

A STUDY OF THE RELATIONSHIP BETWEEN MORAL  
DEVELOPMENT TEST SCORES OF JUVENILE  
DELINQUENTS AND THEIR GROUP  
MEMBERSHIP IN STRUCTURED  
SITUATIONS

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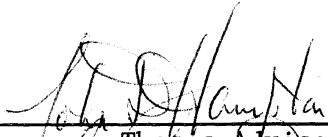
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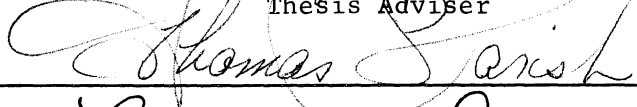
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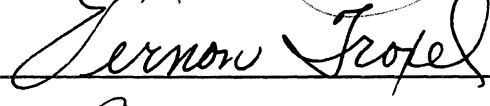
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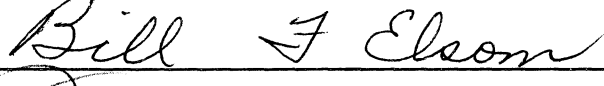
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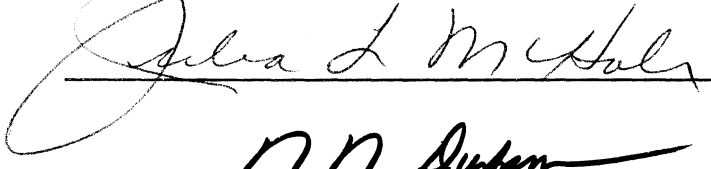
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## CHAPTER I

### INTRODUCTION

Juvenile delinquency has been a steadily increasing problem in the United States. Associated with this problem is the increased awareness that juvenile institutions are ineffective in reintergrating the delinquent into society after his incarceration (Thrasher, 1969). Juvenile judges and prison wardens concerned with the high recidivism rates among juveniles currently believe intervention programs other than vocational improvement are needed to deal with the more subtle problems which may be at the core of the high recidivism rate among juveniles.

In normal children, degree of cognitive complexity has been demonstrated to be highly correlated with levels of moral reasoning. In juveniles with high recidivism rates, moral reasoning and the insight into the consequences of one's action has been shown to be below normal (Adams-Webber, 1969).

The present study was designed to investigate possible relationships existing between exposure to group discussions of moral issues and change in moral development test scores.

#### Statement of the Problem

Not enough is known on the basis of scientific research about those characteristics of effective rehabilitation programs for juvenile delinquents which will be helpful to educators and rehabilitation agency

administrators in developing a more viable program than currently exists. There is a need for some intervention during the treatment programs of juvenile delinquents that will facilitate some positive change in reasoning and thus reduce the increasingly high rate of repeat offenses. There is a considerable amount of research on moral reasoning which indicates that moral reasoning has been altered significantly through the utilization of cognitive conflict. These studies provide evidence to support the notion that moral reasoning could also be changed in a population of juvenile delinquents.

#### Nature of the Problem

Currently, rehabilitation programs for juvenile offenders have been under attack for failure to deal with the alarmingly high rate of recidivism. These programs have historically involved large numbers of juveniles with treatment programs based on vocational enhancement. The theory involved here is that education in some vocational skill will bridge the gap for the juvenile offender between incarceration and society to the extent that the juvenile will be capable of becoming a productive and socially conscientious member of society. The philosophies of most juvenile programs have not considered other important variables, beyond vocation, which are intrinsic to successful reintegration for juveniles into the social system. For example, juvenile programs should also provide treatment which would enhance moral growth and development. Currently, the major aspects of the institutional structure are centered around an authoritarian system of adult personnel playing the role of supervisor and educator of the juvenile (Adams-Webber, 1969). The juvenile is expected to accept a pattern of submission to the



dominance of the adult. He is expected to defer to the demands and directives of the adult figures. The learning which the juvenile may accrue is based on his ability to conform to the requirements of the personnel in charge. There is very little in the way of idealization and emulation between the authoritarian personnel and the juvenile delinquent. The low rate of interaction with adults during incarceration often mirrors the homelife which the juvenile was exposed to before his conviction (Thrasher, 1969). Parental use of arbitrary authority rather than rational authority was reported to short circuit the normal progression of moral development (Baumrind, 1969; Kohlberg, 1964). This suggests that some intervention during the treatment program besides vocational training is needed to reduce the problem of high recidivism. The purposes to be served by this investigation are to extend the applicability of current theory and empirical knowledge about the concepts in question, and to provide data that may aid counselors who deal with juveniles during their incarceration or probationary period.

To achieve the purposes of the study, a group of juvenile delinquents currently under supervision by an Oklahoma county youth services agency were assessed on their levels of moral reasoning in a variety of situations. The assessment was carried out before and after subjects took part in the discussion of moral issues. Statistical procedures were applied to these data to determine what relationship existed between involvement in the group experience and scores on the posttest of moral development.

## Definition of Terms

### Cognitive Conflict

This construct will be defined as cognitive disequilibrium about one's own position in relation to some issue.

### Level of Moral Development

This will be defined as that level of comprehension and defense of a course of action pertaining to some issue as defined by Rest's (1974) Defining Issues Test.

Rest's (1974) Defining Issues Test has been published and is currently in wide use with regard to the assessment of moral judgment. Rest emphasizes that his test is not an absolute predictor that explains everything. He prefers to think of it as a useful tool in getting to know how a person views questions that most of us would call moral questions. The complete test includes six stories that confront the reader with a moral dilemma. There follows, after each story, a series of questions designed to bring out the dilemma. Rest (1974) has developed a standard scoring guide for assessment of the subjects. The Defining Issues Test moral dilemmas and questions are included in Appendix A.

### Juvenile Delinquents

The sample of juvenile delinquents used in this study was arbitrarily selected from juveniles currently under supervision by Tri-County Youth Services, Stillwater, Oklahoma. Subjects were classified as juvenile delinquents on the basis of: being apprehended by police for breaking a law or through referral by school authorities.

### Moral Issues

These will be defined for inclusion into the discussions constituting the correlational procedures as follows: A topic of sufficient moral complexity to differentiate the stages of moral development as defined by the Rest Defining Issues Test.

#### Assumptions and Limitations

The Defining Issues Test is a measuring device for assessing the ways in which subjects deal with moral dilemmas. With suitable assurances of confidentiality it was assumed that the subjects would answer questions truthfully. The moral judgment scores assessed by this method are not ratings of a subject's worth as a person, or ratings of his loyalty, kindness or sociability. The Defining Issues Test attempts to tap the basic conceptual framework by which a subject analyzes a social-moral problem and judges the proper course of action. Moral judgment in this study was assumed to be an assessment of sophistication and adequacy of thinking.

Berlyne (1961) has stated that children and adults react positively to complexity, novelty, incongruity, uncertainty, and conflict. That is, subjects tend to orient themselves to stimuli in accordance with such properties of the stimuli as may be called novel, incongruous or complex. This change or novelty inherent in a particular stimulus is a factor in attention of the subject to the stimulus. In this study, all subjects in the developmental group were exposed to moral dilemmas on the Defining Issues Test assumed to be topics of sufficient novelty and complexity to stimulate a high level of thought.

## Ethics

A most serious concern is with the manipulation of human subjects as a result of their involvement in psychological research. The major ethical concerns encompass such things as deception, physical or mental abuse, anonymity of subjects, and the reporting of results. In this study, subjects were not deceived as to what the procedure involved. Subjects were told that they were participating in a study of group discussion and the debate of ambiguous dilemmas. Secondly, subjects were neither physically abused nor mentally abused. All procedures involved simple discussion and debate which the subjects seemed to enjoy and looked forward to each week. Each subject was allowed to speak freely and openly without abuse for their attitudes about the moral dilemmas utilized as discussion topics. Obviously, due to the need for cooperation from a youth agency to obtain suitable subjects, anonymity was not an option for the researcher. Although anonymity was not possible, individual results for each subject were not reported to the cooperating agency. Finally, the overriding ethical concern involves the importance of the study. As the literature review reports and based on current crime statistics, there is a great need recognized by researchers as well as the general public for improvement in the process of dealing with juvenile offenders.

## Hypothesis

The following hypothesis was derived from the literature and was tested in this study: A statistically significant relationship will exist between membership in a group involving the discussion of moral

dilemmas and posttest moral development test scores as measured by the Rest (1974) Defining Issues Test.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Introduction

The following review will begin with a presentation of peripheral research historically related to current trends in moral development. This will be followed by a discussion of current research in the areas of cognitive conflict and enhancement.

Gilligan (1974) and Ravitch (1973) have reported that inmates of penal institutions are often at a very low level in their moral judgments. This suggests that something has impinged on their environments to retard the normal development of morality. Kohlberg (1969) and Whelan and Duska (1973) have found many inmates in prisons to be at stage one, two, or three of Kohlberg's moral development scale. Gorsuch (1973) has similarly found that the parents of juvenile delinquents did not seem to encourage independent thinking and autonomy. That is, even before incarceration, the juvenile offenders were subjected to authoritarian domination of their lives with little opportunity for self-expression and thus, little awareness of the consequences of their actions.

The parameters of morality and its development must be clearly delineated before any statements can be made that its change is related to a change in recidivism. Gilligan (1974) suggests that moral judgment operates within the limits of the cognitive capacity of the child and

the nature of the environment. Moral judgment is conceived by Piaget (1948) and Kohlberg (1964) as developing much like cognitive processes. As Kohlberg (1963) described it, moral judgment does not only spring from the child's awareness of the external social world, but also from the existence of a series of internally patterned transformations which permit the child to organize or order his world. Both Piaget (1948) and Kohlberg (1963) have also suggested that there is a sequential order of moral judgment stages that is invariant. As described by Turiel (1969), the attainment of one mode of moral judgment is dependent upon the attainment of the preceding mode, requiring a reorganization of the preceding modes of moral judgment. Both Piaget and Kohlberg believed that moral judgment is not concerned with whether or not a child behaves morally, but how he judges or thinks about moral matters such as breaking rules or committing misdeeds (Parish, 1973). Different stages have been proposed by Piaget (1948) and Kohlberg (1964). Piaget (1948) proposed two main periods of moral development. The first period has been termed one of immanent justice or objective morality. Children before age seven are said to evaluate the seriousness of a deviant act according to how much damage is done and to ignore why it was done. According to Piaget, from three to seven the child is cognitively limited. Because of this he tends to think of man-made rules as unchangeable physical laws. He sees laws as permanent, unchanging constructs made up for the purposes of better human living. This philosophy has been called moral realism. In this period the child is said to be egocentric since he sees the rules only from his own perspective and not from those of others. At about age seven, Piaget (1969) suggests that children judge a rule-breaker or one who causes damage or injury, by his intent, by the reasons

that led to his behavior. This is the period of subjective moral evaluation. The child is said to take into account subjective or inner factors besides what objectively happened (Singer and Singer, 1969). Piaget (1948) claims that the child becomes capable of appreciating the outlook of others as a result of his repeated interactions in games and other social activities. From these interactions, equality and reciprocity with same age friends develop. Justice is no longer taken as something to be derived from authority figures. Rather, these children come to consider that rules can be changed with mutual agreement. This has been called the period of "autonomous justice" (Singer and Singer, 1969).

