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STANSELL, VANCE DALE
A SOCIAL JUDGMENT-INVOVEMENT INVESTIGATION
OF MORAL DEVELOPMENT THEORY.

THE UNIVERSITY OF OKLAHOMA, PH.D., 1979

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THE UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

A SOCIAL JUDGMENT-INVOLVEMENT INVESTIGATION OF
MORAL DEVELOPMENT THEORY

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements for the
degree of
DOCTOR OF PHILOSOPHY

BY
VANCE STANSELL
Norman, Oklahoma

1979

A SOCIAL JUDGMENT-INVOLVEMENT INVESTIGATION OF
MORAL DEVELOPMENT THEORY

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ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to Dr. George A. Letchworth who has provided guidance, concern, and advice as a major professor, and support, encouragement, and patience as a friend. I also would like to express my thanks to my committee members, Dr. Tillman Ragan, Dr. William Graves, and Dr. Larry Toothaker, for their unending help and friendship throughout my graduate career.

I am indebted to Dr. Stephen Carella, Keith Huckabay, and Royce Drennan for serving as judges in this study, and to all of the people at the Instructional Services Center who participated in the pilot study. To these friends, and others too numerous to name, who provided help, encouragement, and support, I say thank you.

This dissertation is most sincerely and lovingly dedicated to my wife, Mary Jane. Not only has she provided the typing, proofing, testing, and correcting, but without her patience, support, and love, this dissertation would not have been completed.

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A Social Judgment-Involvement Investigation of
Moral Development Theory

Research on the development of moral reasoning has produced a developmental stage theory that provides an explanation of the qualitative changes in moral reasoning (Kohlberg, 1959; Kohlberg & Kramer, 1969). The theory does not, however, provide a sufficiently detailed explanation of the reasoning processes, their structure, and how these structures are altered to produce changes from one stage to the next. Similarly, the cognitive attitude and attitude change theoretical area (Sherif, Sherif, & Nebergall, 1965) has provided a detailed explanation of the structures of attitudes and opinions and the process of change, while neglecting the more encompassing developmental perspective. A combination of the two theoretical areas would provide insights into both.

Moral Development Theory

Three major perspectives from which moral development has been viewed are the psychoanalytical, the learning theory, and the cognitive developmental viewpoints. In the psychoanalytical perspective, moral development is seen as the process of the child unthinkingly taking on the values of the parents as he progresses through the psychosexual stages (Graham, 1972). In the learning theory, or behavioral approach, moral behaviors are believed to be acquired and modified through experiences according to learning principles (Bandura, 1969). The cognitive developmental approach, developed by Piaget (1948) and

Kohlberg (1959), is concerned with the progressive development of the individual's cognitive abilities. It concentrates primarily on the organization of experiences into meaningful structures which continually become more complex and abstract. Here moral development is not seen solely as responsiveness to experiences or training (the behavioral approach) or as an internalization of the values of others (the psychoanalytical approach); it is viewed as an active organization and reorganization process. Social exchange is seen as the primary raw material for moral development. The individual is viewed as "developing in a continuous process of 'assimilating' experience by interpreting it in terms which are currently meaningful to him, and 'accommodating' to new experiences by reorganizing his own system of meanings to enable a more adequate level of functioning to be obtained" (Graham, 1972, p. 19). Moral development is seen as progressing through distinct, universal stages with movement from stage to stage influenced by interactions with others. Growth in moral development theoretically occurs when individuals are exposed to moral conflicts and statements about conflicts which reflect thinking higher than their own level. The manner in which moral judgments develop was first explored by Piaget (1948) and later expanded and revised by Kohlberg (1959). Kohlberg postulated three distinct levels of moral development, with each level consisting of two different stages for a total of six stages (Kohlberg & Kramer, 1969). Kohlberg (1973) indicated that the stages are

"structured wholes," or organized systems of thought and that individuals are consistent in their level of moral thought. He believes that stages form an invariant sequence with movement always forward, never backward, and stages are "hierarchical integrations." Thinking at a higher stage includes or comprehends within it lower-stage thinking. Several studies have offered validation of Kohlberg's moral development scheme (Holstein, 1976; Kohlberg, 1959; Kohlberg & Kramer, 1969; Rest, 1973; Rest, Turiel, & Kohlberg, 1969).

Change in Moral Development Stages

Stage changes are seen as "directed, qualitative transformation in psychological structure" (Kohlberg, 1973, p. 197). These stage changes, due to experiential interaction with one's environment, are believed to be the result of two important activities: one is the resolution of cognitive conflicts due to increased social interaction, and the other is the development of the ability to see things from another's perspective, that is, to take on the role of others. An anomaly was found in the sequence of development for subjects at about the college sophomore level (Kohlberg & Kramer, 1969) where it appeared that these subjects had dropped from a mixture of Stage 4 and 5 reasoning to a Stage 2 level. Later it was suggested (Kohlberg, 1973; Turiel, 1974) that this pattern of thought represented an incomplete understanding of Stage 5 reasoning with a rejection of Stage 4 concepts, thus a Stage 4½, or transitional stage.

In one of the first studies dealing with moral reasoning change, Turiel (1966) found that seventh-grade boys exposed to the stage directly above their present level (plus-one reasoning) in a role-playing session exhibited the most change in scores on a posttest. Turiel's control group, however, also exhibited change (Hoffman, 1977). Several studies since this have used the plus-one technique. Tracy and Cross (1973) showed increases in moral level with this technique for pre-conventional subjects but their control group also exhibited a drastic change. Tracy and Cross (1973) suggest that the pretest interview may have served as a powerful manipulator in their study. A similar shift in a control group was also reported by Keasey (1973), who attributed this shift to the sensitizing effect of the pretest which he believed produced a condition sufficient to induce disequilibrium in his subjects.

Numerous other techniques have been studied in regard to change in moral reasoning such as: training children to attend to subjective intentions in stories (Crowley, 1968; Glassco, Milgram, & Youniss, 1970); participation in group consensus involving moral issues (Maitland & Goldman, 1974); exposure to peer and adult models (Dorr & Fey, 1974); exposure to group-influence conformity experiences (Saltzstein, Diamond, & Belenky, 1972). Research in the area of moral education in schools (Kohlberg, 1972, 1975a, 1975b; Rest, 1974a) indicates that moral discussion is the important vehicle for moral development. It is assumed that this discussion results in exposure

to higher stages (from the individual's present level) of reasoning and to situations that pose problems and contradictions to the person's present moral structure.

Social Judgment Theory

The Social Judgment-Involvement theory may provide insight into some of the research findings in the moral development area. This theory was set forth by Muzafer Sherif and others (Sherif et al., 1965; Sherif & Hovland, 1961; Sherif & Sherif, 1956) and deals with how individuals make social judgments. Within the framework of the judgmental process, they describe the basic psychological processes underlying attitudes and their modification through communications. Sherif and Hovland (1961), in referring to research on attitudes and attitude change, used the term attitude to mean any judgment or opinion that an individual happens to render. It is assumed in making judgments that individuals are reacting to their own attitudes in comparing, evaluating, or choosing among alternatives.

From their research, Sherif and others concluded that the judgment process can best be studied by looking at how individuals use a set of categories for comparing and evaluating items they have been asked to judge. A person's attitudes are inferred from that person's categorizations of relevant objects, persons, groups, or communications into acceptable and objectionable categories. Change in attitudes is inferred from the alteration of the individual's acceptance-rejection pattern (Sherif & Sherif, 1967).

Several research studies have shown a consistent effect that anchors, standards that a person uses in making judgments, have upon judgments (Parducci & Marshall, 1962; Sherif, Taub, & Hovland, 1958). These effects are described as the assimilation effect when the judgments move toward an anchor or the contrast effect when judgments move away from some anchor. When experimental subjects are not given some standard by which to make judgments they often rely on some internal standard (Hunt & Volkman, 1937).

Sherif and Sherif (1967) have listed several assumptions about the judgment process that have been shown by experimental studies. One such assumption is that the more ego-involved a person is with the issue in the judgment, the more this task becomes one of evaluation even though one has been instructed to use nonevaluative criteria in making decisions. Likewise, the more ego-involved the individual, the greater the tendency to use one's own position as the standard for placing the other items. By using one's own position as an anchor, fewer items will be placed in the acceptable categories and more will be placed in the objectionable categories. This has been referred to as a raised threshold for acceptance and a lowered threshold for rejection (Sherif et al., 1965), and is due in part to the person viewing discrepant items from his/her own position as being more discrepant than they actually are (the contrast effect). With respect to items included in the latitude of acceptance that are

relatively close to one's own position, they are seen as more favorable to one's position than they actually are, as a result of the assimilation effect.

Attitude Change

With regard to communication aimed at changing a person's attitude on an issue, the more the communication lies in the person's latitude of acceptance or latitude of noncommitment, the more likely that person is to change. The person, due to the assimilation effect, will perceive these communications as factual, unbiased, and pleasing. Likewise, the more the communication falls into the latitude of rejection, the more the contrast effect occurs and it is seen as biased, propagandistic and false (Sherif & Sherif, 1967).

High susceptibility to change is seen in subjects whose latitude of rejection is rather small and latitude of noncommitment is relatively large. Those individuals with the reverse, that is small latitude of noncommitment and large latitude of rejection, are not as susceptible to change. Some research has indicated that communications that advocate the most extreme change had more effect than those advocating moderate change (Hovland & Pritzker, 1957). Freedman (1964) found that under low involvement more change results when extreme change is advocated while under high involvement, maximum change occurs at some moderate level of advocated change. The cognitive dissonance approach has predicted more change as a result of more distance between the communication

and a person's stand; however, Sherif and Sherif (1967), through the social judgment-involvement approach, predict increasing frequency and extent of attitude change with increased discrepancies but only within the range of assimilation.

Synthesis

Both the moral development and social judgment theoretical areas are cognitively oriented and are based on instruments that require an individual to make a decision or judgment as to the classification of statements about some issue. Unlike the moral development theory, the social judgment theory is concerned with the person's categorization rather than the reasoning behind the categorization. Also, unlike the moral development theory, the social judgment theory is not a developmental theory and some of its basic assumptions are derived from factors external to the individual (such as source of communication, prestige of communicator, etc.). The social judgment theory's primary concern is that of an individual's opinions and attitudes and factors related to their change.

The similarity between these two theories involves both theories' concern with cognitive organizations and the fact that neither deals directly with behavior. The promise for research is that the social judgment model of attitudes and attitude change may provide the structure necessary to describe how individuals at different levels of moral reasoning organize their opinions and attitudes and describe some of the factors

related to change. If this theory can provide descriptions of the organizations (or categorization) of people at different stages of moral development, it may also provide the structure necessary for predicting how change occurs.

This investigation addressed several different research questions by looking at moral development from both the moral development and the social judgment theoretical viewpoints. From the research in both areas, the following hypotheses were made:

1. Individuals from the conventional level of moral development will differ from individuals from the post-conventional level of moral development in terms of the relative size of their latitudes of acceptance, rejection, and noncommitment and in terms of their selection of most acceptable and most objectionable items on a Social Judgment Instrument.

2. Individuals from Stage 2 through Stage 6 of moral development will differ from one another in terms of the graphic configurations that represent their latitudes of acceptance, rejection, and noncommitment on the Social Judgment Instrument.

3. Individuals from the Stage 4½ moral level will exhibit graphic configurations of latitudes of acceptance, rejection, and noncommitment that reflect an acceptance of Stage 5A or higher statements and a rejection of Stage 4 statements.

4. Individuals representing Stages 2 through 5 of moral development will show preference for at least the next stage higher than their present level by including that stage level statement in their latitude of acceptance.

5. Individuals who are exposed to plus-one reasoning will show more change in DIT scores (from pretest to posttest) than will individuals who are exposed to either minus-one, plus-two, or no treatment.

6. Individuals who are exposed to plus-one reasoning will show more change in their latitudes of acceptance and rejection, and more change in their most acceptable position than will individuals exposed to either minus-one, plus-two, or no treatment.

7. Individuals who are exposed to plus-one reasoning will evaluate those reasoning statements more positively than will individuals exposed to either -1 or +2 statements.

Method

Subjects

One hundred undergraduate students enrolled in Educational Psychology and Introduction to Education classes were in the study. They participated in two sessions for a total of approximately two hours, and in return, received extra credit in their course. Of the students tested, 40 were classified as falling into the conventional level of moral development (either Stage 3 or 4), which resulted in ten subjects per treatment group. Classification into stages was accomplished

by assigning students to a stage based on exceptional usage of that stage on the Defining Issues Test as suggested by Rest (1974b; the lower limit was set at +.70 standard deviations above normative data for inclusion).

Procedure

Two sessions were required. In the first session, the pretest, students were tested both on the Defining Issues Test (DIT) and on the Social Judgment Instrument (SJI). The second session involved the treatment and posttest portion of the study. The techniques used in the treatment condition were based on those used by Turiel (1966) and Rest et al. (1969) and involved the presentation of two booklets (one for each of two conflict situations) to each student. Each booklet contained three parts. The first two parts were presented orally as well as visually by allowing the students to read in their booklet as a tape recording of that booklet was played for them.

The first part of each booklet and tape contained a conflict situation. The first situation was the Heinz story and the second was the Escaped Prisoner story, with both being taken directly from the pretest DIT instrument.

The second section of each booklet and tape contained two sets of solutions, or advice, concerning the conflict situation. The sets of advice were either one stage below (-1), one stage above (+1), or two stages above (+2) the student's own level, based on the treatment condition that

person was randomly placed into. The sets of advice advocated opposing courses of action where possible (see Appendix M). The different sets of advice used were derived from Kohlberg's (1959) coding forms and were based on actual subject responses.

The third portion of the booklet contained the following sets of directions: (1) "On the answer sheet provided, check the piece of advice you think is best." and (2) "On each of the following 4 lines, circle the number of the one statement that best describes how you feel about the advice you chose." This rating scale, the Evaluation of Advice scale (EOA), indicated degree of positive feelings toward the advice to which the students had been exposed. Immediately following the treatment phase of the study, each student was asked to complete both the DIT and the SJI. Students who had been randomly assigned to the control group received no treatment during the second session but completed the two posttests.

Instruments

DIT. The complete six story DIT (see Appendix C) assessed the moral development of the students and was administered in a group setting. This test was developed by Rest, Cooper, Coder, Masanz, and Anderson (1974) and has some advantages over Kohlberg's scoring procedure in terms of ease of administration and time savings. The DIT was scored by a Fortran computer program devised by Rest which provided the stage typing of each student as well as producing the P score

used in the investigation. The P score represents a combination of Stage 5 and 6 scores and indicates the relative degree of principled reasoning displayed by the person taking the test, and it can range from zero to 60. Rest's DIT measure has received considerable support from cross-sectional, longitudinal, and sequential studies for both validity and reliability (McGeorge, 1975; Rest, 1975a, 1975b; Rest et al., 1974). Test-retest correlations of .81 (Rest et al., 1974) and .65 (McGeorge, 1975; Panowitsch, 1974) have been reported.

SJI. One technique used to measure the latitudes of acceptance, rejection, and noncommitment is the Method of Ordered Alternatives. In this method, alternatives (position statements) about some issue are selected such that an entire range of positions are represented from one extreme to the other (no assumptions about the intervals between the alternative statements are made). In order to get measures of the three latitudes, subjects are asked to indicate which statements are most acceptable to them, and which other statements are acceptable. These statements make up their latitudes of acceptance (LA). They also are asked to indicate statements that are most objectionable and any other statements which may be objectionable. These statements make up their latitude of rejection (LR). The statements that are left over after this process are considered to be those that make up the subject's latitude of noncommitment (LNC). This method has been used successfully in several different research studies (Diab, 1965; Sherif et al., 1965; Sherif & Sherif, 1967).

This technique was used to develop the Social Judgment Instrument (Stansell, Note 1) by using three of the dilemma stories used in the DIT. Each of the three stories is followed by eight statements (one representing each of the theoretical moral stages 1, 2, 3, 4, 4½, 5A, 5B, and 6) which each subject must judge in terms of acceptance and rejection--the Ordered Alternatives Method. By this method, latitudes of acceptance, rejection, and noncommitment and most acceptable and most objectionable items can be obtained for each story. Mean scores (or sizes of latitudes) can be obtained for the entire protocol and profiles for individuals or groups of individuals can also be obtained. Scores for most acceptable (MA) and most objectionable (MO) items for one story can range from one (indicating a Stage 1 statement) to eight (indicating a Stage 6 item). The total SJI score for MA or MO represents a total of the three story scores added together. Scores for sizes of the latitudes of acceptance and rejection can range from one to seven, and the scores for the size of the latitude of noncommitment can range from zero to six (but all three latitudes must add to eight since they are dependent measures). The total SJI score for the latitudes of acceptance, rejection, or noncommitment represents a total of the sizes of the latitudes for each of the three stories added together.

Test-retest correlations for this instrument have been established for a one-week period and are as follows

(Stansell, Note 1): MA = .55, MO = .21, LA = .89, LR = .82, and LNC = .87.

EOA. The Evaluation of Advice scale is a seven point scale for each of four dimensions (Rhine & Severance, 1970). The four dimensions include: (1) "made no sense" to "made very good sense", (2) "very unreasonable" to "very reasonable", (3) "very illogical" to "very logical", and (4) "very bad advice" to "very good advice" (see Appendix E). Each scale ranges from one on the negative end to seven on the positive end, with an overall score range of from four to 28. This scale provided a score that indicated how positively the person had evaluated the piece of advice that had been presented.

Results

Several different statistical techniques were used to test the different hypothesized relationships. The level of significance for each of the statistical analyses was set at the .05 level since this was the initial investigation in this area. In order to enhance clarity in explaining the results, a constant of ten was added to each score.

Social Judgments of Moral Dilemmas

The first four hypotheses tested the applicability of the social judgment constructs to the moral development area. For hypothesis number one, five one-way analyses of variance were run, comparing conventional and post-conventional students on their most acceptable and most objectionable items and on

the sizes of their latitudes of acceptance, rejection, and noncommitment on the total SJI score. Results of these analyses indicated that the most acceptable ($F(1,44) = 11.23, p < .05$) and the most objectionable ($F(1,44) = 5.09, p < .05$) items were significantly different for the conventional and post-conventional groups (see Appendix N, Table 7). The conventional group had a lower mean for its most acceptable item total score on the SJI and a higher total score for the most objectionable items on the SJI (see Table 1).

