THE EFFECTS OF GROUP SIZE AND COMPOSITION ON

GAINS IN MORAL REASONING WITHIN A

PROGRAM OF MORAL DEVELOPMENT

Ву

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TABLE OF CONTENTS

Chapt	er I	Page
I.	INTRODUCTION	. 1
	Statement of the Problem	3
	Nature of the Problem	3
	Definition of Terms	5
	Assumptions and Limitations	7
	Ethics	8
	Hypotheses	9
II.	REVIEW OF RELATED LITERATURE	10
	Introduction	10
	Summary	17
III.	METHODOLOGY	18
	Introduction	18
	Statistical Design	18
	Control of Subject Variables	19
	Procedures	20
	The Moral Development Program	22
	Program Content	23
	The Defining Issues Test (DIT)	24
	Summary	25
IV.	ANALYSIS OF THE DATA	26
	The Effects of Group Composition and Size on the	
	Effectiveness of a Moral Development Program	26
	Summary	30
V.	CONCLUSIONS, IMPLICATIONS AND SUMMARY	34
	Overview	34
	Conclusions	35
	Interpretation and Discussion	36
•	Problem in Moral Development Research	37
	Implications for Future Research	39
	Summary	40
BIBLI	OGRAPHY	42

C	Chapter	Page
A	APPENDIX A - REST'S DEFINING ISSUES TEST DILEMMAS	. 47
A	APPENDIX B - DERIVING P-SCORES AND STAGE SCORES FROM THE DEFINING ISSUES TEST	. 62
А	APPENDIX C - PROGRAM DISCUSSION GUIDELINES	. 68
A	APPENDIX D - RAW SCORES AND DATA	. 73
A	APPENDIX E - KOHLBERG'S THEORY OF MORAL DEVELOPMENT	. 79

LIST OF TABLES

Table .		P	age
I.	Means, Standard Deviations and Comparisons of the Pretest DIT Scores for the Four Psychology Classes	•	27
II.	The P-Score Analysis of Variance Between Experimental Subjects and Control Subjects	•	28
III.	The P-Score Analysis of Variance for Subjects From Each Experimental Format and Control Subjects	•	29
IV.	Analysis of Variance for Group Size and Compositions	•	30
v.	Mean Differences and Standard Deviations, and Variance of P-Scores for Each Experimental Format	•	31
VI.	Point Biserial Coefficient Relating P-Scores to Teacher Rating of Peer Pressure Susceptibility	•	31
VII.	P-Scores From Defining Issues Test and Previously Reported Research Scores	•	32
VIII.	Raw Scores and Data		74

CHAPTER I

INTRODUCTION

The last two decades have brought about a surge of interest in moral development and morality in general. This interest encompasses the public at large as well as psychology and education. In the Pulitzer Prize winning work, The Best and the Brightest, Halberstram (1969, p. 29) quotes a statement written by Chester Boyles, then Undersecretary of State, immediately after the Bay of Pigs incident. Bowles wrote:

Anyone in public life who has strong convictions about the rights and wrongs of public morality, both domestic and international, has a very great advantage in times of strain, since his instincts on what to do are clear and immediate. Lacking such a framework of moral conviction . . . he is forced to lean almost entirely upon his mental processes; he adds up the pluses and minuses of any question and comes up with a conclusion. . . . the Cuban fiasco demonstrates how far astray a man as brilliant and well intentioned as Kennedy can go who lacks a basic moral reference point.

Although there has been a voluminous amount of work in the area of moral development and morality within psychology, there is still a wide divergence concerning the nature of morality itself. One psychological approach in defining morality is the attempt to equate morality with social conditioning. Eysenck (1976) defines morality and conscience as a conditioned reflex, an anxiety-based avoidance of acts that have been punished by society. In contrast, Berkowitz (1964) defines moral values as "evaluations of action believed by members of a given society to be 'right'." Morality is seen by others as imitative modeling and the

self-generation of reinforcing events (Bandura and Walters, 1963; Kanfer and Phillips, 1970; Mischel, 1966). Still others tried to distinguish between the functions of knowledge and feeling in the operation of an internalized conscience (Freud, 1927). The wide divergence in definitions and theories notwithstanding, the approach that has generated the greatest interest in terms of research or potential application is from a cognitive developmental base, as represented by the works of Lawrence Kohlberg. Like Piaget's postulation of invariant logical stages (Piaget and Inhelder, 1969), Kohlberg's assertion of universal moral stages rests upon the critical theoretical distinction between structure, held to be universal and to follow the laws of development, and content, held to vary with specific patterns of experience and to follow the laws of learning (Kohlberg, 1969b). In this distinction, content is held to be what an individual believes, where structure indicates the manner in which a person thinks about the content of his beliefs.

Within the hierarchy of moral structure development, Kohlberg has argued that it is possible to move from his description of what moral stage development "is" to a statement of what such development "ought to be." By this logic, the later stages are higher or better, and their development should be fostered.

From this theoretical viewpoint, several programs specifically designed to foster moral development in the Kohlbergian sense have been presented and/or actually implemented (Beck et al., 1972; Kohlberg, 1972; Stager and Hill, 1973; Sullivan, 1974). However, none of these studies has looked at factors internal to the program, such as group size, sex differences, or the composition of the moral development group.

Statement of the Problem

Although there is a considerable amount of research which indicates that moral reasoning can be enhanced significantly through the utilization of cognitive conflict in various programs, little is known of the effects of the variables of group size or composition on these programs of moral development. Theoretical speculation and previous research findings are incomplete on the effects of group size on these exercises. There is little theoretical speculation or research on the optimum group size for the moral enhancement program. Reported group sizes have varied considerably, and little consideration has been paid this variable. In addition, little is known of the effects of differing composition levels in terms of previous moral development. The role of the proportions of previously highly developed individuals present in the program has not been established. The effects of these previously highly developed individuals upon the moral reasoning gains made within the moral development program are not known at this time. There obviously exists a need to examine the effects of varying group size and varying moral level composition on a program of moral reasoning advancement.

Nature of the Problem

There has been a revival of interest in moral development in the past decade, leading to a flourishing of theories and programs designed to account for and promote moral thought for different populations.

Recently, programs established on the theoretical framework of Kohlberg have shown significant gains in the level of moral thought of its subjects (Sullivan, 1974). However, in the majority of these moral development programs, the treatment of important variables, such as

group size, age, and composition, has apparently been decided primarily on the basis of expediency or availability of subjects. In fact, the theoretical postulations concerning the variables of group size and group composition as defined by previous moral development are conflicting and often confusing. It has been stated that the advancement into higher levels or stages of moral thought is contingent upon the creation of cognitive conflict, the exposure to higher levels of moral reasoning, and the trial adoption or role-playing of these higher stages by the individual. The smaller group format by virtue of its fewer members should allow for greater role-taking possibilities. The opportunity to take actual positions on various moral dilemmas has been cited as a means of moral change and progression (Hoffman, 1976; Kohlberg, 1968). Conversely, the larger groups should provide a greater variety in exposure by virtue of the increased number of perspectives through a greater number of group members. The exposure to a variety of moral perspectives has been cited as an important means of moral progression (Turiel, 1973).

The examination of previous research regarding the composition of the group also brings conflicting results. Various theorists hold that the progression through the levels is not liable to significant regression, once the progression to a new stage is made (Kohlberg, 1963; Turiel, 1969). However, other researchers have concluded that individual opinions tend to merge to the mode within groups due to pressure exerted through peers (Zimbardo, 1971). Thus if the subjects were divided into two types of groups, one set of groups being greater in the number of individuals who had previously attained higher levels of moral development, and the other set being greater in number of individuals with lower levels of development, conclusions drawn from previous theory

would predict that the individuals from the "predominately high level" groups would progress. However, in the case of the "predominately lower levels groups," the cognitively-oriented theorists would hypothesize again a gain made by members, while theorists from a socially-based orientation would tend to hypothesize a decrease in the level of moral reasoning of the highly developed minority due to peer pressure.

To achieve the purposes of this study, four high school psychology classes were assessed by an objective measure on their current level of moral reasoning. On the basis of this assessment, the students were classified and randomly assigned to groups differing in size and moral level composition. They then participated in a program involving the discussion of moral issues. After completion of this program they were again assessed on an objective instrument measuring moral reasoning. Statistical procedures were applied to determine the main effects of group size and group composition on difference scores from the test of moral development, as well as the interaction between the two aforementioned variables.

Definition of Terms

Level of Moral Development

The level of moral development is defined as that level of comprehension and defense of a course of action pertaining to an issue as defined by Defining Issues Test (Rest, 1974).

The Defining Issues Test has been published and is currently in wide use with regard to the assessment of moral judgment. The author emphasizes that the test is not an absolute predictor of moral behavior, but rather examines the processes and issues that an individual utilizes

in reaching a decision on a moral topic. The test consists of six stories, or dilemmas, that confront the reader with a moral choice. There follow after each story a series of questions designed to examine the processes utilized by the individual in reaching their decision. The author has developed an objective standard scoring guide for assessment of the subjects (Rest, 1974). The estimate of test retest reliability over relatively short periods of time for adolescents was reported as .81 (Rest, 1976). The validation of the constructs of moral development was based on indirect evidence or "construct validation" (Cronbach and Meehl, 1955), in which the theoretical implications of the construct are tested, and a matter of determining the degree to which the measure produces data trends conforming to a set of theoretical expectations. The validating criteria for the moral judgment scale were

- 1. Test-retest stability
- 2. Age trends
- 3. Correlation with comprehension or moral-political concepts
- 4. Correlation with attitudes and political stances on current controversial issues
 - 5. Correlation with existing moral judgment measures (Kohlberg's)
- 6. Increases in moral judgment test scores after experiences which theoretically should accelerate the development of higher-stage judgment. After examining the Defining Issues Test on the above criteria, it was concluded that the test compared well with that of other measures of moral judgment, while at the same time being less time-consuming and less vulnerable to certain biases of interviewing and scoring (Rest, 1976).