In contrast to the two model theory of moral development proposed by Piaget, Kohlberg has hypothesized six age-related stages in judging the values of human life. Kohlberg's developmental model is summarized in Appendix B.

Kohlberg (1963), like Piaget, sees a progression occurring as moral judgment develops from the egocentric adoption of moral rules and extends to the point where it is recognized that laws are in a sense arbitrary, that there are many possible laws and that the laws are sometimes unjust (Kohlberg, 1963). While Piaget (1948) proposes that all people should reach the highest level of morality (in his model, stage two), Kohlberg suggests that a relatively small number of people will attain stage five or six morality since most will not advance beyond stages three to four (Gilligan, 1974; Hamden-Turner and Whitten, 1971; and Kohlberg, 1969). Kohlberg (1963a) suggests that the last two stages continue to increase from age thirteen to sixteen. Actually, it has been suggested that this increase in the level of one's moral reasoning can occur even after age



sixteen depending upon how one interacts in the community and how stimulating is his environment (Parish, 1973).

Generally speaking, there are agents which create a stimulating environment and thus enhance one's level of moral reasoning. For example, Turiel (1966) has conducted an experiment which revealed that children accommodate moral reasoning one level above their functioning stage to a much greater extent than moral reasoning two levels above or one level below their functional stage. The Turiel (1966) experiment was based on the notion that exposure to concepts one stage above, concepts within a subject's grasp, provided him exposure to new and contradictory ideas requiring thought. It was proposed that coping with concepts that had some meaning to the subjects but were also somewhat novel in nature, led to new modes of thinking, or to a greater use of the stage that was one above their original stage (Turiel, 1966).

Experiments such as these by Turiel are in accordance with the notion proposed by both Kohlberg (1963a, 1968), Piaget (1949) and others (e.g., Hamden-Turner and Whitten, 1971) that growth in the capacity for moral judgment can be induced by cognitive conflict.

The review of the literature mentioned above suggests the efficacy of a stimulating environment to moral development. The construct of cognitive complexity was reviewed as to its effectiveness in elevating the desired moral development of children. This study attempted to inculcate the above research for the purpose of examining the relationship between the moral development test scores of juvenile delinquents and the involvement of these juveniles in a group discussion experience related to the enhancement of moral development.

### Cognitive Conflict

The concept of cognitive conflict is similar to the concept of disequilibrium, which Piaget had originally proposed to account for cognitive development. Cognitive conflict occurs when:

Movement from one structure to the next occurs when the system, by being challenged, is put into a state of disequilibrium. This change in structure would involve the establishment of a new equilibrium after the occurrence of disequilibrium (Turiel, 1966, p. 131).

Higher stage reasoning is assimilated by the child only if it arouses cognitive conflict in the child. Turiel (1966) found that moral reasoning at a higher stage than the child's own led to increased usage of moral thinking at the next stage up only if it disagreed with, or introduced uncertainty into, the child's own decision on moral dilemmas. This disagreement and uncertainty supports and expands the definition of cognitive conflict discussed earlier. What is occurring here is the unfolding of a long, integrated process that may be characterized as a transition from subjective centering in all areas to a decentering that is at once cognitive, social, and moral (Piaget and Inhelder, 1969).

### Enhancement

This process of decentration can be affected by various environmental agents. The affects of some agents serve to enhance moral development, while the affects of other agents serve to retard or inhibit moral development. One facilitating agent may be the parent who can accelerate the child's cognitive and moral development by both requiring the child to accommodate at the top limit of his ability and by using reason to support his directives (Baumrind, 1969). Also, if parents depict a

high level of morality, their children will reach and transcend stage four at a relatively early age (Hampden-Turner and Whitten, 1971).

Educators, who may also serve as agents that facilitate moral development, could nourish moral judgment by requiring their students to role play, to understand reasons for any restrictions, and to allow their students to control their own actions (Kohlberg, 1963).

Blatt and Kohlberg (in press) have suggested that educators, for the purpose of inducing cognitive conflict, need to present students with dilemmas and the kind of arguments between students which evoke a sense of disequilibrium about one's own position. Growth in the ability of pupils to make higher-level moral judgments can also be fostered by creating conflicts between two or more stages and dramatizing the issues. Hampden-Turner and Whitten (1971) reported: That when disputes are dramatized in a classroom, they tend to foster higher level judgments.

As noted above, there are also agents which tend to depress the moral development of children. Coercive parents have been shown by Kohlberg (1964) to often discourage the child from autonomous thinking and thus retard moral development. Kohlberg (1964) has additionally demonstrated that deprivation of experiences of peer cooperation also inhibits the development of morality. Psychology's major conclusion on improving the maturity of ethical judgment is that the experiences which a child has, can either help him advance in his level of moral development or fixate him at a particular level. He adapts to what his world is like. Haan, Smith, and Block (1968) conclude that youth still at Kohlberg's opportunistic or hedonistic stage came from families that did not seem to encourage their children to develop a sense of responsibility and autonomy. In reference to juvenile delinquents who have been

institutionalized, the above discussion supports the theory that juvenile delinquents are involved with amoral behavior to gain the four needs of adolescence which they have been denied by their home and community. These four needs are: autonomy, new experience, competence, and activity (Thrasher, 1969).

While the examples mentioned did not deal with juvenile offenders, it seemed quite logical that if these methods of instruction and investigation (presentation and open discussion of ethical and moral issues) were applied to the juvenile offender population, then a significant relationship should appear between involvement in the group experience and level of moral development of the subjects.

While studies of moral development have been accomplished (Kohlberg, 1973) in penal inmates, this study attempted to secure similar results in juveniles. Since juveniles are far more impressionable than hardened convicts (Thrasher, 1969), the researcher felt that the methodology of this study would result in bringing to light a relationship not previously researched which could greatly benefit juvenile institutions.

#### Summary

The review above summarizes current research understanding of cognitive conflict and its inferred relation to moral reasoning. Discussion was also directed toward methods which are related to the enhancement of moral reasoning. Research was discussed which had developed methods found to change or relate significantly to the upward shift of moral reasoning in prison inmates. This study attempted to build upon the concepts used in previous research in an effort to

significantly relate the involvement in moral development procedures to moral development test scores in juvenile delinquents.

## CHAPTER III

### METHODOLOGY

#### Introduction

In considering the methodology used in this study, the reader must keep in mind the fact that the intervention "working" in a replicable way is less a test of moral development theory than it is a test of whether the particular research had some reliable impact on the subjects in the developmental group. Moral development theory enters in the analysis of results in terms of individual subjects' patterns of change, given such impact. The theory claims that if a researcher has an impact upon the structure of moral reasoning, it will be reflected in movement to the next stage up in each subject of the developmental group (Kohlberg, 1966).

#### Statistical Design

The difficulty in locating a subject population and a cooperating juvenile agency was a major obstacle in this study and was attributed to the publicity received by the Buckley Amendment. The officials of the agency demanded that they be in charge of randomly assigning the juveniles to either the development group or control subjects. It was determined by the researcher during the course of the moral development discussions that there had not been total random assignment of subjects.

The juvenile official in charge of the assignment saw fit to make certain that eight of the more serious delinquent cases were assigned to the developmental group. It was felt by the researcher that this must be reported to the reader.

This study took place at a high school and was composed of twenty-nine sixteen and seventeen year old adolescents, all of whom had been declared by a county youth services program as being juvenile delinquents. Of the twenty-nine juveniles, fifteen were arbitrarily assigned to the developmental group and the remaining fourteen remained as control subjects. The developmental group was composed of six females and nine males. The control subjects consisted of seven females and seven males. A pretest was given to both the developmental group and control subjects which was followed about four weeks later by a posttest also given to both the developmental group and control subjects. During the interim period between pretest and posttest, only the developmental group was exposed to group discussion of issues intended to focus upon moral dilemmas and means by which to solve these dilemmas.

The relationship between membership in the developmental group and moral development test scores was assessed by a series of four point-biserial correlation coefficients. These statistics were utilized in the following manner:

1. Point-biserial correlation coefficient to assess the relationship between pretest p-score and membership in either the developmental group or control subject sample.
2. Point-biserial correlation coefficient to assess the relationship between pretest stage score and membership in either the developmental group or control subject sample.

3. Point-biserial correlation coefficient to assess the relationship between posttest p-score and membership in either the developmental group or control subject sample.
4. Point-biserial correlation coefficient to assess the relationship between posttest stage score and membership in either the developmental group or control subject sample.

The final step in the statistical design of this study involved a test of differences between the point-biserial correlation coefficients. That is, point-biserials 1 and 3 above were compared using Fisher's transformation to  $z$  to assess the significance of difference between the two correlations involving p-scores. Secondly, point-biserials 2 and 4 above were also compared using Fisher's transformation to  $z$  to assess the significance of difference between the two correlations involving stage scores.

#### Control of Subject Variables

As mentioned earlier, the timing and nature of this study presented many problems for the researcher, particularly in controlling subject variables. The researcher was not afforded the optimal level of control over the subjects involved due to the apprehension of juvenile officials with the recent passage of the Buckley Amendment.

