of high school students classified as political activists. One of the groups consisted of subjects who defied school authority by participating in a demonstration on the invasion of Cambodia supported by the United States. The members of the second group were enrolled in a high school program on community issues, and consequently were assumed to be activists. It was found that the majority of the activists were stage 3 reasoners, not stage 2 nor 5 reasoners as found in the Haan et al. study. The high school activists appeared to be more concerned with peer approval than principled thought. Age differences across the two studies may have contributed to the inconsistent findings.

Saltzstein, Diamond, and Belenky (1972) examined the relationship between conformity to peer pressure in an Asch-type situation and

moral reasoning among 63 seventh graders. Stage 3 students were found to conform the most to erroneous peer judgments while stage 4 and 5 subjects conformed the least. The authors interpreted these findings as indicating that the stage 3 students, who were characterized by a "good boy, good girl" orientation, conformed in order to receive approval and please others, whereas children at the other stages of moral development were reluctant to conform because of other reasons. Fodor (1971) also studied the relationship of social influence to moral reasoning with adolescent boys. Fodor attempted to change each subject's opinion on a given moral issue by having the interviewer challenge his position. Individuals who resisted efforts to change their position were found to be at higher stages of moral reasoning than those individuals who conformed to the interviewer's influence.

As stated in Chapter 1, whether or not moral reasoning is linked to behavior problems in the classroom is not known. However, studies by Kohlberg (1958) and Harris et al. (1976) have suggested that a relationship does exist. Kohlberg ascertained a correlation of .54 between moral reasoning and teacher ratings of fairness to peers and a correlation of .46 between moral reasoning and conscientiousness as rated by teachers. Likewise, although Harris et al. did not find a significant correlation between moral reasoning and peer ratings of honesty, a correlation of .41 ($p < .05$) between peer ratings of altruistic behavior (e.g., cooperation, helping, sharing, consideration of others, etc.) and moral reasoning was found among a group of 33 fifth-grade boys. As discussed previously, their study was also the only investigation of cheating at the elementary school level in

which noncheating was determined to be related to moral reasoning. The results of the Kohlberg and Harris et al. studies are promising, but unfortunately the studies were limited in scope and have not been replicated by other researchers.

It can be concluded that moral reasoning and moral behavior tend to be associated, but the results are only convincing at the principled stages of reasoning. Based on a review of the few studies that have examined the relationship between behavior problems in the classroom and Kohlberg's stages of moral reasoning, there is little evidence to support the assumption articulated by Kohlberg that teachers should expect a meaningful association between the two variables. The lack of a strong relationship is not surprising. As noted by Kauffman (1977), there is no simple relationship between moral reasoning and behavior. Many factors (e.g., SES, intelligence, situational variables, affect, past experiences, etc.) interact with the relationship. The degree to which moral reasoning influences behavior beyond that which is already explainable by other factors needs to be addressed by future research.

Sex and Moral Reasoning

Studies with adults have consistently found that women tend to fixate at stage 3 of moral development while men advance to higher stages (Kohlberg & Kramer, 1969; Erickson, 1974; Gilligan, 1977). However, studies with children have reported contradictory and inconclusive results. A study by Keasey (1972) found no sex differences in moral reasoning among 155 sixth-grade students. On the other hand, Rest, Cooper, Coder, Mesanz, and Anderson (1974), who used a multiple choice format of Kohlberg's interview, ascertained

a significant difference in favor of girls with a sample of 73 ninth-graders. With a sample of 134 Bahamian school children between the ages of 7 and 14, White (1975) found a significant sex difference only at the 13-14 age level. Contrary to the Rest et al. findings, the difference was in favor of males. As in the study conducted by White, Turiel (1976) reported no consistent sex differences across age levels. With a sample of 104 boys and 106 girls at three age levels (10, 13, and 16) Turiel found girls to receive higher moral maturity scores than boys at the ages of 10 and 13, but lower scores at age 16. Although the statistical significance of the differences at each age level was not reported, the difference across the three age levels was found to be marginally significant ($p < .07$). Contrary to the findings of White's study, the interaction of age with sex was significant.

Upon reviewing the literature, Turiel (1976, p. 206) concluded that "no inherent differences exist between males and females in the form, rate, or potential level of moral development." According to Turiel, the inconsistent findings reported in the literature indicate that social setting significantly influences sex differences in moral reasoning. Because of environmental differences across schools and other settings, sex differences have not consistently been found.

Personality

The importance of empathy or role-taking ability in moral development has already been discussed. Few other personality variables have been shown to be related to Kohlberg's stages of moral development. The most detailed study which examined personality correlates of moral development was conducted by Sullivan and Quarter

(1972). They studied the relationship between personality traits, as measured by the Omnibus Personality Inventory, and moral development among 208 college students. Personality traits of postconventional, transitional, and conventional subjects were examined. Compared to conventionals, postconventional subjects tended to have the strongest intellectual and esthetic interests, the highest tolerance for ambiquity and need for independence, and to be the most altruistic and the least practically oriented. Transitional subjects were between the postconventional and conventional groups on the above traits. On the traits of personal integration and anxiety, no differences were found between the three groups. It should be noted that the generalization of the findings to other populations is very limited since differences were not tested statistically, and stage 1 and 2 subjects were not included in the study.

A study by Schwartz, Feldman, Brown, and Heingartner (1969) found subjects at the higher stages of moral development to be more helpful, cheat less, and to have a higher need for achievement and need for affiliation than subjects at the lower stages. However, once again, the significance of these findings is questionable since many of the relationships were not tested statistically.

Other studies reported advanced moral maturity to be associated with ego identity (Podd, 1972) and an internal locus of control (Bloomberg, 1974). Likewise, Ruma and Mosher (1967) found higher moral reasoning among a group of 36 deliquent boys to be directly related to stronger feelings of guilt. As noted earlier in this chapter, several studies have also reported an association between moral reasoning and political ideology or action (Haan, Smith, and

Block, 1968; Leming, 1974).

To this writer's knowledge, only one study has examined the way that moral reasoning relates to personality and social adjustment among school aged children. In their study of moral reasoning with 10 year old boys, Harris, Mussen, and Rutherford (1976) determined that advanced moral reasoning was associated with feelings of self-confidence and social adjustment. The correlation between moral reasoning scores and an "adjustment-to-peers subscale" of the self-concept inventory used was .55, with IQ partialled-out. Boys with advanced moral reasoning regarded themselves as being "adaptable, assertive, and decisive individuals, capable of coping with new situations as they arise" (p. 131). Such findings suggest that those individuals who experience meaningful personality problems also manifest deficiencies in moral reasoning.

Overall, findings on the relationship between personality and moral development are inconclusive. The few studies which have been published have often been methodologically inadequate, confounding factors such as IQ and socioeconomic status have not been controlled, and statistical measures have often been totally lacking. With the exception of the study conducted by Harris et al., studies have not used school children for their study groups.

Chapter 3
Method

Subjects

The subject pool consisted of 91 sixth-grade students enrolled in two elementary schools located in a central Iowa city of approximately 50,000. The students were predominantly from middle and upper-middle class homes, although all socioeconomic classes were included. Following a screening, 60 of the students, 32 boys and 28 girls, remained in the study. Ages ranged from 11 years, 2 months to 13 years, 7 months, with a mean of 11 years, 11 months. In order to assure student confidentiality and reduce experimenter bias, student identification numbers were used in place of names. Permission to participate in the study was obtained from the parents of all subjects.

Measures

Moral reasoning. Moral reasoning was assessed by Kohlberg's Moral Judgment Interview, Form A, (Kohlberg, Colby, Gibbs, & Speicher-Dubin, 1978). During moral judgment interviews the student is presented with standard hypothetical stories, each consisting of a moral dilemma. He is then asked what course of action the main character should take in each story. Moreover, through a series of standard probe questions he is asked to thoroughly explain the reasons why a particular course of action should be followed. The three moral dilemmas presented in Form A include conflicts involving the moral issues of life vs. law (e.g., Should Heinz steal a drug to save his wife?), punishment vs. morality and conscience (e.g., Should the judge sentence Heinz for stealing the drug?), and contract vs. authority (e.g., Should Joe refuse to give his father the money that he labor-

iously earned to go to camp in order for his father to go on a fishing trip?).