Moral Dilemmas

A moral dilemma shall be defined as a discussion topic of sufficient complexity to elicit and differentiate the stages of moral development as defined by Kohlberg (1968).

Cognitive Conflict

Cognitive conflict shall be defined for the purposes of this study as cognitive disequilibrium about one's position in relation to a moral topic. It is operationally defined as the degree of disparity between seemingly exclusive moral perspectives.

Group Composition

Group composition shall be defined as the level of cognitive moral sophistication previously attained and assessed by the pretest. The composition of the experimental groups shall be divided into two levels, those being:

Predominately High Groups. Predominately high groups shall be defined as experimental groups which shall be composed of a two-to-one ratio of individuals who scored above the median in attribution of importance to principled, or stage five or stage six statement on the pretest.

<u>Predominately Low Groups</u>. Predominately low groups shall be defined as groups composed in a two-to-one ratio of individuals who scored below the median in attribution of importance to principled moral statements on the pretest.

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 respond to the items truthfully. The instrument derives scores which attempt to assess the cognitive framework that the individual uses to make moral judgment, rather than the individual's loyalty or sociability.

A major assumption of the Defining Issues Test is that the individual's frame of reference for the judgment of morality in others is identical at least in form to the network that the individual uses in judging his or her own actions. The format of the test is such that it is assumed that the same criteria for value judgments are used for oneself as others. These cognitive networks are assumed to reflect the degree of sophistication and adequacy of thinking (Rest, 1976).

A limitation of the research design is an assumption of a minimum of interaction concerning the program material outside the experimental format. Interaction of such a nature would possibly confound the variable under examination by producing cognitive conflict and/or moral change outside of the research design.

Ethics

A serious concern surrounds the use of human subjects and their manipulation as part of their involvement in psychological research. The major problems include such areas as deception, abuse by either physical or mental means, anonymity of subjects, and reporting of results. These issues are especially important due to the ages of the subjects.

In this study, partipation was entirely voluntary, and no inducements such as pay or course credit were used. The subjects' participation in this research could be terminated at any point of their choosing. There was no deception on the part of the experimenter. The subjects were told that they were participating in a study of ambiguous situations. The subjects were not either physically or mentally abused.

In addition, there was a debriefing session at which the true nature of the research was discussed. Also, any questions the participants had concerning procedures or particular incidents were discussed.

Procedures involved the discussion of hypothetical situations, and each participant was allowed to speak freely and without censure. The subjects shall remain anonymous, and their individual responses to test items shall remain confidential. Finally, the research was approved by the appropriate individuals in the school administration as well as by the individual teachers.

Hypotheses

The following hypotheses were drawn from the literature and were tested in this study.

- 1. The large group format will be significantly more effective in facilitating moral reasoning than the small group format with the moral development program.
- 2. The predominately high group format will be significantly more effective in facilitating moral reasoning gains than the predominately low group format.
- 3. No significant interaction will exist between the effects of group size and group contribution.
- 4. A significant correlation will exist between gains in moral reasoning and a teacher rating of the subject's susceptibility to peer pressure.
- 5. The moral development program will facilitate significant gains in the moral reasoning of the program subjects.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The following review will begin with a presentation of Kohlberg's theory of moral development. This will be followed by research both supporting or opposing his theory.

Kohlberg (1963, 1968, 1969) has theorized a progression of moral thought 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 laws are sometimes unjust. He has hypothesized six age-related stages in judging the values of human life. Kohlberg, in the <u>Handbook of Socialization</u> Theory and Research (D. Goslin, ed., 1969) summarizes his theory and it is presented in Appendix E.

Kohlberg is one of the few contemporary psychologists to utilize philosophy as the basis of definition of morality as the initial step of the study of moral development. He states that the limitations of logical positivism and behaviorism (equating knowing with learning and learning with behavior) have prevented psychology from reaching the conclusion that the concept of morality is a philosophical rather than a behavioral concept (Kohlberg, 1971a). Kohlberg uses the assumption that the essential structure of morality is the principle of justice as the endpoint for his moral development theory, and that the core of justice is the

distribution of rights and duties regulated by concepts of equality and reciprocity (Kohlberg, 1976).

Moral philosophy is thus used as a definition for the endpoint of moral development being justice, and the provision of moral concepts (duties, rights, welfare, social order, etc.) to analyze developmental progress toward the highest form of justice (Kohlberg's stage six).

Kohlberg (1969) suggests that only a relatively small number of people will attain stage five or six morality (postconventional), since most will not progress beyond stages three or four (conventional). Kohlberg (1969) also asserts that although the individuals possess the cognitive abilities of postconventional thought, they do not progress due to a lack of stimulating agents within their environment, and that the growth in moral judgment can be induced through the use of cognitive conflict.

Kohlberg's theory of moral development prescribes that different levels of moral principles permit different kinds of actions. Lockwood (1976) demonstrates how complex the application of moral principles is to a concrete solution of a social problem such as bussing; the principle does not prescribe what must be done, but only what must be considered. However, Peters (1970) states that moral principles cannot prescribe precisely what we ought to do, but at least they rule out certain courses of action and sensitize the individual to the morally relevant features of a situation.

The importance of a critical construct of Kohlberg's theory, that of the distinction between structure and content, is demonstrated by research done by Turiel (1974). Two measures of moral thought were administered to the sample: a moral knowledge test, similar to one used by Hartshorne and May (1928), describing actions and requiring the subjects

to rate the seriousness, and a moral judgment interview requiring the subject to resolve moral dilemmas and explain the reasoning. Turiel found that moral reasoning increased with age, where scores on the moral knowledge test decreased with age. It was interpreted as indicating that as the child's moral reasoning level progresses, the interpretation of the content is changed.

In stressing the importance of moral content, Wright (1971) asserts that it is not unreasonable to assume that why an individual evaluates an action as wrong is much less important than that he thinks it wrong. It has also been hypothesized that marked shifts in moral attitudes or behavior may occur without any corresponding structural change (Lickona, 1976). Wright states that many American youths moved from the dominant middle class culture to the hippie counterculture without actually leaving behind conformist moral reasoning. He concludes that content plays an important role in the totality of human functioning and that it deserves the attention of those investigating moral development and behavior.

The interaction between content and structure indicated a manner of integration with two distinct kinds of influences. Lickona (1976) conceives structure as a filter that determines the meaning and impact of content. Aronfreed (1976) asserts that cognitive (structural) change will be a critical determinant of how the child receives the social experience. Kohlberg (1969) holds that the individual's susceptibility to content influences is also variant with the developmental stage, with the greatest susceptibility being at the conventional levels, where the individual is responsive to the group for moral definition of a situation. Since the majority of people function at the conventional levels (Kohlberg and Turiel, 1971), it would at least partially explain the impact of

individual situation upon moral judgment found by numerous researchers (Burton, 1963; Hartshorne and May, 1928; Huston and Kork, 1976).

Lickona (1976) has also held that content, in some situations, can overwhelm structure. He maintains that a culture's adult belief system can bring about an apparent return to an earlier level of judgment. This is similar to the adult social influence that causes children to abandon an intention-centered judgment for a material-based judgment (Bandura and McDonald, 1963). Whether the changes indicate a true structural regression or a cultural override, it appears that content determines the functioning in these situations.

Lickona has also been hypothesized that content affects which structures are operationalized in behavior, and that the content/structure distinction is variable within individuals (Lickona, 1976). Mischel and Mischel (1976) indicate that what had been previously held to be structural shifts in moral reasoning may have been a shift into a different style of verbal justification for which the individual expects to be reinforced by his or her new social reference group. However, those proposing a structural perspective in moral development have presented research findings which indicate that moral reasoning reflects the internal patterning of social experience rather than verbal learning (Kohlberg, 1969; Turiel, 1969). In his efforts to devise an objective paper and pencil measure of moral development structure change, Rest (1973) included distractors laden with more verbally complex terminology. This was done in order to check on the tendency of subjects to choose on the basis of complex, obtuse verbiage rather than on meaning.

There has also been a recent effort to differentiate content from structure in order to more clearly observe the theoretically expected invariant stage sequence (Kohlberg, 1976). He states that this kind of

methodological refinement is built into the process of validating a structural developmental theory.

Several researchers have found a strong relationship between intelligence and moral judgment or behavior (Hartshorne and May, 1928; Kohlberg, 1968; Mischel and Mischel, 1976; Rest, 1974), as it does to many other aspects of human functioning. However, the limitations of the above studies prevented them from ascertaining the role of intelligence in ensuring high moral development. It has been theoretically held that a normal intelligence is necessary but not sufficient for high moral development (Lickona, 1976).

Mischel and Mischel (1976) survey a variety of studies showing a relationship between cognitive competence and a general adequacy of social functioning. They emphasize the role of "sheer cognitive power in the operation of conscience" and question whether children comparable in general cognitive capacity would show any significant variation in principles of conscience.

There are indications drawn from Burton (1963) which indicate however, that the relationship between IQ and honesty declines or disappears when the context is nonacademic or the chance of getting caught is low. In terms of moral judgment, it has been found that while high-IQ children do better than low-IQ children on most Piaget tests of moral judgment, for some dimensions the reverse is true (Lickona, 1976).

It has been theoretically postulated that such factors as intelligence and cognitive level present necessary but not sufficient conditions for moral development (Kohlberg, 1968; Selmon, 1976). This position has been supported by research findings (Kohlberg and DeVries, 1969).

Kohlberg's work has been recently criticized by Carol Gilligan (1977) for sexual bias. She has hypothesized that females follow a different developmental sequence, transposing stages three and four in their developmental pattern. Although her criticism is not without possibility, to date the research on her hypothesis has been limited. The research support for her criticisms as it now stands is insufficient for an alteration of Kohlberg's theory.