In the tradition of learning research, the practice effects of testing provide the recognition of the need for control subjects. The pretest-posttest difference in the control subjects, who did not receive the moral development exercise, provided the researcher with a valid index as to the result of retesting of subjects with the same instrument. Maturation was not viewed by the researcher as a problem due to the



relatively short time span of four weeks between the pretest and posttest. Thus, maturation and testing were controlled in that they were manifest equally in the developmental group and the control subjects.

Subject life history has been shown to be a major consideration in research on attitude and behavioral change. Kohlberg (1969) suggests that due to a close relationship between moral judgments and attitudes, the history of the subjects may be a critical concern. Ideally, history of the subjects which may effect the outcome is experimentally controlled through randomization of the subject population. Randomization was not possible in this study. Rather, assignment to either the developmental group or to the control subjects was arbitrarily made with statement that many of the worst juvenile offenders went into the developmental group and were exposed to the group moral judgment procedures. Administrative officials considered the pertinent historical fact in regard to subject assignment to be the amount of deviant behavior committed by the juveniles which resulted in their supervision.

A statistical phenomenon of considerable importance is the regression effect. On the basis of the regression effect, in this study one would expect to find slightly higher scores on the posttest for the developmental group and control subjects regardless of the developmental group having taken part in a moral development experience. Actually, the developmental group tallied scores much higher on the posttest than did the control subjects. Although the subjects were not randomly assigned, a very large gain in posttest scores may suggest that discussion group membership was strongly related to the high posttest scores of the developmental group. On the posttest for the control subjects, it was unlikely that the scores they received on the pretest would have been

maintained but rather would have regressed toward the mean. As discussed in the following chapter, the control subjects changed very little from pretest to posttest scores. In comparison to the very large increase in the developmental group, regression effect can probably be negated as a major contributor to the results of this study.

The Hawthorne effect, suggesting that any change or extra attention is enough to cause subjects to change, must be considered. In relation to the procedures in this study, it could be hypothesized that the interaction afforded to subjects in the developmental group may have resulted in the posttest results, and therefore, a second control group might have been utilized which received a placebo method of group interaction. Blatt and Kohlberg (in press) utilized a number of placebo groups in their moral development experiments to ascertain if simple discussion rather than moral development exercises could result in similar experimental results. This series of studies conclusively demonstrated that improvement in one's moral development is dependent on more than attention or interaction. Blatt and Kohlberg (in press) found significant improvement in moral development only in the group which received the specified experimental treatment. With this finding considered, placebo groups were not deemed necessary for this study.

The last consideration in this section involved the halo effect. The halo effect is the tendency to rate a subject in the constant direction of a general impression of that subject. The well defined objective scoring techniques in the Defining Issues Test removed any subjective bias the researcher may have had toward the developmental group.

## Procedures

At the outset of the study, both the developmental group and control subjects were gathered in a large room to take the pretest consisting of the Defining Issues Test. The researcher gave the following directions to the group of subjects:

I would like all of you to please fill out the following questionnaire for me. The questionnaire is made up of a series of short stories and a number of questions you are to answer about each story. There are no right or wrong answers to the stories so please do your own work. When you are finished, you are free to go back to your regular activities. Take your time and consider your responses before you write them down. Be sure to sign your name and read the directions thoroughly before you begin. If you have any questions, please feel free to ask me.

After this first session, the control subjects were dismissed and not seen again by the researcher until administration of the posttest. The entire developmental program lasted four weeks with a total of nine hours of discussion for the developmental group. This was broken down into two one and one half hour sessions per week on Tuesday and Thursday mornings. In each of the discussion sessions with the developmental group members, one moral dilemma was used as a topic. Table I shows how the four week period was utilized for the developmental group members.

It is important to note here that Table I clearly shows that discussion topics for the developmental group focused upon a series of moral conflict situations. Topics were different but similar to those employed in the Defining Issues Test used as the pretest and posttest. This suggests that any change in scores indicates that the developmental group gain was probably not caused by coaching. Kohlberg (1969) has shown that if the discussion format is different from the test format used to assess moral development, then one can assume that any elevation

which is accrued by subjects exposed to the discussion of moral dilemmas is not a function of simple transfer of information but rather a change in cognitive evaluation of moral information.

TABLE I  
DEVELOPMENTAL GROUP FOUR WEEK FORMAT

Session	Discussion Topic	Purpose
Pretest	Pretest Using the Defining Issues Test	---
1	Power Conflict	Expose State 3 Moral Thinking
2	Priorities Conflict	Expose Stage 3 Moral Thinking
3	Sacrifice Conflict	Expose Stage 4 Moral Thinking
4	Rights Conflict	Expose Stage 5 Moral Thinking
5	Social Contract Conflict	Expose Stage 5 Moral Thinking
6	Ethics Conflict	Expose Stage 6 Moral Thinking
Posttest	Posttest Using the Defining Issues Test	---

During each of the six one and one half hour conflict discussion sessions, the researcher sat in a chair near the blackboard of the classroom used in the discussions. The subjects in the developmental group sat in desks arranged in a semi-circle around the researcher's desk. The door to the classroom was always kept closed to avoid any unnecessary intrusions or disturbances.

The researcher began the first session of conflict discussion by introducing himself as an educational researcher concerned with social interaction processes and social issues. He informed the group members that they had been selected to take part in a short study concerned with the discussion and evaluation of solutions to moral dilemmas. The researcher informed the group that all interactions within the room should not be discussed outside of the designated period. He went on to express his interest in having a totally open discussion where everyone would be encouraged to express their opinions without fear of ridicule from other group members. Finally, the researcher concluded his introduction by offering the group members the opportunity to get out of the group if they did not want to participate. None of the members accepted this offer. Quite to the contrary, two subjects stated their interest in taking part in an open discussion where they were allowed to say what they wanted.

After the introduction, the researcher relied upon the following five-phase format during each session of the conflict presentations. The following sequence was followed by the researcher during each session:

1. Present Conflict Situation. The researcher began each session by stating:

Today's discussion will be centered around the following paragraph. I will read it to you twice and then let you think about it for a minute. I will then read it a third time to make sure everyone hears it correctly and understands it. Then I want all of you to sit quietly for two minutes and consider how you would resolve the conflict. After two minutes, I will call on some of you to give us your solutions.

This phase of the procedure required approximately ten minutes from the time the group first came into the classroom.

2. Subject Solutions Listed. The researcher began the second phase of the procedure by randomly selecting three subjects to state their solutions to the conflict statement. The researcher indicated to the group that he was randomly picking subjects to report their solutions so they should not feel left out if they were not called on. The solutions offered by the subjects were written verbatim on the blackboard by the researcher. The solutions were never longer than three sentences so the writing did not take up much time. Appendix C gives examples of solutions offered by subjects on the six conflict situations. This phase usually lasted about eight minutes.
3. Consequence Elaboration. The researcher then asked group members to "elaborate on the consequences you feel the solutions listed on the blackboard will cause for the people involved." Each of the developmental group members were asked to elaborate on the consequences of the one solution they most supported of the three solutions listed on the board. This exercise assured that all group members were staying attentive to the procedure since they all realized they would be asked for some input to the discussion. Appendix C gives examples of how the subjects viewed the consequences to the solutions offered. This phase lasted between 25 and 35 minutes.
4. Researcher Support. In phase four of the procedure, the researcher would support one of the three solutions listed on the board if it were compatible to the stage of morality being supported during that session of the procedure. In all six of the conflict dilemma discussions, one of the solutions offered

by one of the subjects could be related to the desired level of morality. If no solution would have been acceptable to the desired level of morality for that session, then the researcher could have offered an appropriate solution. However, this was not necessary in this study.

The following is an example of this phase of the procedure. During the first conflict dilemma discussion involving whether or not a strong and wealthy man should dominate a weaker man, one of the subjects offered the following solution: "I think that Abraham should leave the other guy alone and both of them should do what they want." The researcher responded to this solution by saying,

I agree with the solution offered by Jim for the following reason. I don't think a strong man should impose his will forcefully on a weaker man. One should not always be selfish and pursue goals that will benefit only himself. One must consider other people before acting. One must have some mutually helpful relationships with others regardless of how powerful one is.

This defense of the subject's answer is based on stage 3 morality which was the desired level of moral reasoning for the first conflict-dilemma discussion.

During each of the five discussions which followed, the researcher supported one of the solutions offered in a similar way as above. The researcher's support was always founded in the level of moral development desired at that point in the procedure. This phase usually lasted approximately ten minutes.

5. Group Consensus of Opinion. After the researcher supported one of the three solutions as mentioned above, the supported solution

was circled in red chalk by the researcher and the statement of why it was supported was written out by the researcher on the blackboard. Each of the developmental group subjects were then asked to either agree or disagree with the researcher's selection of the most appropriate solution offered by one of the subjects. In all cases, the group members agreed with the solution selected by the researcher. This phase took approximately fifteen minutes and concluded the one and one half hour session. The subjects were always thanked for their responses and encouraged to think about any new concepts they may have acquired as a result of the group discussion. The subjects were then instructed to return to their scheduled activities.

As stated earlier, this five-phase sequence was followed during each of the six conflict-dilemma discussions.

#### Curriculum Content

The prepared curriculum materials used in the study were a set of "open" moral dilemmas designed to arouse genuine conflict or uncertainty as to moral reasoning and choice. Open dilemmas, like the Kohlberg and Rest test dilemmas, are ones on which there is no clear agreed upon "morally-correct" choice. Some of the conflict situations were biblical, some non-biblical. The six dilemmas were stated as follows with the desired response following each dilemma. The response offered by a subject closest to the desired response was supported by the researcher.



Dilemma 1

Abraham was very rich in cattle, silver, and gold. He was journeying to a new land which he planned to settle. Lot, who went with Abraham, also had herds of cattle but was not as rich nor as powerful as Abraham. The possessions of Abraham and Lot were so great that they could not live together because the land would not be able to support them both. Abraham was very powerful with many soldiers under his command. How should Abraham solve the problem of dividing the land between himself and Lot (Genesis, Chapter 13)?

Desired Solution. A stronger and more powerful figure should not impose his will on a less powerful one and be selfish with regard to material goods. One must try to please and help others.

The researcher used this situation to expose the group to stage 3 reasoning (orientation to approval and to pleasing and helping others).