The reasons given by the subject comprise the unit of scoring. Scoring procedures are detailed in a comprehensive, over 1,000 page manual available through Harvard's Center for Moral Education. It is helpful, if not necessary, that anyone scoring the protocols attend one of the Center's week long workshops. Because scoring is a very complicated process, the scoring procedures are only briefly described in this section. In general, scorable responses must be prescriptive in nature (a value preference should be implied), reflect a reason or justification, and be accepted as valid by the subject. Scorable responses should match a "criterion judgment" given in the manual, although exceptions to this rule are allowed. The scorer can veto a match whenever it is believed that the response does not reflect the subject's real underlying structure of moral thought. Stage points are assigned to the moral responses based on the degree of the match (a clear, marginal, or guess score can be assigned).

Two types of moral reasoning scores can be obtained, global stage scores (also referred to as modal stage scores or stage-types), and moral maturity scores (MMS). A stage score is assigned to each of the two issues on each dilemma based on the moral judgment made. By averaging weighed stage scores across the six issues a global stage score is derived. The stage with the highest percentage of issue scores is considered the major stage. If 80% or more of the issue scores are at one single stage, the subject is a pure type. A minor stage is assigned to those subjects who verbalized at least 20% of their moral reasoning at a higher or lower stage than their major stage. Those subjects

with minor stages lower than their major stage are referred to as "consolidating types," while those with higher minor stages are called "transitional types." Two integers are used to represent mixed-stage types (i.e., consolidating or transitional), in which the major stage is outside parentheses and the minor stage is inside the parentheses. For example, 3(2) represents major stage 3, minor stage 2.

Whereas the global score represents the subject's modal stage or stage-type, the MMS represents his average stage score across the issues. Moral maturity scores are calculated by multiplying the total points assigned to each stage by the number of the stage, summing the products and dividing by the total number of points assigned, and then multiplying by 100. Moral maturity scores range from 100 (pure stage 1) to 600 (pure stage 6) and are commonly treated as interval scaled scores.

Because the 1978 version of the Moral Judgment Interview and scoring procedures were developed recently, reliability measures on the current scale have not been established. However, on previous versions of the scale test-retest reliability measures have ranged from .84 to .92 and interjudge agreement measures for global scoring have ranged from 80% to 88% for the same stage (Kohlberg, Colby, Gibbs, & Speicher-Dubin, 1976). Because there is little empirical data as yet on the measure, validity of the scale is grounded only in Kohlberg's theory of moral development. Form A of Kohlberg's scale and a general overview of his scoring procedures are presented in Appendix A.

Intelligence. The vocabulary scale of the Stanford Achievement Test (1973) was used as the measure of intelligence. Although scores on the scale are not reported in standard IQ units the results seem to

provide an acceptable estimate of intelligence. Several recognized "IQ" tests are comprised of the same type of vocabulary items as found on the Stanford vocabulary scale. The Stanford vocabulary test has been found to correlate .75 with the Otis-Lennon Mental Abilities Test given at grade six, as reported in the test manual, and .86 with the Henmon-Nelson Intelligence Test at grade five (Harris, Mussen, & Rutherford, 1976). In their investigation of the relationship between moral reasoning and intelligence, Harris et al., maintained: "Clearly, this vocabulary score is an excellent gauge of general intelligence as ordinarily measured" (p. 127). For purposes of the present study, the score derived from the vocabulary test will be referred to as a measure of intelligence. However, it should be noted that the national mean for sixth graders on the Stanford vocabulary test is 162. and not 100 (as commonly found on IQ tests).

Behavior problems. Conduct problems, personality problems, and inadequacy-immaturity were assessed by teacher ratings on the Behavior Problem Checklist (Quay and Peterson, 1975). The validity and reliability of this checklist have been well documented (Kauffman, 1977), and factor analytic studies have repeatly replicated three dimensions of problem behavior: "conduct problem," "personality problem," and "inadequacy-immaturity" (e.g., Werry & Quay, 1971; Greiger & Richards, 1976). The 55 item checklist is shown in Appendix B with items grouped according to the factors they comprise. It should be noted that items 4, 18, 35, and 54 were deleted from the checklist upon the request of the assistant superintendent of the school district. Three of the items, "stays out late at night," "belongs to a gang," and "enuresis, bed wetting" are usually not scored anyway, and one, "masturbation" is an

inadequacy-immaturity item. One would expect such deletions to have a negligible effect on the psychometric properties of the scale as employed, since none of the above items are included on the conduct problem dimension of the scale. The checklist as it actually appeared to the raters can be obtained from Herbert Quay.

Socioeconomic status (SES). The Warner Revised Occupational Rating Scale (Warner, Meeker, & Eells, 1960) was selected to provide an index of SES for each subject. In a review of occupational status measures, Robinson, Athanasiou, and Head (1969, p. 338) judged the Warner scale as being "probably the most sophisticated short classification available." The scale is comprised of seven occupational categories with an assigned value ranging from a high status rating of 1 to a low rating of 7. As reported by Warner, et al., in developing the scale the main criteria used to rate the occupations were the skill requirements and the social prestige of each job. Hence, professionals, and proprietors and managers of large businesses receive a rating of 1 whereas unskilled workers receive a rating of 7. For purposes of the present study whenever a rating was based on the estimated dollar value of a business, the dollar value given in the 1960 scale was adjusted for the 76% inflation that has occurred between 1960 and the time of the study. Also, a directional inversion of the scale was made in order for the higher scores to correspond with higher occupational status.

Procedure

An initial objective of the study was to select a minimum of 15 students per stage, representative of stages 1, 2, and 3, from the sample population. The selection process consisted of the administra-

tion of both written and oral formats of Kohlberg's interview (see Appendix A). It should be noted that the selection could not be based on written interviews alone since the usefulness and reliability of written interviews have not been documented. The purpose of the written interviews was to provide a rough indication of each child's major stage of functioning. These screening results were then used to target those students who upon completion of an individual interview would most likely fall in the lowest or highest stage of moral reasoning. This procedure reduced the number of individual interviews having to be administered before a sufficient number of subjects occupied each stage group. Accordingly, a written version of Kohlberg's interview was given to each student in all five classrooms during a 20 to 30 minute class period. The dilemmas, related questions, and instructions were read orally to each class by the experimenter in order to minimize difficulties caused by reading problems. Afterwards, the protocols were scored by the experimenter.

Individual interviews were then administered to the 31 students who scored at the extremes, i.e., those who responded with signs of stage 1, 4, or solid stage 3 thought. This was essential in order to ensure the broadest variation in the moral reasoning scores of the sample. During this same period, those students with either stage 2 or mixed 2-3 reasoning were selected randomly and administered individual interviews until at least 15 students occupied stage groups 2 and 3. The process was discontinued after 60 students were individually interviewed, since it was unlikely that further interviewing would result in a wider range of moral reasoning scores.

The individual interviews were conducted during school hours by

the experimenter at the convenience of the classroom teacher. The interviews were recorded on tape and afterwards transferred to print for scoring. All interviews were scored by the experimenter who was trained in scoring at Harvard's Center for Moral Education. The standard interview and scoring procedures, as detailed in the manual of the 1978 Moral Judgment Interview, were strictly followed.

In order to establish a measure of the reliability of the scores, 15 of the individual interview protocols were randomly selected using a table of random numbers and sent to the Center for Moral Education for scoring. Interjudge agreement in scoring was calculated on MMS scores using a Pearson product-moment correlation and a coefficient of .85 was ascertained. Eighty-seven percent of the stage-type assignments made by the two scorers were within one half of a stage in agreement. The interjudge agreement measures are consistent with those commonly reported in the literature.

Demographic information was obtained during the interviews. The occupations given by the students were confirmed by the classroom teachers. In cases in which both parents were employed, the index assignment was based on the occupation with the highest rating. Following the completion of the interviews, intelligence scores were obtained from the school files. The five classroom teachers, who were unaware of the results of the interviews, were then asked to complete the Behavior Problem Checklist for each of the 60 students in the final sample

Data analysis

As mentioned earlier, Kohlberg's Moral Judgment Interview yields two specific types of moral reasoning scores: the modal score, or

stage-type, and the moral maturity score (MMS). Both scores have certain statistical advantages as well as limitations. The modal score provides a meaningful, conceptually descriptive index of moral development in that each score, e.g., stage 2, 2(3), etc., represents a qualitative structural stage. Although the qualitative stage scores, which are ordinal scaled at best, are perhaps more meaningful than the more quantative moral maturity scores, they are not as applicable to advanced statistical analyses as moral maturity scores, which are generally treated as interval scaled scores. Analysis of variance as well as other regression techniques have commonly been used with moral maturity scores (Blatt & Kohlberg, 1975; Turiel, 1976). The nature of several hypotheses tested indicated the appropriateness of using both modal scores and moral maturity scores (MMS) in order to most clearly analyze and illustrate the relationships between the variables examined. Because a variety of statistical methods were used, the specifics of each analysis will be described as the results are reported in Chapter 4. Analyses were performed according to the computer routine listed in SPSS (see Nie, Hull, Jenkins, Steinbrenner, & Brent, 1975).