The postulation of a hierarchy of moral stages has been sharply attacked by a number of recent researchers (Alston, 1971; Mancuso and Sorbin, 1976; Mischel and Mischel, 1976). An example of this can be found in the following:

. . . avoid the trap of believing that a psychologically later developing form of behavior approaches an approximation of an ultimately good behavior. . . . While we might yearn to see a society of persons who understand rules within a morality of reciprocity, the fact that this kind of morality develops later in the course of psychological growth does not show that once we have achieved it, we are farther along the road to ultimate goodness. The prescription to achieve a morality or reciprocity has no more of an a priori obligation than does the prescription to obey authority (Mancuso and Sorbin, 1976, p. 338).

The above authors reject a moral hierarchy in favor of a "contextualist" approach, as they believe that no moral system is superior to another. However, as Lickona (1976) cogently points out, Mancuso and Sorbin commit the same error that they criticize, for what would be the rationale for making the case for contextualism in the first place, if not the belief that it represents a more just approach to crime and punishment than non-contextualist approaches. Lickona (1976, p. 7) also points out:

One cannot ask parents to rear their children in such a way as to foster altrusim and compassion, and bystanders to intervene to help persons in distress without some criteria for judging these moral tendencies to be better than cruelty

or indifference. . . . Total relativity in the realm of judgment, either for an individual or a social science, logically leads to total neutrality in the realm of social action.

Blatt and Kohlberg (in press) have indicated that educators should present students with moral dilemmas and the kind of arguments between students which evoke a sense of disequilibrium in order to bring about cognitive conflict. This change in structure would involve the establishment of a new higher equilibrium after the occurrence of disequilibrium (Turiel, 1966).

Using the work of Kohlberg and others as a theoretical base, several researchers have show that structured programs of even short duration can enhance significant gains in moral judgment (Beck, 1972; Hampden-Turner and Whitten, 1971; Stager and Hill, 1973; Sullivan, 1974; Turiel, 1966). These studies have involved both elementary and secondary students in school or other institutional settings. The programs have utilized such techniques as mock situations, role playing and parables to create cognitive conflict, which in turn theoretically causes the individual to adapt at a higher level of moral reasoning. These programs have been of varying durations, although Sullivan (1974) reports significant gains made by secondary students after as few as four sessions. The usual format involves a group leader who presents the discussion material. The group then discusses the material, thus exposing the participants to a variety of perspectives and moral levels.

However, in none of the above mentioned studies were two specific internal variables examined. Group size has varied from study to study. The postulated effects of group size is ambiguous within Kohlberg's theory. 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 results of this finding indicate a larger group, which would be more likely to have moral level differences of one stage, would enhance the moral levels of participants to a greater degree. However, the smaller group should allow for more active participation of all group members, owing to the fewer number of group members (Hanson et al., 1976).

The effects of group composition as defined by the previous moral attainment of group members and the ratio of high moral-stage members to low moral-stage members are also unclear. While Kohlberg (1969) indicates that regression to an earlier stage is uncommon, other research indicates that peer pressure will be exerted regardless of previously attained cognitive level (Bandura and McDonald, 1963). Thus, in a group predominately comprised of individuals with low moral stage attainment, certain research suggests that the minority high level group members would regress to the level of the group majority. Other theorists postulate that the opposite would occur, namely that all group members would progress.

Summary

The review of literature mentioned above indicates that moral judgment levels can be significantly enhanced. However, on the variables of group size and group composition, the previous research is unclear. The present study attempted to ascertain the effects of these two variables on a program of moral development.

CHAPTER III

METHODOLOGY

Introduction

In considering the methodology used in the study, it must be kept in mind that this research was not concerned primarily with the examination of the moral development program itself. Indeed, the program was a constant in the research design and all of the subjects participated in the program. This research was concerned with the effects of group size and composition upon the post-test scores of moral development.

Statistical Design

This study took place at a predominately white, middle class high school, and was composed of 96 juniors and seniors, all of whom are members of four high school psychology classes. The experimenter was known to the participants through the professional contact of having been a guest lecturer to their psychology class. All members of these classes, 137 individuals, were administered the Defining Issues Test. A median was calculated for each class, and on the basis of comparison of the median and their individual scores on the pretest, students were designated as either high or low in level of attainment of previous moral sophistication. Then from each class four groups were randomly chosen: a small, predominately low group; a small, predominately high group; a large, predominately low group; and a large predominately high group.

All groups received the moral development program. All original students were then given the Defining Issues Test again, and the pretest-post-test differences of each individual were utilized in a 2 x 2 analysis of the variance of the data (ANOVA). The variance was examined with regard to the effects of the variables of group size and group composition upon the gains in P-scores on the DIT. The interaction as well as the main effects of the variables were examined. A significance level of .05 was arbitrarily selected owing to its general acceptance in behavioral research.

Control of Subject Variables

Although previous research (Cooper, 1973; Rest, 1974) has indicated a nonsignificant practice effect on the Defining Issues Test, effort was nonetheless made to minimize this effect by designing a time lapse of six weeks between pretest and post-test. In addition, the comparison of the scores of the individuals not chosen to participate in the program but who were administered the pretest and post-test with the experimental subjects provided a valid index as to the results of retesting of subjects with the same instrument. Maturation was not seen as a significant factor due to the relatively short time span of six weeks between testings.

Kohlberg (1969) suggests that due to a close relationship between the level of moral judgments and attitudes, the history of subjects may be a critical concern. However, the random assignment of subjects to experimental groups minimized constant experimental error. An additional precaution was the use of a subjective nominal classification of the subjects by their teacher on the dimension of their receptivity to peer pressure. This technique allowed for additional checks on the

relationship between this personal trait and the experimental variables.

The relationship between susceptibility to peer pressures and differences in P-scores was examined through the computation of a point biserial correlation coefficient. This statistic was used owing to the uncertainty of distribution of the dichotomous variable. Were the assumption of normal distribution of susceptibility to peer pressure able to be made, then the biserial correlation would be the statistic of choice. However, such an assumption of normal distribution could not be made, making the point biserial correlation the appropriate statistic.

The danger of self-fulfilling prophecy (Rosenthal, 1966) precludes the primary researcher from personally leading any of the groups in research of this nature. Four individuals were selected to lead the discussion groups, and the groups and group leaders were counterbalanced in order to minimize individual differences that might affect the discussion groups and/or individual responses.

The last consideration was that of the halo effect. This is the tendency to rate a subject in the constant direction of a general impression of the subject. The well-defined objective scoring techniques along with the blind scoring of the pretest and post-test removed the likelihood of subjectively biasing the data.

Procedures

At the outset of the study, the experimenter went to the regular classroom of the classes, and asked each class to participate. Participation was entirely voluntary. All students agreed and the experimenter returned the next day and administered the Defining Issues Test with the following instructions:

I would like all of you to fill out the following questionnaire for me. It 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. I can assure you that your individual answers shall remain confidential. Take your time and consider your responses before you write them. 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. If you do not wish to participate, please indicate this upon your test booklet.

After this first session, the tests were scored and subjects were assigned to the experimental groups. Those in each class not selected for an experimental group did not participate in the moral development program, but were used as substitutes in case of the absence of an experimental subject in order to keep the proper group proportion and size. This group also functioned as a control group to assess any practice effects, and were not considered as experimental subjects.

Two weeks after the initial testing, the experimenter and discussion leaders returned. The experimenter conferred with the teacher concerning any experimental subject absences, made necessary substitutions when necessary, and announced the presentation teacher and subject matchings for that session. Each presentation leader and group then went to separate empty classrooms in the same building.

When the groups reached their destination, the discussion leader stressed the importance of not discussing the activities of the group with friends until a later time. The group leader then introduced the topic for the session. There were four such sessions, each approximately 75 minutes in length.

The discussion topics focused on a series of moral conflict situations similar to those discussed in previous research (Beck, 1972; Kohlberg, 1972; Stager and Hill, 1973; Sullivan and Beck, 1975). Topics

were different but similar to those employed in the Defining Issues Test used as the pretest and post-test.

Each of the groups was isolated from the other groups and met in available empty classrooms. The groups, including the leaders, were arranged in a circle, and the blackboard was utilized for alternative solutions. The door to the classroom was also closed, and all attempts were made to avoid any unnecessary intrusions or disturbances.

Absences in the experimental groups during the sessions were handled in the following way: an appropriate substitute, possessing the same moral level designation as the absentee was selected from those not previously selected in order to help maintain the proper group size and composition. However, because neither the absentee nor the substitute had completed the program, they were not included as part of the experimental group or as controls. Attendance at all sessions was stressed in the instructions and in the groups.

The Moral Development Program

The moral development program was modeled after one proposed by previous researchers (Kohlberg, 1968; Sullivan, 1974) and consisted of five major phases. The phases and their sequence were followed by each group leader throughout all sessions. The sequence followed was:

1. Present session topic and first conflict situation. This was read to them twice, with the following instructions:

Our discussion today will be centered around the topic I have just given you and will consist of this as well as some other situations I will give you throughout our discussion today. I want all of you to sit and quietly consider how each of you would resolve the situation. Each of you will have a chance to present your conclusion.

(First situation read.)

2. The group discussed the individual conclusions to the first situation as well as the consequences of different plans of action. Rationale was discussed and elaborated.

- 3. Presentation of second situation. The second situation of the discussion topic was given, and subject's individual conclusions to the situations as well as their reasons and support were presented and elaborated upon.
- 4. Presentation of the third situation related to the discussion topic. Again, both reasoning and support were discussed, as well as the conclusions themselves.
- 5. Group analysis of participants' criteria and decision-making processes. During this phase the criteria used in making the decisions on action of the topic situations were discussed. Various sets of criteria were presented, embodied with sample conclusions and their underlying criteria for judgment. The group leader presented these sets of criteria. The group then attempted to arrive at a consensus concerning the resolution of the conflict situations. However, no undue pressure was exerted on any individual who did not wish to conform to or adopt a plan of resolution with which that subject could not identify.