Table 1

Means and Standard Deviations for Conventional and Post-Conventional Groups on MA and MO Items

Item	Group	Total SJI Mean	S.D.	Per Story Mean
MA	Conventional	17.21	2.73	5.74
MA	Post-Conventional	20.13	3.15	6.71
MO	Conventional	11.57	2.92	3.86
MO	Post-Conventional	9.57	3.09	3.19

This indicated that the post-conventional students picked most acceptable items that were at higher stage levels than the conventional students. Also, their most objectionable items were at lower stage levels than those of the conventional students. These results are consistent with what would be expected when applying social judgment constructs to the moral

development theoretical area. No differences were found between the sizes of the three latitudes for the two groups, indicating that the individuals from these two groups accept, reject, and are noncommitted on about the same number of items on the SJI. To investigate possible differences in the configuration that these latitudes represent, the three latitudes were graphed for both the conventional and post-conventional groups and are presented in Figures 1, 2, and 3. (Additional figures are presented in Appendix O).

Figure 1

Latitudes of Acceptance for the Conventional and Post-Conventional Groups

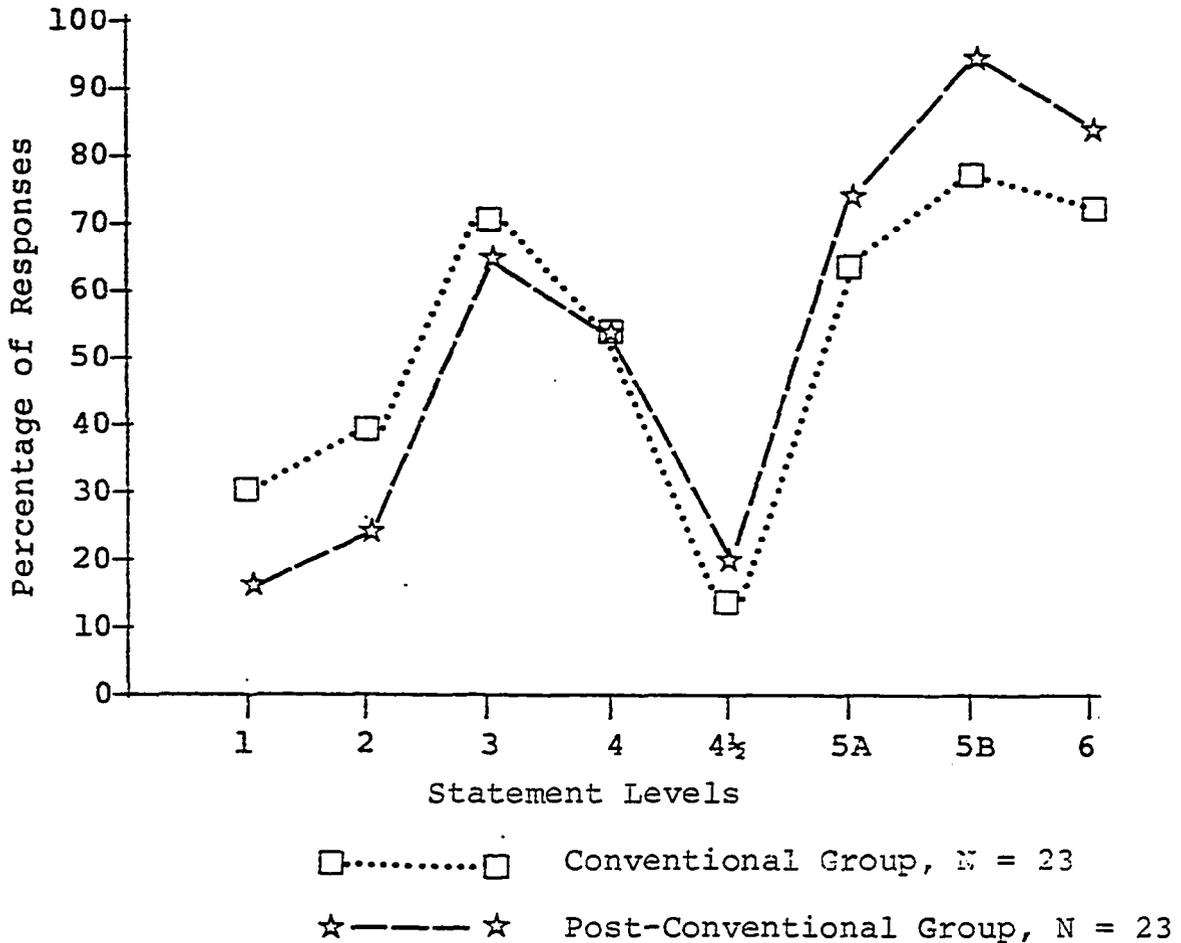
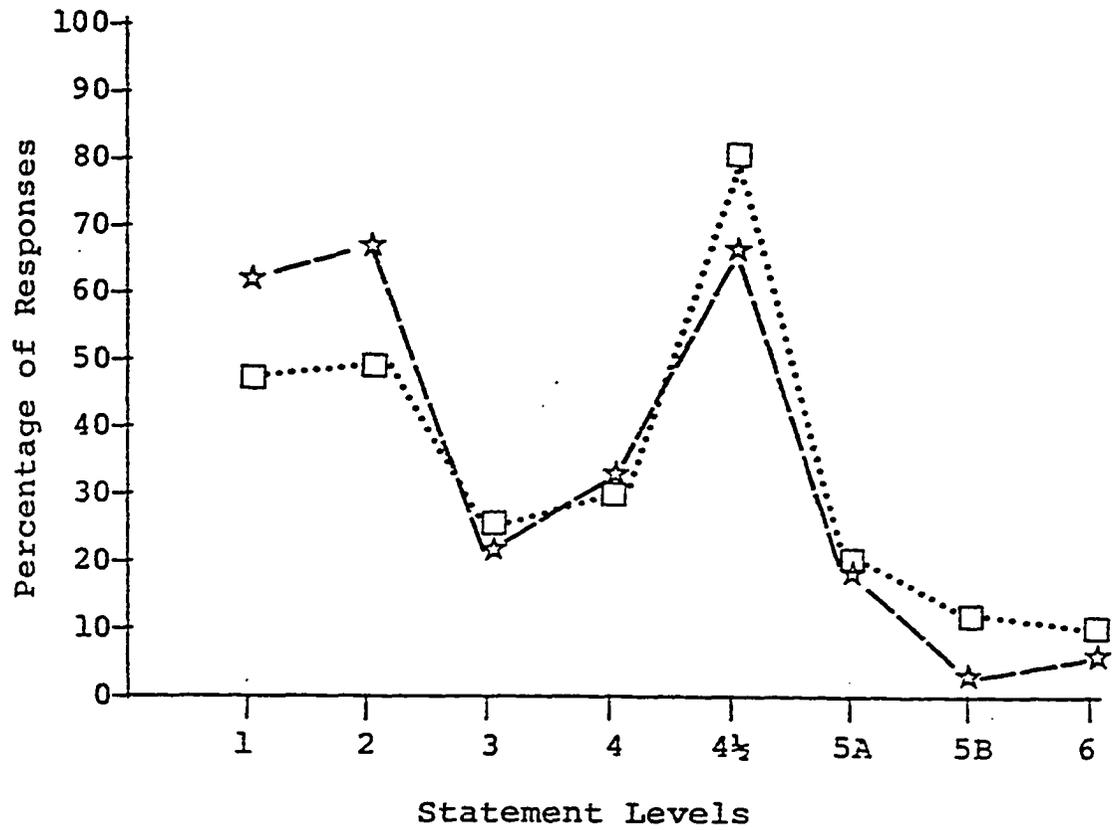


Figure 2

Latitudes of Rejection for the Conventional and Post-Conventional Groups

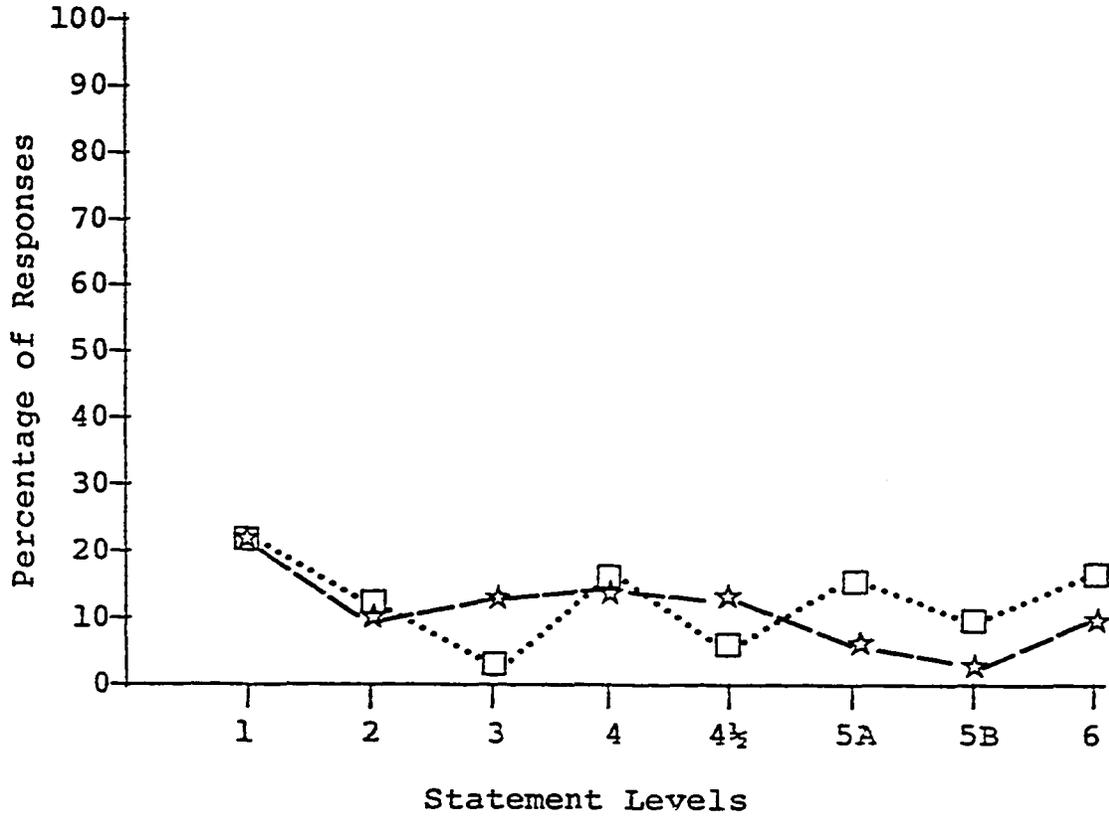


Number of subjects in each group = 23

□.....□ Conventional Group
★-----★ Post-Conventional Group

Figure 3

Latitudes of Noncommitment for the Conventional and Post-Conventional Groups



Number of subjects per group = 23

□.....□ Conventional Group
☆-----☆ Post-Conventional Group

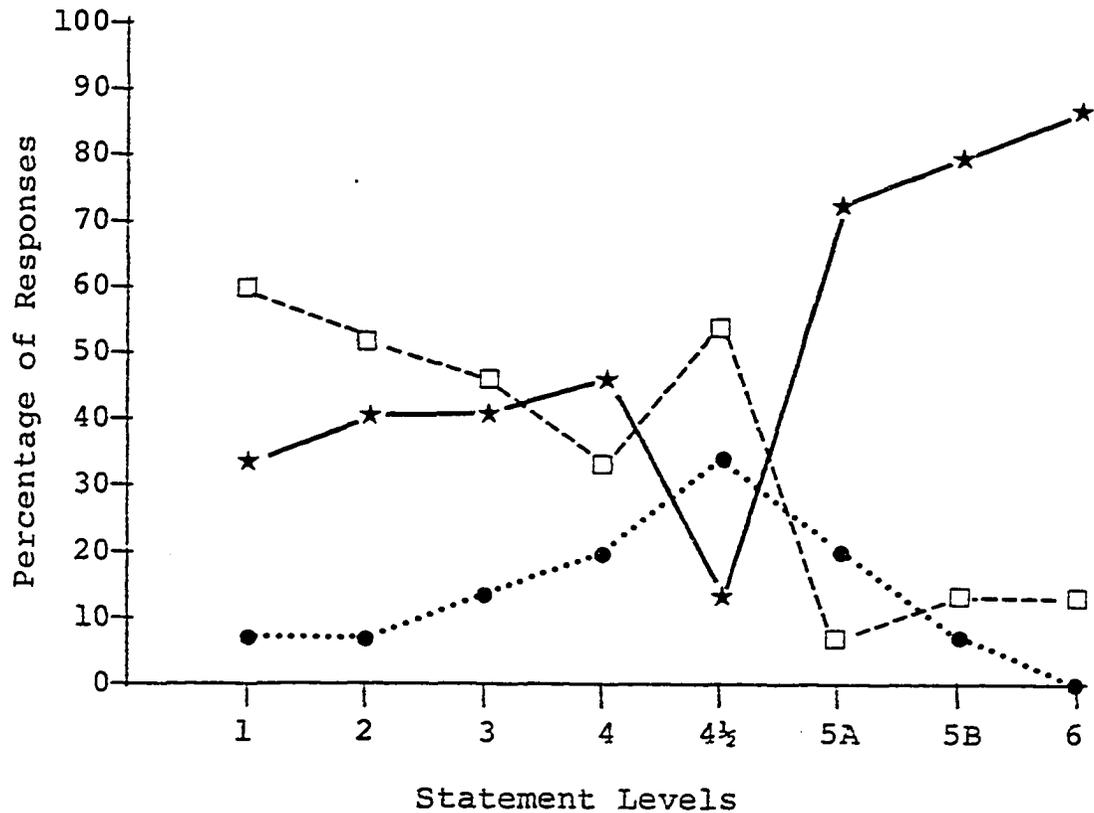
As can be seen, these configurations produced similar patterns. Differences between the conventional and post-conventional groups were further investigated by the use of a series of 2 (conventional, post-conventional) by 2 (statement included in latitude, not included) proportion test for each of the three dilemmas in the SJI. Tests were performed on selected latitudes and statements that visual inspection indicated to be significantly different. Results indicated a significant difference between conventional and post-conventional statements on the Prisoner story for the LA on Stage 1, LR on Stage 2, and LA on Stage 5A. All results were in the predicted direction, with post-conventional students having higher proportions of rejection of Stage 2 statements and higher proportions of acceptance of the 5A statements. Conventional students had higher proportional acceptance of Stage 2 statements (see Appendix Q).

Graphic representations of the three latitudes for each moral development stage level were constructed to test hypothesis number two, that the configurations of these graphs would be different for each level. Visual inspection of these graphs indicated they do differ in terms of the magnitudes of acceptance and rejection of statements from different levels; however, there seemed to be a distinct pattern throughout. In general, statements from 3, 4, 5A, 5B, and 6 were accepted, and the noncommitment category was quite low for all statements (see Figures 4 - 10). An interesting finding is the consistent rejection of 4½ level statements. It might be that the students in this study

equate the 4½ level statements with those at Stage 1 and 2, which did Kohlberg and Kramer (1969) when this transitional stage was first discovered.

Figure 4

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 2 Level Group



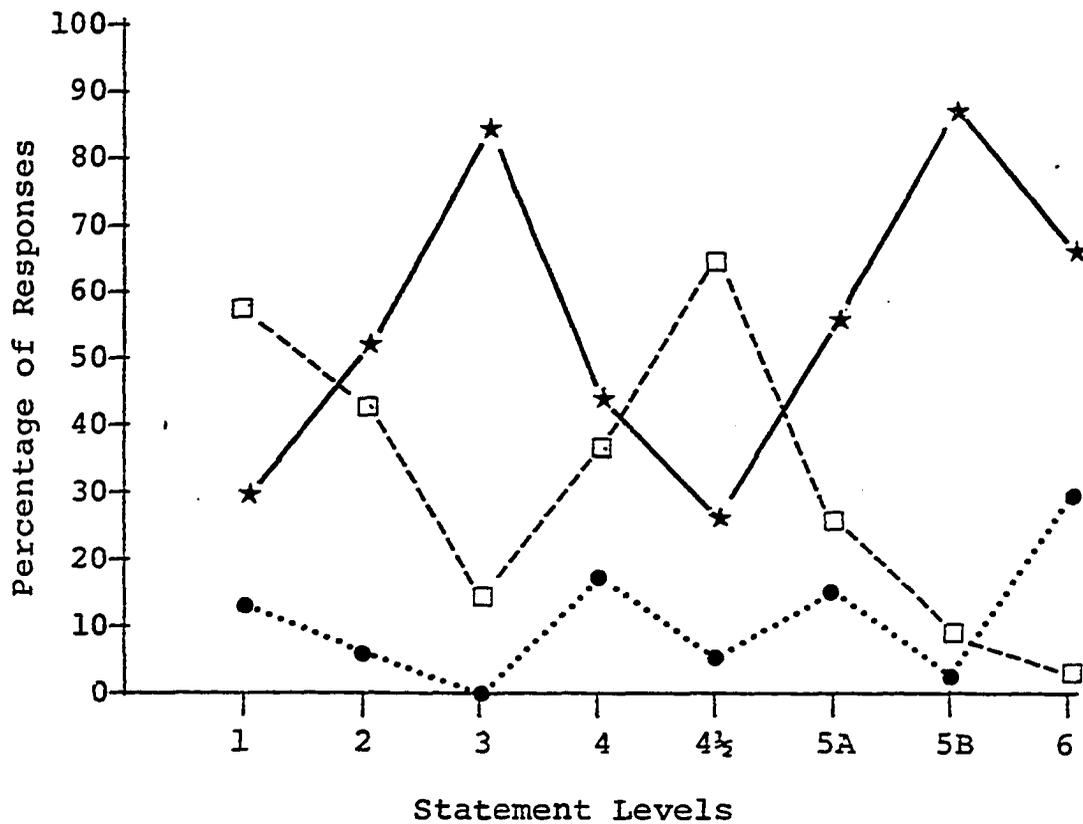
Number of Stage 2 subjects = 5

(Number of responses per statement level = 15)

★——★ latitude of acceptance
□-----□ latitude of rejection
●.....● latitude of noncommitment