Chapter 4
Results

This chapter is divided into three sections, one dealing with the analyses of the relationship of moral reasoning to conduct problems, one with moral reasoning and intelligence, and one with the inadequacy-immaturity and personality problem dimensions of behavior. Following statistical tests of each of the two hypotheses (sections one and two), descriptive data are presented according to stage-types. A description of each analysis and the outcome of that analysis are provided as they unfold. Although unusual, this ordering should facilitate the reader's understanding of the various analysis and their varied outcomes.

Relationship between moral reasoning and conduct

The first purpose of the study was to determine if conduct problems displayed by children functioning at the higher stages of moral reasoning are fewer and less variable than those of children functioning at the lower stages. In order to discover if this is the case, moral maturity scores for the 60 children were categorized into three groups; low (150-216), middle (217-269), and high (270-335) with 20 students per group. The means and standard deviations for each group were calculated and an analysis of covariance was then performed, controlling for the effects of sex, intelligence, and SES. A multiple correlation coefficient indicating the relationship between conduct problems and moral maturity, sex, intelligence, and SES was derived. Furthermore, product-moment and partial correlations were obtained. To test for homogeneity of variances, Barlett's test of homogeneity was conducted. Descriptive data for both moral maturity scores (MMS) and stage-types scores were obtained to provide characteristics of the sample as well as to illustrate the

more precise mature of the differences in scores which were found to exist.

Results of moral maturity scores analyses. The results of the analysis of covariance are summarized in Table 1. As can be seen, differences between MMS groups were significant. Although intelligence and SES were not found to be significant covariates, sex had a strong effect on conduct problem scores. Consistent with the literature (Grieger & Richards, 1976), boys demonstrated a greater number of conduct problems than girls. Together, the three covariates and moral reasoning scores yielded a multiple correlation of .57, thus accounting for 32 percent of the total variation in conduct problem scores. With the effects of intelligence, SES, and sex partialled-out of the regression, moral reasoning alone correlated -.31 ($p < .01$) with conduct, explaining about 10% of the variation.

Barlett's test of homogeneity found the variances among the three groups to be heterogeneous ($p < .001$). As was predicted, children with higher moral maturity scores exhibited less variability in their conduct. To illustrate the variability, as well as the decrease in conduct problems with increasing moral maturity, Figure 1 is presented with each student's conduct problem score and moral maturity score individually plotted. Table 2 is presented to further illustrate the way moral reasoning relates to conduct problems, intelligence, and SES. In the table, conduct problem scores are divided by low, middle, and high MMS, and the range, mean, and standard deviation scores for each variable are given. Both Figure 1 and Table 2 show that conduct problem scores systematically decreased in frequency and variability with increasing moral maturity. Moreover, as shown in Table 2, more morally mature children also tended

Table 1

Analysis of covariance of conduct problems grouped according to low, middle, and high MMS scores.

Source	SS	df	MS	F
Covariates	136.64	3	45.55	6.18**
Sex	113.34	1	113.34	15.39**
Intelligence	11.01	1	11.01	1.49
SES	7.27	1	7.27	0.99
Main effects				
MMS	50.52	2	25.26	3.43*

* $p < .05$
** $p < .01$

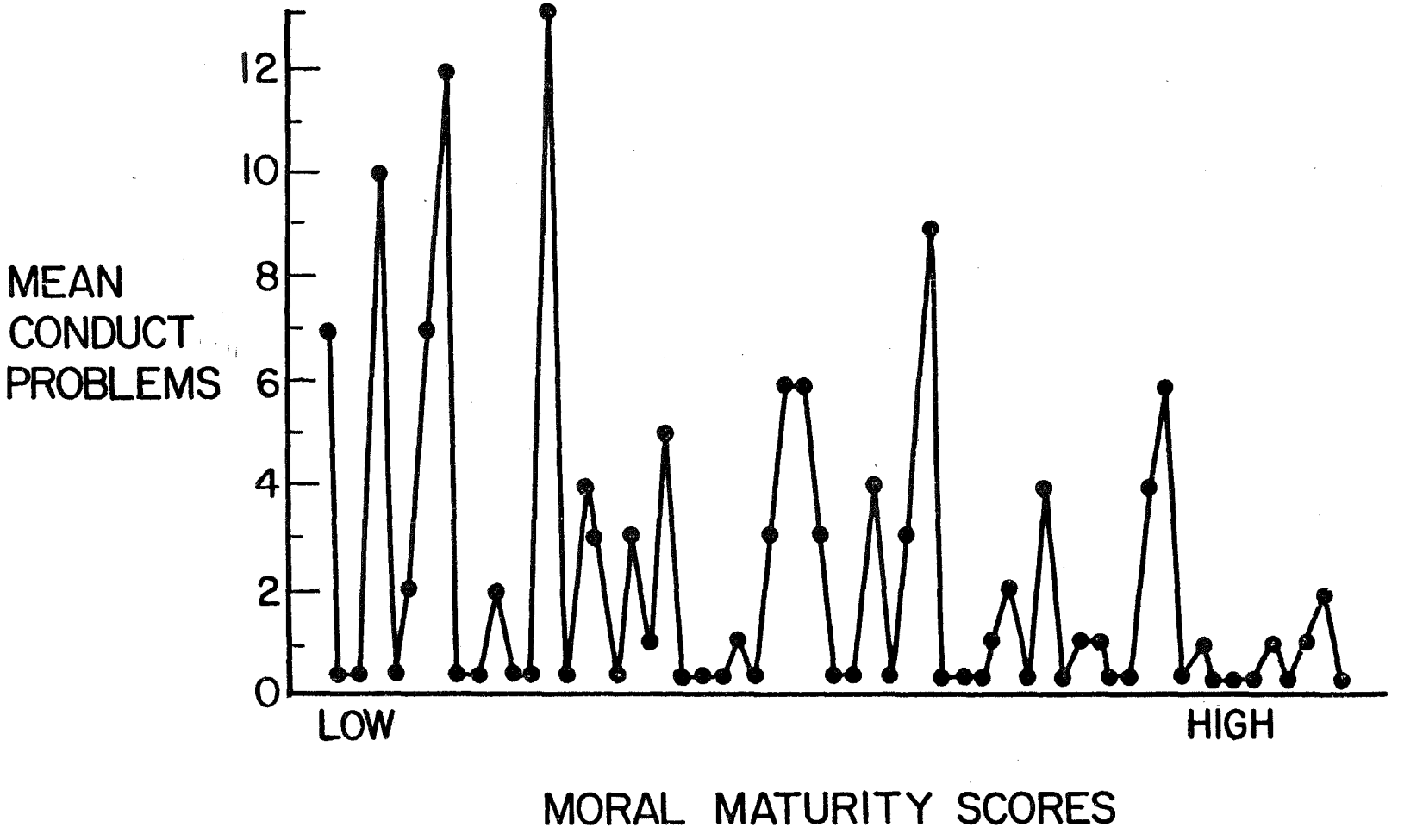

Figure 1. Conduct problems related to moral maturity scores. Maturity plotted individually for each student in rank order.

Table 2

Conduct, intelligence, and SES scores as divided by low, middle, and high MMS groups.

	Scores on each variable											
	MMS			Conduct			Intelligence			SES		
MMS category	Range	M	SD	Range	M	SD	Range	M	SD	Range	M	SD
Low	150-216	194.40	17.06	0-13	3.20	4.29	143-215	176.30	15.76	2-7	5.25	1.80
Middle	217-269	246.05	15.73	0-09	2.05	2.70	154-230	183.15	17.96	1-7	5.20	2.09
High	270-335	298.70	20.31	0-06	1.15	1.69	160-230	189.35	19.97	4-7	6.35	1.04
Total MMS	150-335	246.38	46.37	0-13	2.13	3.25	143-230	182.93	18.47	1-7	5.60	1.76

to have higher intelligence and SES scores.

Table 3 presents the matrix of zero-order correlation coefficients for all pairwise combinations of variables in the study. As can be seen, the magnitude of the association between moral reasoning and conduct problems was found to be -.29 ($p < .01$). It should also be noted that consistent with the literature reviewed in Chapter 2, conduct, moral reasoning, intelligence, and SES were intercorrelated in predictable directions.