Dilemma 2

In a working family of six people the oldest son graduated from high school and was accepted to a college with a partial scholarship. Just before he was ready to go, his father became ill and was hospitalized. The family did not have means for support unless the oldest son postponed going to college (which would possibly mean losing his partial scholarship) and went to work to support his family until the father was able to work. What should the boy do?

Desired Solution. The boy should not consider only his personal interests but also he should consider what his family thinks is right for him to do. He must try to help others.

In this situation the researcher continued to uphold and support stage 3 arguments.

### Dilemma 3

Abraham was told by God to take his only son whom he loved very much to a far away land. When he reached this land he was to tie his son and offer him as a sacrifice upon a high mountain. Abraham was told to take two men with him and a knife with which to kill his son. What should Abraham do (Genesis, Chapter 22)?

Desired Solution. One must submit to the existence of divine authority and one's duties must be defined by this authority. Abraham should do what God tells him.

At this point the researcher introduced Kohlberg's stage 4 morality (authority and social order maintaining orientation) in its application to a religious or divine authority, defining duties based on maintaining a socio-religious order for its own sake, and upon maintaining earned expectations of others.

### Dilemma 4

Joseph was seventeen years old and was shepherding the cattle with his brothers. Joseph reported to his father about the poor quality of work his brothers were doing. The father began to love Joseph more than his brothers and the brothers began to hate Joseph because of that.

Joseph had a dream and said he would one day rule over all the land and over his brothers. The brothers soon hated Joseph even more and decided to get rid of him. One day when Joseph and his brothers were out in the field, the brothers threw Joseph into a deep pit and then decided to sell him as a slave to Egyptian traders. Did they have the right to do this (Genesis, Chapter 37)?

Desired Solution. No, the individual rights of Joseph had been abused. There needs to be stabilized and fair social interactions between men.

This situation was chosen by the experimenter to introduce stage 5 issues of individual "rights" and social interactions based upon an underlying system of "rights."

#### Dilemma 5

I am sure you have all heard two people that represent different points of view about some issue arguing back and forth. Likewise, everyone has heard one government official favor one point of view and another government official favor the opposite point of view. My question to you is how do we ever decide what is right?

Desired Solution. We decide what is right based on social contract -- that what is right is what the members in a democratic society freely agree upon.

Such a view reflects stage 5 contractual legalistic orientation (recognition of an arbitrary element or starting point in rules or expectations for the sake of agreement; general avoidance of violation of the will or rights of others).

### Dilemma 6

In this last session today, I would like to discuss the possibility that an act can be legally right but morally wrong or legally wrong but morally right. Do you think it is possible for someone to become involved in an act that he or she feels is morally right but may go against the laws established by our society? If so, give me some examples.

Desired Solution. Yes, acts can be morally right and legally wrong. One must decide for oneself what is right -- society cannot always dictate the correct behavior to follow.

In this last session, the researcher introduced some ideas of Kohlberg's stage 6 (orientation to universal ethical principles and self-determination). The discussion focused upon the notion of moral principles as distinct from legal law.

### Scoring Moral Development on the Defining Issues

#### Test

The Defining Issues Test can either be group or individually administered. Usually fifty to sixty minutes is ample time for the six-story version to be taken. All subjects were allowed as much time as they needed to finish the Defining Issues Test. The form of the Defining Issues Test which was administered had subjects put check marks and numbers directly on the questionnaire booklet. Every story has twelve issues. The first task after reading the story is to read each item by itself and to rate it in importance. After rating each item individually, then the subjects were to consider the set of twelve items and choose the four most important items. Appendix A includes a complete copy of the

Defining Issues Test which was administered in this study. The Defining Issues Test has been shown not to be suitable with young subjects. McGeorge (1973) reported that the reading level of the stories requires subjects to be at least eleven years old. The Defining Issues Test does contain a consistency check that provides a means of identifying subjects who are randomly checking their responses.

Scoring the Defining Issues Test yields a "principled" morality score ("p") and a stage score. The p-score is interpreted as the relative importance attributed to principled moral considerations in making a moral decision. The p-score is expressed as a percentage. In research to-date on the Defining Issues Test, the p-score has been the most useful way to index development. It is possible to assign subjects to a Kohlbergian stage of moral development based on exceptional usage of that stage. The methods for deriving the p-score and the stage of moral development from raw data are discussed in Appendix C.

#### Intrepretation of Scores

The Defining Issues Test research is based on Kohlberg's stage theory, and the characterization of the stages assumed in the Defining Issues Test is basically Kohlberg's. Kohlberg's assessment asks a subject to evaluate various considerations provided to the subject. The Defining Issues Test is more of a recognition task rather than a production task, and accordingly subjects are likely to appear more advanced on the Defining Issues Test.

Kohlberg's assessment locates a subject in a developmental sequence by stage typing whereas the Defining Issues Test's p-score locates a subject's development in terms of the relative importance he gives to

principled moral thinking. The p-score (sum of weighted ranks given to stage 5 and 6 items) has so far been the most useful and reliable index from the Defining Issues Test (Rest, 1974).

#### Validity, Faking, Reliability

Moral judgment is a psychological construct and the Defining Issues Test is an attempt to operationalize that construct. The theoretical implications of the construct suggest that a set of scores generated by the Defining Issues Test has certain properties. Since the theoretical implications of the construct are multifaceted, there is no single piece of evidence that can validate the Defining Issues Test but a case for its validity must be built up from many studies.

#### Age Trends and Group Differences

In a first study (Rest, Cooper, Coder, Masanz and Anderson, 1974) of the Defining Issues Test, groups of forty each of junior high (age fourteen), senior high (age seventeen, eighteen), college junior and senior, and graduate students were given the test. The graduate student group consisted of twenty-five seminarians and fifteen doctoral students in political science and moral philosophy. The presumption was that these four groups represent an order of increasing advancement in moral judgment. Table II (presented on page 33) shows the p-scores of the four groups. Note that p shows a clear differentiation among the groups.

Quite a few studies have used the Defining Issues Test since these first studies, and although the purpose of the subsequent studies was not to investigate age trends of the Defining Issues Test, nevertheless the average p-score of these samples can be examined to see how closely

TABLE II  
GROUP DIFFERENCES ON THE DEFINING ISSUES TEST  
INDICES

	Stage
	5 and 6 (p)
Junior High n = 40	32.7
Senior High n = 40	37.4
College n = 40	54.9
Graduate n = 40	65.1
a) Seminarians n = 25	61.9
b) Political Science and Philosophy Majors n = 15	70.3

they fit in with the first study. Table III (presented on page 34) lists sixteen additional samples involving over 1500 additional subjects.

In general, the picture that emerges from Tables II and III is that junior high samples tend to average in the 20's and low 30's, senior highs in the upper 30's, college underclassmen in the 40's and college upperclassmen in the 50's, graduate students in the 60's, and academic specialists in the moral-social-political area in the 70's.

TABLE III  
 P-SCORES OF THE DEFINING ISSUES TEST FOR  
 SIXTEEN SAMPLES  
 (From Rest, 1974)

Samples	Average p-score for Group
<b>Junior High</b>	
1. Lower-middle class 9th graders from inner city Midwest schools (n=417)	20.0
2. Another lower-middle class of 9th graders from inner city Midwest schools (n=61)	22.7
<b>Senior High</b>	
3. High school juniors in public urban Midwest schools (n=50)	36.0
4. High school seniors and juniors in special summer social studies program (n=18)	37.0
5. Upper-middle special class high school senior girls in private Catholic schools (n=33)	38.7
6. High school graduates in college, working in Midwest, ages 19-20 (n=17)	37.0
<b>College</b>	
7. Junior college subjects in ethics courses, Midwest public university (n=73)	41.5
8. College student in southern U.S. colleges (n=161)	24.5
9. Freshman and sophomores from Midwest suburban community college (n=113)	41.0
10. College freshmen in New Zealand University (n=146)	43.0
11. Sophomores from Midwest private urban colleges (n=137)	46.2
12. Middle West liberal arts college (n=72)	46.6
13. College seniors from the same liberal arts college (n=60)	54.0
14. College juniors in education from large public Midwest university (n=54)	50.6
15. Undergraduates in psychology class of Eastern U.S. public college (n=53)	44.6
16. Upper middle-class adults in religious education class, age 23-49 (n=85)	45.3



### Relation to Kohlberg's Scale

Written responses to four moral dilemmas and stage scores using Kohlberg's scale were available on forty-seven subjects from the original samples (Rest et al., 1974). This group is heterogeneous, consisting of sixteen high school students, nineteen college students and twelve adult/graduate students. Subjects were ranked by stage type and this was correlated with their Defining Issues Test p-scores. The correlation was .68.

### Faking High and Faking Low on the Defining Issues Test

McGeorge (1973) administered the Defining Issues Test twice to college students. In a "fake good" condition subjects were instructed:

Please assist us by trying to fill in the questionnaire so that it records the highest most mature level of social and ethical judgment possible. Fill in the questionnaire as someone concerned only with the very highest principles of justice would fill it in.

In a "fake bad" condition subjects were instructed:

Please assist us by trying to fill in the questionnaire so that it records the lowest, most immature level of social and ethical judgment possible. Fill in the questionnaire as someone with no sense of justice and no concern for other people would fill it in.

The standard condition asked subjects to fill in the Defining Issues Test "to show what you yourself really think about the problems raised." McGeorge's study clearly indicated that subjects can fake downward but not fake upward on the Defining Issues Test.

### Stability and Short-Term Change

Twenty-eight ninth graders were administered the Defining Issues Test two weeks apart. The p-score correlation was .81 (Rest et al., 1974). McGeorge (1974) reports a correlation of .65 for 47 first year undergraduate college students testing eighteen days apart, and comments that this correlation is probably attenuated by a restricted range of scores.

### Longitudinal Changes and Factors Associated with Changes

Eighty-eight subjects from the original study (Rest et al., 1974) who were then junior and senior high school students were tested two years later. The data are still being analyzed, but the following findings can be cited: The two-year stability for the fifty former junior high students (Pearson correlation of p-score) was .68; for the thirty-eight former senior high students it was .54; for the entire group of eighty-eight was .58.

### Summary

In this chapter, twenty-nine juvenile delinquents from Tri-County Youth Services were identified as subjects. The instrument used to assess moral development was discussed including related research on the Defining Issues Test. Procedures used in collecting and treating the data were given. Details of the findings resulting from the application of statistical techniques to the data obtained are given in Chapter IV.