Figure 5

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 3 Level Group



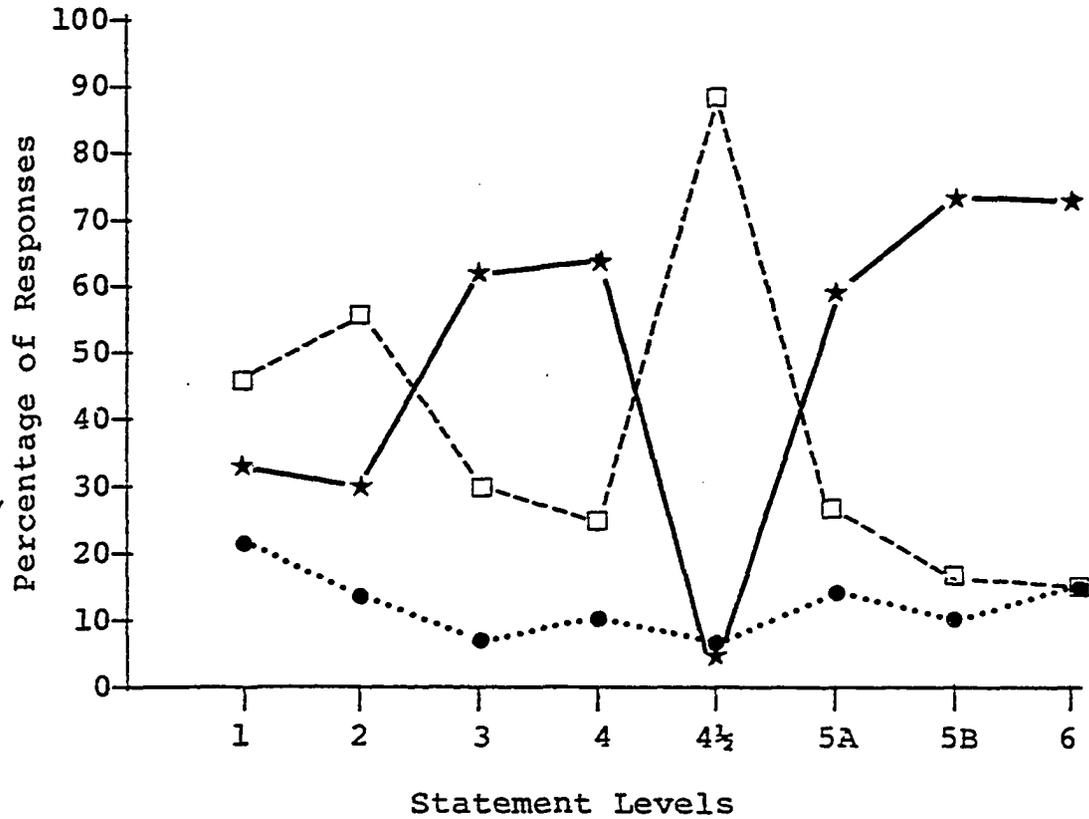
Number of Stage 3 subjects = 11

(Number of responses per statement level = 33)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 6

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 4 Level Group



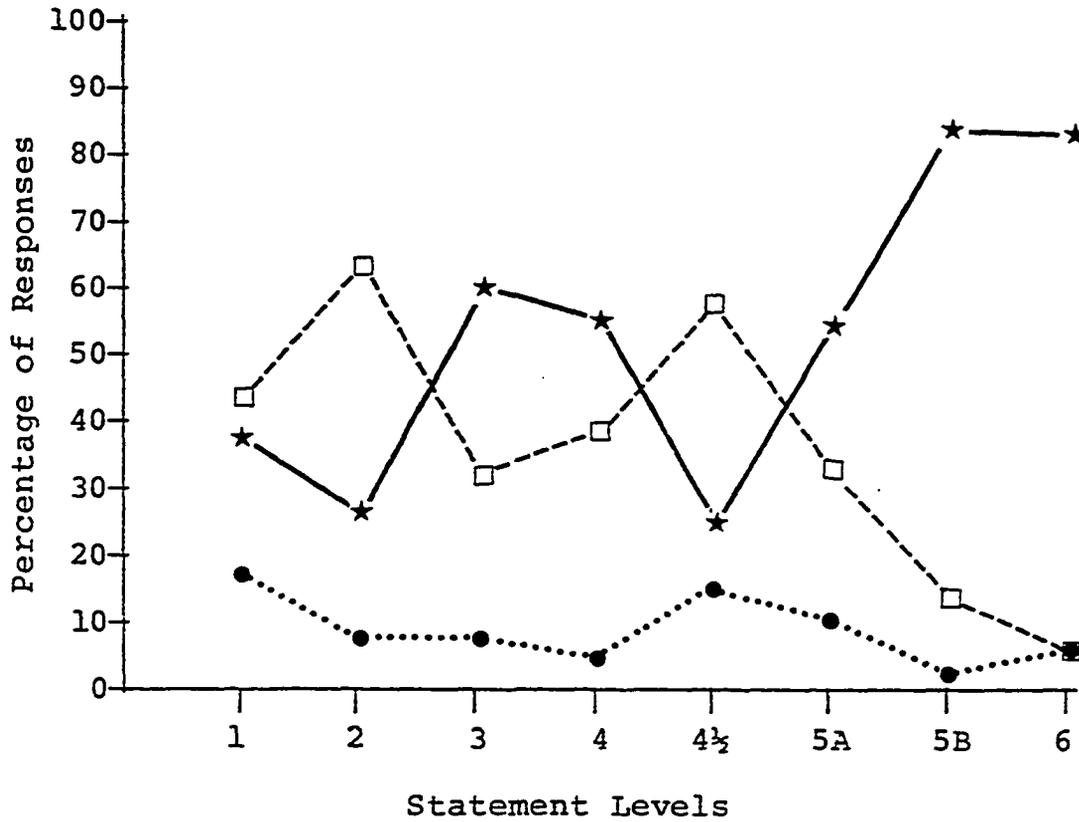
Number of Stage 4 subjects = 21

(Number of responses per statement level = 63)

★——★ latitude of acceptance
 □-----□ latitude of rejection
 ●.....● latitude of noncommitment

Figure 7

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 4½ Level Group



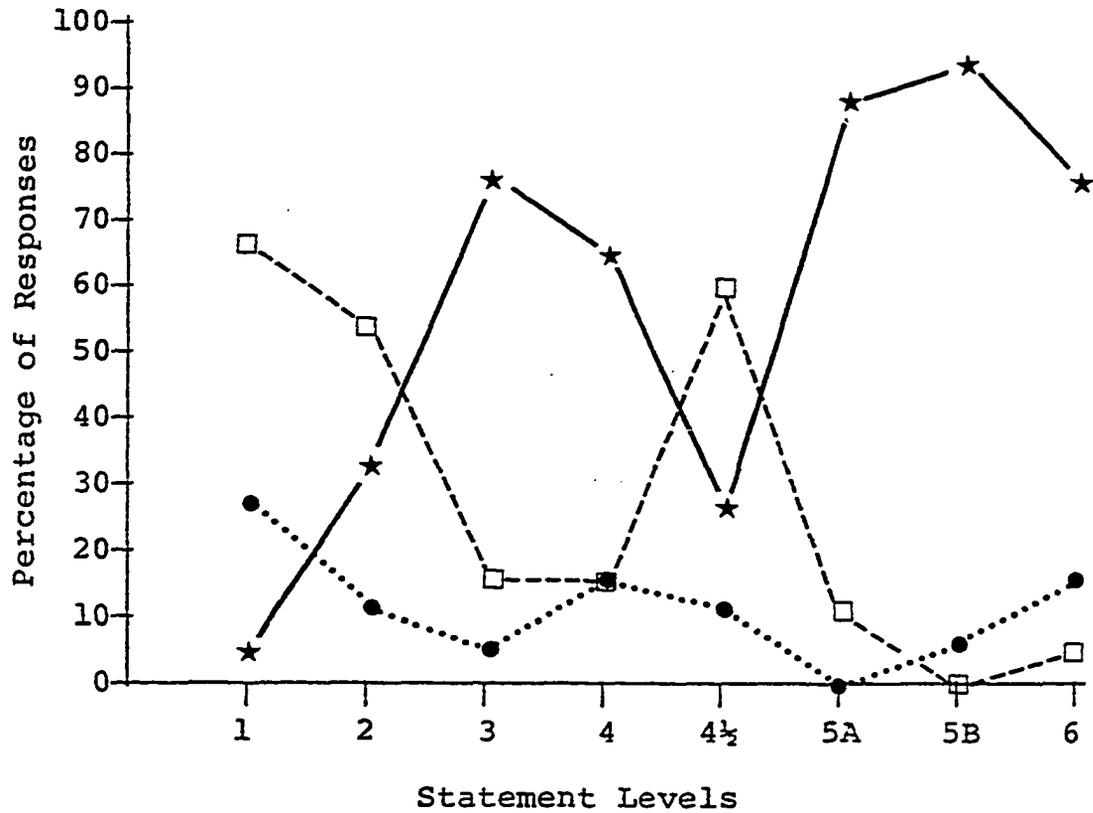
Number of Stage 4½ subjects = 13

(Number of responses per statement level = 39)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 8

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 5A Level Group



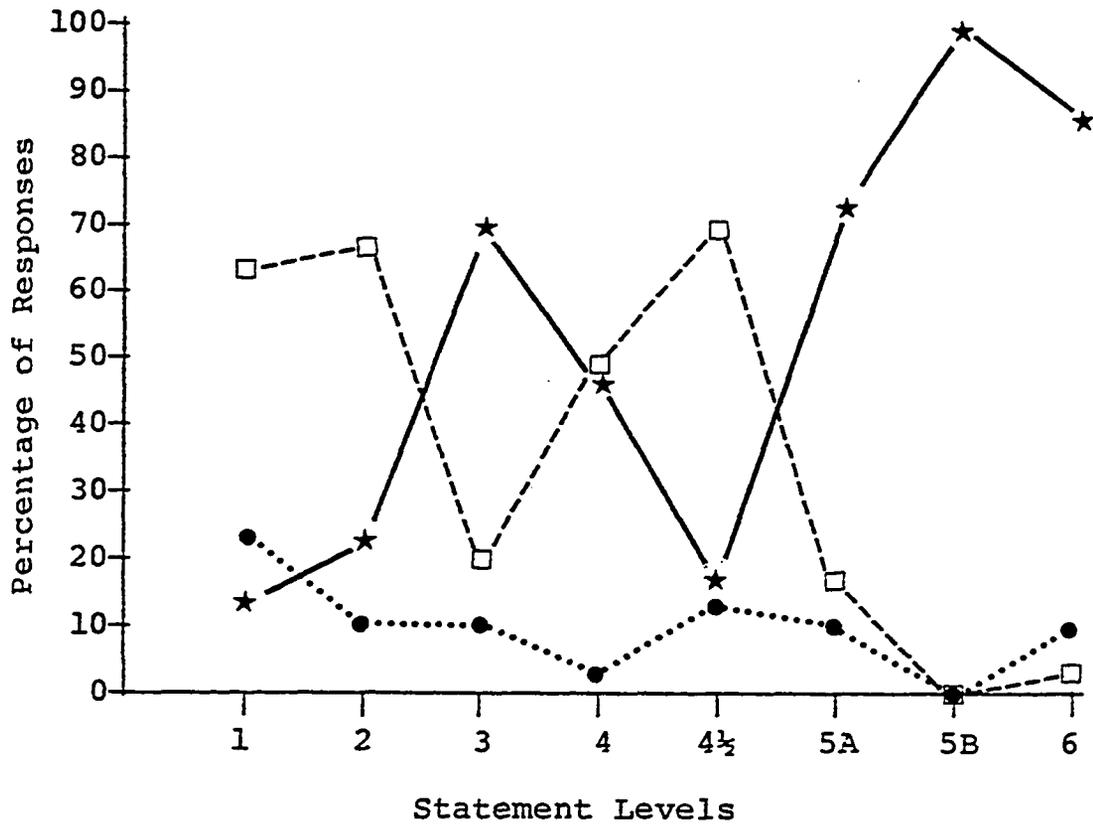
Number of Stage 5A subjects = 6

(Number of responses per statement level = 18)

★ ——— ★ latitude of acceptance
 □ - - - - □ latitude of rejection
 ● ······ ● latitude of noncommitment

Figure 9

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 5B Level Group



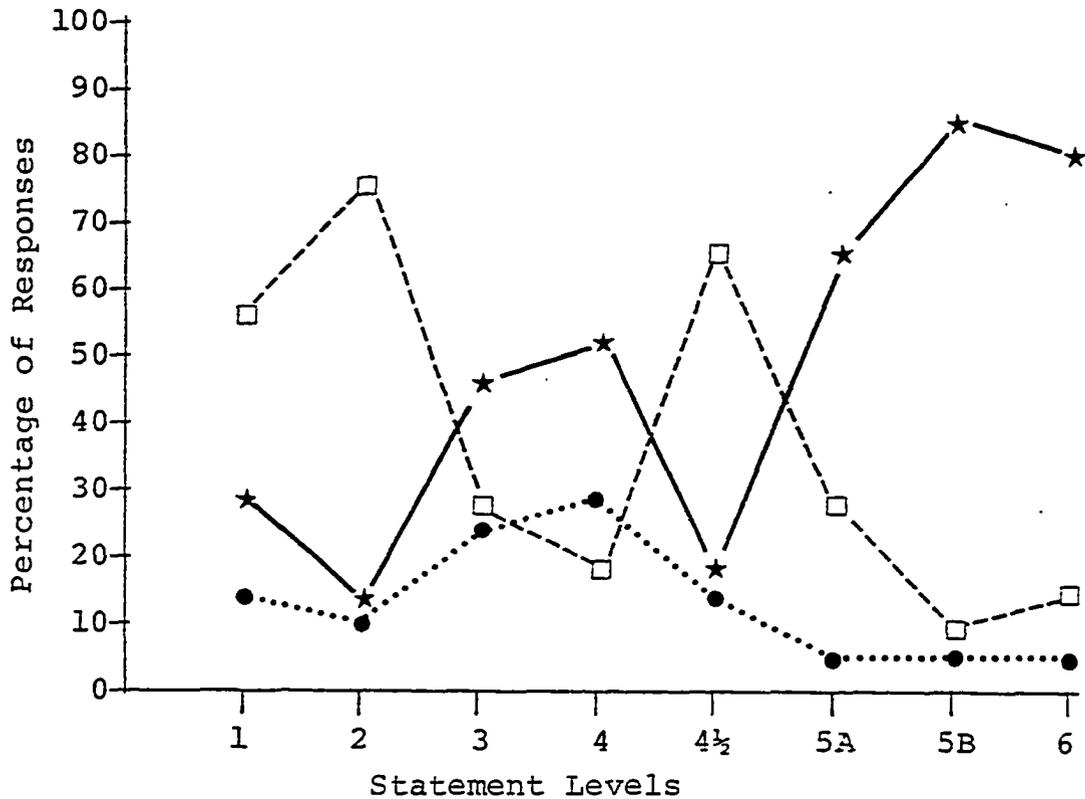
Number of Stage 5B subjects = 10

(Number of responses per statement level = 30)

- ★ ——— ★ latitude of acceptance
- - - - - □ latitude of rejection
- ● latitude of noncommitment

Figure 10

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 6 Level Group



Number of Stage 6 subjects = 7

(Number of responses per statement level = 21)

★ ——— ★ latitude of acceptance
□ - - - - □ latitude of rejection
● ····· ··· latitude of noncommitment

Hypothesis number three states that the 4½ stage level group would reject Stage 4 level statements and accept Stage 5A statements. Visual inspection of this graph (Figure 7) revealed only small differences between Stage 4 and Stage 5A statements for this group.

Inspection of the graphs for each stage level (Figures 4 - 10) indicated little support for the fourth hypothesis. Although most stages did include the next stage higher than their own in their latitude of acceptance, visual inspection indicated very little differences between the student's present level and the next higher stage in terms of magnitude of the acceptance level. The Stage 3 and 5B groups were further investigated with 2 (present level, next highest level statement) by 2 (included in latitude, not included) proportion tests on the three different latitudes, since visual inspection indicated those to have the largest differences. On the Heinz story, the Stage 3 students put a higher proportion of Stage 3 statements in their LA than Stage 4 statements. They also put more Stage 4 statements in their LNC than Stage 3 statements (see Appendix Q). The hypothesis was, therefore, not supported.

Changes on DIT and SJI

Testing of hypothesis number five was accomplished by using Tukey's HSD test for individual comparisons to differentiate between the four treatment conditions (-1, +1, +2, and no treatment) on change scores that were obtained by subtracting each student's pretest DIT score from their posttest DIT score. As indicated previously, after adding the ten points a score of greater than ten indicated change toward a higher principled level while a score less than ten indicated change toward a lower moral development level. The results of the individual comparisons indicated no significant differences

between the means for each group (see Table 8 in Appendix N). It is interesting to note, however, that the largest change occurred in the control group, while the smallest change occurred in the +1 group (moral development theory would predict the largest change for the +1 group). Therefore, the hypothesized change in DIT scores for the +1 group was not supported.

Hypothesis number six was tested by a series of Tukey's HSD tests (one for each conflict situation) to compare the four treatment conditions (-1, +1, +2, and no treatment) for the three different dependent measures. The dependent measures included changes in scores for latitudes of acceptance and rejection and changes in scores of the most acceptable position. The change scores for the latitudes were obtained by subtracting pretest scores from posttest scores and adding ten points for each latitude, resulting in scores greater than ten for larger latitudes and scores less than ten for smaller latitudes. The MA change scores were also obtained by subtracting pretest from posttest scores; therefore, changes in the most acceptable position that move toward higher levels would be above ten and scores below ten would indicate movement in MA choices to lower level statements. The results of these individual comparisons indicated no significant differences in the change scores for the MA, LA, and LR for either of the two conflict stories (see Table 9 in Appendix N); however, the LA change scores did approach significance when the -1 condition was compared to the

other three conditions for the Heinz story. The -1 condition showed negative change as indicated by a score less than ten while the other three groups showed only slight positive increases. Again, no support can be given to the hypothesized change in the +1 group when compared to the other groups.