Program Content

The materials used in the study were a set of 12 "open" moral dilemmas designed to arouse genuine conflict or uncertainty as to moral reasoning and choice, and are found in Appendix C. 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 based on actual happenings, others were hypothetical. The 12 situations were clustered three each around four central topics. The materials used during the discussions are presented in Appendix C.

During the discussion sessions, the researcher exposed the group to progressively advanced levels of moral thought, culminating in the group

leader's advocation of reasoning indicative of principled (stage five or six) morality.

The Defining Issues Test (DIT)

The DIT was administered to all members of the four psychology classes as both the pretest and the post-test. A copy of the DIT and scoring guidelines are found in Appendix A. The test can be administered either in groups or individually. Usually 50 to 60 minutes is ample time for the six-story version to be taken, but all subjects were allowed ample time to complete the test. The form of the DIT requires that each individual puts check marks or numbers directly on the questionnaire booklet. After instructions were received each individual progressed at his or her own rate. The subjects read a story. They then were presented 12 issues pertaining to the story and asked to rate them in importance. After rating each item individually, then the subjects were to consider the set of 12 items and choose the 4 most important.

The test has shown itself to be usable with a wide age range of subjects. Research has indicated a minimum reading level of sixth grade in order to obtain valid results (McGeorge, 1973). However, this provided no difficulty within this study, as school records indicated a reading level above this for all participants.

The scoring of the Defining Issues Test yields both a principled morality score ("P") and a stage score. The P score is interpreted as the relative importance attributed to principled moral considerations (Kohlberg's stages five and six) in making a moral decision, and is expressed as a percentage. The P score has been indicated by research to be the more useful measure of moral development of the DIT. In addition,

the Defining Issues Test contains a consistency check that provides a method of identifying subjects who are randomly checking their responses.

Summary

Four classes of high school psychology at a predominately white, middle class high school were administered the Defining Issues Test. On the basis of their scores, they were designated as "high" or "low" in previous moral development. Using these two categories as separate populations, 96 individuals were randomly selected, 46 of each classification, high and low in previous moral development, as experimental subjects. The subjects were then assigned to 16 groups, 4 each of the following types: small (3-member)--predominately high (2:1); small (3-member)--predominately low (1:2); large (9-member)--predominately high; and large (9-member)-predominately low. Those members of the classes not chosen as experimental subjects remained as a pool for substitutes. The groups then participated in a program of moral development consisting of four 75-minute They were led by four group discussion leaders. sion leaders and groups were counterbalanced by alternating the presentors and groups. After completion of the program, the Defining Issues Test was again administered as a post-test, and P-score differences between pre- and post-tests were examined in a 2 x 2 analysis of variance In addition, P-scores of the class members not chosen as experidesign. mental subjects were compared with those of the experimental subjects in an analysis of variance design in order to ascertain the overall effectiveness of the program. An additional dimension was the examination of the relationship of gains in individual P-scores with the teacher's ratings of susceptibility to peer pressure.

CHAPTER IV

ANALYSIS OF THE DATA

The study investigated effects of group size and composition upon the effectiveness of a program of moral development. The following hypotheses were tested in the study.

- 1. The large group format will be significantly more effective in facilitating moral reasoning than the small group format within the moral development program.
- 2. The predominately high group format will be significantly more effective in facilitating moral reasoning gains than the predominately low group format.
- 3. No significant interaction will exist between the effects of group size and group composition.
- 4. A significant correlation will exist between gains in moral reasoning and a teacher rating of the subject's susceptibility to peer pressure.
- 5. The moral development program will facilitate significant gains in moral reasoning of the program subjects.

The Effects of Group Composition and Size on the Effectiveness of a Moral Development Program

On the basis of the results of the pretest the class members were divided into two groups, those of previously attained high and low

moral reasoning development. Examination was made of pretest class differences through the use of t tests, and is presented in Table I. The

TABLE I

MEANS, STANDARD DEVIATIONS AND COMPARISONS OF
THE PRETEST DIT SCORES FOR THE FOUR
PSYCHOLOGY CLASSES

Class 1	<u>C1</u>	ass	2
n = 33	n	=	36
$\bar{X} = 15.55$	$\bar{\mathbf{x}}$	=	15.67
σ = 6.91	σ	=	6.34
Class 3 Class 4			4
n = 33	n	=	35
$\overline{X} = 16.95$	\overline{X}	=	14.92
$\sigma = 6.95$	σ	=	7.92

t test of means P > .05 (comparison between largest and smallest figures for each category)

means or variances of the four classes were not significantly different (P > .05). From each of the classes, four experimental groups were formed for a total of sixteen groups. Those not chosen as experimental subjects were used as substitutes and control subjects. At the conclusion of the group discussion procedures all class members were again

administered the Defining Issues Test. Table II presents the analysis of variance of the P scores of the experimental subjects. Table III presents the F ratios obtained in comparison with each class of experimental group and the control group. As is seen by the data reported,

TABLE II

THE P-SCORE ANALYSIS OF VARIANCE BETWEEN
EXPERIMENTAL SUBJECTS AND
CONTROL SUBJECTS

				-
Source	SS ·	DF	MS	F
Between	74.56	1	74.56	3.87
Within	2137.1	111	19.26	
Fr	atio required	for reje	ection of	
Но	= 3.92	P > .()5	

the scores of experimental subjects, although approaching significance, failed to be statistically significant from the control group. In the comparison of each class of experimental group with the control, it is seen that only one type of experimental group, the large predominately high groups were statistically significant from the controls (P < .01).

Table IV represents the analysis of the variance among the four types of experimental groups. As is shown by the reported data, a significant effect was seen between group composition and program

TABLE III

THE P-SCORE ANALYSIS OF VARIANCE FOR SUBJECTS
FROM EACH EXPERIMENTAL FORMAT
AND CONTROL SUBJECTS

Small Groups, Predominately Low Composition				Small Groups, Predominately High Composition				e1y	
Source	SS	df	MS	F	Source	SS	df	MS	F
Between	4.14	1	4.14	.3	Between	.16	1	.16	.0
Within	499.94	36	13.89		Within	383.86	34	11.29	
F requ	ired for	rejec	tion of		F req	uired for	rej	ection (of
$H_0 = 4.12$ $P > .05$					$H_0 = 4.14$ P > .05				
Large	e Groups, High Co		-		Larg	ge Groups. High Co	•		ely
Source	SS	df	MS	F	Source	SS	df	MS	F
Between	10.16	1	10.16	.65	Between	117.5	1	117.5	12.
Within	833.5	54	15.73		Within	583.99	60	9.77	
F requ	ired for	rejec	tion of		F rec	uired for	rej	ection	of
$H_{o} = 4.01$ $P > .05$				H _O =	4.00	P	< .01		

effectiveness (P < .01). A similar significant effect was seen between group size and program effectiveness (P < .05). No significant interaction between group size and composition was seen. The main gains and standard deviations for each experimental format is presented in Table V.

TABLE IV

ANALYSIS OF VARIANCE FOR GROUP
SIZE AND COMPOSITION

Source	SS	df	MS	F	Probability
Group Composition	146.89	1	148.89	7.04	P < .01
Group Size	111.61	1	111.61	5.35	P < .05
Interaction	3.37	1	3.37	.16	P > .05
Within	1669.13	80	20.86		

A point biserial correlation (r_{pb}) of .332 was found between the gains in moral reasoning made by experimental subjects and their teacher's nominal rating of their susceptibility to peer pressure. This correlation was statistically significant (P < .01). This correlation is presented in Table VI.

Table VII compares the P scores averages obtained by previously reported similar samples and the P score average of all the subjects of this study prior to the moral development program as well as the P score average of those completing the experimental program.

Summary

The chapter included a presentation of the results obtained from .

the study. Each hypothesis was tested as is reported below.

1. The large experimental groups were found to be significantly

MEAN DIFFERENCES AND STANDARD DEVIATIONS, AND VARIANCE OF P-SCORES FOR EACH

EXPERIMENTAL FORMAT

TABLE V

Small Size Predominately Low Groups	Small Size Predominately High Groups
n = 11	n = 9
$\bar{X} = .36$	$\overline{X} = 3.96$
variance = 49.02	variance = 40.64
std dev = 10.38	std dev = 9.56
Large Size Predominately Low Groups	Large Size Predominately High Groups
n = 29	n = 35
$\bar{X} = 2.96$	$\bar{X} = 8.96$
variance = 46.00	variance = 28.84
std dev = 9.76	std dev = 7.70
<u> </u>	

TABLE VI

POINT BISERIAL COEFFICIENT RELATING P-SCORES TO TEACHER RATING OF PEER PRESSURE SUSCEPTIBILITY

	<u> </u>	
.332 2.88 P	.01	

TABLE VII

P-SCORES FROM DEFINING ISSUES TEST AND PREVIOUSLY REPORTED RESEARCH SCORES

	From Rest, 1974								
	Samples	Average P-Scores For Group							
1.	High school juniors in public urban midwest schools $(n = 50)$	36.0							
2.	High school seniors and juniors in special summer social studies program (n = 18) 37.0								
3.	. Upper-middle special class high school senior girls in private Catholic schools $(n = 33)$ 38.7								
4.	High school graduates in college, working in midwest, ages $19 - 20$ (n = 17)	37.0							
	Findings from Present Study								
	Samples	Average P-Scores For Group							
1.	Participants (high school juniors and seniors) before moral development program $(n = 133)$	32.60							
2.	Participants (high school juniors and seniors) who completed moral development program $(n = 83)$	37.78							
3.	Participants (high school juniors and seniors) who served as controls and did not participate in the moral development program	34.14							

more effective in facilitating the moral reasoning scores than the small groups (P < .05).

2. The predominately high groups were found to be significantly

more facilitative than the predominately low groups in raising moral reasoning scores (P < .01).