Results of modal stage scores analyses. The following descriptive data are presented to provide comparisons across stage-types of moral reasoning. Because differences in conduct problems between moral maturity groups have already been shown to be significant and in the direction predicted, the following comparative analyses across stage-types are reported descriptively and no inferential tests were conducted. To compare differences across stage-types, the mean and standard deviation were first calculated for each stage-type category. However, because mean comparisons can be misleading due to their sensitivity to extreme scores, percentage scores were also calculated. Figures were then constructed to visually examine the relationship between the conduct problems and stage-types.

Parallel to the moral maturity scores, students were found to be predominantly at stages 2 and 3. No one reasoned at major stage 1 nor at any major stage above stage 3; however, stage 1 and stage 4 reasonings were verbalized in the minor stage reasoning of ten and four students, respectively. Table 4 shows the means and standard deviations for conduct problems, intelligence, and SES for each stage-type. Before proceeding, it should be noted that the regrouping of the individuals into six specific stage-types results in a smaller unit of analysis, restrict-

Table 3

Product Moment Correlations of All Pairwise Combinations of Variables.

	MMS	Intell.	Conduct	Pers.	Inadeq.	SES	Sex
MMS	1.00	.331**	-.294**	-.083	-.054	.264*	-.101
Intelligence		1.00	-.142	-.137	-.208	.408**	-.135
Conduct			1.00	.162	.271**	-.186	-.425**
Personality				1.00	.472**	-.125	-.125
Inadequacy					1.00	-.175	-.288**
SES						1.00	.004
Sex[a]							1.00

*Significant at the .05 level.
**Significant at the .01 level.
[a]Index of 1 denotes male, 2 female.

Table 4

Means and standard deviations for conduct problems, intelligence, and SES for each stage-type.

Stage-type	n[a]	Conduct problems		Intelligence		SES	
		M	SD	M	SD	M	SD
Major stage 2	32 (17)	2.75	3.72	181.03	17.43	5.22	1.86
Consolidating 2(1)	10 (4)	3.80	4.73	171.90	14.52	5.40	1.50
Pure 2	9 (4)	2.55	4.19	180.78	17.45	5.00	2.24
Transitional 2(3)	13 (9)	2.08	2.40	188.23	17.25	5.23	1.96
Major stage 3	28 (15)	1.43	2.20	185.11	19.69	6.04	1.55
Consolidating 3(2)	14 (7)	1.71	2.58	179.86	19.05	5.57	1.91
Pure 3	10 (5)	1.30	2.06	182.10	12.08	6.40	1.07
Transitional 3(4)	4 (3)	.75	.96	211.00	20.67	6.75	.50
Total	60 (32)	2.13	3.15	182.93	18.47	5.60	1.76

[a]Numbers in parentheses indicate the number of males.

ing statistical comparisons as well as the generalization of the data. However, this limitation is outweighed by the advantage of providing the visual examination of more meaningful graduated trends across qualitative stage-types (as shown in Figures 2 and 3). Nevertheless, because of the small sample size, comparisons across stage-types should be interpreted cautiously, particularly when comparisons include children at stage-type 3(4). Such comparisons should be viewed only as being suggestive.

As shown in Figure 2, a steadily decreasing monotonic relationship was found between the number of conduct problems that students exhibited and the modal stage they verbalized. The number of conduct problems was greatest at the lowest stage-type, 2(1), and fewest at the highest stage-type 3(4). Figure 3, illustrates the relationship between conduct problems and the percentage of students at each stage-type who displayed conduct problems more than one standard deviation above the mean (six or more). As can be seen, the use of percentage scores resulted in a removal of the gradual monotonic relationship, but differences are still apparent. Both figures indicate substantial differences in conduct problem scores when extreme groups are compared, e.g., 2(1) and 2 versus 3 and 3(4). However, differences in scores between children in adjacent stages, particularly those in the middle range, appear to be of smaller magnitude and to be less consistent.

Overall, the modal score and MMS data together provide convincing support for the first hypothesis. It is clear that moral reasoning is related to conduct problems in the classroom both before and after the influences of intelligence, SES, and sex are controlled. Conduct problems are both more frequent and more variable among children with lower moral reasoning scores.

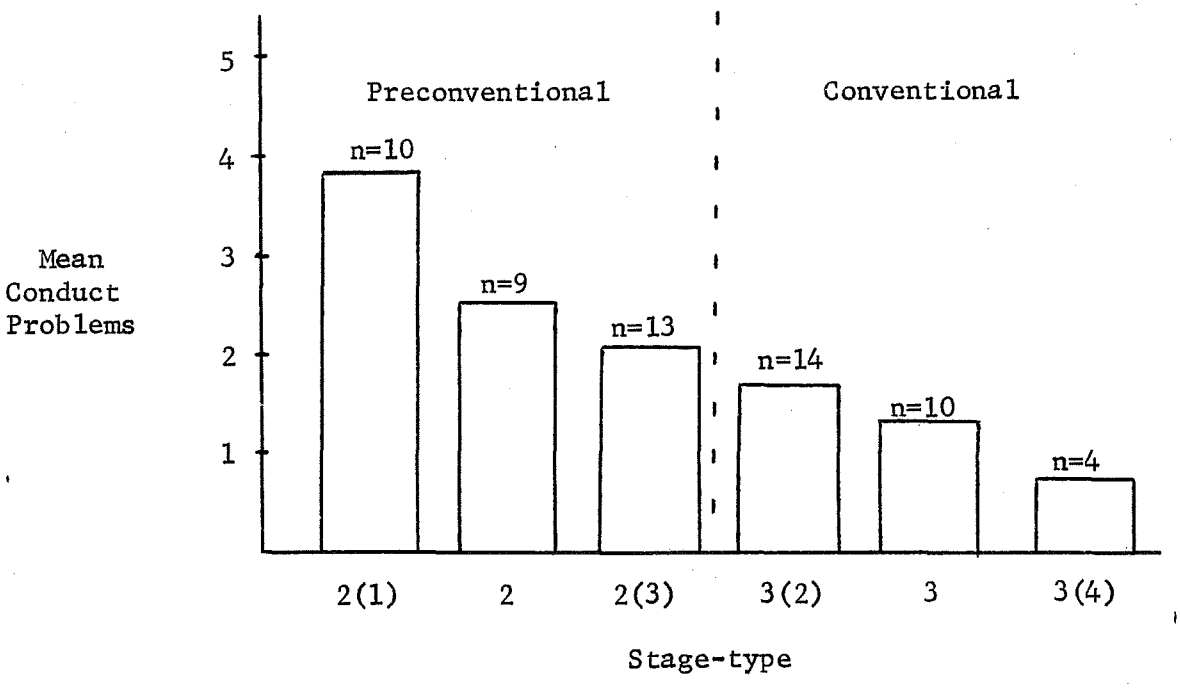

Figure 2. Mean number of conduct problems across stage-types of moral reasoning.

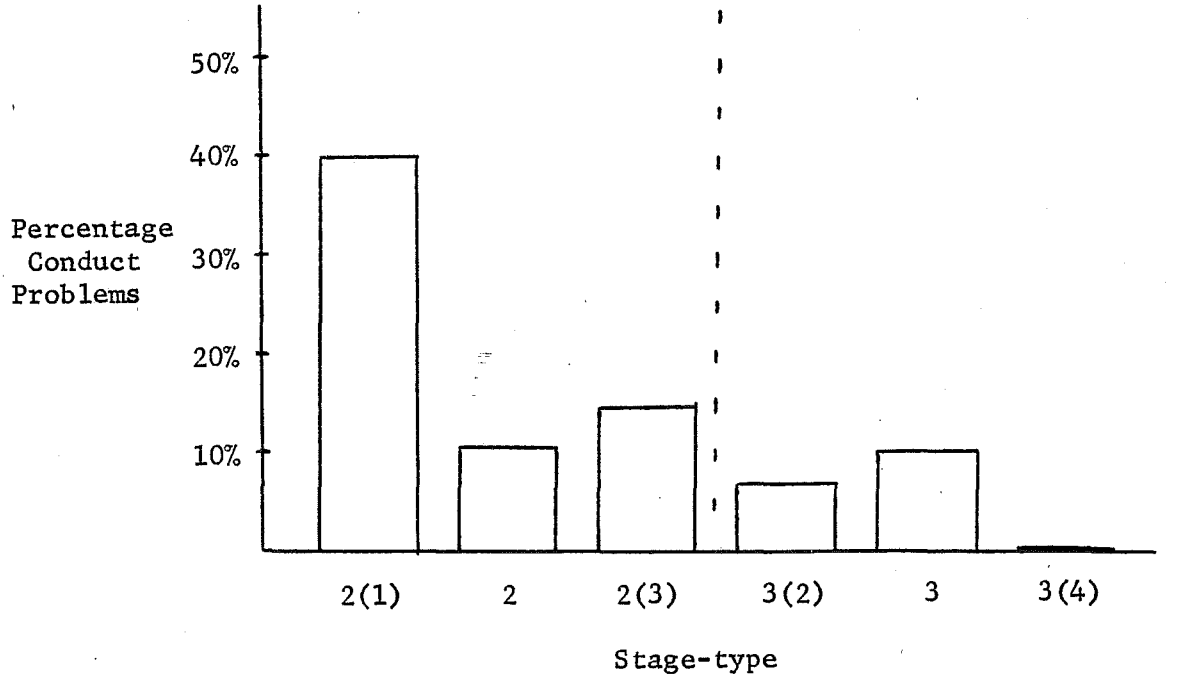

Figure 3. Percentage of students at each stage-type with six or more conduct problems.