Evaluation of Advice

Hypothesis number seven was tested by using Tukey's HSD test across the three treatment conditions (-1, +1, and +2). The dependent measure was scores obtained on evaluations of the advice (communications). Results of these individual comparisons indicated that for the Heinz story, the +1 group did not evaluate their advice significantly higher than did the other groups (see Table 10 in Appendix N). In the Prisoner story, significant differences were found between the -1 group and both the +1 group (difference = 6.7, 3/27 df, $p < .05$) and the +2 group (difference = 5.6, 3/27 df, $p < .05$). Both the plus-groups rated the advice they heard more highly than did the -1 group (see Table 10 in Appendix N). The results of the Prisoner story are not surprising since (as was shown previously) the majority of the students included all the higher level statements in their latitudes of acceptance, and as a result might evaluate them more highly. Likewise, the mean evaluations for all the pieces of advice were toward the positive end of the scale regardless of the treatment condition. Since all the students in the treatment groups were at the conventional level (Stages 3 and 4), the advice statements they heard were at

either the Stage 3, 4, 5A, or 5B level; the majority of which fell into their latitudes of acceptance (see Figures 5 and 6).

Retest and Control Effects

An additional analysis of the data was done in order to rule out the possibility that changes from pretest to posttest on the DIT measure were due to some sensitizing effect of the pretest, as has been suggested in prior research (Hoffman, 1977; Keasey, 1973; Tracy & Cross, 1973). A posttest only control group was compared to students in the study who received pretest and posttest only, and a group that received the pretest, posttest, and either a +1 or +2 treatment condition. Individuals used in this analysis were randomly selected from those available in the experimental groups. Only individuals who were given either the +1 or +2 treatment condition were used in this analysis since it was the intention to investigate positive changes from pretest to posttest sessions. These three groups were compared in terms of their posttest DIT scores by utilizing Tukey's HSD individual comparison technique. The results of this analysis were not significant, although the difference between the pretest-posttest control group and the posttest only control group was quite large (see Table 11 in Appendix N). Although this difference was not significant, it does parallel results that have been found in previous studies where the pretest-posttest groups exhibited unexpected changes.

Discussion

The purpose of this study was two-fold. First, to determine if the social judgment model could be applied to the moral development theoretical area. The results of this effort indicated that the social judgment constructs of most acceptable and most objectionable statements were different for people from the conventional and from the post-conventional moral development areas. Perhaps these statements served as anchors for students making judgments in the moral development areas.

The latitudes of acceptance, rejection, and noncommitment were not particularly useful in differentiating people from different moral stages either in terms of their absolute size or in terms of their configurations, although some difference was seen when broken down by story. A consistent pattern was evident for all students regardless of their particular stage level. One explanation for this lack of ability to differentiate between moral levels in terms of the latitudes may be that all the stories used in this investigation were relatively low in ego-involvement. The social judgment theory emphasizes the importance of ego-involvement with respect to attitudes and attitude change, and recent research has shown that ego-involvement does effect decisions made about moral dilemmas where the ego-involvement differs (Leming, 1974; McGee, Note 2). Theoretical predictions from the moral development literature (such as preference for the next highest statement from a

person's present level, and the rejection of Stage 4 statements and acceptance of Stage 5A statements by Stage 4½ persons) that were under investigation here were also not supported.

In terms of the second purpose of this study, the investigation of predicted changes in moral development, only partial support was provided. The superiority of +1 reasoning in changing levels of moral reasoning was not shown; in addition, no changes in most acceptable items and size of latitudes of acceptance and rejection were shown. This lack of change may have been due to the low level of potency of the treatment intervention, since students only listened to pieces of advice of how to solve the moral dilemma.

The hypothesized appearance of the assimilation and contrast effect due to students receiving advice that was above or below their present level was partially supported in one of the stories used. Perhaps a more thorough examination of this process would be a fruitful future procedure for investigating the relationship between moral development and social judgment.

An interesting finding of this investigation was the trend for the pretest-posttest control group to exhibit larger change than any of the other groups. This finding is consistent with previous research findings in the area of moral development change. Perhaps this process is one that deserves to be investigated in more depth.

It is the conclusion of this investigation that there is enough evidence to indicate that the application of social

judgment to the moral development area may be one worthy of pursuing. The slight evidence given here (differences in most acceptable and most objectionable items, differences on the Prisoner story for conventional and post-conventional students, assimilation-contrast effects) should provide impetus for future research where some of the limitations of this study could be overcome, such as relatively small sample size of treatment conditions and relatively weak experimental manipulation. Future studies could also include other social judgment variables such as level of ego-involvement, source of communication, etc. that could provide insights into the moral development process.

Research in the area of attitudes and values and the processes involved in their change has been extensive. This body of research has produced many prescriptive approaches to these areas with such theories as cognitive dissonance, attribution, balance theory, learning and conditioning, as well as social judgment. It seems reasonable that the classic findings in these theoretical areas should be applied to moral development which has been primarily a descriptive theory.

Reference Notes

1. Stansell, V. The development of a social judgment instrument for use in the moral development area. Unpublished manuscript, 1978. (Available from 820 Van Vleet Oval, Norman, Ok. 73019).
2. McGee, D. Consistency of moral judgments on ego involved moral dilemmas. Unpublished manuscript, 1979. (Available from 820 Van Vleet Oval, Norman, Ok. 73019).

References

- Bandura, A. Social learning of moral judgments. Journal of Personality and Social Psychology, 1969, 11, 275-279.
- Crowley, P. M. Effect of training upon objectivity of moral judgment in grade-school children. Journal of Personality and Social Psychology, 1968, 8, 228-232.
- Diab, L. N. Studies in social attitudes: I. Variations in latitudes of acceptance and rejection as a function of varying positions on a controversial social issue. Journal of Social Psychology, 1965, 67, 283-305.
- Dorr, D., & Fey, S. Relative power of symbolic adult and peer models in the modification of children's moral choice behavior. Journal of Personality and Social Psychology, 1974, 29, 335-341.
- Freedman, J. L. Involvement, discrepancy, and change. Journal of Abnormal and Social Psychology, 1964, 69, 290-295.
- Glassco, J. A., Milgram, N. A., & Youniss, J. Stability of training effects on intentionality in moral judgment in children. Journal of Personality and Social Psychology, 1970, 14, 360-365.
- Graham, D. Moral learning and development: Theory and research. New York: Wiley-Interscience, 1972.
- Hoffman, M. L. Moral internalization: Current theory and research. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 10). New York: Academic Press, 1977.
- Holstein, C. B. Irreversible, stepwise sequence in the development of moral judgment: A longitudinal study of males and females. Child Development, 1976, 47, 51-61.

- Hovland, C. I., & Pritzker, H. A. Extent of opinion change as a function of amount of change advocated. Journal of Abnormal and Social Psychology, 1957, 54, 257-261.
- Hunt, W. A., & Volkman, J. The anchoring of an affective scale. American Journal of Psychology, 1937, 49, 88-92.
- Keasey, C. B. Experimentally induced changes in moral opinions and reasoning. Journal of Personality and Social Psychology, 1973, 26, 30-38.
- Kohlberg, L. The development of modes of moral thinking and choice in the years 10 to 16. Unpublished doctoral dissertation, University of Chicago, 1959.
- Kohlberg, L. A cognitive-developmental approach to moral education. Humanist, 1972, 32(6), 13-16.
- Kohlberg, L. Continuities in childhood and adult moral development revisited. In P. B. Baltes & K. W. Schaie (Eds.), Life-span developmental psychology: Personality and socialization. New York: Academic Press, 1973.
- Kohlberg, L. The cognitive-developmental approach to moral education. Phi Delta Kappan, 1975, 56(10), 670-677. (a)
- Kohlberg, L. Moral education for a society in transition. Educational Leadership, 1975, 33(1), 46-54. (b)
- Kohlberg, L., & Kramer, R. Continuities and discontinuities in childhood and adult moral development. Human Development, 1969, 12, 93-120.

- Leming, J. S. An empirical examination of key assumptions underlying the Kohlberg rationale for moral education. Stony Brook, N.Y.: S.U.N.Y. at Stony Brook, 1974.
(ERIC Document Reproduction Service No. ED 093 749)
- Maitland, K. A., & Goldman, J. R. Moral judgment as a function of peer group interaction. Journal of Personality and Social Psychology, 1974, 30, 69.
- McGeorge, C. Susceptibility to faking on the DIT of moral development. Developmental Psychology, 1975, 11, 108.
- Panowitsch, H. Change and stability in the Defining Issues Test. Unpublished doctoral dissertation, University of Minnesota, 1974.
- Parducci, A., & Marshall, L. M. Assimilation vs. contrast in the anchoring of perceptual judgments of weight. Journal of Experimental Psychology, 1962, 63, 426-437.
- Piaget, J. The moral judgment of the child. Glencoe, Il.: Free Press, 1948.
- Rest, J. R. The hierarchical nature of moral judgment: A study of patterns of comprehension and preference of moral stages. Journal of Personality, 1973, 41, 86-109.
- Rest, J. R. Developmental psychology as a guide to value education: A review of "Kohlbergian" programs. Review of Educational Research, 1974, 44, 241-259. (a)
- Rest, J. R. Manual for the Defining Issues Test. Minneapolis: University of Minnesota, 1974. (b)

- Rest, J. R. Longitudinal study of the Defining Issues Test of moral judgment: A strategy for analyzing developmental change. Developmental Psychology, 1975, 11, 738-748. (a)
- Rest, J. R. Recent research on an objective test of moral judgment: How the important issues of a moral dilemma are defined. In D. DePalma & J. Foley (Eds.), Moral development: Current theory and research. Potomac, Md.: Lawrence Erlbaum Assoc., 1975. (b)
- 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, 491-501.
- Rest, J. R., Turiel, E., & Kohlberg, L. Level of moral judgment as a determinant of preference and comprehension of moral judgments made by others. Journal of Personality, 1969, 37, 225-252.
- Rhine, R. J., & Severance, L. J. Ego-involvement, discrepancy, source credibility, and attitude change. Journal of Personality and Social Psychology, 1970, 16, 175-190.
- Saltzstein, H. D., Diamond, R. M., & Belenky, M. Moral judgment level and conformity behavior. Developmental Psychology, 1972, 7, 327-336.
- Sherif, C. W., Sherif, M., & Nebergall, R. E. Attitude and attitude change: The social judgment-involvement approach. Philadelphia: W. B. Saunders, 1965.

- Sherif, M., & Hovland, C. I. Social judgment. New Haven: Yale University, 1961.
- Sherif, M., & Sherif, C. W. An outline of social psychology (rev. ed.). New York: Harper & Brothers, 1956.
- Sherif, M., & Sherif, C. W. Attitude as the individual's own categories: The social judgment-involvement approach to attitude and attitude change. In C. W. Sherif & M. Sherif (Eds.), Attitude, ego-involvement and change. New York: John Wiley & Sons, 1967.
- Sherif, M., Taub, D., & Hovland, C. I. Assimilation and contrast effects of anchoring stimuli on judgments. Journal of Experimental Psychology, 1958, 55, 150-155.
- Tracy, J., & Cross, H. J. Antecedents of shift in moral judgment. Journal of Personality and Social Psychology, 1973, 26, 238-244.
- Turiel, E. An experimental test of the sequentiality of developmental stages in the child's moral development. Journal of Personality and Social Psychology, 1966, 3, 611-618.
- Turiel, E. Conflict and transition in adolescent moral development. Child Development, 1974, 45, 14-29.

APPENDIX A

Prospectus

Prospectus

Moral development has been investigated from three major perspectives: psychoanalytical theory, learning theory, and cognitive developmental theory. Each of these areas has tended to emphasize different psychological aspects of the individual. Psychoanalytical theory emphasizes the affective or feeling aspect, learning theory the behavioral aspects, and cognitive developmental theory places emphasis on the cognitive aspects (Graham, 1972).

An early explanation of morality was set forth by Freud in the psychoanalytic approach. Its primary concern was with how individuals consciously or unconsciously direct their behavior toward the relief of tension or the satisfaction of impulses. The basic emphasis of this theory in terms of moral development was on feelings, in particular, those connected with the conscience and guilt. The child was described as being born amoral, and morality was developed by progressing through the psychosexual stages and by unthinkingly taking over the values of parents and other authority figures. The child's superego, the moral aspect of the child's personality, was believed to be completely formed by age five, with outside influences, such as educational institutions, having very little influence on further moral development. One reason for acceptance of this psychoanalytical view was the apparently supportive research of Hartshorne and May (1930) which looked at tests of honesty, dealing with cheating, lying, and stealing, and tests of service, where giving up objects for

another's welfare was required. The authors' major findings were that almost every student at one time or another would cheat, and that this behavior was determined primarily by the situational factors (likelihood of being caught, size of the benefit, etc.). It was also found that moral behavior was more or less characteristic of different social classes and they assumed that moral character was the result of early childhood internalizations in the home.

The learning theory, or behavioral approach, is considerably different from the psychoanalytical approach. In the learning theory approach wide individual differences are seen in moral standards and behaviors. According to this viewpoint, moral behaviors are acquired and thus can be modified by experience. Research in this area by Bandura (1969) has demonstrated learning theory principles, in particular imitative learning, as being extremely important in the socialization of principles to the individual. Bandura and McDonald (1963) found that adult models were very effective in changing moral orientations (in terms of Piaget's objective and subjective judgments). These results seem to imply that since learning progresses throughout life, the influence of peers and teachers upon an individual, particularly as models, will continue to influence that individual's moral development.

The cognitive developmental approach, as set forth primarily by Piaget and Kohlberg and as implied by its name, is concerned with the progressive development of the individual's cognitive

abilities. It concentrates primarily on the organization of experiences into meaningful structures which continually become more complex and abstract. Here moral development is not seen as a mere responsiveness to experiences or training (the behavioral approach) or as an internalization of the values of others (the psychoanalytical approach); it is viewed as an active organization and reorganization process. Social exchange is seen as the primary raw material for moral development. The individual is viewed as "developing in a continuous process of 'assimilating' experience by interpreting it in terms which are currently meaningful to him, and 'accommodating' to new experiences by reorganizing his own system of meanings to enable a more adequate level of functioning to be obtained" (Graham, 1972, p. 19). Moral development is seen as progressing through distinct, universal stages with movement from stage to stage influenced by interactions with others. Growth in moral development theoretically occurs when individuals are exposed to moral conflicts and statements about these conflicts which reflect thinking one stage above their present stage. Therefore, according to the cognitive development theory, moral development should be easily fostered, especially in such institutions as public schools, where such situations can be arranged.

In general, therefore, these theories provided three different sources of influence upon the theory of moral development of an individual. The psychoanalysts see only the first few years of life as being crucial, with

parents providing the values that are internalized by the child. The learning theorists emphasize the actions of others within an individual's environment and the consequences of those actions as being the crucial variables that determine the moral conduct of the individual. The cognitive developmentalists argue that the particular act of an individual is less important than the reasoning upon which the act is based. It is the cognitive developmental approach that will be pursued in this investigation.

Cognitive Developmental Theory

Until the early twentieth century, the moral judgment aspect of an individual's functioning was considered to be the domain of religion and philosophy. John Dewey (1909) was the first to advocate that moral principles be empirically studied and stated in social and psychological terms. Dewey used a cognitive-developmental approach to moral education, stating that the aims of moral education must be to stimulate the child's progressive movement through the moral stages of development (the developmental aspects). Kohlberg (1975a) describes his interpretations of Dewey's levels as follows:

- 1) pre-moral or preconventional level of behavior motivated by biological and social impulses with results for morals,
- 2) the conventional level of behavior in which the individual accepts with little critical reflection the standards of the group, and

3) the autonomous level of behavior in which conduct is guided by the individual thinking and judging for himself whether a purpose is good and does not accept the standard of his group without reflection.

(p. 670)

Although Dewey advocated the empirical study of moral development, his formulation of these three levels of moral development evolved primarily from his observations and thinking about moral stages and was not based on research findings.

One of the first empirical attempts to study moral judgment was by Jean Piaget. His research findings were first published in 1932 in The Moral Judgment of the Child. This classic book provided the basis for much of the psychological research in the area of moral judgment that followed. Piaget's approach was to observe children playing marbles and then to question them regarding their marble playing behavior. By his observations and questions about the conduct of different-aged children as they played the game of marbles, Piaget felt he had revealed the developmental stages of the children's judgments. To Piaget, the development of moral judgments was accomplished within a system of rules, with moral judgments developing as the individual's respect for these rules progressed. By utilizing his clinical interview technique, Piaget was able to derive the attitudes expressed by different-aged children about the

origin, legitimacy and the alterability of rules in the marble game. Kohlberg (1975a) indicates that Piaget postulated three levels of moral development very much like those developed by Dewey, and he describes them as follows:

- 1) the pre-moral stage where there is no sense of obligation to rules.
- 2) the heteronomous stage where right is literal obedience to rules and where an equation of obligation with submission to power and punishment is made. (approximate ages 4 - 8)
- 3) the autonomous stage where the purpose and consequences of following rules are considered and obligation is based on reciprocity and exchange (approximately 8 - 12). (p. 670)

In the pre-moral stage, the child is primarily engaged in purely motor-skill activities with much of the behavior being ritualistic in nature. Rules during this period are viewed as exemplary rather than obligatory, while at the heteronomous stage the rules are definitely obligatory without any conception that the rules could possibly be changed for any reason. In contrast, the autonomous stage is a more "social" stage with rules being due to mutual consent which must be respected but which can also be altered under that same mutual consent (Carella, 1977).

Piaget viewed these stages as qualitatively distinct with individuals moving through them in a fixed order,

varying only with respect to how fast or how far they progress through the sequence. These stages were seen as frameworks for dealing with moral questions or issues and as having been constructed by the individual to make sense of his experiences. Each stage builds upon, reorganizes, and encompasses the previous stages. Social experiences were viewed as the primary agent of change. As individuals grow older, they must reassess initial conceptions about rules. They become more aware of the fact that rules are the product of mutual consent of the participants and not a divine given. With increased interaction with peers, they are forced to take on reciprocal roles and take into consideration the intent of others. As they develop higher cognitive abilities, they are constantly (due to social interactions) faced with contradiction of their expectations. Piaget indicates that this contradiction of expectations creates a cognitive disequilibrium that motivates the child to resolve these contradictions. It is precisely these efforts that result in the reorganization of the preexisting patterns of moral thought (Hoffman, 1977a).

Piaget's early studies with the development of his three levels of moral judgment provided the groundwork for later theorists. Rest (1974a) indicates three important things Piaget's research provided for the later investigators. First, Piaget defined the domain of morality which did not include all matters of human interaction and human values

but primarily those dealing with rules of cooperation and social arrangements, where interest and welfare of individuals are interrelated. Secondly, Piaget showed the differences in the thinking process of younger versus older children and provided a model for charting developmental progress. Thirdly, Piaget illustrated techniques for gathering data which enabled the cognitive-developmental approach to be applied to moral research.