- 3. No significant interaction was found to exist between the effects of group size and composition.
- 4. A significant correlation was found between gains in moral reasoning and a teacher rating of the subjects' susceptibility to peer pressure (P < .01).
- 5. The moral reasoning scores of the experimental subjects were not significantly different from the control subjects (P > .05). Chapter V will present the summary and conclusions of the study as well as a discussion of some of the implications for utilization and future research.

CHAPTER V

CONCLUSIONS, IMPLICATIONS AND SUMMARY

Overview

The present investigation involved 133 adolescents, all members of four psychology classes at a predominately white, middle class high school. Each subject was asked to complete the Defining Issues Test.

Data gathered on this instrument was then compared with subjects' scores on the same instrument at the conclusion of the experimental procedures.

Analysis of variance was used to examine the effects of group size and composition upon the pretest/post-test P-score differences of subjects during a program of moral development. An additional analysis of variance was made to examine the overall effectiveness in facilitating moral development with the program. A point biserial correlation coefficient was also computed to test the relationship between gains made during the experimental program and a teacher rating of susceptibility to peer pressure.

In this study five hypotheses were tested and were stated as follows:

- 1. The large group format will be significantly more effective in facilitating moral reasoning than the small group format with the moral development program.
- 2. The predominately high group format will be significantly more effective in facilitating moral reasoning gains than the predominately low group format.

- 3. No significant interaction will exist between the effects of group size and group composition.
- 4. A significant correlation will exist between gains in moral reasoning and a teacher rating of the subject's susceptibility to peer pressure.
- 5. The moral development program will facilitate significant gains in moral reasoning of the program subjects.

Conclusions

Considering the results obtained, it appears that although the experimental program had an effect upon the moral reasoning levels of some of the subjects, it was not sufficient to enhance all of the experimental subjects scores to a predetermined statistical point from those of the control subjects.

In considering the results of the effects of group size and group composition, the results as presented in Table IV show that both main effects are statistically significant (P < .05), with the effect of group composition being additionally significant at the .01 level. Thus it is seen that both group size and composition are significant factors in the effectiveness of the moral development program. No interaction was found between the two factors however, indicating additive effects of the two variables examined.

A significant correlation was found between the gains in moral reasoning made by the experimental subjects in the moral development program and the rating by the subjects' teacher as to their susceptibility to peer pressure. The results indicate a significant relationship between P-score differences the program and peer influence susceptibility.

Although the confines of correlational research limit the inferences that can be made on the relationship, it does support for the theoretical postulation of peer influence as an important source of moral growth. The results support the social learning approach, which stresses the pivotal roles of modelling and other forms of imitative learning.

Interpretation and Discussion

The findings of the study aid in understanding the conditions of moral change. The findings confirm the effects of two variables, group composition and group size by indicating the significant effect both have upon the effectiveness of a program of moral development.

Group size was found to be statistically significant (P < .05) in raising the moral reasoning scores of participants in the developmental The explanations for the effect are many. Important among the program. explorations is feedback received from the participants during the debriefing session. Although the data is not objective in nature, it has important theoretical ramifications. Several of the participants expressed their opinion that they would feel more comfortable in the larger groups. The tentative conclusion is supported by the fact that six members of small groups asked if they could change to larger groups during the course of the moral discussions, while none of the participants in the larger groups requested to change to a smaller group. While no change in experimental groups was made, the information is indicative of a greater degree of tension or cognitive conflict brought about by the three-member groups. This might be explained through the examination of the theoretical postulation of the role of cognitive conflict in moral Turiel (1973) reports that exposure to cognitive conflict may lead some subjects to reorganize or generate new thinking at the next

successive stage. However, some evidence has been found which indicates that too great a level of tension or cognitive conflict will hinder moral development and may lead to a fixation in terms of horizontal generalization of a moral stage (Garbarino and Bronfenbrenner, 1976). The concept of a moderate level of anxiety being optimal for change is also seen in social-learning theory (Burton, 1963).

It might be postulated that the larger groups allowed the participapants to regulate the level of cognitive conflict somewhat, by withdrawing from conversation or peer participation to a degree unavailable in
the small groups. Thus perhaps the participants were better able to
reach and maintain an individual optimum level of cognitive conflict.

Another theoretical rationale for the increased moral reasoning gains made within the larger groups is in the number of differing perspectives available to the participant. Kohlberg (1969) states that the individual is most receptive to those arguments at the next successive level. The larger group, given the aforementioned theoretical rationale, would be more likely to provide those viewpoints in an unbroken continuum.

The variable of group composition was seen to be significant, with the predominately high groups achieving greater gains in moral reasoning. The theoretical explanation for this effect can perhaps be seen in the examination in the significant relationship between moral reasoning gains and susceptibility to peer pressure. Research findings on the need to conform in group situations (Asch, 1946) and the theoretical hypotheses of the adolescents susceptibility to peer pressure (Eriksen, 1963) both indicate explanations for the effects of predominately high groups.

Problems in Moral Development Research

There are currently several problems in the use of public school

students in moral development research. The first set of problems lies within the location of the research proper. Although the research location being within a laboratory setting allows greater control over experimental subjects, it removes the research from the natural setting and makes it more difficult to generalize the results of the study. However, research in the natural setting also presents a set of problems. School support for programs or research outside those areas considered traditionally academic has waned in recent years, owing to recent legislation on rights to privacy of adolescents and accountability.

In choosing to research in the school setting, several issues must be resolved. One consists of obtaining the support of school personnel and administration. Without such support, research is liable to be refused entry into the schools altogether, or undermined once begun. In view of the potential difficulties in terms of mere logistics alone, in addition to potential liability for infringement on the right to privacy of the students, the school personnel must be made to see the potential gains that can be made through the research. Another necessity is the adaptation of the research within limits to the schedule of the school. One such difficulty arose during this study, in which only a limited amount of classroom time could be allotted the moral development program. Although it would have been beneficial from a scientific standpoint to have a longer span of sessions, school scheduling would only allow a limited set of four sessions.

Another difficulty encountered with research within the school setting is that of control of the subjects outside of the experimental setting. Contact between subjects outside the experimental design could possibly contaminate the results obtained. Despite repeated instructions not to discuss the material outside of the sessions, during the course of

the sessions and the debriefing it was discussed by the participants that they became so engrossed in the session material that they discussed it with others, i.e., fellow students, friends, parents, etc. Although this is encouraging from a standpoint of subject receptivity, the outside contacts could tend to obscure the original research design.

One potential problem that was not manifested to any appreciable degree was that of a lack of subject participation and enthusiasm. A poll taken of the participants two weeks after the debriefing sessions indicate that 113 of 129 individuals (87.6%) responded favorably to the research program and would volunteer for a program of a similar nature. The remaining 16 expressed neutral feelings toward the program and stated they did not know if they would volunteer again. None of those responding indicated unfavorable feelings toward the program or stated they would not volunteer again for a program of similar nature. Clearly lack of subject involvement in program material was not a problem in this study. The findings were supported by interviews with the discussion leaders, who estimated the percentage of subjects actively participating during the sessions averaged 92.5 percent.

Implications for Future Research

Given the results of this study, the next step should be the identification and examination of other variables in moral change, such as sex, intelligence, or cognitive levels. The role of sexual differences in moral development has been recently brought into question (Gilligan, 1977), and the examination of the role of sex in moral development programs is strongly indicated. Likewise the roles of intelligence and level of cognitive functioning, i.e., the degree of attainment of formal operational thought, have been correlated with moral development. The next

step would include these variables in experimental research designs.

Another direction of future research should be in the area of the situation in which the content of a moral dilemma situation seemingly overwhelms the moral structure of the individual, causing what appears to be a regression in the moral levels of the individual.

Essentially, the entire theory of moral development is in need of further refinement. Kohlberg himself points to this when he describes how a portion of his sample in a longitudinal study, after rejecting stage four moral reasoning, "dropped out" of the moral system. Lickona (1976) describes Hitler and Stalin as examples of people who developed stable amoral ideologies "beyond good and evil." Hitler in Mein Kampf (1943) says simply that morality is meaningless. Given the inability of Kohlberg's system to adequately explain such phenomena, in addition to the recent charges that the theory is sexually biased against females (Gilligan, 1977), the need for further refinement and elaboration of a theory of moral development becomes clear.

Another direction for future research lies in the application of results obtained to appropriate locations, such as schools, churches, etc.

There is a strong need to provide a framework from which efforts at moral education can be based. As Lickona (1976) points out:

The problem with societal and invididual efforts to optimize moral development, to paraphrase Chesterton, is not that they have been tried and found wanting, but that they have never been truly tried (p. 27).

Summary

The findings summarized earlier are encouraging for both practical and theoretical advances in the area of moral development. The findings indicate that the program did not significantly enhance moral reasoning

scores at the .05 level, although the effect of the program was significant at a .08 level of significance.

The findings also indicated a significant effect of group size and group composition upon the gains in moral reasoning within the developmental program. These findings help in understanding the process of moral change, from both the practical as well as the theoretical perspective.

In addition, a significant relationship was found between the gains in moral reasoning and a rating of susceptibility to peer pressure, indicating the important role of peer pressure in moral change.

This chapter presented a summary of the findings of the present study along with conclusions that could be drawn from these results. Problems with research in moral development were discussed, along with implications for future research. Finally, a portion of the chapter was devoted to supplementary findings gleaned from the data gathered from the present research.