Relationship between moral reasoning and intelligence

In order to test the hypothesis that children with higher intelligence tend to employ higher stages of moral reasoning than those with lower intelligence, intelligence scores were categorized into low (n=19), middle (n=21), and high (n=20) groups with means of 164.42, 179.62, and 204.00, respectively. Means and standard deviations of the moral maturity scores for each group were calculated and found to be as follows: low group, M = 236.05, SD = 41.71; middle group, M = 235.62, SD = 49.12; high group, M = 267.50, SD = 42.23. A one-way analysis of variance and an analysis of covariance (controlling for SES and sex) were then performed to test the mean differences between groups. Similar to the method of analysis used in the previous section, stage-type scores were also used to provide a clearer illustration of the differences. Such scores are presented in two contingency tables (Tables 5 and 6) showing the distribution of high and low intelligence scores.

To examine for curvilinearity in the relationship, the significance of the linear regression of the two variables and the deviations from linearity were tested with a one-way analysis of variance. A scatterplot was then drawn to illustrate the relationship and also to estimate the variability in moral maturity scores visually. Barlett's test of homogeneity was used to test the hypothesis that greater variability in moral reasoning is found at the higher levels of intelligence.

The results of the one-way analysis of variance are presented in Table 5. As can be seen, the differences among the three groups were significant ($p < .05$). The Scheffé multiple comparison procedure revealed that the mean of the high intelligence group differed significantly from the means of both the low and middle groups ($p < .10$; a less con-

Table 5

One-way analysis of variance of moral maturity scores grouped according to low, middle, and high intelligence.

Source	SS	df	MS	F
Between groups	13379.23	2	6689.61	3.36*
Linear regression	9635.78	1	9635.78	4.84*
Deviation from linear	3562.29	1	3562.29	1.79
Within groups	113474.81	57	1990.79	
Total	126854.00	59		

*$p < .05$

servative alpha level than the conventional .05 is appropriate for the Scheffe test, see Ferguson, 1976).

Although the one-way analysis of variance was significant, the analysis of covariance (summarized in Table 6) revealed no significant differences in moral maturity scores between intelligence groups after the influences of SES and sex were adjusted for. Regarding the magnitude of the adjustments, intelligence correlated .33 with moral maturity prior to and .25 after the effects of the covariates were partialled out. The multiple correlation for intelligence, SES, and sex with moral reasoning was .36 (R^2 = .13).

The frequency distribution of low and high intelligence scores across stage-types is illustrated in the contingency tables presented in Tables 6 and 7. Table 6 shows that with the exception of students at stage-type 2(3), the proportion of students scoring below the group median on intelligence at each stage-type steadily decreased with increasing stage scores. Likewise, with the exception of the students at stage 3(2), the proportion of those scoring above the median increased with increasing stage scores. Comparisons are most impressive when the extreme groups are compared: 70% of the students at stage-type 2(1) had intelligence scores below the median while none of the four students at stage-type 3(4) scored below the median on intelligence. The distribution of more extreme intelligence scores (scores plus or minus one standard deviation) was similar. As shown in Table 7, scores at stage-types 2(1) and 3(4) differed clearly in the expected direction: no students scoring one standard deviation or more above on intelligence were at stage-type 2(1) and no students scoring one standard deviation or more below were at stage 3(4).

Table 6

Analysis of covariance of moral maturity scores grouped according to low, middle, and high intelligence.

Source	SS	df	MS	F
Covariates	10174.21	2	5087.10	2.55
SES	8885.35	1	8885.35	4.45*
Sex	1314.90	1	1314.90	.66
Main Effects				
Intelligence	6843.72	2	4321.86	1.71

* $p < .05$

Table 7

Frequency of students at each stage scoring above or below the median on Intelligence.

Intelligence	Stage of moral development					
	2(1)	2	2(3)	3(2)	3	3(4)
Below Median	70% (7)	67% (6)	38% (5)	57% (8)	40% (4)	(0)
Above Median	30% (3)	33% (3)	62% (8)	43% (6)	60% (6)	100% (4)

[1]Number of subjects in parentheses.

Table 8

Distribution of extreme intelligence scores.

Intelligence	Stage of moral development					
	2(1)	2	2(3)	3(2)	3	3(4)
-1 SD	43% (3)	0	0	43% (3)	14% (1)	0
+1 SD	0	20% (2)	30% (3)	20% (2)	0	30% (3)

As indicated by the preceding analyses, the relationship between moral reasoning and intelligence tended to be linear. The one-way analysis of variance used previously (see Table 5) also provided a test for curvilinearity. Table 5 shows that although the linear regression (found to be .33) was statistically significant, the sum of square deviations from linear regression were not significant. A scatterplot of the relationship is shown in Figure 4 with the linear regression line drawn that best fits the data. As can be seen, the relationship can best be approximated by a simple linear model, and not be a curvilinear one. Furthermore, the variability in moral reasoning scores appears to be similar across levels of intelligence. This interpretation was supported by Barlett's test of homogeneity; the variances did not differ significantly across the three categories of intelligence ($F = .32$, $p = .72$).

Moral reasoning, inadequacy-immaturity, and personality problems

Although no specific hypotheses were stated, a final objective of the study was to determine if moral reasoning is related to the inadequacy-immaturity and personality problem dimensions of behavior. To explore these relationships, scatterplots were generated and examined. Zero-order and partial correlations (controlling for intelligence, SES, and sex) between moral maturity scores and inadequacy-immaturity and personality problems were also calculated. For further analyses, the mean moral maturity scores of children scoring one standard deviation or more above the mean on the two behavior dimensions investigated were compared with the group mean.

An examination of the scatterplots (not shown) and correlations indicated the absence of any particular association between moral reasoning and inadequacy-immaturity or personality problems. Zero-