## CHAPTER IV

### ANALYSIS OF THE DATA

#### Introduction

This study investigated the relationship between assignment of subjects to a developmental group or control subject sample and the scores obtained by these subjects on the Defining Issues Test of moral development. One hypothesis was tested in this study: There will be a significant relationship between a group involving the discussion of moral dilemmas and moral development test scores as measured by the Defining Issues Test.

#### Discussion of Sample Selection and Statistical

#### Analysis

One of the stipulations involved in using these juveniles was that the local juvenile officials would randomly assign subjects to the developmental group. Upon later inquiries made by the researcher, total randomization was found to have not been accomplished with the subjects. Arbitrary subject assignment necessitated the use of correlational statistics. The point-biserial correlation coefficient was utilized with the conditions of a continuous variable (p-score or stage score) and a dichotomous variable (group assignment) being fulfilled by the design of the study.

Current publicity afforded to the Buckley Amendment was cited by juvenile officials as the reason for their reluctance to approve programs involving incarcerated youth. These officials preferred to wait for a precedent to be set by some other state agency to see what line the state would follow in interpretation of the amendment.

#### Relationship Between Group Membership and Moral Development Test Scores

Previous to the moral development discussions, all subjects were administered the Defining Issues Test as an index to the importance each subject gave to principled moral thinking and to determine their stages of moral thinking. The developmental group and control subjects were also administered the Defining Issues Test at the conclusion of the group discussion procedures engaged in by the developmental group. Table IV presents the mean Defining Issues Test p-score for the developmental group and control subjects on the pretest and posttest. Table V presents the mean Defining Issues Test Kohlbergian stage score for the developmental group and control subjects on the pretest and posttest. As is readily seen by the data reported in these two tables, the developmental group, having been involved with the moral development procedure of discussing conflict dilemmas, reflected substantially higher gains on the posttest in both p-score and stage score.

Tables VI and VII report the results of the four point-biserial correlation coefficients which were used to analyze the data. Table VI reports that the  $r_{pb}$  between the developmental group or control subjects and p-score on the pretest is non-significant. Table VI also represents the relationship which exists between developmental group membership and

TABLE IV  
 MEAN DEFINING ISSUES TEST P-SCORES FOR THE  
 DEVELOPMENTAL GROUP AND CONTROL SUBJECTS  
 ON PRETEST AND POSTTEST

	Mean DIT p-score Pretest	Mean DIT p-score Posttest
Developmental Group	20.93	38.07
Control Subjects	25.21	26.0

TABLE V  
 MEAN DEFINING ISSUES TEST KOHLBERGIAN STAGE  
 SCORE FOR THE DEVELOPMENTAL GROUP AND  
 CONTROL SUBJECTS ON PRETEST AND  
 POSTTEST

	Mean Stage Score Pretest	Mean Stage Score Posttest
Developmental Group	3.0	4.0
Control Subjects	3.21	3.36

p-score on the posttest with an  $r_{pb}$  of .567 which is statistically significant ( $p < .01$ ). Table VII reports the relationship between developmental group membership and stage score on both the pretest and posttest. The  $r_{pb}$  obtained on the pretest in Table VII was non-significant suggesting no relationship between developmental group membership

and stage score. The  $r_{pb}$  posttest coefficient of .532 is statistically significant ( $p < .01$ ), again suggesting a relationship between developmental group membership and stage score as assessed on the posttest.

TABLE VI  
PRETEST AND POSTTEST  $r_{pb}$  COEFFICIENTS RELATING  
P-SCORE TO DEVELOPMENTAL GROUP  
MEMBERSHIP

	Pretest			Posttest		
	$r_{pb}$	t value	p	$r_{pb}$	t value	p
p-score	-.270	1.457	NS	.567	3.576	.01

TABLE VII  
PRETEST AND POSTTEST  $r_{pb}$  COEFFICIENTS RELATING  
KOHLBERGIAN STAGE SCORE TO  
DEVELOPMENTAL GROUP  
MEMBERSHIP

	Pretest			Posttest		
	$r_{pb}$	t value	p	$r_{pb}$	t value	p
stage score	-.180	.940	NS	.532	3.265	.01

The final correlative analysis of the data was computed to determine if the difference between pretest and posttest correlation of p-score and developmental group membership was statistically significant. This test was also utilized to ascertain if the difference between pretest and posttest correlation of stage score and developmental group membership was statistically significant. The test was actually an attempt to determine if the differences between pretest and posttest on the above correlations were of sufficient magnitude to infer that they are a result of having two different populations at the time of the posttest. No test of differences between population  $r$ 's based upon standard errors of  $r$  is very satisfactory. The best recourse was to use Fisher's transformation to  $z$ , whose standard error is related only to  $N$ . In the case above, the two  $r_{pb}$  coefficients concerned with p-scores were converted to corresponding  $z$  coefficients. The same process was followed for the two  $r_{pb}$  coefficients dealing with the stage scores. The sampling distribution of Fisher's  $z$  is normal. Therefore, the difference in the pretest  $r_{pb}$  coefficient and posttest  $r_{pb}$  coefficient for p-scores was determined by finding how much the corresponding  $z$  values of the  $r_{pb}$  coefficients deviated from a difference of 0.0. It was statistically calculated that the  $z$  values deviated 1.33, which indicates the difference in  $r_{pb}$  p-score values is significant at the .08 level.

Similarly, the  $r_{pb}$  coefficients dealing with pretest and posttest results of the developmental group and control subjects on stage scores were also converted to  $z$  scores for analysis of a significant difference. The  $z$  values were calculated to deviate from a difference of 0.0 to the extent of 1.5, which suggests that the difference is significant at the .07 level.

As suggested earlier in this paper, moral development can also be viewed from individual subject's patterns of change. As shown in Table VIII, the following upward trend of all subjects in the developmental group on the Defining Issues Test p-scores and Kohlbergian stage score is indicative of the relationship suggested in the correlative analysis between group membership and test scores. Table IX also allows the reader to make a similar survey of score changes made by the control subjects from pretest to posttest. As the reader can see, the change pattern is considerably less dramatic for control subjects from pretest to posttest on moral development scores than was the change pattern for the developmental group.

#### Summary

This chapter included a presentation of the results obtained from this study. There appeared to be sufficient evidence in the data gathered by the researcher to accept the hypothesis that a significant relationship existed between membership in the developmental group and elevated moral development test scores as measured by the Defining Issues Test.

The significance of the results was obtained through the use of a series of point-biserial correlation coefficients.

Chapter V will present the summary and conclusions of this study as well as a discussion of some of the implications for utilization and future research.



TABLE VIII  
 RAW DATA OF THE DEVELOPMENTAL GROUP ON P-SCORE  
 AND STAGE SCORE CHANGE

Subject	p-score			Stage Score		
	Pretest	Posttest	Change	Pretest	Posttest	Change
1	30%	37%	+ 7%	3	4	+1
2	13%	40%	+27%	2	3	+1
3	13%	30%	+17%	2	3	+1
4	30%	66%	+36%	4	5	+1
5	17%	30%	+13%	3	4	+1
6	26%	43%	+17%	4	5	+1
7	27%	43%	+16%	3	4	+1
8	27%	33%	+ 6%	3	4	+1
9	42%	48%	+ 6%	3	4	+1
10	10%	26%	+16%	3	4	+1
11	22%	43%	+21%	3	4	+1
12	22%	33%	+11%	3	4	+1
13	6%	26%	+20%	3	4	+1
14	12%	50%	+38%	3	4	+1
15	17%	23%	+ 6%	3	4	+1

TABLE IX  
 RAW DATA OF THE CONTROL SUBJECTS ON P-SCORE AND  
 STAGE SCORE CHANGE

Subject	p-score			Stage Score		
	Pretest	Posttest	Change	Pretest	Posttest	Change
1	38%	38%	0%	3	3	0
2	34%	36%	+2%	4	4	0
3	22%	24%	+2%	4	4	0
4	22%	22%	0%	4	4	0
5	22%	27%	+5%	3	4	+1
6	25%	25%	0%	3	4	+1
7	21%	23%	+2%	3	3	0
8	24%	24%	0%	3	3	0
9	24%	24%	0%	3	3	0
10	22%	23%	+1%	3	3	0
11	25%	26%	+1%	3	3	0
12	26%	24%	0%	3	3	0
13	26%	26%	0%	3	3	0
14	22%	22%	0%	3	3	0

## CHAPTER V

### CONCLUSIONS, IMPLICATIONS AND SUMMARY

#### Overview

The present investigation involved twenty-nine juvenile delinquents from the Tri-County Youth Services Division of the Oklahoma Department of Corrections. Each subject was asked to complete the Defining Issues Test. Data gathered on this instrument was then compared with the subject's scores on the same instrument at the conclusion of the developmental group procedure.

Point-biserial correlation coefficients were computed to test the relationship between membership in the developmental group and moral development scores on the Defining Issues Test.

In this study, one hypothesis was tested. The hypothesis was stated as follows: A significant relationship will exist between membership in the developmental group and elevated moral development test scores as measured by the Defining Issues Test.

#### Conclusions

Table IV and V show the mean increases in p-score and stage score for developmental group subjects and control subjects. These tables clearly demonstrate that those subjects in the developmental group

appeared to score considerably higher after having engaged in the group discussion procedure.

In considering the results from the point-biserial correlation coefficients, the two coefficients relating pretest p-score and stage score to developmental group membership,  $r_{pb} = .270$  and  $r_{pb} = .178$ , respectively, suggest no pretest relationship between pretest scores and membership in the developmental group. In contrast, the point-biserial correlation coefficients relating posttest p-score and stage scores of subjects to developmental group membership were both significant at the .01 level,  $r_{pb} = .567$  and  $r_{pb} = .532$ , respectively. This suggests a strong relationship between group membership and posttest p-scores and stage scores. Also, subjects in the developmental group tended to have higher posttest p-scores and stage scores as indicated by the Defining Issues Test.

Finally, the pretest correlations were statistically compared to the corresponding posttest correlations on p-score and stage score. It was found that the difference between pretest and posttest correlation of the p-score was significant at the .08 level. Likewise, the difference between pretest and posttest correlation of stage score was significant at the .07 level. This suggests that the difference in the two relationships is likely to have been a result of having two different populations at the time of the posttest. What may have made the two populations different is that some subjects were control subjects and others were members of the developmental group.