A SELECTED BIBLIOGRAPHY

- Adams-Webber, J. Cognitive complexity and sociality. <u>British</u> <u>Journal</u> of <u>Social</u> and <u>Clinical</u> <u>Psychology</u>, 1969, <u>8</u>, 211-216.
- Allinsmith, W. The learning of moral standards. In D. R. Miller and G. E. Swanson (Eds.), <u>Inner conflict and defense</u>. New York: Holt, Rinehart and Winston, 1960, 141-176.
- Allport, G. W., Vernon, P. E., & Lindzey, G. Study of values. Bostons Houghton Mifflin, 1960.
- Alston, W. P. Comments on Kohlberg's "From is to ought." In T. Mischel (Ed.), Cognitive development and epistemology. New York: Academic, 1971, 269-284.
- Aronfreed, J. The effects of experimental socialization paradigms upon two moral responses to transgression. <u>Journal of Abnormal and Social Psychology</u>, 1963, 66, 437-448.
- Aronfreed, J. The concept of internalization. In D. A. Goslin and D. C. Glass (Eds.), <u>Handbook of socialization theory</u>. New York: Rand-McNally, 1968.
- Aronfreed, J. Moral development from the standpoint of a general psychological theory. In T. Lickona (Ed.), <u>Moral development and behavior</u>. New York: Holt, Rinehart and Winston, 1976.
- Ausubel, D. P. <u>Theory and problems of child development</u>. New York: Grune and Stratton, 1958.
- Bandura, A. Influence of models' reinforcement contingencies on the acquisition of imitative responses. <u>Journal of Personality and Social Psychology</u>, 1965, <u>1</u>, 589-595.
- Bandura, A. Social learning theory of identificatory processes. In D. A. Goslin (Ed.), <u>Handbook</u> of <u>socialization</u> theory and <u>research</u>. Chicago: Rand-McNally, 1969.
- Bandura, A. Analysis of modeling processes. In A. Bandura (Ed.), <u>Psychological modeling</u>: <u>Conflicting theories</u>. Chicago: Aldine-Atherton, 1971(a).
- Bandura, A. Social learning theory. New York: General Learning, 1971(b).

- Baumrind, D. Authoritarian vs. authoritative control. <u>Adolescence</u>, 1968-1969, 3, 255-272.
- Beck, C. Stimulating transition to postconventional morality. <u>Inter-change</u>, Fall, 1972, <u>3:4</u>.
- Berlyne, D. E. <u>Conflict</u>, <u>arousal</u>, <u>and curiosity</u>. New York: McGraw-Hill, 1961.
- Bettelheim, B. Moral education. In N. F. Sizer and T. R. Sizer (Eds.), <u>Moral education:</u> <u>Five lectures</u>. Cambridge, Mass.: Harvard University Press, 1970.
- Blatt, M., & Kohlberg, L. The effects of classroom discussion upon children's level of moral development. In L. Kohlberg and E. Turiel (Eds.), Recent research in moral development. New York: Holt, Rinehart and Winston, in press.
- Bronfenbrenner, U. The role of age, sex, class and culture in studies of moral development. Religious Education, 1965 (4, research supplement), 57, 3-17.
- Burton, R. V. Generality of honesty reconsidered. <u>Psychological Review</u>, 1963, 70, 481-499.
- DeVries, R. The development of role-taking as reflected by behavior of bright, average, and retarded children in a social guessing game. Child Development, 1970, 41, 759-770.
- Dewey, J. Moral principles in education. New York: Philosophical Library, 1954.
- Durkheim, E. Moral education. Glencoe, Ill.: The Free Press, 1961.
- Eysenck, H. J. The biology of morality. In T. Lickona (Ed.), Moral development and behavior. New York: Holt, Rinehart and Winston, 1976.
- Freud, S. The ego and the id. London: Hogarth, 1927.
- Grinder, R. E. Relations between behavioral and cognitive dimensions of conscience in middle childhood. <u>Child Development</u>, 1964, 35, 881-893.
- Guilford, J. P., & Fruchter, Benjamin. <u>Fundamental statistics in psychology</u> and education. New York: McGraw-Hill, 1973.
- Haan, N., Smith, M., & Block, J. Moral reasoning of young adults: Political behavior, family background and personality correlates. <u>Journal of Personality and Social Psychology</u>, 1968, <u>10</u>, 183-201.
- Hampden-Turner, C., & Whitten, P. Morals left and right. <u>Psychology</u> <u>Today</u>, 1971, <u>4</u>, 39-42, 74 and 76.

- Hartshorne, H., & May, M. A. <u>Studies in the nature of character (Vol. 2)</u>: Studies in deceit. New York: Macmillan, 1928.
- Hitler, A. Mein Kampf. Boston: Houghton Mifflin, 1962. (Originally published, 1943.)
- Hoffman, M. Empathy, role-taking, guilt and development of altruistic motives. In T. Lickona (Ed.), <u>Moral development and behavior</u>. New York: Holt, Rinehart and Winston, 1976.
- Hogan, R. Moral conduct and moral character: A psychological perspective. Psychological Bulletin, 1973, 79, 217-232.
- Huston, T., & Korte, C. The responsive bystander, why he helps. In T. Lickona (Ed.), Moral development and behavior. New York: Holt, Rinehart and Winston, 1976.
- Kerlinger, F. N. <u>Foundations of behavioral research</u>. New York: Holt, Rinehart and Winston, 1964.
- Kohlberg, L. The development of children's orientation toward a moral order: I. Sequency in the development of moral thought. Vita Humana, 1963(a), 6, 11-33.
- Kohlberg, L. Moral development and identification. In H. Stevenson (Ed.), Child psychology, 62nd yearbook of the national society of studies in education. Chicago: University of Chicago Press, 1963(b), 363-370.
- Kohlberg, L. Development of moral character and moral ideology. In M. Hoffman and L. Hoffman (Eds.), <u>Review of child development research</u>, (Vol. 1). New York: Russell Sage Foundation, 1964, 120-122.
- Kohlberg, L. Early education: A cognitive developmental view. Child <u>Development</u>, 1968, 39, 1013-1059.
- Kohlberg, L. Stage and sequence: The cognitive-developmental approach to socialization. In D. Goslin (Ed.), <u>Handbook of socialization</u> theory and research. Chicago: Rand McNally, 1969, 68-72.
- Kohlberg, L., & Turiel, E. Moral development and moral education. In G. S. Lesser (Ed.), <u>Psychology and educational practice</u>. Glenview, Ill.: Scott Foresman, 1971, 410-465.
- Leming, J. Moral reasoning, sense of control and social-political activism among adolescents. Adolescence, Winter, 1974, 9:36, 507-528.
- Lickona, T. Critical issues in the study of moral development and behavior. In T. Lickona (Ed.), <u>Moral development and behavior</u>. New York: Holt, Rinehart and Winston, 1976(a).
- Lickona, T. Research on Piaget's theory of moral development. In T. Lickona (Ed.), <u>Moral development and behavior</u>. New York: Holt, Rinehart and Winston, 1976(b).

- Mancuso, J., & Sarbin, T. A paradigmatic analysis of psychological issues at the interface of jurisprudence and moral conduct. In T. Lickona (Ed.), <u>Moral development and behavior</u>. New York: Holt, Rinehart and Winston, 1976.
- Matefy, R., & Acksen, B. The effect of role playing discrepant positions on change in moral judgments and attitudes. <u>Journal of Genetic Psychology</u>, June, 1976, 128:2.
- Medinnus, G. R. Behavioral and cognitive measures of conscience development. <u>Journal of Genetic Psychology</u>, 1966, <u>109</u>, 147-150.
- Mischel, W., & Mischel, H. A cognitive social-learning approach to morality and self-regulation. In T. Lickona (Ed.), <u>Moral development and behavior</u>. New York: Holt, Rinehart and Winston, 1976.
- Nelsen, E. A., Grinder, R. E., & Biaggio, A. M. B. Relationships among behavioral, cognitive-developmental, and self-support measures of morality and personality. <u>Multivariate Behavioral Research</u>, 1969, 4, 483-500.
- Oliver, D. W., & Bane, M. J. Moral education: Is reasoning enough? In C. M. Beck, B. S. Crittenden and E. V. Sullivan (Eds.), <u>Moral education</u>: <u>Interdisciplinary approaches</u>. Toronto: University of Toronto Press, 1971, 252-271.
- Piaget, J. The moral judgment on the child. London: Routledge and Kegan Paul, 1932; Glencoe, Ill.: The Free Press, 1948.
- Piaget, J., & Inhelder, B. The psychology of the child. New York: Basic Books, 1969.
- Ravitch, D. Moral education and the schools. <u>Commentary</u>, 1973, <u>56</u>, 62-68.
- Rest, J. R. The hierarchical nature of stage of moral judgment. <u>Journal</u> of <u>Personality</u>, 1973, <u>41:1</u>, 86-104.
- Rest, J. R. New approaches in the assessment of moral judgment. In T. Lickona (Ed.), <u>Moral development and behavior</u>. New York: Holt, Rinehart and Winston, 1976.
- Rest, J. R., Cooper, D., Coder, R., Masanz, J., & Anderson, D. Judging the important issues in moral dilemmas: An objective measure of development. Developmental Psychology, 1974, 10:4, 491-501.
- Rest, J. R., Turiel, E., & Kohlberg, L. Level of moral development as a determinant of preference and comprehension of moral judgment made by others. Journal of Personality, 1969, 37, 225-252.
- Rosenthal, R. Experimenter effect in behavioral research. New York: Appleton-Century-Crofts, 1966.