Piaget's work on moral development came before his later theory of cognitive development with its Sensory-Motor, Concrete, and Formal Operations periods of development. However, when Kohlberg began to study the moral development area, he incorporated not only Piaget's theory of moral reasoning but also Piaget's later thinking on the cognitive-developmental approach.

Kohlberg's Theory of Moral Development

Kohlberg's Theory of Moral Development evolved from his 1959 dissertation at the University of Chicago. Kohlberg, following the interview technique devised by Piaget, developed a moral judgment interview system in which hypothetical conflict stories were presented to the subjects, who were then required to respond to a set of probing questions about the stories. Based on research studies completed using children's reasoning in response to the hypothetical moral conflicts, Kohlberg postulates three distinct levels of moral development with each level consisting of two different stages.

Kohlberg and Kramer (1969) describe these different levels of moral development and their stages as follows:

I. Preconventional Level

At this level the child is responsive to cultural rules and labels of good and bad, right or wrong, but interprets these labels in terms of either the physical or the hedonistic consequences of action (punishment, reward, exchange of favors) or in terms of the physical power of those who enunciate the rules and labels. The level is divided into the following two stages:

Stage 1: The punishment and obedience orientation.

The physical consequences of action determine its goodness or badness regardless of the human meaning or value of these consequences. Avoidance of punishment and unquestioning deference to power are valued in their own right, not in terms of respect for an underlying moral order supported by punishment and authority (the latter being Stage 4).

Stage 2: The instrumental relativist orientation.

Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Human relations are viewed in terms like those of the market place. Elements of fairness, of reciprocity and equal sharing are present, but they are always interpreted in a physical pragmatic way.

Reciprocity is a matter of "you scratch my back and

I'll scratch yours," not of loyalty, gratitude or justice.

II. Conventional Level

At this level, maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. The attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order and of identifying with the persons or group involved in it. At this level, there are the following two stages:

Stage 3: The interpersonal concordance or "good boy--nice girl" orientation. Good behavior is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority or "natural" behavior. Behavior is frequently judged by intention--"he means well" becomes important for the first time. One earns approval by being "nice."

Stage 4: The "law and order" orientation. There is orientation toward authority, fixed rules, and the maintenance of the social order. Right behavior consists of doing one's duty, showing respect for authority and maintaining the given social order for its own sake.

III. Post-Conventional, Autonomous, or Principled Level
At this level, there is a clear effort to define moral values and principles which have validity and application apart from the authority of the groups or persons holding these principles and apart from the individual's own identification with these groups. This level again has two stages:

Stage 5: The social-contract legalistic orientation generally with utilitarian overtones. Right action tends to be defined in terms of general individual rights and in terms of standards which have been critically examined and agreed upon by the whole society. There is a clear awareness of the relativism of personal values and opinions and a corresponding emphasis upon procedural rules for reaching consensus. Aside from what is constitutionally and democratically agreed upon, the right is a matter of personal "values" and "opinion." The result is an emphasis upon the "legal point of view," but with an emphasis upon the possibility of changing law in terms of rational considerations of social utility, (rather than freezing it in terms of Stage 4 "law and order"). Outside the legal realm, free agreement, and contract is the binding element of obligation. This is the "official" morality of the American government and Constitution.

Stage 6: The universal ethical principle orientation.

Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency.

These principles are abstract and ethical, (the Golden Rule, the categorical imperative) they are not concrete moral rules like the Ten Commandments. At heart, these are universal principles of justice of the reciprocity and equality of the human rights and of respect for the dignity of human beings as individual persons. (pp. 100-101)

According to Kohlberg (1973), these stages of moral development were the result of his attempts to redefine and validate the Dewey-Piaget stages. Kohlberg indicates that the concept of stages, as used by both himself and Piaget, implies certain empirical characteristics. These characteristics include the following (Kohlberg, 1973):

1. Stages are "structured wholes," or organized systems of thought. Individuals are consistent in level of moral thought.
2. Stages form an invariant sequence. Under all conditions except extreme trauma, movement is always forward, never backward. Individuals never skip stages; movement is always to the next stage up.
3. Stages are "hierarchical integrations." Thinking at a higher stage includes or comprehends within it lower-stage thinking. There is a tendency to function at or prefer the highest stage available. (p. 670)

Kohlberg (1973) indicates that a series of longitudinal and cross-sectional studies (by use of scores derived from responses to his moral dilemmas) have demonstrated each of these characteristics for his moral stages. These validating studies include: his initial study of 10-16 year old boys in Chicago (Kohlberg, 1959) and a longitudinal follow-up on these same individuals (Kohlberg & Kramer, 1969); a longitudinal study of Turkish city and village boys; and several cross-sectional studies in various countries (Canada, Britain, Israel, Taiwan, Yucatan, Honduras, and India). The results of these studies indicated that more than 50% of an individual's thinking was at one particular stage at any point in time and that the remainder of that person's thinking was at the next adjacent stage (one up or one down from that stage). This finding was pointed to as evidence for the stage consistency or structured whole characteristic. With regard to the invariant sequence, the evidence in favor of its presence was shown on the longitudinal studies. All the subjects either remained the same or moved up a stage at three year testing intervals. This was found both for the United States' subjects and the ones from the study in Turkey.

Studies by Rest, Turiel, and Kohlberg (1969) and Rest (1973) are cited as evidence for the hierarchical integration characteristic. When adolescents were given written statements in each of the six stages, they were able to paraphrase or comprehend the statements at or below their own stage best.

Comprehension of one stage above was possible for some, while comprehension two stages above their own was impossible for the subjects. The subjects also showed a preference for the highest statement they could comprehend.

A test of the irreversibility and invariant stepwise sequence in the development of moral judgment was investigated in a longitudinal study by Holstein (1976). In this study of adults and adolescents over a three year period, support was found for the stepwise sequence of development; however, this was true in terms of movement from level to level but not from one stage to the next. With respect to the irreversibility, the author found higher stage subjects (4-6) that regressed to lower stages.

Rest (Note 1) recently has criticized the using of a stage theory to explain moral development. Problems with this model include: studies that have shown that subjects fluctuate and are not simply in one stage or another (regression); certain dilemma topics seem to "pull out" certain stage levels (i.e., Stage 3 is more likely for the Heinz story than any other stage); the more familiar a person is with the topic of the dilemma, the more advanced his stage typing becomes; and, in reality, there is a rarity of pure stage subjects with the vast majority of subjects having a stage mixture of two or more stages. Much criticism has also been levied against Kohlberg's theory based on the lack of validity and reliability of his measuring systems (Kurtines

& Greif, 1974). Rest, Cooper, Coder, Masanz, and Anderson (1974) have developed a more objective measure of moral development in which subjects are asked to judge the most important issues over a number of moral dilemmas. A numerical score is obtained by adding up scores for each issue. Issues that reflect higher levels of moral reasoning are given higher scale scores. This test instrument is called the Defining Issues Test (DIT). Davison, Robbins, and Swanson (Note 2) have found using multidimensional scaling and factor analysis on the DIT that the test did indeed exhibit the structure expected of variables which measure a hierarchical sequence. The study supported the ordering of the stages and indicated support for the contention that the stages progress gradually with replacement of lower stages with higher stages of moral thought.

Kohlberg's recent writings on moral development indicate a continuous progression of development from childhood through adolescence and into adulthood, where some stage change continues. Stage changes are seen as a "directed, qualitative transformation in psychological structure" (Kohlberg, 1973, p. 179). These stage changes, due to experiential interaction with one's environment, are believed to be the result of two important activities: one is the resolution of cognitive conflicts due to increased social interaction, and the other is the development of the ability to see things from another's perspective, that is, to take on the role of others.

In general, the childhood phase of moral development is seen as a period in which comprehension of social norms and ideas is the primary activity. This is a period in which, as Piaget has indicated in his theory, social interactions increase, and as a result, initial sets of beliefs are often contradicted. These contradictions result in cognitive conflict (or in Piagetian terms, cognitive disequilibrium) which causes tensions within the individual. It is hypothesized that this tension provides the motivation to reorganize the belief or moral thought patterns, which often results in a change in the level of moral reasoning.

In addition to the effects of cognitive disequilibrium, the other important factor affecting the moral thought reorganization is that of the need to take on the role of another or to view matters from another's perspective. This is seen as being a highly significant aspect of moral development, especially for the transition from pre-moral to conventional morality. Role taking is also seen as being an instigator of cognitive conflict since being able to see from another's perspective may cause conflict with presently held attitudes or ways of thinking (Kohlberg, 1973).

A relationship between role-taking ability and moral judgment has been shown by Ambron and Irwin (1975) in recent research. Arbuthnot (1975) found that role playing a moral dilemma against an opponent caused an increase in moral judgment maturity both immediately after the session and also

after a delayed posttest. Further support for this relationship was found by Selman (1971) who discovered that reciprocal role-taking skills were related to development of conventional moral judgment. He states that the "ability to understand the reciprocal nature of interpersonal relations is a necessary but not sufficient condition for the development of conventional moral thought" (p. 79).

Kohlberg (1975a, 1975b) and others (Fenton, 1976; Keasey, 1973; Kohlberg, 1972; Rest, 1974b; Tomlinson-Keasey & Keasey, 1974; Turiel, 1974) have repeatedly pointed out the connection between the levels of cognitive development and moral development. These research findings indicate that logical reasoning and moral reasoning are naturally intertwined. For instance, individuals whose logical stage is at Piaget's Concrete Operations are limited in moral reasoning to the Preconventional Moral Stages (Stages 1 and 2). Likewise, individuals who are only partially at the Formal Operations level are limited to the Conventional Stages (Stages 3 and 4). The higher stages are assumed to be attainable only by those who have fully reached the Formal Operations level. Therefore, the cognitive or logical development sets the limit for the parallel moral development. Most individuals are seen as having higher logical stages than their moral stages. This, according to Kohlberg (1975a, 1975b), is evidenced by the observation that although 50% of late adolescents and adults have reached the formal level of logical reasoning, only

about 10% of these people exhibit principled moral reasoning (Stages 5 and 6). This lag in moral development suggests that logical reasoning may be considered a "necessary but not sufficient" condition for mature moral reasoning. This lag in moral development has often been referred to as a horizontal decalage. Likewise, a decalage has been proposed between hypothetical situations and the judgments of concrete situations (Saltzstein, Diamond, & Belenky, 1972). This assumes that mature moral judgment may be a "necessary but not sufficient" condition for mature moral action.

In the longitudinal study by Kohlberg and Kramer (1969), an anomaly was found in the moral development sequence in the subjects' college sophomore year. About 20% of their middle class sample dropped from their mixture of Stage 4 and 5 to a Stage 2 level of thinking. This was first interpreted as a structural retrogression or a return to a lower stage structure in order to resolve (in Erickson's term) an identity crisis. This position was later revised by Kohlberg (1973) by stating that the Stage 2 label was incorrect for the structure of their thinking and in reality, it was a pattern of thought used in transition from conventional to principled reasoning. This new state he referred to as a Stage 4½; it represented "a way of thinking that equated morality with Stage 4 thought and then questioned the validity of morality conceived in Stage 4 terms" (p. 191). Turiel (1974) saw the responses of individuals during this

stage of development as reflecting a progressive development rather than regression. He hypothesized that stage transition involves a phase of conflict or disequilibrium in which the existing modes of thinking are reexamined and new modes are constructed. The inconsistencies seen during this period are due, according to Turiel, to both an incomplete understanding of Stage 5 conceptions and a rejection of those concepts at the Stage 4 level. This transition between Stage 4 and Stage 5, which occurs during adolescence or early adulthood, occurs at a time when the individual is experiencing more autonomy and when he is being exposed to many new individual and cultural values (which often challenge the Stage 4 moral thought patterns).

It has also been suggested that reversals in stage development may be the result of confusing the context of moral thought with the structure of moral thought when using Kohlberg's older Aspect Stage Scoring system (Kohlberg, 1976). A newer Issue Stage Scoring system has been developed to remedy this problem which is supposedly less influenced by the content of moral thought. Napier (1978) suggests that perhaps the old scoring system had scored some individuals too high at the first testing and too low at the subsequent testing, which could account for the apparent regression.

As was mentioned previously, Rest et al. (1974) have developed a more objective means by which to measure moral development. This newer objective measure may be the answer

to the longitudinal problems associated with Kohlberg's scoring systems. Also, Rest's DIT scoring procedure has several advantages over the old scoring procedure of Kohlberg. The DIT can be administered to a large group of subjects and is considerably less time consuming than the old method. This makes large scale moral development research much more practical to perform, especially since the DIT can be scored by a Fortran computer program devised by Rest. In terms of its validity, Rest's DIT measure has received considerable support from cross-sectional, longitudinal, and sequential studies for both its validity and reliability (McGeorge, 1975; Rest, 1975a, 1975b; Rest et al., 1974; Rest, Davison, & Robbins, 1978; Davison et al., Note 2; Davison, Note 3; Davison & Robbins, Note 4; Lawrence, Note 5; Rest, Note 6, Note 7; Rest, Carroll, Lawrence, Jacobs, McColgan, Davison, & Robbins, Note 8). Also, a study by McGeorge (1975) indicated that subjects had the ability to fake low scores on the DIT measure but were unable to fake high scores. This gives support to the general theory of sequence of cognitive stages of moral judgment since the subjects were able to recognize stages lower than their own as immature and were able to make responses based on that stage when they were asked to fake a low score, but were unable to produce responses from a stage higher than their own.

One extremely important area of research in the moral development literature is that of change in moral reasoning

level. One of the first and most important of these studies was done by Turiel (1966). In this experiment, seventh-grade boys were exposed to reasonings either one stage below, one stage above, or two stages above their own stage of development during a role playing session with an adult experimenter. A control group was also used which was not exposed to reasoning statements. Turiel reports that exposure to the stage directly above (plus-one reasoning) was the most effective treatment; that is, it resulted in the most change in scores on a posttest. Hoffman (1977a) suggests that Turiel's finding that the influence of the plus-one treatment was greater than the other two treatments was because the control group scores had been subtracted from each of the treatment scores. He states that the experimental groups did not shift a significantly greater degree than the control group and "it is only if the action of the control group, which is inexplicably more dramatic than either experimental groups, is taken into account that the findings may be interpreted as providing the slightest evidence in favor of the hypothesis" (p. 117).

A similar type study was done by Tracy and Cross (1973) with seventh-grade children. In this study, subjects in the preconventional levels of moral development were the most influenced by the plus-one reasoning treatment. An additional finding was the antecedent variable that was most associated with this change was that of social desirability. Hoffman (1977b) suggests that this result is due to a more external

moral orientation of the preconventional subjects and that a direct social influence process may account for their upward change rather than disequilibrium factors. As in the Turiel (1966) study, the control group of this study exhibited drastic change. In fact, the control group made up of preconventional subjects showed more positive change than did the conventional level experimental subjects. Tracy and Cross (1973) suggest that the pretest interview was a powerful manipulation that might account for this effect, at least for the preconventional level subjects.

Keasey (1973) also found a significant shift in a control group in his study and also attributed this to the effect of the pretest. Subjects in his study reported that the pretest "really made them think" (p. 37). Keasey states that he believes the pretest produced a condition sufficient to induce disequilibrium in his subjects. In this study, subjects at the first three stages of moral development were exposed to plus-one reasoning when put into a conflict situation. Results indicated these subjects moved upward in stage reasoning significantly more than subjects exposed to the same stage reasoning or to opinions about the stories without reasoning statements. However, on a two week posttest, the three groups showed the same amount of reasoning change, although all three groups were still significantly more advanced than were the control group.

Numerous other investigations have investigated the process of change in level of moral development. A series of studies have been done in which investigators were able to show change in moral reasoning by training children to attend to the subjective intention rather than the objective consequence of moral acts in a series of stories (Crowley, 1968; Glassco, Milgram, Youniss, 1970). Moral judgment scores have been raised from pretest to posttest by exposing individuals to participation in a group discussion in which group consensus was the primary task. In this study, the experimental group change was significantly larger than two control groups, one an open-ended discussion group and the other just a private reconsideration of responses they had made on the pretest (Maitland & Goldman, 1974).

Changes in moral choice behavior of children was shown by Dorr and Fey (1974) who exposed their subjects to modeling by adults and peers who used subjective intention rather than objective consequences in judging acts. The adult model was the most effective in producing change, while the peer model was better than a control group which received no modeling.

In an investigation of the relationship between conformity behavior and moral judgment, Saltzstein, Diamond, and Belenky (1972) found no relationship between moral judgment level, conformity, and interdependent or independent goal conditions when exposed to a (Ash-type) group-influence experimental

situation. However, they did find that Stage 3 children were the most likely to conform while Stages 4 and 5 were the least likely to conform.

Most of the studies in moral development have dealt primarily with reasoning. As mentioned previously, Kohlberg (1975a) suggests that mature moral judgment is a necessary but not sufficient condition for mature action. Both the reasonings about hypothetical moral situations and behavioral choices in concrete situations should reflect the level of a person's development (Turiel & Rothman, 1972). Several studies have been done to investigate the behavioral aspects of moral reasoning. In a study on cheating, it was found that cheating behavior was directly related to the level of moral development, with high levels less likely than lower levels to engage in cheating (Grim, Kohlberg, & White, 1968). Kohlberg (1975a) indicated that he and Krebs have also found a similar pattern of cheating, but that at the principled level 15% of the subjects did cheat, indicating "factors additional to moral judgment are necessary for principled moral reasoning to be translated into moral action" (p. 50).

Kohlberg (Note 9) interviewed a number of subjects involved in the famous study by Milgram (1963) in which the subjects were asked to administer increasingly severe electric shocks to another person (who was actually a confederate in the study and did not receive the shocks). His findings were that the majority of individuals who were at the Stage 6 level

of moral development refused to administer the shocks while the majority of subjects at all other stages complied. In similar studies, Haan, Smith, and Block (1968) and Haan (1975) found that subjects at the Stage 6 level were more active in political-social matters, and a majority of their subjects at that level had participated in a political protest at Berkley. Only about one-half of their Stage 5 subjects participated in the protest, while less than ten percent of Stages 3 and 4 subjects had taken part. Fishkin, Keniston, and MacKinnon (1973), in a similar study, found that college subjects at the preconventional level favored violent radicalism, conventional subjects were politically conservative, and post-conventional subjects rejected conservative views but did not accept the radical ideological view.