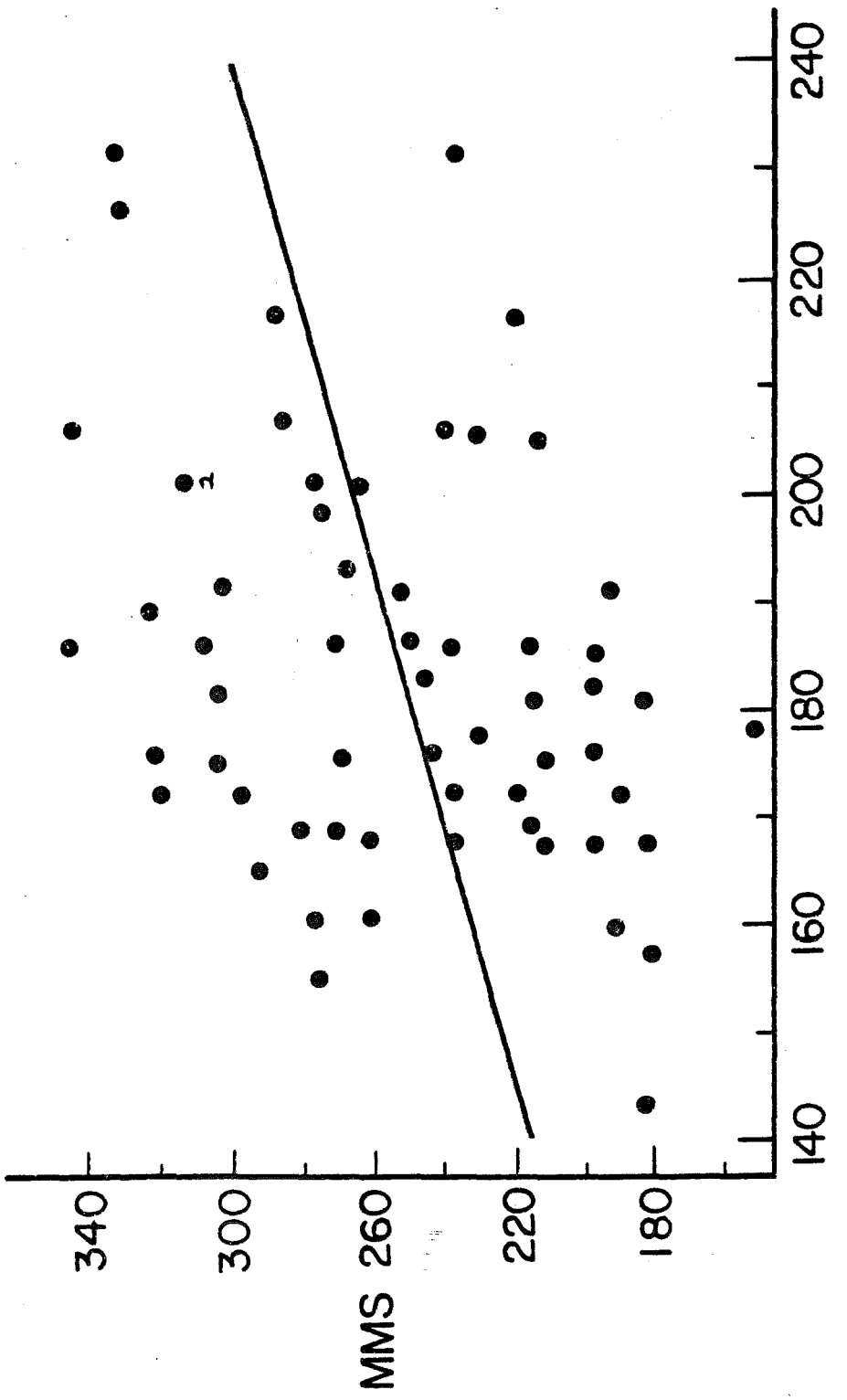

Figure 4. Scatterplot of the linear relationship between intelligence and moral maturity scores (MMS).

order and partial correlations were all less than $\pm$ .10. Moreover, students who displayed more inadequacy-immaturity or personality problems than others in the classroom did not differ from the group in moral reasoning. Whereas the MMS mean for the 60 students was 246.38, the MMS mean for the eight students who received inadequacy-immaturity scores one standard deviation or more above the group average (M = .93, SD = 1.30) was 248.37. Likewise, the nine students who obtained scores one standard deviation or more above the group mean (M = 2.02, SD = 2.82) on personality problems had a mean score of 240.89 on MMS. Thus, although moral reasoning was found to be associated with conduct problems in the classroom, there was no evidence that moral reasoning was related to the two other dimensions of behavior problems explored.

Chapter 5
Discussion

The results suggest that moral reasoning is associated with both conduct and intelligence. Frequent conduct problems were found to be associated with preconventional moral reasoning; however, the absence of such problems is not an indication of advanced reasoning. In fact, many preconventional students display no conduct problems at all. But if Kohlberg is correct, these conduct problem-free children behave prosocially out of deference to a superior power or for personal gain rather than for the social order, the maintaining motivation of their conventional counterparts. The findings also support the view that students reasoning at the stage 3 or 3(4) level, characteristic of a "good boy, good girl" orientation, are also judged by their teachers as "good children." They are motivated to follow the role of a "good" student, which in this study consisted of behavior that conformed with their teachers' expectations. On the other hand, those students at stages 2 and 2(1), who base their actions on their own self-interests and the individual consequences of their behavior, follow school regulations less consistently. Perhaps such children are inclined to conform whenever regulations are enforced or when conformity to the rule is instrumental to the attainment of their own desires. This perspective would not only explain why they display more conduct problems than their higher stage counterparts, but may also account for their greater variability as well. Whereas a greater percentage of stage 2 and 2(1) students displayed considerable conduct problems, some exhibited no problems at all. Because their perspective is heteronomous, their behavior is substantially influenced by situational or external variables, often in the form of punishment or

instrumental exchange. As such, their classroom behavior is less predictable.

The opinion that situational factors are strong determinants of moral behavior has been expressed clearly in the literature (Bandura, 1977; Mischel & Mischel, 1976). What has not been defined is whether or not subjects at different stages respond differentially to specific situational factors, which is suggested by the preceding interpretation. With the exception of the research conducted by Fodor (1971) and Saltzstein, Diamond, and Belenky (1972), in which greater social conformity was found at stage 3 than at other stages, experimental research has not dealt specifically with this issue. The influences of reinforcement, punishment, modeling, as well as other determinants of behavior, particularly those emphasized by social-learning theorists, need to be examined at each stage of moral reasoning in order to gain an understanding of the interaction between cognitive structure and external factors. Moreover, such studies are necessary to explain the processes involved in transferring thought to behavior and also to provide functional explanations of the variations in behavior both within and across stage-types.

It should be noted that although the relationship was found to be statistically significant, moral reasoning accounted for only 10% of the variation in conduct. Such prediction is no more than what is typically explained by measures of personality (Mischel & Mischel, 1976). Although the study did not find the two traits to be strongly linked (nor to be causally related), the findings do suggest that the use of Kohlberg's approach to moral education may be worthwhile, particularly when one considers that the values and moral curriculm programs that are currently

used (e.g., Values Clarification, Youth Effectiveness Training) have essentially no empirical foundation. However, teachers should not expect impressive improvements in behavior to occur when Kohlberg's program is used alone. As recently recognized by Kohlberg (1979; Kohlberg & Hersch, 1977), the cognitive-developmental approach is not sufficient for moral education if it is to result in behavior change. The present findings support such a viewpoint. It would appear that if the goal of moral education curriculum is to change specific behaviors, the behavioral methodology advanced by social-learning theorists (Bandura, 1977) would be more appropriate. But, if the goal is to foster the development of moral reasoning, which may or may not result in behavioral change, Kohlberg's approach should be fruitful.[1] Perhaps a combination of the two approaches would result in increased generalization of moral behavior reducing situational specificity and improving prediction. Clearly, the process through which moral behavior develops cannot be sufficiently understood unless multiple variables, both cognitive and environmental (and perhaps more importantly their interactions) are addressed. Furthermore, it is unlikely that moral education will materialize into a viable component of the curriculum unless it incorporates a comprehensive understanding of moral behavior.

The moderate correlation found between intelligence and moral reasoning is essentially of the same magnitude as those reported elsewhere in the literature. Such moderate magnitude correlations support

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[1]Bandura and McDonald (1963) and other social-learning theorists have documented changes in moral reasoning with the use of modeling and reinforcement; however, Kohlberg (1969) argues that these changes are neither true nor lasting modifications of stage structure.

Kohlberg's assertion that although the two variables are related, they are not evidence of identical underlying processes. This interpretation is further supported by the finding that moral maturity was significantly associated with conduct after the influence of intelligence had been controlled. However, such findings do not specify whether moral reasoning can be correctly conceptualized as one particular aspect of cognitive functioning, as articulated by Mischel & Mischel (1976). Perhaps factor analytic studies would provide more complete answers to the nature of the relationship between the two variables.

The failure to find a curvilinear relationship may be attributed to a limitation of the study: a truncated range of intelligence scores existed, with a bias favoring higher scores. Nevertheless, if Kohlberg is correct in asserting that a lack of association between moral reasoning and intelligence among higher functioning subjects causes a curvelinear relationship, then it would appear that the present study did provide an acceptable test of this assertion. The data were consistent with Kohlberg's contention that those functioning at lower intelligence levels were less mature in their moral development. But there is little evidence that this relationship decreased in magnitude at higher ranges of intelligence. The brightest students in the group tended to be more morally mature. Finally, there was little support for Kohlberg's hypothesis that brighter subjects can be expected to draw from a variety of stages. In fact, the brighter children were no more variable in their moral reasoning than children at lower levels of intelligence.

It is recommended that future studies include a more heterongeneous sample of subjects, with respect to SES and age, and examine the interactions of these variables. It appears that children above average in

intelligence and SES do develop more rapidly in their moral development; however, it is unknown to what extent moral development is dependent upon the two factors, and at which ages the dependency is most critical. The finding that intelligence accounted for little of the variance in moral reasoning which could not also be explained by SES is not surprising, since both factors are dependent on social experiences, although the experiences may differ in nature. It would be interesting to determine if children from deprived environments progress to the higher stages but take longer getting there. Likewise, it remains to be determined if moral education programs can provide the cognitive stimulation and social experiences lacking in the homes of such children in order to prevent fixation at lower stages or delayed development.