### Interpretation

A major theoretical issue needs to be considered in terms of this relationship. This is the question of whether the developmental group score change represented the development of new higher stages absent at the pretest period, or merely the expansion of the next stage of thinking the adolescent may already have begun to use. In a recent study, Rest (1969) has found that:

1. Assimilation of the stage 4 advice is contingent upon the capacity to comprehend that advice (as indicated by the ability to paraphrase it without distortion).
2. Comprehension of a higher level of advice is limited to those who spontaneously use that stage of advice (to the extent of at least twenty percent of spontaneous responses to the pretest).
3. As implied by 1 and 2, only those already using twenty percent or more of stage 4 reasoning showed significant increase in stage 4 usage after exposure to it.

The Rest findings suggest that simple passive exposure to the next stage up cannot lead to actual formation of a new stage. In contrast, Turiel (1973) reports some findings that exposure to cognitive conflict may lead some subjects to reorganize or generate new thinking at the next stage up.

Applied to this study, the Rest findings on passive exposure lead to the expectation that the only delinquents who could show a marked increase on stage 4 usage would be delinquents who already showed some (twenty percent) stage 4 usage on pretest. In fact, this did not turn

out to be the case. The stage 4 increase on the posttest of those showing some ( $\geq$  twenty percent) stage 4 usage on the pretest was twenty-two percent while the stage 4 increase on the posttest of those showing no ( $<$  twenty percent) stage 4 usage was seventy-eight percent. In summary, the developmental group seemed to formulate a higher level of thought and not simply to the expansion of an already existing level of thought.

#### Personal Characteristics of Changes

A plausible condition for change is interest in, and attention to the discussion program. To ascertain interest, a posttest interviewer (a probation officer) asked twelve of the delinquents from the developmental group what they thought of the program. Their responses could easily be classified into the following three levels of interest:

Low - Said nothing positive about the sessions.

Medium - Expressed "polite" or balanced approval or interest in the sessions. "I like it," "It was quite interesting," "Some of the discussions were interesting, some were not."

High - The key component of this response was "challenge." A typical response was, "I liked the discussions because you really have to think hard to solve them. I like that if we give him a good answer, he gives another question."

The results were that the four subjects expressing low interest showed the least improvement on the p-score ( $\leq$  seven percent). The three subjects expressing the greatest change in p-score ( $\geq$  twenty-seven percent) all reported high interest in the group sessions. The remaining five subjects either expressed high or medium interest in the sessions.

It is not known whether retrospective interest was itself an expression of the fact of having changed or whether it is an independent predictor of change. The association does increase confidence that developmental change relates to an active process of group involvement.

#### Group Format

The utilization of a group discussion format for this study appeared to be a rather successful means by which to interact with this group of juvenile delinquents. The group process allowed for the imparting of information by the researcher, the subjects being able to develop a group cohesiveness which it is quite likely they may never have before experienced, and the development of socializing techniques which many of the members had never previously experienced. Many of the juvenile officers had commented upon their inability to communicate with delinquents on a one-to-one basis. This may be due to the juvenile feeling quite inferior in the face of such a power figure as a juvenile officer. While in the group situation, it appeared that the juveniles were more willing to discuss issues and interact freely while feeling confident with many peers close at hand. For this reason, juvenile officials may want to consider the group format as a viable alternative when there appears a need for some counseling process.

Secondly, the developmental group members gradually over the four week period became more at ease with each other and generally began to enjoy the free interaction which they were allowed. This freedom of expression with peer members in a directed discussion may be quite therapeutic in itself. This is closely associated with the third observation made by the researcher. As the developmental group process

progressed, the juveniles became gradually more cognizant of the rights of other group members. At the outset, there was much jeering and bickering between group members which gradually dissipated with the recognition that each member should be allowed to say what was on his mind. During the last session, group members were quite polite with each other while expressing regret at the end of this new experience for them. Generally, groups do appear to offer many obvious and subtle benefits to the counselor who wishes to interact with juvenile delinquents.

#### Problems in Juvenile Delinquent Research

Currently, problems in research concerning juveniles are numerous due to legislation protecting the rights of all children from breaches in the confidentiality of their school records. This problem is complicated considerably when one attempts to study incarcerated youths or youths under some type of mandatory supervision. This researcher was unable to study juvenile offenders incarcerated in state schools because the information obtained from the Defining Issues Test was interpreted to be a breach in confidentiality of the juveniles' rights as the officials interpreted the Buckley Amendment.

Secondly, when a population was located for the study, no taped records of the subjects' voices were allowed to be kept to protect the officials from having the records publicly aired. The officials concurred on the issue that any daily record kept by the researcher that could allude to the identity and thinking level of the subjects must not be used.

Finally, in working with juvenile delinquents, there is automatically a break in communication if the researcher represents



himself as a part of the official network. This researcher found that the most viable method to induce cooperation and interaction was to separate oneself as completely as possible from the officials who were in charge of the juveniles. This allowed for much quicker and effective communication.

#### Implications for Future Research

The natural step to follow from this study would involve going beyond the demonstration of a relationship between group membership and moral development test scores into a causation study. That is, research should now attempt to demonstrate that juvenile delinquents can be effectively enhanced in their levels of moral development as a result of group procedures like those utilized in this study. This may be somewhat difficult to accomplish in terms of the limitations now in effect upon manipulation of subjects. Hopefully though, this study will be accomplished to allow for a more definitive and exact means through which to treat juvenile delinquents.

Secondly, future studies must determine if moral judgment is related to actual, real life behavior. Typically, this question is answered in terms of correlations of moral judgment stage with behavioral measures like amount of cheating on a classroom quiz, and frequency and latency in touching a forbidden toy. Research of this type has produced correlations that are usually statistically significant but moderate in degree of association. The question of interest should be whether moral judgment measures as presently conceived (i.e., using hypothetical dilemmas so as to arrive at a stage score) reliably relate to moral judgment behavior and whether the present scoring categories exhaust the

important features of moral judgment behavior. This type of study will by necessity require tight control and delineation of the past behavioral history of subjects in terms of their criminal records. Of particular concern should be the type of criminal offenses and frequencies of those offenses. This knowledge will be fundamental to the follow-up study of a behavioral change on the part of subjects who were exposed to the moral development and moral behavior procedure.

### Summary

The findings summarized earlier in this chapter are encouraging for both practical and theoretical advances in the area of moral development. On a practical level, they imply that one of the most important areas for the improvement of juvenile institutions and programs is in the development of a rational approach to moral education. If brief periods of discussion can have a substantial relationship to moral development, a pervasive, enduring and psychologically sound concern for the institution's influence upon moral development should have much deeper and more positive effects.

On a theoretical level, the findings suggest that studies of moral education can go far to help understand the conditions for moral change. The present findings do not yet indicate the optimal conditions for change from either a theoretical or a practical point of view. The evidence available, however, does suggest that the developmental principles employed in this study do relate significantly to elevated moral development test scores.

This chapter presented a summary of the findings of the present study along with conclusions that could be drawn from these results.

Implications for further research were also presented. Finally, a portion of the chapter was devoted to supplementary findings gleaned from the data gathered from the present study.

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APPENDIX A

REST'S DEFINING ISSUES TEST DILEMMAS

### OPINIONS ABOUT SOCIAL PROBLEMS

This questionnaire is aimed at understanding how people think about social problems. Different people often have different opinions about questions of right and wrong. There are no "right" answers in the way that there are right answers to math problems. We would like you to tell us what you think about several problem stories. The papers will be fed to a computer to find the average for the whole group, and no one will see your individual answers.

Please give us the following information:

Name \_\_\_\_\_ female  
 Age \_\_\_\_\_ Class and period \_\_\_\_\_ male  
 School \_\_\_\_\_

\* \* \* \* \*

In this questionnaire you will be asked to give your opinions about several stories. Here is a story as an example. Read it, then turn to the next page.

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family's only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank Jones realized that there were a lot of questions to consider. On the next page there is a list of some of these questions.

If you were Frank Jones, how important would each of these questions be in deciding what car to buy?



## PART A. (SAMPLE)

On the left hand side of the page check one of the spaces by each question that could be considered.

GREAT impor- tance	MUCH impor- tance	SOME impor- tance	LITTLE impor- tance	NO impor- tance	
_____	_____	_____	_____	<u>  X  </u>	1. Whether the car dealer was in the same block as where Frank lives.
<u>  X  </u>	_____	_____	_____	_____	2. Would a <u>used</u> car be more economical in the long run than a <u>new</u> car.
_____	_____	<u>  X  </u>	_____	_____	3. Whether the color was green, Frank's favorite color.
_____	_____	_____	_____	<u>  X  </u>	4. Whether the cubic inch displacement was at least 200.
<u>  X  </u>	_____	_____	_____	_____	5. Would a large, roomy car be better than a compact car.
_____	_____	_____	_____	<u>  X  </u>	6. Whether the front connibilities were differential.

## PART B. (SAMPLE)

From the list of questions above, select the most important one of the whole group. Put the number of the most important question on the top line below. Do likewise for your 2nd, 3rd, and 4th most important choices.

Most important	<u>5</u>
Second most important	<u>2</u>
Third most important	<u>3</u>
Fourth most important	<u>1</u>

## HEINZ AND THE DRUG

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 to make. He paid \$200 for the radium and charged \$2000 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 \$1000, 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 got desperate and began to think about breaking into the man's store to steal the drug for his wife.

Should Heinz steal the drug? (Check one)

- Should steal it
- Can't decide
- Should not steal it

## HEINZ STORY

On the left hand side of the page check one of the spaces by each question to indicate its importance.