In another study dealing with behavioral choices based on moral reasoning, Turiel and Rothman (1972) exposed seventh- and eighth-grade boys to reasoning that supported a behavioral choice that was either one stage above their own, at their stage, or below their stage. After hearing the reasonings, the subjects were asked to make behavioral choices. The results indicated that Stage 4 subjects' choices were affected significantly but only when they had been exposed to the plus-one reasoning. None of the other different stage groups were affected by any of the levels of reasoning. Additionally, no stage change was evidenced by posttesting.

The most recent direction of moral development research has been in the area of moral education in the schools (Fenton, 1976; Kohlberg, 1972, 1975a, 1975b, 1976; Leming, 1974; Rest, 1974b; Scriven, 1975). According to Kohlberg (1975b), the majority of the American public operates at the conventional level, primarily the law-and-order Stage 4. One reason for this is the fact that schools, our major socializing agent, perform traditionally as Stage 4 "institutions of convention and authority" (p. 52). According to Kohlberg (1975b), the research into moral education indicates moral discussion as an important vehicle for moral development and points to three factors which are most effective in producing change:

1. Exposure to the next stage of reasoning up
2. Exposure to situations posing problems and contradictions for the child's current moral structure, leading to dissatisfaction with his or her current level
3. An atmosphere of interchange and dialogue in which the first two conditions obtain, in which conflicting moral views are compared in an open manner. (p. 52)

These three conditions were first formulated from studies reported by Kohlberg (1972) that he and Blatt had carried out. In these studies, high school and Sunday school classes were read moral dilemmas aloud and a group discussion followed. It was assumed that the class represented a mixture of moral development stages, which would produce

conflicts in reasoning as well as producing plus-one models for different levels of reasoning. The results of these studies indicated that students did gain more than did control groups and that the stage advances accomplished by the discussions were stable over time. Therefore, these studies suggest that a teacher in a regular classroom using these procedures could significantly affect a student's moral development.

The results of these studies were carried into the prison setting where Hickey (Note 10) found that moral discussion groups produced small but significant changes for delinquent participants. Scharf, Hickey, and Moriarty (1973), in another study, have created a model cottage (democratic community) within a prison in order to stimulate moral development. The prison community drew up and maintained its own constitution and participated in small group discussions about moral and personal dilemmas. By this method, the moral development levels of the inmates have been successfully raised. The long-term effect of the method will have to be determined in the future when the study is completed.

Kohlberg (1975a) reports a similar type of investigation that he is presently carrying out with high school teachers to develop a democratic experimental school curriculum. The aim of the study is to integrate both intellectual aspects of social studies and English (in fostering understanding of our society) with the implementation of an experimental

democratic school community with emphasis placed on moral discussions and decision making. The results of this study should appear in the future literature and should provide the basis for further work in the moral education field.

The moral development theory of Kohlberg, therefore, fits well into the general description of a cognitive-developmental theory. Unlike some of the learning theory approaches which emphasize behavior, its primary emphasis is upon the cognitive development of the individual, particularly thinking or reasoning about moral dilemmas. The instruments used to measure stages of development, and assumptions about the structure of the stages and how individuals change from stage to stage are based on what is assumed to go on inside the individual, in terms of the structure of his thinking and reasoning.

A model that may well provide insight into some of the research findings in the moral development area is that of the Social Judgment-Involvement theory. This theory, like the moral development theory, is based on instruments that require an individual to make a decision or judgment as to the classification of statements about some issue. Unlike the moral development theory, what is measured here is the person's categorization rather than the reasoning behind the categorization. Also unlike the moral development theory, the social judgment theory is a non-developmental theory and its basic assumptions are derived from factors external

to the individual (such as source of communication, prestige of communicator, etc.). This theory's primary concern is that of an individual's opinions and attitudes.

The similarity between these two theories involves both theories' concern with cognitive organizations and the fact that neither deals directly with behavior. The promise for research is that the social judgment model of attitudes and attitude change may well provide the structure necessary to describe how individuals at different levels of moral reasoning organize their opinions and attitudes. If this theory can provide descriptions of the organizations (or categorization) of people at different stages of moral development, it may also provide the structure necessary for predicting how change occurs.

Sherif's Social Judgment-Involvement Theory

At about the same time that Kohlberg was formulating his theory of moral development, Sherif and others (Sherif & Cantril, 1947; Sherif & Hovland, 1961; Sherif, Sherif, & Nebergall, 1965) were developing a theory of social judgment. Within the framework of the judgmental process, they describe the basic psychological processes underlying attitudes and their modification through communications. Their goal was to develop a valid model of attitude and attitude change.

An attitude has been defined as predispositions of an individual to act in certain ways towards aspects of his environment due to regularities of his feelings and thoughts

(Secord & Backman, 1964). Sherif and Hovland (1961), in referring to research on attitudes and attitude change, used the term attitude to mean any judgment or opinion that an individual happens to render.

Sherif's Social Judgment-Involvement Theory has evolved from years of research into the judgments of individuals (Sherif, et al., 1965; Sherif & Cantril, 1947; Sherif & Hovland, 1961; Sherif & Sherif, 1956, 1964, 1967). It is assumed in making judgments that individuals are reacting to their own attitudes in comparing, evaluating, or choosing among alternatives. In order to measure attitudes and their effects upon decisions or judgments, the early researchers borrowed heavily from the traditional psychophysical scaling literature. These early psychophysical studies of judgment were primarily interested in psychological judgments of physical stimuli. These experiments included judgments of such things as keenness of discrimination, thresholds where stimuli became discernible, and levels for stimulus that could be judged just noticeably different. It was the need to measure these factors that resulted in the development of the psychophysical scales. The newer attitudinal research was also concerned with judgments, but with judgments that could not be assessed relative to some physical units as had been the case in psychophysics. These studies resulted in the development of the psychosocial scales, which were formed relative to social stimuli which were not objectively grounded. These reference scales were

influenced by social factors such as relationships with others and the political, religious, economical, and historical aspects of a certain period in time.

According to Sherif and Sherif (1967), a good definition of "attitude" must point to the operational tools for assessing attitude and attitude change. From their research they have concluded that the judgment process can best be studied by looking at the behavior of individuals as they use a set of categories for comparing and evaluating items they have been asked to judge. Sherif and Sherif (1967), therefore, operationally define attitude as:

the individual's set of categories for evaluating a stimulus domain, which he has established as he learns about that domain in interaction with other persons and which relate him to various subsets within the domain with varying degrees of positive or negative affect.

The data from which attitudes are inferred, therefore, are the person's consistent and characteristic categorizations, over a time span, of relevant objects, persons, groups, or communications into acceptable and objectionable categories. Change is inferred from the alteration of the individual's acceptance rejection pattern. (p. 115)

A close inspection of this description of an attitude reveals similarities to descriptions of cognitive development

with its structures, assimilation, and accommodation (as described by Piaget) and moral development with its structured wholes and hierarchical integrations (as described by Kohlberg). From this definition of attitude resulted three concepts that are crucial for the purpose of measuring or assessing the structure of attitudes:

1. Latitude of acceptance: If a person voluntarily states his view on a topic, he usually gives the position most acceptable to him. The latitude of acceptance is simply this most acceptable position plus other positions the individual also finds acceptable.
2. Latitude of rejection: The position most objectionable to the individual, the thing he most detests in a particular domain, plus other positions also objectionable to him define the latitude of rejection.
3. Latitude of noncommitment: While accepting some and rejecting others, the individual may prefer to remain noncommittal in regard to certain positions. Ordinarily, these are the "don't know," "neutral," "undecided," "no opinion," or "no comment" responses in public opinion surveys. (Sherif & Sherif, 1967, p. 115)

Following the suggestions of Campbell (1950) for assessment of attitudes, two techniques were developed to

measure these latitudes: the Method of Ordered Alternatives and the Own Categories Procedure. In the ordered alternatives method, alternatives (position statements) about some issue are selected such that an entire range of positions are represented from one extreme to the other (no assumptions about the intervals between the alternative statements are made). In order to get measures of the three latitudes, subjects are asked to indicate which statements are most acceptable to them, and which other statements are acceptable. They also are asked to indicate statements that are most objectionable and any other statements which may be objectionable. The statements that are left over after this process are considered to be those that make up the latitude of non-commitment. This method has been used successfully in several different research studies (Diab, 1965; Sherif et al., 1965; Sherif & Sherif, 1967).

The Own Categories Procedure was one that developed out of Thurstone's method of equal appearing intervals and has been subjected to much research (Hovland & Sherif, 1952; Kelley, Hovland, Schwartz, & Abelson, 1955; Koulock, 1970; Schulman & Tittle, 1968; Sherif & Hovland, 1953). In this procedure the subject is asked to categorize a series of position statements (usually a rather large number) about some issue into any number of categories. The individual is usually instructed to put the items that seem to belong together into the same category. Typically, the

person is given an extreme (standard) category in the instructions and then numbers and labels his/her own categories relative to this extreme category. In order to get the three latitudes, the subject is requested after completing the task to indicate categories that are acceptable and ones that are objectionable. Again, those left over are classified as noncommitment.

Based on research completed with these attitudinal measuring techniques, several generalizations have been put forth (Sherif & Sherif, 1967). In general, the latitude of rejection increases in size with the extremity of a person's position on the issue being categorized. The latitude of noncommitment decreases in size with the extremity of a person's position, approaching zero for those highly committed. Therefore, when compared to the latitude of acceptance, the latitude of rejection becomes larger and the latitude of noncommitment smaller as a person's position becomes more extreme.

Another finding has been that the frequency of noncommitment on issues may serve as a predictor of an individual's susceptibility to change. That is, persons with large latitudes of noncommitment are more likely to be influenced to change their attitudes in response to outside communications.

In the early psychophysical studies, the subject was often given a standard by which to make subsequent judgments. These studies found that judgments were affected both by

stimuli presented during the judgment process and those that made up the preceding contexts. These stimuli designated as standards became anchors for the person's subsequent judgments. If the subject is given no standard, he usually will use the most extreme stimuli presented to him as an anchor in determining the relative position of the other items (Sherif & Sherif, 1967).

Several research studies have shown a consistent effect that anchors have upon judgments (Parducci & Marshall, 1962; Sherif, Taub, & Hovland, 1958). These effects are best described by Sherif, Taub, and Hovland (1958) as follows:

In judgments of graded stimuli ranging from low to high in some dimension, the introduction of anchors at the end points of the series or immediately above or below the series will cause displacement in the distribution of judgments of series stimuli in the direction of the anchor (assimilation effect). As the anchors are placed at increasing distances from the upper or lower ends of the series, the distribution of judgments will be displaced in the direction away from the anchor and the whole judgmental scale will be constricted (contrast effect). (p. 151)

Another interesting finding is one by Hunt and Volkman (1937) where subjects were asked to imagine the most extreme representative of the dimension being judged (the anchor). It was found that persons operating with this internal

standard also produced the contrast effect seen in other studies. Therefore, not only the external but also the internal anchors must be considered in judgment research.

Sherif and Sherif (1967) have listed several assumptions about the judgment process that have been shown by experimental studies (Hovland, Harvey, & Sherif, 1957; Rhine & Severance, 1970; Sherif & Jackman, 1966; Sherif, Kelly, Rodgers, Sarup, & Tittler, 1973). One such assumption is that the more ego-involved a person is with the issue in the judgment (or categorization), the more this task becomes one of evaluation even though instructions were to use nonevaluative criteria in making the decisions. Likewise, the more ego-involved the individual, the greater is the tendency to use his/her own position as the standard (or anchor) for placing the other items. By using one's own position as an anchor, he/she begins to place fewer items in the acceptable categories and to place more items in the objectionable categories. This has been referred to as a raised threshold for acceptance and a lowered threshold for rejection, and is due in part to the person viewing discrepant items from his/her own position as being more discrepant than they actually are (the contrast effect). With respect to items that are included in the latitude of acceptance and are relatively close to one's own position, they are seen as more favorable to one's position than they actually are, as a result of the assimilation effect.

Likewise, a result of the assimilation-contrast effects relative to one's own stand is that on a controversial issue, the highly involved person will use considerably fewer categories than someone who is less involved. That person tends to view the issue almost in a dichotomous fashion, with statements seen as either in complete agreement with his/her stand or as being contradictory to it.

With regard to communication aimed at changing a person's attitude on an issue, the more the communication lies in the person's latitude of acceptance or latitude of noncommitment, the more likely that person is to change. The person, due to the assimilation effect, will perceive these communications as factual, unbiased, and pleasing. Likewise, the more the communication falls into the latitude of rejection, the more the contrast effect occurs and it is seen as biased, propagandistic and false (Sherif & Sherif, 1967).

Another important factor is the degree of involvement of the individual. Range of assimilation of highly involved individuals is much smaller than for those who are only minimally involved. This was evidenced by a study (Sherif & Sherif, 1967) in which placement of five statements representing different positions on the 1960 presidential election was required. In this study, individuals who had small latitudes of rejection and were classified as low

involvement assimilated communications that were much more discrepant from their own view than did those who were highly involved.

Another variable that affects the assimilation-contrast effect is that of the structure of the communication. Communications which are clear-cut statements of extreme positions are not generally susceptible to the assimilation-contrast effect. On the other hand, statements which are less extreme, especially intermediate-type statements, are susceptible to systematic displacement. This may be due in part to the tendency for extreme positions to be stated in very unambiguous terms and for individuals who advocate these extreme positions to oversimplify the issue (Sherif & Sherif, 1967; Sherif et al., 1965). A relationship between ego-involvement and structure of the statements has been found when the communication is two-sided, such as a debate format or statements that are carefully prepared representing both sides of an issue evenly. Sherif, Sherif, and Nebergall (1965) have found that during the television debate of the 1960 election, the more extreme the partisan's position with regard to his candidate, the more superior he saw that candidate's performance on the debate. However, the subjects who were less ego involved were the ones whose assimilation trend was strongest. This same general trend in assimilation was shown by Rosnow (1965) where some

of the Republican subjects defected toward Kennedy (the Democratic candidate) after being shown the debates well after the election had been completed. The general finding from studies in this area indicate that "the range of assimilation increases as the structure of the communication decreases but that high ego involvement restricts the assimilation range" (Sherif & Sherif, 1967, p. 132).

Source of the communication is another variable that is considered important in Social Judgment Theory. Sherif and Sherif (1967) indicate that an interaction between the source of the communication, the subject's involvement in the particular issue, and the subject's group membership may affect the subject's placement of the communication. Their research findings have indicated that the higher the status of the source, especially the regard to the individual's reference groups, the larger the range of assimilation shown by that subject (Aronson, Turner, & Carlsmith, 1963; Eagly & Manis, 1966).

The Social Judgment-Involvement Theory makes certain predictions about attitude change. High susceptibility to change is seen in subjects whose latitude of rejection is rather small and latitude of noncommitment is relatively large. Those individuals with the reverse, that is, small latitude of noncommitment and large latitude of rejection, are not as susceptible to change. As was pointed out earlier,

the highly involved person is one who reflects this latter type of latitude pattern and is one who is less likely to exhibit an attitude change after being exposed to communications for that purpose. Some research has indicated that communications that advocate the most extreme change had more effect than those advocating moderate change (Hovland & Pritzker, 1957). Freedman (1964) found in his study that under low involvement more change results when extreme change is advocated while under high involvement maximum change occurs at some moderate level of advocated change. The cognitive dissonance approach has predicted more change as a result of more distance between the communication and a person's stand; however, Sherif and Sherif (1967), through the social judgment-involvement approach, predict:

increasing frequency and extent of attitude change with increased discrepancies only within the range of assimilation, which is . . . affected by the person's involvement in his stand, the structure of the communication, and the source. Beyond the assimilation range, the prediction is decreasing frequency and extent of attitude change proportional to the increasing discrepancy between the person's stand and the position of communication. (p. 134)

They further report that research evidence indicates that:

Low involvement, unstructured stimulus situations and highly valued sources increase the range of assimilation, within which communication is increasingly effective in producing attitude change. High ego-involvement, structured communications, and less valued sources restrict the range of assimilation, beyond which decreasing frequency and extent of attitude change occurs as the communication becomes more discrepant. (p. 135)

Sherif and Sherif (1964) have also stated that group membership in connection with ego-involvement is a very important factor in prediction of attitude change. In studying natural groups, they found that both the role of a person within a group and the importance of issues to that group will affect both the latitudes of rejection, acceptance, and noncommitment for the group and the latitudes of each of its individual members.

The above discussion of the social judgment theory points out the similarities between it and the moral development theory. It is interesting to note how closely the description of the development of an individual's set of categories for evaluating stimulus domains corresponds to Piaget's description of cognitive development and Kohlberg's description of the acquisition of moral development levels. Both the moral development and the social judgment theories deal in the cognitive organizations or categorizations that develop within

an individual. The utility of simultaneous considerations of these two theories, however, will come from the possibility of using research findings in the social judgment area to explain phenomena shown in moral development theory. Perhaps the latitudes of acceptance, rejection, and noncommitment can be applied to the moral development area to better explain why individuals are classified at one particular stage or another. Even more importantly, perhaps research findings in the area of changes in attitudes and opinions (social judgment theory) can be applied to the moral development area to better explain the mechanisms involved in a change from one stage level to the next. Perhaps findings from this type of investigation will help to explain some of the unusual findings in previous moral development research, such as preference for statements at a higher stage level than a person has actually obtained, large changes in control groups who were not exposed to plus-one reasoning, etc. The proposed investigation will attempt to answer some of these questions by looking at moral development from both the moral development and the social judgment theoretical viewpoints.

Proposed Study

This study is to investigate Kohlberg's moral development theory by means of the social judgment theory. The investigation will apply social judgment theory to the moral development area to provide an explanation of some of the poorly explained findings in the moral development area, such as preferences for

statements at higher levels and how changes from one stage to another occur. The relationship between the two theoretical positions will be investigated by comparing differences between individuals in conventional (Stages 3 and 4) and post-conventional (Stages 5A, 5B, and 6) stages in terms of the following social judgment constructs: latitude of acceptance (LA), latitude of rejection (LR), latitude of noncommitment (LNC), most acceptable items (MO), and most objectionable items (MO) (see hypothesis one, page 87). Additionally, individuals from different stage levels will be compared in terms of their latitudes of acceptance, rejection, and noncommitment (hypothesis two). It is assumed that if the social judgment constructs are useful in explaining differences in moral levels of development, that these differences will become apparent when conventional and post-conventional groups are compared and when the different stages of development are compared. Graphic representation of these latitudes will also be used to test contentions that Stage 4½ individuals will show a preference for Stage 5A statements and a rejection of Stage 4 statements (hypothesis three) and that individuals from each of the different stage levels will show a preference for at least the next highest stage above their own (hypothesis four). The preferences for the next highest stage can be investigated by looking at the latitude of acceptances for the different stage level groups. The hypothesized rejection of Stage 4 will be investigated by inspecting the latitude of rejection of the Stage 4½ subjects.