In conclusion, it should be noted that the present study and the previously reviewed study by Harris, Mussen and Rutherford (1976) are the only ones since Kohlberg's original investigation that have reported a relationship between moral reasoning and classroom conduct among children at stages other than the postconventional level. Although Kohlberg's theory may not fully account for the complex process of moral behavior it may nevertheless serve as a useful guide to moral education, particularly when used in conjunction with other approaches. It is clear that comprehensive studies, both experimental and longitudinal in method, are necessary before a more complete understanding of moral education and development is attained.

Appendix A

MORAL JUDGMENT INTERVIEW
Form A

Dilemma III:

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz gets desperate and considers breaking into the man's store to steal the drug for his wife.

1. Should Heinz steal the drug?

1a. Why or why not?

2. If Heinz doesn't love his wife, should he steal the drug for her?

2a. Why or why not?

3. Suppose the person dying is not his wife but a stranger. Should Heinz steal the drug for the stranger?

3a. Why or why not?

4. (If you favor stealing the drug for a stranger:) Suppose it's a pet animal he loves. Should Heinz steal to save the pet animal?

4a. Why or why not?

5. Is it important for people to do everything they can to save another's life?

5a. Why or why not?

6. It is against the law for Heinz to steal. Does that make it morally wrong?

6a. Why or why not?

7. Should people try to do everything they can to obey the law?

7a. Why or why not?

7b. How does this apply to what Heinz should do?

Dilemma III':

Heinz did break into the store. He stole the drug and gave it to his wife. In the newspapers the next day, there was an account of the robbery. Mr. Brown, a police officer who knew Heinz, read the account. He remembered seeing Heinz running away from the store and realized that it was Heinz who stole the drug. Mr. Brown wonders whether he should report that Heinz was the robber.

1. Should Officer Brown report Heinz for stealing?

1a. Why or why not?

2. Officer Brown finds and arrests Heinz. Heinz is brought to court, and a jury is selected. The jury's job is to find whether a person is innocent or guilty of committing a crime. The jury finds Heinz guilty. It is up to the judge to determine the sentence. Should the judge give Heinz some sentence, or should he suspend the sentence and let Heinz go free?

2a. Why?

3. Thinking in terms of society, should people who break the law be punished?

3a. Why or why not?

3b. How does this apply to what Heinz should do?

4. Heinz was doing what his conscience told him when he stole the drug. Should a law-breaker be punished if he is acting out of conscience?

4a. Why or why not?

Dilemma I:

Joe is a fourteen-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the $40 it cost to go to camp and a little more besides. But just before camp was going to start, his father changed his mind. Some of his friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money he had saved from the paper route. Joe didn't want to give up going to camp, so he thinks of refusing to give his father the money.

1. Should Joe refuse to give his father the money?

1a. Why or why not?

2. Is the fact that Joe earned the money himself the most important thing in the situation?

2a. Why or why not?

3. The father promised Joe he could go to camp if he earned the money. Is the fact that the father promised the most important thing in the situation?

3a. Why or why not?

4. Is it important to keep a promise?

4a. Why or why not?

5. Is it important to keep a promise to someone you don't know well and probably won't see again?

5a. Why or why not?

6. What do you think is the most important thing a son should be concerned about in his relationship to his father?

6a. Why is that the most important thing?

7. What do you think is the most important thing a father should be concerned about in his relationship to his son?

7a. Why is that the most important thing?

STANDARD FORM SCORING PROCEDURES

(Pages 9 - 15 of Kohlberg's 1978 unpublished scoring manual)

A. Introductory Familiarization

Regardless of whether one has used Form A, B, or C for one's moral judgment interviewing, the interview protocol is analyzed in accordance with the standard organization of the scoring manual. Each form is composed of three dilemmas (with questions). Since each dilemma yields two issues, the overall organization entails six issues (both forms, despite the use of alternative dilemma content, yield the same six issues). Thus the overall organization for the interview form/scoring manual instrument is as follows:

Form A: III Life v. Law, III' Morality v. Punishment, I Contract v. Authority
Form B: IV Life v. Law, IV' Morality v. Punishment, II Contract v. Authority
Form C: V Life v. Authority, VIII Morality v. Punishment, VII Contract v. Law

For each dilemma, the subject is required to make and defend a prescriptive choice (as well as to answer certain related general questions). In your scoring, you will be successively considering the subject's thinking on each dilemma.

The issues provide the framework for standard scoring of the protocol. Each issue will contribute a stage score to the overall stage assessment of the protocol. (The issue score is derived from the stages of the criterion judgment scored on that issue.) Basically, the standard scoring procedure for each issue entails a two-part sequence: first, one breaks down the issue material into units (e.g., classifying by norm); second, one then uses these units for stage scoring per se. (Before attempting to begin scoring, be sure that you are thoroughly familiar with the organization of the scoring system, the issues, the definitions of norms and elements and the stages. Do this by studying Parts I and II of the manual and by looking over Parts III and IV. In reading through the criterion judgments and explications, pay close attention to the issue, norm, and stage classifications since in scoring you will have to classify the subject's responses according to the same system.)

B. Procedures for Standard Form Scoring

1. Chosen Issue

The first step in scoring responses to each dilemma is to determine which of the two standard issues is the subject's chosen issue and to note the choice on the score sheet.

In order to identify the chosen issue, read over the subject's answers on the dilemma, with this question in

mind: What choice does the subject make? The dilemma requires a choice between two courses of action which we have identified as corresponding to the two standard issues. For example, the issues placed in conflict by Dilemma III are life and law. In this case, the subject is asked to choose either life (that is, Heinz should steal the drug) or law (that is, Heinz should not steal the drug).

(a) In many cases, the subject will indicate a clear choice in his or her response to the first question and will stick consistently to that choice throughout the interview. That choice constitutes the chosen issue.[1]

(b) If a subject makes a choice and then changes his/her mind for reasons other than factual clarification or if no clear choice is made, no chosen issue is designated for that dilemma. (Often there will be no chosen issue).[2]

2. Division within dilemma by issue

Read through all of the subject's responses to the dilemma being scored. Differentiate the material in each response according to whether it falls under the chosen issue or the non-chosen issue.

Generally, the relevant issue corresponds to the choice the subject is making or defending in the particular response to be classified. (On the Heinz dilemma, judgments supporting stealing the drug would be classified under the life issue; reasons not to steal would go under the law issue (where the same question has elicited reasoning on both sides, indicate accordingly).)

For responses to general "Why" questions, (Why should a promise be kept, why is it important to obey the law, etc.), issue is usually defined by the question, e.g., general responses to the question "Why should a promise be kept?" are classified under the contract and promise issue.

[1]Some subjects do not make a clear and consistently held choice on the original problem, however. If the subject makes a choice and then upon factual clarification of the dilemma changes his/her mind and remains consistent to the second choice, that second choice indicates the chosen issue.

[2]It should be noted here that in some dilemmas, e.g., Dilemma III, some of the probe questions in effect introduce new situational factors - Suppose Heinz doesn't love his wife or suppose the dying person is a stranger. Responses to these questions are not relevant in determining chosen issue. A subject who clearly states that Heinz should steal for his (presumably loved) wife and sticks by that decision, has chosen the life issue even if (s)he judges that Heinz should not steal for an unloved wife or stranger.

3. Global guessing of stage on the issue

Now restrict your attention to the responses classified under the chosen issue. You will be scoring all of this material before you begin to score the non-chosen issue material. Assemble and re-read all material on the subject's chosen issue. Make an initial guess of the likely stage (or stages) of the material by comparing the interview material with the global issues stage descriptions. If you cannot guess at one stage or two adjacent stages as the likely stages(s) for the issue, note your uncertainty and proceed to the next step.

4. Division within chosen issue by norm

As you read through those responses which fall under the chosen issue, classify the material according to norm. Each issue encompasses at least one norm (and as many as four). A given subject will evidence in his moral judgments on an issue a concern with one or more of those norms. Material relating to a particular norm may extend through many questions, may be found sporadically throughout the interview, or may comprise only a part of one answer to one question (that is, one answer may evidence several norms). [Classification by norm is essentially classification by the value content of the moral judgment material. The norm of a moral judgment represents that moral value which is being brought to bear by the subject in justifying his/her choice on the dilemma (see Part I for a theoretical discussion of norms).]

5. After classifying by norm all responses within the issue, choose a norm which seems to include potentially stage scorable material. (Begin with the norm which seems clearest as to stage significance.)