GREAT	MUCH	SOME	LITTLE	NO	
impor-	impor-	impor-	impor-	impor-	
tance	tance	tance	tance	tance	
_____	_____	_____	_____	_____	1. Whether a community's laws are going to be upheld.
_____	_____	_____	_____	_____	2. Isn't it only natural for a loving husband to care so much for his wife that he'd steal?
_____	_____	_____	_____	_____	3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?
_____	_____	_____	_____	_____	4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.
_____	_____	_____	_____	_____	5. Whether Heinz is stealing for himself or doing this solely to help someone else.
_____	_____	_____	_____	_____	6. Whether the druggist's rights to his invention have to be respected.
_____	_____	_____	_____	_____	7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.
_____	_____	_____	_____	_____	8. What values are going to be the basis for governing how people act towards each other.
_____	_____	_____	_____	_____	9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
_____	_____	_____	_____	_____	10. Whether the law in this case is getting in the way of the most basic claim of any member of society.
_____	_____	_____	_____	_____	11. Whether the druggist deserves to be robbed for being so greedy and cruel.
_____	_____	_____	_____	_____	12. Would stealing in such a case bring about more total good for the whole society or not.

From the list of questions above, select the four most important:

Most important \_\_\_\_\_

Second most important \_\_\_\_\_

Third most important \_\_\_\_\_

Fourth most important \_\_\_\_\_

## STUDENT TAKE-OVER

At Harvard University a group of students, called the Students for a Democratic Society (SDS), believe that the University should not have an army ROTC program. SDS students are against the war in Viet Nam, and the army training program helps send men to fight in Viet Nam. The SDS students demanded that Harvard end the army ROTC training program as a university course. This could mean that Harvard students could not get army training as part of their regular course work and not get credit for it towards their degrees.

Agreeing with the SDS students, the Harvard professors voted to end the ROTC program as a university course. But the President of the University stated that he wanted to keep the army program on campus as a course. The SDS students felt that the President was not going to pay attention to the faculty vote or to their demands.

So, one day last April, two hundred SDS students walked into the university's administration building, and told everyone else to get out. They said they were doing this to force Harvard to get rid of the army training program as a course.

Should the students have taken over the administration building? (Check one)

- Yes, they should take it over
- Can't decide
- No, they should not take it over

## STUDENT TAKE-OVER

GREAT impor- tance	MUCH impor- tance	SOME impor- tance	LITTLE impor- tance	NO impor- tance	
_____	_____	_____	_____	_____	1. Are the students doing this to really help other people or are they doing it just for kicks.
_____	_____	_____	_____	_____	2. Do the students have any right to take over property that doesn't belong to them.
_____	_____	_____	_____	_____	3. Do the students realize that they might be arrested and fined, and even expelled from school.
_____	_____	_____	_____	_____	4. Would taking over the building in the long run benefit more people to a greater extent.
_____	_____	_____	_____	_____	5. Whether the president stayed within the limits of his authority in ignoring the faculty vote.
_____	_____	_____	_____	_____	6. Will the takeover anger the public and give all students a bad name.
_____	_____	_____	_____	_____	7. Is taking over a building consistent with principles of justice.
_____	_____	_____	_____	_____	8. Would allowing one student take-over encourage many other student take-overs.
_____	_____	_____	_____	_____	9. Did the president bring this misunderstanding on himself by being so unreasonable and uncooperative.
_____	_____	_____	_____	_____	10. Whether running the university ought to be in the hands of a few administrators or in the hands of all the people.
_____	_____	_____	_____	_____	11. Are the students following principles which they believe are above the law.
_____	_____	_____	_____	_____	12. Whether or not university decisions ought to be respected by students.

From the list of questions above, select the four most important:

Most important \_\_\_\_\_

Second most important \_\_\_\_\_

Third most important \_\_\_\_\_

Fourth most important \_\_\_\_\_

## ESCAPED PRISONER

A man had been sentenced to prison for 10 years. After one year, however, he escaped from prison, moved to a new area of the country, and took on the name of Thompson. For 8 years he worked hard, and gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison 8 years before, and whom the police had been looking for.

Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison? (Check one)

- Should report him
- Can't decide
- Should not report him



## ESCAPED PRISONER

GREAT impor- tance	MUCH impor- tance	SOME impor- tance	LITTLE impor- tance	NO impor- tance	
_____	_____	_____	_____	_____	1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?
_____	_____	_____	_____	_____	2. Everytime someone escapes punishment for a crime, doesn't that just encourage more crime?
_____	_____	_____	_____	_____	3. Wouldn't we be better off without prisons and the oppression of our legal system?
_____	_____	_____	_____	_____	4. Has Mr. Thompson really paid his debt to society?
_____	_____	_____	_____	_____	5. Would society be failing what Mr. Thompson should fairly expect?
_____	_____	_____	_____	_____	6. What benefits would prisons be apart from society, especially for a charitable man?
_____	_____	_____	_____	_____	7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?
_____	_____	_____	_____	_____	8. Would it be fair to all the prisoners who had to serve out their full sentence if Mr. Thompson was let off?
_____	_____	_____	_____	_____	9. Was Mrs. Jones a good friend of Mrs. Thompson?
_____	_____	_____	_____	_____	10. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?
_____	_____	_____	_____	_____	11. How would the will of the people and the public good best be served?
_____	_____	_____	_____	_____	12. Would going to prison do any good for Mr. Thompson or protect anybody?

From the list of questions above, select the four most important:

Most important \_\_\_\_\_

Second most important \_\_\_\_\_

Third most important \_\_\_\_\_

Fourth most important \_\_\_\_\_

## NEWSPAPER

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. He wanted to speak out against the war in Viet Nam and to speak out against some of the school's rules, like the rule forbidding boys to wear long hair.

When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal's approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks.

But the principal had not expected that Fred's newspaper would receive so much attention. Students were so excited by the paper that they began to organize protests against the hair regulation and other school rules. Angry parents objected to Fred's opinions. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred's activities were disruptive to the operation of the school.

Should the principal stop the newspaper? (Check one)

\_\_\_\_\_ Should stop it

\_\_\_\_\_ Can't decide

\_\_\_\_\_ Should not stop it

## NEWSPAPER

GREAT impor- tance	MUCH impor- tance	SOME impor- tance	LITTLE impor- tance	NO impor- tance	
_____	_____	_____	_____	_____	1. Is the principal more responsible to students or to parents?
_____	_____	_____	_____	_____	2. Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve the newspaper one issue at a time?
_____	_____	_____	_____	_____	3. Would the students start protesting even more if the principal stopped the newspaper?
_____	_____	_____	_____	_____	4. When the welfare of the school is threatened, does the principal have the right to give orders to students?
_____	_____	_____	_____	_____	5. Does the principal have the freedom of speech to say "no" in this case?
_____	_____	_____	_____	_____	6. If the principal stopped the newspaper would he be preventing full discussion of important problems?
_____	_____	_____	_____	_____	7. Whether the principal's order would make Fred lose faith in the principal.
_____	_____	_____	_____	_____	8. Whether Fred was really loyal to his school and patriotic to his country.
_____	_____	_____	_____	_____	9. What effect would stopping the paper have on the student's education in critical thinking and judgment?
_____	_____	_____	_____	_____	10. Whether Fred was in any way violating the rights of others in publishing his own opinions.
_____	_____	_____	_____	_____	11. Whether the principal should be influenced by some angry parents when it is the principal that knows best what is going on in the school.
_____	_____	_____	_____	_____	12. Whether Fred was using the newspaper to stir up hatred and discontent.

From the list of questions above, select the four most important:

Most important \_\_\_\_\_

Second most important \_\_\_\_\_

Third most important \_\_\_\_\_

Fourth most important \_\_\_\_\_

## WEBSTER

Mr. Webster was the owner and manager of a gas station. He wanted to hire another mechanic to help him, but good mechanics were hard to find. The only person he found who seemed to be a good mechanic was Mr. Lee, but he was Chinese. While Mr. Webster himself didn't have anything against orientals, he was afraid to hire Mr. Lee because many of his customers didn't like orientals. His customers might take their business elsewhere if Mr. Lee was working in the gas station.

When Mr. Lee asked Mr. Webster if he could have the job, Mr. Webster said that he had already hired somebody else. But Mr. Webster really had not hired anybody, because he could not find anybody who was a good mechanic besides Mr. Lee

What should Mr. Webster have done? (Check one)

- Should have hired Mr. Lee
- Can't decide
- Should not have hired him

## WEBSTER

GREAT impor- tance	MUCH impor- tance	SOME impor- tance	LITTLE impor- tance	NO impor- tance	
_____	_____	_____	_____	_____	1. Does the owner of a business have the right to make his own business decision or not?
_____	_____	_____	_____	_____	2. Whether there is a law that forbids racial discrimination in hiring for jobs.
_____	_____	_____	_____	_____	3. Whether Mr. Webster is prejudiced against orientals himself or whether he means nothing personal in refusing the job.
_____	_____	_____	_____	_____	4. Whether hiring a good mechanic or paying attention to his customers' wishes would be best for his business.
_____	_____	_____	_____	_____	5. What individual differences ought to be relevant in deciding how society's roles are filled?
_____	_____	_____	_____	_____	6. Whether the greedy and competitive capitalistic system ought to be completely abandoned.
_____	_____	_____	_____	_____	7. Do a majority of people in Mr. Webster's society feel like his customers or are a majority against prejudice?
_____	_____	_____	_____	_____	8. Whether hiring capable men like Mr. Lee would use talents that would otherwise be lost to society.
_____	_____	_____	_____	_____	9. Would refusing the job to Mr. Lee be consistent with Mr. Webster's own moral beliefs?
_____	_____	_____	_____	_____	10. Could Mr. Webster be so hard-hearted as to refuse the job, knowing how much it means to Mr. Lee?
_____	_____	_____	_____	_____	11. Whether the Christian commandment to love your fellow man applied to this case.
_____	_____	_____	_____	_____	12. If someone's in need, shouldn't he be helped regardless of what you get back from him?