Testing of assumptions made about the process of change in moral development will be accomplished by comparing changes in DIT scores for groups of individuals who have been exposed to communications that represent arguments either -2, -1, +1, or +2 stages removed from their own position (hypothesis five). As discussed previously, moral development theory would predict the greatest change to be evidenced by the +1 communication. Also, the possibility that pretesting on the DIT may sensitize subjects and cause spurious changes in post-DIT scores will be investigated by comparing two control groups to a treatment group. One of the control groups will receive a pretest and posttest and one will receive the posttest only; neither control group will be exposed to the treatment phase of the investigation.

Testing of assumptions that would be made under the social judgment theory concerning the effects of the treatment phase of the investigation will be accomplished by the last two hypotheses. These assumptions concern the assimilation and contrast effect. Communications aimed at changing the attitudes of a person that fall near to that person's most acceptable position are usually judged as being closer to that person's own view than they actually are (assimilation), while those that are far from one's own attitude are judged as farther removed than they actually are (contrast effect). Assimilation of a communication should mediate attitude change, while contrast of a communication not only does not mediate

change but in some cases may cause a "boomerang effect" or a moving even farther away from the advocated position. This assimilation-contrast effect should manifest itself in several different measures in this investigation. It is assumed that it will show up in the message evaluation measure in which subjects will rate the communication on four different evaluative dimensions with a high positive score indicating approval of the message (assimilation) and a high negative score indicating the boomerang effect (contrast) (hypothesis six). Also, if assimilation or contrast does occur, it should be evidenced in changes in the latitudes of acceptance and rejection and in the most acceptable positions (hypothesis seven). Assimilation should increase the size of the latitude of acceptance, change the value of the most acceptable position toward the position advocated, and produce a decrease in the latitude of rejection. On the other hand, the contrast effect should show an increase in the size of the latitude of rejection, a decrease in the latitude of acceptance, and a possible change in the value of the most acceptable position away from that advocated.

The proposed study, therefore, will address the following research problems and research hypotheses.

Research Problem

Does the social judgment model provide a description of stages of moral development and can it provide an explanation of how changes occur from one moral stage to another.

Research Hypotheses

Hypotheses concerning relationships between moral development and social judgment theories.

1. Individuals from the conventional level of moral development will differ from individuals from the post-conventional level of moral development in terms of the relative size of their latitudes of acceptance, rejection, and noncommitment and in terms of their selection of most acceptable and most objectionable items on the Social Judgment Instrument.

2. Individuals from Stage 2 through Stage 6 of moral development will differ from one another in terms of the graphic configurations that represent their latitudes of acceptance, rejection, and noncommitment.

3. Individuals from the Stage 4½ moral level will exhibit graphic configurations of latitudes of acceptance, rejection, and noncommitment that reflect an acceptance of Stage 5A or higher statements and a rejection of Stage 4 statements.

4. Individuals representing the eight different moral stages will show preference for at least the next stage higher than their present level by including that stage level statement in their latitude of acceptance.

Hypothesis concerning changes in moral level as predicted by moral development theory.

5. Individuals who are exposed to plus-one reasoning during the treatment phase of the investigation will show

more change in DIT scores (from pretest to posttest) than will individuals who are exposed to minus-one, plus-two, or no treatment.

Hypotheses concerning changes in moral level as predicted by social judgment theory.

6. Individuals from the different treatment levels (-1, +1, +2, and no treatment) will differ in terms of their scores on the evaluation of the communication measure.

7. Individuals from the different treatment levels (-1, +1, +2, and no treatment) will differ in their change scores for their latitudes of acceptance and rejection, and for the change scores of their most acceptable positions.

Method

Subjects

Subjects will be students from the College of Education and the Psychology Department at the University of Oklahoma. Most students will be either sophomores or juniors from 18 to 21 years of age. Approximately 200 students will be used at the pretest session.

Procedure

Two sessions will be required. In the first session, students will be tested both on the DIT and on the Social Judgment Instrument (SJI). In the second session, a randomly assigned group of students, who were classified on the DIT as Stage 3 or 4, will read a series of moral arguments that are at one of the different stages in relation to the

student's dominant stage: either one stage below (-1), one above (+1), or two above (+2). The experimental students will also be asked to rate the communications they were exposed to on the evaluation of the advice measure. Another like number of randomly selected students will be given no treatment and will be placed in the control group. All subjects selected for this stage of the investigation will be given a posttest on the DIT and the SJI.

Pretest

The students will be group tested on two different test instruments.

DIT. The complete six story DIT (see Appendix C) will assess the moral development of the subjects. The test is administered in a group setting and takes about 45 minutes to complete. The DIT stage-types individuals, indicating their predominant stage of moral development. Also, the test produces a P score which is the combination of Stage 5 and Stage 6 scores and indicates the relative degree of principled reasoning the individual displays. Both the stage type and the P score are printed out by a computer program that will be used to score the DIT (Rest, 1974c).

Correlations for test-retest on the DIT in terms of the P score have been reported as follows: .81 for ninth graders tested two weeks apart (Rest et al., 1974), .65 for 47 college freshmen tested 18 days apart (McGeorge, 1975), and mid .60's for college students tested 12 weeks apart (Panowitsch, 1974).

Rest et al. (1974) also indicate a correlation of .68 between the DIT and Kohlberg's moral development interview scale. It seems, therefore, that the DIT represents both a stable and reliable measurement of moral development.

SJI. The complete three story SJI (see Appendix D) will also be administered to each student. The test is administered to groups of individuals and requires approximately 30 minutes to complete. From the SJI, mean scores for the most acceptable and most objectionable items are obtained as well as sizes of the latitudes of acceptance, rejection, and noncommitment. A profile for each individual in terms of the latitude of acceptance, rejection, and noncommitment can also be produced.

Test-retest correlations for this instrument have been established in a pilot study (see Appendix B) for a one week period and are as follows: MA = .55, MO = .21, LA = .89, LR = .82, and LNC = .87.

Treatment Condition

The technique used in the treatment condition will be based on those used by Turiel (1966) and Rest et al. (1969). It will involve the presentation of two booklets (one for each of two conflict situations) to each student. Each booklet will contain three parts. The first two parts will be presented orally as well as visually by allowing the students to read in their booklet as a tape recording of that booklet is played for them.

The first part of each booklet and tape will contain a conflict situation. The first situation will be the Heinz story and the second will be the Escaped Prisoner story, with both being taken directly from the pretest DIT instrument. As an example of a treatment session, the Heinz story will be presented to the students, both visually and orally, as follows:

In Europe a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid \$200 for the radium and charged \$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 \$1,000, which is half of what it cost. He told the druggist that his wife was dying and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz 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? Heinz's decision is a difficult one. Following is advice given by two different people as to whether Heinz should steal the drug or not.

The second section of each booklet and tape will contain two sets of solutions, or advice, concerning the conflict situation. The sets of advice will be either one stage below (-1), one stage above (+1), or two stages above (+2) the student's own level, based on the treatment condition that person was randomly placed into. The sets of advice will advocate opposing courses of action in cases where it is possible. Following is an example of two Stage 3 sets of advice to be given in a treatment session:

Advice 1. It is definitely wrong to steal the drug. Heinz knows this deep down inside, but at this point he is desperate. There seems to be no other way. Heinz's wife has to have the drug. There is nothing to do but steal it. It's wrong, but desperate men do many bad things in times of stress. Maybe he could go to the authorities to try and get it or search for another way to persuade the druggist to let him have the drug. Legally he is not justified in stealing.

Advice 2. If you were so heartless as to let your own wife die, you would feel terrible and everybody would really think you were inhuman. It would be terrible to think of what you allowed to happen to your own wife and what she must have thought when she realized you weren't going to save her.

The different sets of advice described above were derived from Kohlberg's (1959) coding forms and were based on actual subject responses.

The third portion of the booklet will contain the following sets of directions: (1) "On the answer sheet provided, check the piece of advice you think is best." and (2) "On each of the following 4 lines, circle the number of the one statement that best describes how you feel about the advice you chose."

The Evaluation of Advice scale is made up of seven positions of each of four dimensions (Rhine & Severance, 1970). The four dimensions include: (1) "made no sense" to "made very good sense", (2) "very unreasonable" to "very reasonable", (3) "very illogical" to "very logical", and (4) "very bad advice" to "very good advice" (see Appendix E). Each scale ranges from one on the negative end to seven on the positive end, with an overall score range of from four to 28.

Posttest

Immediately following the treatment phase of the study, each student will be asked to complete both the DIT and the SJI.

Design and Analysis

The designs to test each of the seven research hypotheses are as follows:

1. For testing hypothesis number one, five one-way analyses of variance will be run, comparing conventional and post-conventional students on their most acceptable and most objectionable items and on the sizes of their latitudes of acceptance, rejection, and noncommitment on the SJI. The alpha level of each ANOVA will be set at .05 since this is the first type of experiment in this area and it is desirable to detect all possible differences.

2. Testing of hypotheses two, three, and four will be done by visual inspection using the 50% criteria used by Sherif et al. (1965) in the analysis of their data.

3. Testing of hypothesis number five will be accomplished by using an individual comparison technique to make comparisons among the four treatment conditions (-1, +1, +2, and no treatment) on change scores that will be obtained by subtracting each student's pretest DIT score from their posttest DIT score. A positive score would indicate change toward a higher principled level while a negative score would indicate change toward a lower moral development level.

4. Hypothesis number six will be tested by using two individual comparison techniques, one for each conflict situation, by making individual comparisons across the four treatment conditions (-1, +1, +2, and no treatment). The dependent measure will be scores obtained on evaluations of the communications (or advice).

5. Hypothesis number seven will be tested by using a series of individual comparison tests (one for each conflict situation) to compare the four treatment conditions (-1, +1, +2, and no treatment) for the three different dependent measures. The dependent measures include changes in scores for latitudes of acceptance and rejection and changes in scores of the most acceptable position. The change scores for the latitudes will be obtained by subtracting pretest scores from posttest scores for each latitude, resulting in positive scores for larger latitudes and negative scores for smaller latitudes. The MA change scores will also be obtained by subtracting pretest scores from posttest scores.

In order to insure that all the numbers used in the statistical analyses of the different hypotheses are positive, ten points will be added to each score which represents a change score, and thus has the possibility of being negative. A formula for the score that will be used in the statistical analysis, therefore, will be: $\text{change score used in analysis} = \text{absolute change score} + \text{ten}$. This will result in a score of ten indicating no change, a score greater than ten indicating a positive change, and a score less than ten indicating a negative change.

Levels of significance for each of the analyses will be set at the .05 level. It is understood that this will result

in a much larger experimentwise error rate, but since this is the initial investigation in this area, the large experimentwise rate will be acceptable to the experimenter.

An additional analysis of the data will be done in order to rule out the possibility that changes from pretest to posttest on the DIT measure are due to some sensitizing effect of the pretest, as has been suggested in prior research (Hoffman, 1977a; Keasey, 1973; Tracy & Cross, 1973). This will be accomplished by comparing three groups that were randomly assigned to different treatment conditions and were used in the investigation. One group will receive a posttest only, one group will receive pretest and posttest only, and the third group will receive the pretest, posttest, and a +1 or +2 treatment condition. Only individuals who were given either the +1 or +2 treatment conditions will be used in this analysis since it is the intention to investigate positive changes from pretest to posttest sessions. These three groups will be compared in terms of their posttest DIT scores by using one of the individual comparison techniques.

Reference Notes

1. Rest, J. R. The stage concept in moral judgment research. Unpublished manuscript, 1978. (Available from 330 Burton Hall, 178 Pillsbury Dr., Minneapolis, Minn.).
2. Davison, M. L., Robbins, S., & Swanson, D. B. Stage structure in objective moral judgments. Unpublished manuscript, 1978. (Available from 330 Burton Hall, 178 Pillsbury Dr., Minneapolis, Minn.).
3. Davison, M. L. On a metric, unidimensional unfolding model for attitudinal and developmental data. Unpublished manuscript, 1978. (Available from 330 Burton Hall, 178 Pillsbury Dr., Minneapolis, Minn.).
4. Davison, M. L., & Robbins, S. The reliability and validity of objective indices of moral development. Unpublished manuscript, 1978. (Available from 330 Burton Hall, 178 Pillsbury Dr., Minneapolis, Minn.).
5. Lawrence, J. A. Moral judgment intervention studies using the Defining Issues Test. Manuscript submitted for publication, 1977.
6. Rest, J. R. Moral judgment related to sample characteristics (Final report to National Institute of Mental Health, Grant No. 8703 MH 24988). Minneapolis: University of Minnesota, August 1976.
7. Rest, J. R. Constructing the Defining Issues Test. In book in preparation, 1978.

8. Rest., J. R., Carroll, J., Lawrence, J., Jacobs, K., McColgan, E., Davison, M., & Robbins, S. Development in judging moral issues--a summary of research using the Defining Issues Test. Paper presented at the meeting of the Society for Research in Child Development, 1977.
9. Kohlberg, L. Relationships between the development of moral judgment and moral conduct. Paper presented at the meeting of the Society for Research in Child Development, Minneapolis, March 1965.
10. Hickey, J. Change among delinquents in a prison reformatory. Paper presented at the meeting of the American Psychological Association, Washington, D.C., September 1971.

References

- Ambron, S. R., & Irwin, D. M. Role taking and moral judgment in five- and seven-year olds. Developmental Psychology, 1975, 11, 102.
- Arbuthnot, J. Modification of moral judgments through role playing. Developmental Psychology, 1975, 11, 319-324.
- Aronson, E., Turner, J. A., & Carlsmith, J. M. Communicator credibility and communication discrepancy as determinants of opinion change. Journal of Abnormal and Social Psychology, 1963, 67, 31-36.
- Bandura, A. Social learning of moral judgments. Journal of Personality and Social Psychology, 1969, 11, 275-279.
- Bandura, A., & McDonald, F. J. Influence of social reinforcement and the behavior of models in shaping children's moral judgments. Journal of Abnormal and Social Psychology, 1963, 67, 274-281.
- Campbell, D. T. The indirect assessment of social attitudes. Psychological Bulletin, 1950, 47, 15-38.
- Carella, S. D. Discipline judgments of disruptive behaviors by individuals and dyads differing in moral reasoning (Doctoral dissertation, University of Oklahoma, 1977). Dissertation Abstracts International, 1977, 38(4), 1990A. (University Microfilms No. DBJ77-21368)
- Crowley, P. M. Effect of training upon objectivity of moral judgment in grade-school children. Journal of Personality and Social Psychology, 1968, 8, 228-232.

- Dewey, J. Moral principles in education. New York: Houghton Mifflin, 1909.
- Diab, L. N. Studies in social attitudes: I. Variations in latitudes of acceptance and rejection as a function of varying positions on a controversial social issue. Journal of Social Psychology, 1965, 67, 283-295.
- Dorr, D., & Fey, S. Relative power of symbolic adult and peer models in the modification of children's moral choice behavior. Journal of Personality and Social Psychology, 1974, 29, 335-341.
- Eagly, A. H., & Manis, M. Evaluation of message and communicator as a function of involvement. Journal of Personality and Social Psychology, 1966, 3, 483-485.
- Fenton, E. Moral education: The research findings. Social Education, 1976, 40(4), 188-193.
- Fishkin, J., Keniston, K., & MacKinnon, C. Moral reasoning and political ideology. Journal of Personality and Social Psychology, 1973, 27, 109-119.
- Freedman, J. L. Involvement, discrepancy, and change. Journal of Abnormal and Social Psychology, 1964, 69, 290-295.
- Glassco, J. A., Milgram, N. A., & Youniss, J. Stability of training effects on intentionality in moral judgment in children. Journal of Personality and Social Psychology, 1970, 14, 360-365.

- Graham, D. Moral learning and development: Theory and research. New York: Wiley-Interscience, 1972.
- Grim, P. F., Kohlberg, L., & White, S. H. Some relationships between conscience and attentional processes. Journal of Personality and Social Psychology, 1968, 8, 239-252.
- Haan, N. Hypothetical and actual moral reasoning in a situation of civil disobedience. Journal of Personality and Social Psychology, 1975, 32, 255-270.
- Haan, N., Smith, M. B., & Block, J. Moral reasoning of young adults: Political-social behavior, family background, and personality correlates. Journal of Personality and Social Psychology, 1968, 10, 183-201.
- Hartshorne, H., & May, M. A. Studies in deceit. New York: Macmillan, 1930.
- Hoffman, M. L. Moral internalization: Current theory and research. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 10). New York: Academic Press, 1977. (a)
- Hoffman, M. L. Personality and social development. In M. R. Rosenzweig & L. W. Porter (Eds.), Annual review of psychology (Vol. 28). Palo Alto, Ca.: Annual Reviews Inc., 1977. (b)
- Holstein, C. B. Irreversible, stepwise sequence in the development of moral judgment: A longitudinal study of males and females. Child Development, 1976, 47, 51-61.

- Hovland, C. I., Harvey, O. J., & Sherif, M. Assimilation and contrast effects in reactions to communication and attitude change. Journal of Abnormal and Social Psychology, 1957, 55, 244-252.
- Hovland, C. I., & Pritzker, H. A. Extent of opinion change as a function of amount of change advocated. Journal of Abnormal and Social Psychology, 1957, 54, 257-261.
- Hovland, C. I., & Sherif, M. Judgmental phenomena and scales of attitude measurement: Item displacement in Thurstone scales. Journal of Abnormal and Social Psychology, 1952, 47, 822-832.
- Hunt, W. A., & Volkman, J. The anchoring of an affective scale. American Journal of Psychology, 1937, 49, 88-92.
- Keasey, C. B. Experimentally induced changes in moral opinions and reasoning. Journal of Personality and Social Psychology, 1973, 26, 30-38.
- Kelley, H. H., Hovland, C. I., Schwartz, M., & Abelson, R. P. The influence of judges' attitudes in three methods of attitude scaling. Journal of Social Psychology, 1955, 42, 147-158.
- Kohlberg, L. The development of modes of moral thinking and choice in the years 10 to 16. Unpublished doctoral dissertation, University of Chicago, 1959.
- Kohlberg, L. A cognitive-developmental approach to moral education. Humanist, 1972, 32(6), 13-16.