- Saltzstein, H. D., Diamond, R. M., & Belenky, M. Moral judgment level and conformity behavior. Developmental Psychology, 1972, 7, 327-336.
- Selman, R. L. The relation of role-taking to the development of moral judgment in children. Child Development, 1971, 42, 79-91.
- Simpson, E. L. Moral development research: A case of scientific cultural bias. Human Development, 1974, 17:2, 81-106.
- Stager, M., & Hill, J. The moral education project. Orbit, April, 1973, 4:2.
- Sullivan, E. A developmental-interactionist perspective to moral values: Some results with exploratory studies in primary and secondary school years. Paper presented at annual meeting of American Montessori Society, Boston, Massachusetts, 1976.
- Sullivan, E., & Beck, C. Moral education in a canadian setting. Phi Delta Kappan, June, 1975, 56:10.
- Turiel, E. An experimental test of the sequentiality of developmental stages in the child's moral judgments. <u>Journal of Personality and social psychology</u>, 1966, 3, 611-618.
- Turiel, E. Developmental processes in the child's moral thinking. In P. Mussen, J. Langer, and M. Covington (Eds.), <u>Trends and issues in developmental psychology</u>. Chicago: Holt, Rinehart and Winston, 1969, 92-113.
- Turiel, E. Adolescent conflict in the development of moral principles. In R. Solso (Ed.), <u>Contemporary issues in cognitive psychology</u>. Washington, D.C.: V. H. Winston and Co., 1973, 231-250.
- Whelan, M., & Duska, P. Moral development in youth. New Catholic World, 1973, 216, 248.
- Wright, D. The psychology of moral behavior. Baltimore, Md.: Penguin Books, 1971.
- Zimmerman, B. J., & Rosenthal, T. L. Observational learning of rule-governed behavior by children. <u>Psychological Bulletin</u>, 1974, <u>81</u>, 29-42.

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.

Ple	ase give	us the	following	informat	ion:		
Name							Female
Age	Clas	ss and p	eriod				Male
School _						-	
	*	*	•	· *	*	*	

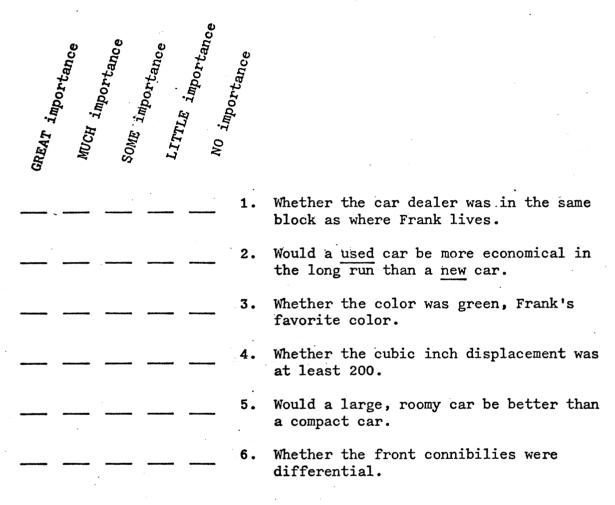
In this questionnaire you will be asked to give your opinions about several stories. Here is a story as an example. Read it, then turn to the next page.

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.



PART B. (SAMPLE)

From the list of questions above, select the <u>most</u> 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	
Second most important	2
Third most important	
Fourth most important	_1_

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

	စ္	HEINZ STORY
nce	nce ance rrtan	On the left hand side of the page
Jort.	orta ^{jmp} c orta	check one of the spaces by each
GREAT importance	MUCH importance SOME importance LITTLE importance NO importance	question to indicate its importance.
		Whether a community's laws are going to be upheld.
		Isn't it only natural for a loving husband to care so much for his wife that he'd steal?
		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.
		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.
		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 t	he list of questions ab	ove, select the four most important:
M	lost important	Third most important
· S	econd 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 would 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	tne	students	nave	taken	over	tne	administration building?
(Check	one))					
					-		Yes, they should take it over
							Can't decide
							No, they should not take it over

GREAT ;	MUCH importance SOME importance LITTLE importance No importance	STUDENT TAKE-OVER
-		Are the students doing this to really help other people or are they doing it just for kicks.
		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.
		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 misunder- standing on himself by being so unreason- able and uncooperative.
	10.	Whether running the unversity 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 al	oove, select the four most important:
•	Most important	Third most important
	Second 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

	rtance	, ance	Suce	ortance	, ₉	
GREAT !	MUCH importance	Some impor	TILLE	Ami ON	Thortan	ESCAPED PRISONER
					1.	Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?
			in-whitelia		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?
	, manufacture and				8.	Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off?
			_	·	9.	Was Mrs. Jones a good friend of Mr. Thompson?
,				 -	10.	Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?
-			to the same state of		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 lis	st of	que	stion	ıs abo	ove, selct the four most important:
	Most in	mport	ant		-	Third most important
	Second	most	imp	ortar	ıt _	Fourth most important

THE DOCTOR'S DILEMMA

A lady was dying of cancer which could not be cured and she had only about six months to live. She was in terrible pain, but she was so weak that a good dose of pain-killer like morphine would make her die sooner. She was delirious and almost crazy with pain, and in her calm periods, she would ask the doctor to give her enough morphine to kill her. She said she couldn't stand the pain and that she was going to die in a few months anyway.

What should the doctor do? (Check one)

He should give the lady an overdose that will make her die
Can't decide
 Should not give the overdose

GREAT in.	MUCH importance SOME importance LITTLE importance No importance	DOCTOR
		Whether the woman's family is in favor of giving her the overdose or not.
	2.	Is the doctor obligated by the same laws as everybody else if giving an overdose would be the same as killing her.
		Whether people would be much better off without society regimenting their lives and even their deaths.
	4.	Whether the doctor could make it appear like an accident.
	5.	Does the state have the right to force continued existence on those who don't want to live.
		What is the value of death prior to society's perspective on personal values.
		Whether the doctor has sympathy for the woman's suffering or cares more about what society might think.
	8.	Is helping to end another's life ever a responsible act of cooperation.
	9.	Whether only God should decide when a person's life should end.
	10.	What values the doctor has set for himself in his own personal code of behavior.
	11.	Can society afford to let everybody end their lives when they want to.
		Can Society allow suicides or mercy killing and still protect the lives of individuals who want to live.
From	the list of questions at	pove, select the four most important:
	Most important	Third most important
	Second 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	hire	ed 1	Mr.	Lee
Can't	deci	de			
 Should	not	have	hi	red	him

GREAT IMPOS	MUCH importance Some	LITTLE importance	tortance.	WEBSTER
			1.	Does the owner of a business have the right to make his own business decisions or not?
-			2.	Whether there is a law that firbids 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 capital istic system ought to be completely abandoned.
Exercise security.			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?
		1	0.	Could Mr. Webster be so hard-hearted as to refuse the job, knowing how much it means to Mr. Lee?
		1	1.	Whether the Christian commandment to love your fellow man applies to this case.
		1	.2.	If someone's in need, shouldn't he be helped regardless of what you get back from him?
From	the list	of questions	ab	ove, select the four most important:
	Most imp	ortant		Third most important
	Second m	ost 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

GREAT im	MUCH ;	Some importance	LITTLE	No importanc	Portance	NEWSPAPER
	-				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 news-paper?
					4.	When the welfare of the school is threat- ened, does the principal have the right to give orders to students?
					5.	Does the principal have the freedom of speech to say 'ho' 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 prin- cipal that knows best what is going on in the school.
			· ·	<u> </u>	12.	Whether Fred was using the newspaper to stir up hatred and discontent.
From	the	list of	que	stion	s abo	ve, select the four most important:
	Most	Import	ant			Third Most Important
	Seco	nd Most	Imp	ortan	t	Fourth Most Important

APPENDIX B

DERIVING P-SCORES AND STAGE SCORES FROM
THE DEFINING ISSUES TEST

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.
- 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.

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	5 A
Students	3	4	2	5 A	5A	3	6	4	3	A	5B	4
Prisoner	3	4	A	4	6	M	3	4	3	4	5A	5 A
Doctor	3	4	A	2	5A	M	3	6	4	5B	4	5A
Webster	.4	4	3	2	6	A	5 A	5A	5B	3	4	3
Newspaper	4	4	2	4	М	5 A	3	3	5B.	5 A	4	3

- 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

- 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.
- 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."

APPENDIX C

PROGRAM DISCUSSION GUIDELINES

Laws

Recently a man who had been burglarized frequently decided to stop it by staying at his store all night with a loaded gun, and when he heard someone trying to break in, he shot the burglar. The burglar sued the storeowner and won a large amount of money.

Was the jury right in giving the burglar money?

Was the storeowner right in shooting the burglar?

Another storeowner was losing business because kids were jaywalking in front of his store and customers couldn't get in the parking
lot. The storeowner decided to stop the jaywalking and he got in his
car and the next kid that jaywalked was run over by the storeowner.

How are these two situations similar?

What rights do even criminals have?

Is property worth more than life?

Your parents have just given you your dreamcar. While you are getting in the car a man holds you up with a gun and demands your car keys. After he gets them he puts the gun away and turns around to get in your car unaware you also have a loaded gun, and can shoot him in the back.

Do you shoot him?

Again, how much is his life worth?

The Price of the new car?

More than the car?

Obedience

If you were working for a company and your boss told you to spread rumors about the competition to boost your sales, would you?

Would it matter if the rumors were true or not?

If the rumors were spread about your company or you personally,

what would you do?

If you were in the army and your commanding officer told you to go in and destroy a villiage, including everyone within, would you?

If there was a person that you respected and liked very well, and that person came to you and asked you to kill someone that had been bothering him for a long time, and that there was a sure way to kill this person and make it look like an accident, would you? The person stated that he/she would take responsibility.

Could the person really take responsibility?

Would your decision matter whether you could be caught or not?

What things should matter whether we obey rules or people in authority?

What makes things right?

Roles and Role Playing

Do any of you act differently around your parents than you do around your friends?

If so, why?

How do you act if both your parents and someone you are romantically interested in (boyfriend/girlfriend) are present?

How do you act around your boyfriend/girlfriend?

If you are acting differently around others and not being yourself, is "right" and "wrong" decided by what you think is right or what others expect of you?

What decides what is right or wrong?

Is "right or wrong" decided on the basis of others' expectations or something else entirely?

Morality

In discussing the concepts of right and wrong, can there be an example of a law that is wrong?

Can each of you think of a situation which can be wrong?
What makes the law wrong, or unjust?

If laws can be unjust, what can we use to determine what is right or wrong?