From the list of questions above, select the four most important:

Most important \_\_\_\_\_

Second most important \_\_\_\_\_

Third most important \_\_\_\_\_

Fourth most important \_\_\_\_\_

APPENDIX B

KOHLBERG'S STAGES OF DEVELOPMENT  
(ADOPTED FROM KOHLBERG - 1969)



- Stage 1: the obedience and punishment orientation. The concept of reciprocity is rather lop-sided. One has an obligation to obey those who are most powerful and demand obedience. About the only moral claim one can make on such an authority in turn is the expectation of freedom from punishment. Obligations, therefore, are conceived in terms of complying with the authority's dictates.
- Stage 2: instrumental hedonism and exchange. Reciprocity achieves the new perspective that each person has his own desires and wishes and that the demands of an authority may be just as self-serving to the authority as noncompliance on the part of the subordinate one. Some act can only be regarded as "good" in terms of its instrumental value to the actor. In Stage 2 an objective, fixed, nonrelativistic moral order is denied. In achieving a relativist perspective and in relating underlying purposes to acts rather than blind obedience in Stage 1, the moral superiority of some (the authorities) and moral inferiority of others (those who have to obey) is neutralized. Everybody is at the same starting point. However, reciprocal relationships may be arranged when one person does a favor for another and the other returns the favor. This is the reciprocity of simple one-for-one exchange ("You scratch my back and I'll scratch yours"). Doing someone a favor therefore "makes sense" in Stage 2 because, in effect, one is initiating a chain of events that will eventuate in something good for oneself when the favor is returned.
- Stage 3: orientation to approval and personal concordance. The reciprocity concept of a Stage 2 notion of simple, one shot exchanges is extended to that of stabilized positive relationships existing between people who are expected to help each other out constantly without asking "what specifically will you do for me if I do this for you?" Moral obligation is now a matter of establishing and maintaining positive, mutually helpful relationships. In this case reciprocity is not so much a matter of keeping count of favor for favor but of more generally being nice, considerate, attuned to the expectations of each other. One therefore counts on the other person, and the expectation of positive dealings is stabilized over time and conditions. It is not conditional on being able to strike a specific bargain each time. Therefore, in Stage 3 reciprocity encompasses a relationship between people rather than just specific discrete acts of exchange.
- Stage 4: the law and order orientation. Reciprocal relationship goes beyond Stage 3 in assuming that stabilized positive relationships must hold not only for personal, face-to-face, primary relationships (relationships built on mutual liking or blood relations) but also for people who live in the same community and nation. At Stage 4, one not only has obligations to maintain personal friendships, but also obligations exist among all members of society to refrain from hurting and stealing

from each other, to aid in the group's common defense, to do one's job in the division of labor, and to support the leaders and authorities of the group. Here the notion of stabilized positive relationships is extended to secondary institutions within an organized society. In Stage 4 reciprocity is in a framework for dealing with society-wide problems (disease control, support of education, apprehension and punishment of lawbreakers), and interrelates all members of society in a stabilized reciprocating system.

Stages 5

and 6:

principled moral thinking. The concept of reciprocity now subsumes the need for social structure and stabilized expectations among men, but furthermore appreciates that societies and social relationships can be arranged in many possible ways and that each way, in effect, maximizes certain others. Hence, there needs to be a rationale for choosing among these possibilities. In Stages 5 and 6 the appeal is to second order principles as the basis of moral obligation and rights: Stage 5A appeals to those goals which the constituency itself has agreed upon through the democratic decision making process; Stage 5B appeals to intuitively attractive group ideals (love, peace, the Classless Society, Liberty-Equality-Fraternity); Stage 6 appeals to those organizing principles which optimize cooperation among rational and equal people. The principled stages are seen as most independent of situation-bound contingencies and idiosyncratic circumstances (e.g., who one happens to like, what social structures are traditional, how strong or powerful some individual happens to be). They constitute a framework for allocating obligations and rights and assume one can handle much more complex moral problems than at earlier stages (at Stage 2 there is no basis for building social structures of cooperation; in Stage 3 one cannot handle conflicts of loyalties; in Stage 4 there is no basis for a critique of existing social structures or for choosing new laws).

APPENDIX C

EXAMPLES OF SUBJECT SOLUTIONS AND CONSEQUENCES  
OF THOSE SOLUTIONS TO THE MORAL DILEMMAS

## Dilemma 1

- \*Solution - I think that Abraham should leave the other guy alone and both of them should do what they want.
- Consequences - that way neither of them will get killed and maybe they will be friends before long.

## Dilemma 2

- Solution - The boy should do what he wants to and not worry about anything else.
- Consequences - He will go to college and probably do alright but his parents will go broke -- that's alright though.
- \*Solution - He should stay with his parents and help them if that is what they want him to do. He should talk to his family.
- Consequences - He would feel better about himself, the family would be saved.

## Dilemma 3

- \*Solution - If God told him to go out and kill his son, then that's what he should do, but not if somebody else tells him to do it.
- Consequences - He will go to heaven when he dies and feel better about life. Maybe even God will bring his son back to him.

## Dilemma 4

- Solution - Yes, they had the right. When one brother begins to dominate the others, it isn't right and the others have to do something about it.
- Consequences - In a case like this, the majority of brothers should decide what to do and then take care of the one causing the problems.
- \*Solution - No, just because the one brother is better liked by the father doesn't mean the others have the right to hurt him. He is a human being with some rights of his own.

Consequences - If everyone's rights are taken into consideration, there wouldn't be as many problems.

#### Dilemma 5

\*Solution - The only way to decide what is right is to take a vote and see how many people agree on it. If a majority agrees, then it is right.

Consequences - This way you will at least be making more than half the people happy with your decision.

#### Dilemma 6

\*Solution - Yes, something can be morally right. How about the anti-war demonstrations; those were right but everybody still got put in jail. At least I thought they were right.

Consequences - We have to do what we think is right regardless of all the laws, I think.

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\*Refers to those solutions considered acceptable by the researcher.

APPENDIX D

DERIVING P-SCORES AND STAGE SCORES

Stage Scores, Including the "p" Score

If hand scoring questionnaires, follow these steps:

1. Prepare data sheets for each S as follows:

Story	Stage 2	3	4	5A	5B	6	A	M	P
Heinz									
Students									
Prisoner									
Doctor									
Webster									
Newspaper									
Totals									

2. Only look at first four rankings at bottom of test page.
3. For the "question" marked as most important (Rank #1) consult the chart below to find out what stage the item exemplifies. For instance, if a subject's first rank on the Heinz story was question 6, this would be a stage 4 choice.

Story	Item	1	2	3	4	5	6	7	8	9	10	11	12
Heinz		4	3	2	M	3	4	M	6	A	5A	3	5A
Students		3	4	2	5A	5A	3	6	4	3	A	5B	4
Prisoner		3	4	A	4	6	M	3	4	3	4	5A	5A
Doctor		3	4	A	2	5A	M	3	6	4	5B	4	5A
Webster		4	4	3	2	6	A	5A	5A	5B	3	4	3
Newspaper		4	4	2	4	M	5A	3	3	5B	5A	4	3

4. After finding the item's stage, weigh the choice by giving a weight of 4 to the first choice, 3 to the second choice, 2 to the third choice, and 1 to the fourth choice.
5. For each 1st, 2nd, 3rd, and 4th choice in the 6 stories, enter the appropriate weight in the stage column on the subject's DATA SHEET. For instance, in the example above where the first choice was a stage 4 item, enter a weight of 4 on the data sheet under stage 4 across the Heinz story.
6. The completed table on the DATA SHEET will have 4 entries for every story and 24 entries altogether. (There may be more than one entry in a box; e.g., a first and second choice on the Heinz story of a stage 4 item.)
7. On the subject's DATA SHEET, total each stage column (e.g., for stage 2 column, add numbers by Heinz story, Student story, Prisoner, etc.).



8. To get the "Principled" morality score ("p"), add the subtotals together from stage 5A, 5B, and 6. This is interpreted as "the relative importance attributed to principled moral considerations" in making a moral decision.
9. To express the totals in terms of percentages, divide the raw score by 60. Note that the p-score (as a percentage) can range from 0 to 95 instead of 100 due to the fact that on 3 stories there is no fourth possible Principled item to choose.

### Consistency Check

The reliability of the data is checked by observing the consistency between a subject's ratings and rankings. If a subject ranks an item 1st, then his ratings for that item should have no other items higher (although other items may tie in rating). Similarly, if a subject ranks an item 2nd, then his rating for that item should have no other items higher except the item ranked 1st. If there are items not chosen as 1st or 2nd choices which are rated higher than the ratings of the items chosen as 1st or 2nd, then there is an inconsistency between the subject's rankings and ratings due to careless responding, random checking, misunderstanding of instructions, changing one's mind about an item, etc. In short, inconsistency raises questions about the reliability of the subject's entire protocol, although a little inconsistency might be tolerated. As a rule of thumb, look at the inconsistencies in a subject's first and second ranks and discard a subject's whole protocol if there are inconsistencies on more than 2 stories, or if the number of inconsistencies on any story exceeds 8 instances.

### Stage Typing

In research to-date on the Defining Issues Test, the p-score has been the most useful way to index development. In other words, if one wants to correlate moral judgment with another variable, use the p-score. If one wants to measure change, use the p-score. It is possible, however, to assign subjects to a stage based on exceptional usage of that stage. The procedure is as follows:

1. Take the Stage totals from the DATA SHEET totals (the bottom line totals).
2. Take each stage score for a subject and convert it to a standardized score (using the original sample -- Rest et al., 1974 -- of juniors, seniors, college and graduate subjects as the reference group), as follows:
  - A. take the stage 2 score (not percentage), subtract from it 4.131, then divide by 3.665;
  - B. take the stage 3 score, subtract from it 9.619, then divide by 5.676;
  - C. take the stage 4 score, subtract from it 15.010, then divide by 6.903;
  - D. take the stage 5A score, subtract from it 15,844, then divide by 7.100;
  - E. take the stage 5B score, subtract from it 5.719, then divide by 3.468;
  - F. take the stage 6 score, subtract from it 4.487, then divide by 3.493;

- G. take the A score, subtract from it 2.469, then divide by 2.431;
- H. take the M score, subtract from it 2.712, then divide by 2.417.

Note that the standardized stage scores may be positive or negative. A score of +1.000 indicates that the subject has used that stage one standard deviation above the average -- in other words, the subject has attributed an exceptional degree of importance to issues keyed at that stage.

3. Locate those stage scores which exceed +1.000. If there is only one such score, designate the subject as that type. If there are two high scores, designate the subject by the highest score with a subdominant type of the other score above +1.000. If no scores are greater than +1.000, then the subject has not endorsed any stage orientation exceptionally and the subject cannot be "typed."

VITA

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Doctor of Philosophy

Dissertation: A STUDY OF THE RELATIONSHIP BETWEEN MORAL DEVELOPMENT TEST SCORES OF JUVENILE DELINQUENTS AND THEIR GROUP MEMBERSHIP IN STRUCTURED SITUATIONS

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