6. Division within norm into IC's[1]

After assembling all responses classified under the first norm to be scored sub-divide the material into Interview Concern (IC) units. An IC is any discrete moral judgment, operationally defined as an element applied to a norm for a particular stage. Sub division by element into IC's is accomplished by comparing the relevant interview material to the Criterion Concerns (CC's) listed in the Issue Table of Contents.

[1]You will notice that sometimes we have used "criterion concern" (and "interview concern") and sometimes "criterion judgment" (and "interview judgment"). Consider them interchangeable.

7. Choose the Criterion Concern from the Issue Table of Contents which most closely resembles the Interview Concern to be scored. Assemble all Interview Concern (IC) material relevant to the first Criterion Concern (CC) to be evaluated as a potential match. (This is Phase I of the evaluation process.)

8. Before evaluating the proposed CC-IC correspondence, review the interview material to be sure that it meets the following two general criteria. In order for any stage score to be assigned, interview material must meet both criteria.

(a) The IC must include a reason which supports or justifies either the action being recommended or the value being discussed.

(b) The IC reasoning must be accepted as valid by the subject. That is, judgments which are explicitly disavowed or rejected as invalid by the subject are not scored. (Judgments which are considered by the subject to have some validity but which are overridden by other, more important considerations are scored.)

9. (Optional step for new scorers). Before proceeding with the evaluation of the proposed correspondence, review the four types of score which may result from this evaluation process and the criteria which are required for each of the four types.

(a) The IC may be judged to match the CC. There are two types of IC-CC matches: (i) Clear match - all match criteria are explicitly and unambiguously met by the IC.

(ii) Marginal match - all match criteria are met by the IC but with some degree of ambiguity.

(b) The match criteria are as follows:

(i) The IC must exhibit the critical indicators of the CC. Clear match - IC contains clear or explicit evidence of the critical indicators. Marginal match - IC seems to be an essential if not literal fit to the critical indicators.

(ii) The IC must be consistent with the specific stage structure described in the explicated CC (as well as with the general issue stage descriptions corresponding to the Stage of the CC).[1] That is, the

[1]In the following discussion of procedures and criteria, reference to general issue stage descriptions will be omitted. Any reference to a CC should be taken to include a reference to the general issue stage descriptions.

proposed match must be judged conceptually appropriate in relation to the underlying structure of the stage to be assigned as a score for the IC.

(iii) The IC must contain a prescriptive judgment. For example, it must refer to why one should do or value rather than why one would do or value.

(c) Material which does not provide a match for any CC may be used to assign a guess score if a guess score is needed for the issue. (Material to be used for a guess score must meet the general criteria listed above in #8. That is, the IC must include a supporting or justifying reason and the IC reasoning must be accepted as valid by the subject.) There are two types of guess score:

(i) Good guess - is not a match to any CC but an appropriate stage assessment of the IC can be made with some confidence as to its validity.

(ii) Poor guess - is not match and some stage assessment is possible. There is little confidence, however, in the validity of the stage assessment.

10. Evaluate each proposed CC-IC match by proceeding through the following steps:

(a) Phase II: Surface evaluation: After studying the explicated CC and the IC, decide whether the CC critical indicators are present within the IC being evaluated. Note your conclusion using one of the following three alternatives: (i) clear pass - there is clear evidence of the critical indicators;

(ii) marginal pass - there is an essential or ambiguous fit of the IC to the critical indicators;

(iii) fail - IC does not exhibit all required critical indicators.

If after careful scrutiny you are still uncertain as to whether an IC can be said to exhibit the critical indicators, note this uncertainty and proceed to evaluate the IC according to the next step.

(b) Phase III: Structural veto: Evaluate the structural

consistency between the IC and the stage structures described as underlying the CC. Note your conclusion as either pass (the IC is consistent with the CC stage structure) or fail (the IC in some way violates the CC stage structure or suggests a stage other than that of the CC.)

(c) Evaluate the prescriptivity of the IC. Note your conclusion as either pass (there is some evidence that the judgment has prescriptive significance) or fail (the judgment has prescriptive significance) or fail (the judgment is clearly not meant as prescriptive).

(d) In completing your evaluation, check the "Distinctions" noted in the explicated CC to be sure that a different CC does not constitute a better match to the IC being evaluated.

11. Based on the conclusions from the above evaluations, make an overall evaluation of the proposed match.

(a) If all match criteria are clearly satisfied, enter a clear match score on the scoring sheet, noting which CC and interview responses were judged to correspond.

(b) If the critical indicators were marginally passed and the structural veto and prescriptivity were passed, enter a marginal match score, noting CC and interview responses

(c) If any criterion is failed (either critical indicators, structural veto, or prescriptivity) or if a CC at another stage provides a clearer match for the IC, do not enter a match score for the currently proposed match.

12. If the proposed CC-IC corresponsence is judged not to be a match, return to the Issue Table of Contents in search of another CC which may provide a match for the IC. Evaluate any proposed match which may result as described in #10 and 11 above.

13. If the IC is not a match (clear or marginal) for any CC, bracket it as possible guess material to return to if guess scoring becomes necessary (i.e., if no match scores are assigned.)

14. Proceed to evaluate each IC within the norm. Subdivide material within the next norm into IC's and evaluate each. Proceed with all norms addressed by the subject on that issue, entering one score for each CC matched by interview material. Enter both clear and marginal matches.

15. Check "inclusions notes" for each CC scored. Bracket those CC's scored which are included within higher Stage or more specific CC's which have also been match scored.

16. If no matches have been entered for the issue, reread all material classified under the issue and classify into IC units if

this has not already been done.

17. Identify IC's which satisfy the criteria for good guess scores:

(a) A reason must be given in support of the action which is recommended.

(b) The material must be attributed some validity by the subject.

(c) The material must be clear enough with regard to MJ stage to allow a fairly confident evaluation of its stage significance.

18. Assign a good guess score for each IC which meets the criteria listed in #16 above. That is, for each IC enter a good guess score for the stage which you feel the IC represents. This stage assignment may be based on a comparison of interview material with either general stage descriptions or with specific criterion judgments.

19. If no good guess material can be found for the issue, reread the material assigned to the other issue in an attempt to extract any reasoning on the issue being scored which may be embedded within the other issue. Asign scores for any good guess material which is discovered. (If the significance of guess material on one issue requires one to take into account material on the other issue as context, do so, but otherwise assign scores on each issue independent of material on the other issue.

20. If no good guess scores can be obtained, reread the responses classified under the issue and assign poor guesses to any material which constitutes a reason with any validity for the subject. That is, use your knowledge of stage structures and criterion concerns to make the best guess you can as to the probable stage of the material. You may guess either one or two stages for each IC.

21. If no material is available on the issue which meets the criteria for even a poor guess, enter a note of "no material" on the score sheet for that issue.

22. Proceed with second issue on the first dilemma.

23. Proceed with the second and third dilemmas.

24. Calculate issue scores.

25. Calculate global stage scores and moral maturity scores.

Appendix B

Subscales of the Behavior Problem Checklist

Conduct Problem

Item No.	Item
2.	Restlessness, inability to sit still
3.	Attention-seeking, "show-off" behavior
8.	Disruptiveness; tendency to annoy and bother others
11.	Boisterousness, rowdiness
16.	Dislike for school
17.	Jealousy over attention paid other children
25.	Fighting
27.	Temper tantrums
33.	Irresponsibility, undependability
38.	Disobedience, difficulty in disciplinary control
40.	Uncooperativeness in group situations
44.	Hyperactivity; "always on the go"
46.	Destructiveness in regard to his own &/or other's property
47.	Negativism, tendency to do the opposite of what is requested
48.	Impertinence, sauciness
51.	Profane language, swearing, cursing
53.	Irritability; hot-tempered, easily aroused to anger

Personality Problem

5.	Doesn't know how to have fun; behaves like a little adult
6.	Self-consciousness; easily embarrased
9.	Feelings of inferiority
12.	Crying over minor annoyances and hurts
14.	Shyness, bashfulness
15.	Social withdrawal, preference for solitary activities
21.	Lack of self-confidence
23.	Easily flustered and confused
28.	Reticence, secretiveness
30.	Hypersensitivity; feelings easily hurt
32.	Anxiety, chronic general fearfulness
37.	Tension, inability to relax
39.	Depression, chronic sadness
41.	Aloofness, social reserve

Inadequacy-Immaturity

13.	Preoccupation; "in a world of his own"
20.	Short attention span
31.	Laziness in school and performance of other tasks

34. Excessive daydreaming
35. Masturbation
42. Passivity, suggestibility; easily led by others
49. Sluggishness, lethargy
50. Drowsiness

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