Is there anything that all the members of this group can accept as always right or always wrong?

Analyze the unjust laws we discussed earlier with the things we agreed that were always just (unjust).

APPENDIX D

RAW SCORES AND DATA

TABLE VIII
RAW SCORES AND DATA

Student Coded No.	Difference in P Score	Classifi- cation	Sex	Exp. Group	Teacher Rating of Peer Susceptibility
. 1		L	М	N	
2	-10	L	F	LH	
3	2	H	М	LH	
4	6	L	F	SH	
5	4	H	F	LH	√
6		L	М	SL(A)	
7	-6	L	F	SL	
8	10	L	M	LH	
9	-2	Н	М	N	
10	-4	H	M	SH	
11	· 	L	\mathbf{F}	LL	
12	14	L	F	LL	
13		Н	F	LL(A)	
14	-2	L	F	LL	
15	-6	Н	\mathbf{F}	SL	
16	10	L	F	LL	√
17	6	H	F	LH	
18	14	H	F	LH	
19	4	L	M	N	
20		H	F	SL(A)	
21	16	L	F	LH	√
22	10	H	F	LL	√
23	6	H	F	LL	
24	6	H	М	LH	
25	10	L	M	LL	√
26		L	М	N	
27	6	H	M	LH	
28	-6	H	М .	SH	
29		H	F	LL(A)	
30	0	L	М	N	

TABLE VIII (Continued)

Student Coded No.	Difference in P Score	Classifi- cation	Sex	Exp. Group	Teacher Rating of Peer Susceptibility
31	0	L	М	N	
32	8	Н	M	N	
33	16	L	F	LL	√
34		L	M	LL(A)	
35		Н -	М	SH	
36	-4	L	F	SL	
37	6	Н	M	N	
38	-8	L	F	N(A)	
39	-8	L	M	LL(A)	
40	4	Н	F	N	
41		L	F	SH(A)	
42	-4	L	M	SL	
43	-4	Н	M	N	
44	14	L	F	LH	
45	Names address of State	L	М	LH	
46	24	L	F	LH	
47	0	L	F	N	
48	6	Н	F	SH	√
49	-6	Н.	F	SL	•
50	-2	L	M	N	
51	16	Н	F	LH	✓
52	16	H	М	LH	
53	6	L	M	LL	√
54	12	H	M	N	
55	10	Н	\mathbf{F}	LH	√
56	0	L	\mathbf{F}	N	
57	16	Н	F.	LH	
58	8	L	\mathbf{F}	LL	
59	10	Н	. M	LH	√
60	-6	L	M	N	
61	2	Н	F	LH	

TABLE VIII (Continued)

Student Coded No.	Difference in P Score	Classifi- cation	Sex	Exp. Group	Teacher Rating of Peer Susceptibility
62	-14	Н	М	LL	
63		Н	М	LL(A)	
64	14	L	М	LL	√
65	·	Н	F	LL(A)	
66	2	\mathbf{H}	M	LL	
67	8	H	F	N	
68	-4	L	M	LL	
69	0	L	М	LL	
70	-4	h	F	SH	
71	0	h	F	SH	
72	8	h	F	\mathtt{SL}	✓
73	-6	L	F	SH	√
74	-6	L	M	LL(A)	
75		Н	F	N	
76	-12	L	M	SL	
77	-2	L	F	SL	
78	-8	L	M	N	
79	4	H	F	N	
80	16	H	F	LH	
81	10	H	F	LH	√
82	6	L	F	LH	√
83	-2	L	F	LH	
84	14	L	F	LH	
85	-12	L	М	LL	
86	4	h	F	LH	
87	-6	L	M ·	N	
88	4	h	\mathbf{F}	N	
89 .	-4	h	М	LH	
90	20	L	М	LL	✓
91	0	L	F	LL	
92	0	L	\mathbf{F}	LH	

TABLE VIII (Continued)

Student Coded No.	Difference in P Score	Classifi- cation	Sex	Exp. Group	Teacher Rating of Peer Susceptibility
93	20	h h	F	LH	
94	-2	h	M	LL	
95	-2	h	М	N	
96	-10	h	\mathbf{F}	LL	
97	-10	L	\mathbf{F}	LL	
98	16	L	М	LL	✓
99	-6	L	F .	LL(A)	
100	8	H	F	N	
101	-4	H	F	N	
102	-2	${f L}$	F	LL	
103	-10	Н	\mathbf{F}	Sh	
104	10	H	\mathbf{F}	Sh	√
105	-2	H	F	SL	
106	0	H	F	LH	
107	0	L	M	n	
108		L	M	n	
109	6	h	F	Lh	
110	-4	h	F	n	
111	12	Н.	F	Lh	√
112	22	L	F	Sh	
113	0	L	F	n	
114	18	L	М	SL	√
115	20	L	F	SL	
116	0	Н	F	N	
117		L	F	LL	
118	18	L	F	LL	
119		L	F	LL	
120	6	L	F	LL	√
121	0	L	М	LL	
122	16	H	M	Lh	√
123	12	H	\mathbf{F}	Lh	

TABLE VIII (Continued)

Student Coded No.	Difference in P Score	Classifi- cation	Sex	Exp. Group	Teacher Rating of Peer Susceptibility
124	4	L	F	Lh	√
125	4	L	F	LL	✓
126	24	L.	F	Lh	
127	10	L	F	Lħ	
128	4	L	F	Lh	
129	2	H	F	N	
130	-14	H	M	LL	
131	0	L	F	N	
132	-2	L	F	N	
133	2	h	M	N	
134		L	F	N	
135	2	h	F	LL	
136	10	L	M	N	
137	-6	h	F	LL	√

APPENDIX E

KOHLBERG'S THEORY OF MORAL DEVELOPMENT

Kohlberg's Theory of Moral Development (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 actions 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 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 structure or for choosing new laws).

PLEASE NOTE:

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The Six Moral Stages

Content of Stage						
Level and Stage	What Is Right	Reasons for Doing Right	Social Perspective of Stage			
LEVEL I—PRECONVENTIONAL. Stage 1—Heteronomous Morality	To avoid breaking rules backed by punishment, obedience for its own sake, and avoiding physical damage to persons and property.	Avoidance of punishment, and the superior power of authorities.	Egocentric point of view. Doesn't consider the interests of others or recognize that they differ from the actor's; doesn't relate two points of view. Actions are considered physically rather than in terms of psychological interests of others. Confusion of authority's perspective with one's own.			
Stage 2—Individualism, Instrumental Purpose, and Exchange	Following rules only when it is to someone's immediate interest; acting to meet one's own interests and needs and letting others do the same. Right is also what's fair, what's an equal exchange, a deal, an agreement.	To serve one's own needs or interests in a world where you have to recognize that other people have their interests, too.	Concrete individualistic perspective Aware that everybody has his own interest to pursue and these conflict, so that right is relative (in the concrete individualistic sense).			
LEVEL II—CONVENTIONAL Stage 3—Mutual Interpersonal Expectations, Relationships, and Interpersonal Conformity	Living up to what is expected by people close to you or what people generally expect of people in your role as son, brother, friend, etc. "Being good" is important and means having good motives, showing concern about others. It also means keeping mutual rela- tionships, such as trust, loyalty, respect and gratitude.	The need to be a good person in your own eyes and those of others. Your caring for others. Belief in the Golden Rule. Desire to maintain rules and authority which support stereotypical good behavior.	Perspective of the individual in relationships with other individuals. Aware of shared feelings, agreements, and expectations which take primacy over individual interests. Relates points of view through the concrete Golden Rule, putting yourself in the other guy's shoes. Does not yet consider generalized system perspective.			

Stage 4—Social System and Conscience	Fulfilling the actual duties to which you have agreed. Laws are to be upheld except in extreme cases where they conflict with other fixed social duties. Right is also contributing to society, the group, or institution.	To keep the institution going as a whole, to avoid the breakdown in the system "if everyone did it," or the imperative of conscience to meet one's defined obligations (Easily confused with Stage 3 belief in rules and authority; see text.)	Differentiates societal point of view from interpersonal agreement or motives. Takes the point of view of the system that defines roles and rules. Considers individual relations in terms of place in the system.
LEVEL III—POST- CONVENTIONAL, or PRINCIPLED Stage 5—Social Contract or Utility and Individual Rights	Being aware that people hold a variety of values and opinions, that most values and rules are relative to your group. These relative rules should usually be upheld, however, in the interest of impartiality and because they are the social contract. Some nonrelative values and rights like life and liberty, however, must be upheld in any society and regardless of majority opinion.	A sense of obligation to law because of one's social contract to make and abide by laws for the welfare of all and for the protection of all people's rights. A feeling of contractual commitment, freely entered upon, to family, friendship, trust, and work obligations. Concern that laws and duties be based on rational calculation of overall utility, "the greatest good for the greatest number."	Prior-to-society perspective. Perspective of a rational individual aware of values and rights prior to social attachments and contracts. Integrates perspectives by formal mechanisms of agreement, contract, objective impartiality, and due process. Considers moral and legal points of view; recognizes that they sometimes conflict and finds it difficult to integrate them.
Stage 6—Universal Ethical Principles	Following self-chosen ethical principles. Particular laws or social agreements are usually valid because they rest on such principles. When laws violate these principles, one acts in accordance with the principle. Principles are universal principles of justice: the equality of human rights and respect for the dignity of human beings as individual persons.	The belief as a rational person in the validity of universal moral principles, and a sense of personal commitment to them.	Perspective of a moral point of view from which social arrangements derive. Perspective is that of any rational individual recognizing the nature of morality or the fact that persons are ends in themselves and must be treated as such.

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Candidate for the Degree of

Doctor of Philosophy

Thesis: THE EFFECTS OF GROUP SIZE AND COMPOSITION ON GAINS IN MORAL

REASONING WITHIN A PROGRAM OF MORAL DEVELOPMENT

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