- Kohlberg, L. Continuities in childhood and adult moral development revisited. In P. B. Baltes & K. W. Schaie (Eds.), Life-span developmental psychology: Personality and socialization. New York: Academic Press, 1973.
- Kohlberg, L. The cognitive-developmental approach to moral education. Phi Delta Kappan, 1975, 56(10), 670-677. (a)
- Kohlberg, L. Moral education for a society in transition. Educational Leadership, 1975, 33(1), 46-54. (b)
- Kohlberg, L. This special section in perspective. Social Education, 1976, 40(4), 213-215.
- Kohlberg, L., & Kramer, R. Continuities and discontinuities in childhood and adult moral development. Human Development, 1969, 12, 93-120.
- Koulack, D. A test of social judgment theory with the use of an interval scale. Journal of Social Psychology, 1970, 82, 275-276.
- Kurtines, W., & Greif, E. B. The development of moral thought: Review and evaluation of Kohlberg's approach. Psychological Bulletin, 1974, 81, 453-470.
- Leming, J. S. An empirical examination of key assumptions underlying the Kohlberg rationale for moral education. Stony Brook, N.Y.: S.U.N.Y. at Stony Brook, 1974.
(ERIC Document Reproduction Service No. ED 093 749)
- Maitland, K. A., & Goldman, J. R. Moral judgment as a function of peer group interaction. Journal of Personality and Social Psychology, 1974, 30, 69.

- McGeorge, C. Susceptibility to faking on the DIT of moral development. Developmental Psychology, 1975, 11, 108.
- Milgram, S. Behavioral study of obedience. Journal of Abnormal and Social Psychology, 1963, 67, 371-378.
- Napier, J. D. The validity of preservice teacher use of Kohlberg's issue stage scoring system. Theory and Research in Social Education, 1978, 6, 16-30.
- Panowitsch, H. Change and stability in the Defining Issues Test. Unpublished doctoral dissertation, University of Minnesota, 1974.
- Parducci, A., & Marshall, L. M. Assimilation vs. contrast in the anchoring of perceptual judgments of weight. Journal of Experimental Psychology, 1962, 63, 426-437.
- Rest, J. R. The hierarchical nature of moral judgment: A study of patterns of comprehension and preference of moral stages. Journal of Personality, 1973, 41, 86-109.
- Rest, J. R. The cognitive-developmental approach to morality: The state of the art. Counseling and Values, 1974, 13, 64-78. (a)
- Rest, J. R. Developmental psychology as a guide to value education: A review of "Kohlbergian" programs. Review of Educational Research, 1974, 44, 241-259. (b)
- Rest, J. R. Manual for the Defining Issues Test. Minneapolis: University of Minnesota, 1974. (c)

- Rest, J. R. Longitudinal study of the Defining Issues Test of moral judgment: A strategy for analyzing developmental change. Developmental Psychology, 1975, 11, 738-748. (a)
- Rest, J. R. Recent research on an objective test of moral judgment: How the important issues of a moral dilemma are defined. In D. DePalma & J. Foley (Eds.), Moral development: Current theory and research. Potomas, Md.: Lawrence Erlbaum Assoc., 1975. (b)
- 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, 491-501.
- Rest, J. R., Turiel, E., & Kohlberg, L. Level of moral judgment as a determinant of preference and comprehension of moral judgments made by others. Journal of Personality, 1969, 37, 225-252.
- Rhine, R. J., & Severance, L. J. Ego-involvement, discrepancy, source credibility, and attitude change. Journal of Personality and Social Psychology, 1970, 16, 175-190.
- Rosnow, R. L. Bias in evaluating the presidential debates: A "splinter" effect. Journal of Social Psychology, 1965, 67, 211-219.
- Saltzstein, H. D., Diamond, R. M., & Belenky, M. Moral judgment level and conformity behavior. Developmental Psychology, 1972, 7, 327-336.

- Scharf, P., Hickey, J. E., & Moriarty, T. Moral conflict and change in correctional settings. Personnel and Guidance Journal, 1973, 51, 660-663.
- Schleifer, M. Moral judgments of children (Doctoral dissertation, McGill University, 1971). Dissertation Abstracts International, 1972, 33, 452B. (Order direct)
- Schulman, G. I., & Tittle, C. R. Assimilation-contrast effects and item selection in Thurstone scaling. Social Forces, 1968, 46, 484-491.
- Scriven, M. Cognitive moral education. Phi Delta Kappan, 1975, 56(10), 689-694.
- Secord, P. F., & Backman, C. W. Social psychology. New York: McGraw-Hill, 1964.
- Selman, R. L. The relation of role taking to the development of moral judgment in children. Child Development, 1971, 42, 79-91.
- Sherif, C. W., & Jackman, N. R. Judgments of truth by participants in collective controversy. Public Opinion Quarterly, 1966, 30, 173-186.
- Sherif, C. W., Kelly, M., Rodgers, H. L., Jr., Sarup, G., & Tittler, B. I. Personal involvement, social judgment, and action. Journal of Personality and Social Psychology, 1973, 27, 311-328.
- Sherif, C. W., Sherif, M., & Nebergall, R. E. Attitude and attitude change: The social judgment-involvement approach. Philadelphia: W. B. Saunders, 1965.

- Sherif, M., & Cantril, H. The psychology of ego-involvements.
New York: John Wiley & Sons, 1947.
- Sherif, M., & Hovland, C. I. Judgmental phenomena and scales of attitude measurement: Placement of items with individual choice of number of categories. Journal of Abnormal and Social Psychology, 1953, 48, 135-141.
- Sherif, M., & Hovland, C. I. Social judgment. New Haven: Yale University, 1961.
- Sherif, M., & Sherif, C. W. An outline of social psychology (rev. ed.). New York: Harper & Brothers, 1956.
- Sherif, M., & Sherif, C. W. Reference groups. New York: Harper & Row, 1964.
- Sherif, M., & Sherif, C. W. Attitude as the individual's own categories: The social judgment-involvement approach to attitude and attitude change. In C. W. Sherif & M. Sherif (Eds.), Attitude, ego-involvement and change. New York: John Wiley & Sons, 1967.
- Sherif, M., Taub, D., & Hovland, C. I. Assimilation and contrast effects of anchoring stimuli on judgments. Journal of Experimental Psychology, 1958, 55, 150-155.
- Tomlinson-Keasey, C., & Keasey, C. B. The mediating role of cognitive development in moral judgment. Child Development, 1974, 45, 291-298.
- Tracy, J., & Cross, H. J. Antecedents of shift in moral judgment. Journal of Personality and Social Psychology, 1973, 26, 238-244.

- Turiel, E. An experimental test of the sequentiality of developmental stages in the child's moral development. Journal of Personality and Social Psychology, 1966, 3, 611-618.
- Turiel, E. Conflict and transition in adolescent moral development. Child Development, 1974, 45, 14-29.
- Turiel, E., & Rothman, G. R. The influence of reasoning on behavioral choices at different stages of moral development. Child Development, 1972, 43, 741-756.

Appendix B
The Pilot Study

The Pilot Study

Although research has been done in both the moral development and social judgment-involvement theoretical areas individually, virtually no work has been done to interrelate the areas. Carella (1977), in an investigation of the relationship of moral development levels of teachers and their discipline decisions concerning student misbehavior, has suggested that changes in level of moral development might better be explained by the social judgment-involvement theory. It was this suggestion that stimulated the present study. The two primary reasons for this pilot study were (1) to determine if the social judgment model might provide a more precise theoretical way to describe what actually occurs when individuals are asked to make decisions about moral dilemmas, and (2) to develop a social judgment instrument that would allow the researcher to investigate the link between the moral development and social judgment theoretical positions.

In order to investigate the relationships between these two theoretical areas, the Defining Issues Test (DIT) (Rest, Cooper, Coder, Masanz, & Anderson, 1974) was chosen to measure the general level of moral development and a social judgment-type instrument was developed containing statements of moral reasoning. The DIT is easy to administer and score (see Appendix C) and it provides a measure of the relative degree of usage of higher principled levels (that is, Stages 5 and 6). The Social Judgment Instrument (SJI) contains statements of moral reasoning representing each of the levels of moral reasoning. Using the method of ordered alternatives (Sherif,

Sherif, & Nebergall, 1965), it is possible to obtain latitudes of acceptance, rejection, and noncommitment with this social judgment test instrument.

Test Instrument

In the ordered alternatives method, position statements about some issue are selected so that an entire range of positions are represented. This was accomplished in the SJI by using some of the existing statements from the DIT and by writing new statements. The levels of moral development for the statements included Stages 1, 2, 3, 4, 4½, 5A, 5B, and 6. A complete description of each of these stages, with examples, is presented in the Judge's Outline (see Appendix F). The eight statements for each story, therefore, represent a continuum starting at Stage 1 and ending at Stage 6.

In the first phase of the SJI development, two statements were devised at each of the eight moral development levels for each of the six stories, resulting in sixteen statements per story (see Appendix G). Five judges were selected to categorize these statements. The judges included two faculty and three graduate students who were extremely familiar with Kohlberg's theory of moral development. Each judge was provided a Judge's Outline which gave explicit descriptions of each stage and provided examples of typical responses from that stage (see Appendix F). After reading each DIT dilemma, the judges were given the sixteen statements (in random order) to be placed into one of the eight categories, which represented

the eight different stages of moral development. They were instructed to place each statement into the category which they thought it represented.

A table was constructed of the number of correct classifications. The judges' classifications and the correct classifications of each statement can be seen in Appendix H. For each story, the one statement with the highest degree of correct classification at each particular stage was chosen, resulting in eight statements for each story (one for each level of moral reasoning).

The SJI test instrument was further revised by using only the three stories with the highest degree of judge agreement. Table 2 presents the judges' correct classifications (maximum = 5) for three stories: Heinz, Prisoner, and the Newspaper.

Table 2
Frequency of Correct Classifications

Story	Stages							
	1	2	3	4	4½	5A	5B	6
Heinz	4	4	5	5	5	5	4	5
Prisoner	4	5	5	5	3	4	5	3
Newspaper	5	4	4	5	4	5	3	3

The resulting Social Judgment Instrument and its instructions are in Appendix D.

Method

Forty-six students, both undergraduate and graduate, completed the SJI and the DIT. Twenty of the students were retested on the SJI after one week to establish test-retest reliability. Of the 46 students that were tested on the SJI, five were eliminated from the study due to incomplete SJI protocols. The most common reason for elimination of those tests was omission of either the most acceptable or the most objectionable position. Eight students were also eliminated from the study due to inconsistencies in their DIT protocols, according to the criteria established by Rest (1974), and eight other students were eliminated because they could not be definitely placed into one stage of moral development (also according to Rest's criteria). This resulted in 25 students for which both DIT measures and the SJI were complete. Fourteen students were used in the analysis of test-retest data on the SJI.

Analysis of the test-retest information was accomplished by using Pearson Correlations. The correlations were obtained on five measures: the latitude of acceptance (LA), the latitude of rejection (LR), the latitude of noncommitment (LNC), the most acceptable (MA), and the most objectionable (MO) items. Test-retest correlations of the most acceptable and the most objectionable responses were accomplished by utilizing the numerical values assigned to each statement chosen as MA or MO. Assignment of numerical values to each item in the SJI

was accomplished by corresponding the statement number of each item to its position in the moral stage hierarchy, with Stages 1, 2, 3, and 4 corresponding to statement numbers 1, 2, 3, and 4, and Stages 4½, 5A, 5B, and 6 corresponding to statement numbers 5, 6, 7, and 8. The LA, LR, and LNC were assigned numerical values by totaling the number of statements that appeared in each of the latitudes. The number of statements for each latitude at pretest and posttest were used to calculate Pearson correlations. In addition to the development of the SJI, several research hypotheses (which are to be tested in the proposed study) were also investigated with the data available. The research hypotheses concerning the relationship between moral development and social judgment theories are:

1. Individuals from the conventional level of moral development will differ from individuals from the post-conventional level of moral development in terms of the relative size of their latitudes of acceptance, rejection, and noncommitment and in terms of their selection of most acceptable and most objectionable items on the SJI.

2. Individuals from Stage 2 through Stage 6 of moral development will differ from one another in terms of the graphic configurations that represent their latitudes of acceptance, rejection, and noncommitment.

3. Individuals from the Stage 4½ moral level will exhibit graphic configurations of latitudes of acceptance, rejection, and noncommitment that reflect an acceptance of Stage 5A or

higher statements and a rejection of Stage 4 statements.

4. Individuals representing the eight different moral stages will show preference for at least the next stage higher than their present level by including that stage level statement in their latitude of acceptance.

The data from this pilot study provided information that was used to test the first hypothesis. This was accomplished by dividing subjects in the study into conventional (Stages 3 and 4; N = 16) and post-conventional (Stages 5A, 5B, and 6; N = 11) groups. From each of these two groups, eight subjects were randomly selected to be used in the analysis. The data analysis was accomplished by five one-way analyses of variance comparing the conventional and post-conventional groups on five dependent variables: (1) most acceptable and (2) most objectionable items; and the absolute sizes (in number of items included) of (3) the latitude of acceptance, (4) the latitude of rejection, and (5) the latitude of noncommitment.

Additional analysis of the latitudes of acceptance, rejection, and noncommitment was accomplished by using graphic techniques developed by Sherif et al. (1965). These techniques included setting up graphs that represent these three different latitudes for groups of persons holding the same initial position; in this case, those individuals who are at the same level of moral development (either conventional or post-conventional). Two graphs were set up, one representing the conventional and one the post-conventional

level of moral development (N per level = 8). The percentage of responses either accepting, rejecting, or remaining noncommitted on each statement level for the SJI made up each graph.

Another three graphs were devised in which conventional and post-conventional students were compared according to their latitudes of acceptance, rejection, and noncommitment. Comparison of each of the three latitudes was accomplished by plotting the conventional and post-conventional groups' percentages of responses for each of the SJI statements.

Seven more graphs were designed, with each graph representing one moral development stage. The percentage of responses either accepting, rejecting, or remaining noncommitted on statements from the SJI made up each graph. This was done to test hypotheses two, three, and four.

Analysis of all the graphically represented data was accomplished by visual inspection.

Table 3

Means, Standard Deviations, and Test-Retest Correlations for Individual Stories and SJI

Story	Variable		Test	Retest	r	p
Heinz	MA	M	6.714	6.428	.334	.122
		SD	2.301	2.174		
	MO	M	2.357	2.643	.188	.260
		SD	1.598	1.737		

Heinz	LA	M	3.928	3.643	.709	.260	
		SD	1.268	1.082			
	LR	M	2.500	2.714	.304	.146	
		SD	1.019	.995			
	LNC	M	1.571	1.643	.809	.001	
		SD	1.343	1.336			
<hr/>							
Prisoner	MA	M	6.000	6.071	.814	.001	
		SD	1.961	1.639			
	MO	M	3.571	4.000	.505	.033	
		SD	1.604	1.519			
	LA	M	3.643	3.786	.877	.001	
		SD	1.277	1.369			
	LR	M	2.643	2.857	.807	.001	
		SD	1.008	1.351			
	LNC	M	1.714	1.286	.847	.001	
		SD	1.540	1.540			
	<hr/>						
	Newspaper	MA	M	6.357	5.571	.038	.448
SD			1.985	2.138			
MO		M	3.286	3.571	.356	.106	
		SD	1.858	1.828			
LA		M	4.071	4.071	.802	.001	
		SD	1.439	1.328			
LR		M	2.500	2.714	.659	.005	
		SD	1.092	1.069			
LNC		M	1.429	1.214	.762	.001	
		SD	1.505	1.188			
<hr/>							

SJI	MA	M	19.357	18.071	.551	.021
		SD	3.477	3.197		
	MO	M	9.214	10.214	.211	.234
		SD	2.991	2.966		
	LA	M	11.643	11.500	.886	.001
		SD	3.587	3.546		
	LR	M	7.643	8.357	.818	.001
		SD	2.560	3.003		
	LNC	M	4.714	4.143	.868	.001
		SD	3.989	3.880		

Inspection of Table 3 reveals that in general, the correlations for the three latitudes (which are based on sizes of the latitudes) are higher than the correlations for the most acceptable and most objectionable items. This is not surprising since the actual items that appear in each latitude can change while the relative size of that latitude can remain the same. There was much variation in the size of the correlations and their significance level from story to story. However, when the SJI is taken as a whole, the correlations for the latitudes (LA, LR, LNC) are from .81 to almost .87, which are adequate for test-retest reliability. The correlation for the MA was .55 and the MO was .21, which although is much less than for the latitudes, they are still within an acceptable range. All test-retest correlations on the SJI were significant with $p < .05$, with the exception of the MO. Also of interest are the means across each story for the five measures. The MA variable

had means (for pretest and posttest) that were approximately six. This indicates that Stage 5A represents the approximate mean level of items that were seen as MA. The means of the MO items indicate that Stage 3 statements represent the mean level of statements that were most often found MO. In terms of sizes of latitudes, the LA was largest with a mean of approximately 3.9 items, the LR was next with an approximate mean of 2.5, and the LNC was smallest with an approximate mean of 1.5 items.

Sherif et al. (1965) indicate that a measure of amount of ego-involvement is the size of the latitude of rejection, with a large latitude of rejection (four or more statements) indicating more ego-involvement in the issue. The results of this investigation indicate that the three stories in the SJI do not represent ego-involving issues.

Although using a series of one-way analyses of variance normally calls for an adjustment in the significance level to control for the experimentwise error, the .05 level was chosen for each of the five analyses of variance since it was the intention to pick up any possible differences that might have occurred. The results of these analyses (see Appendix I) indicate a difference that approached significance between conventional and post-conventional groups in terms of their most acceptable choices ($F(1,14) = 3.55$, $p = .08$). The conventional group (as would be expected) had a lower mean for its most acceptable item at 5.54, which indicates that Stage 4½ state-

ments represent the mean level for this group. The post-conventional group had a mean of 6.67 or a mean stage level of about Stage 5A.

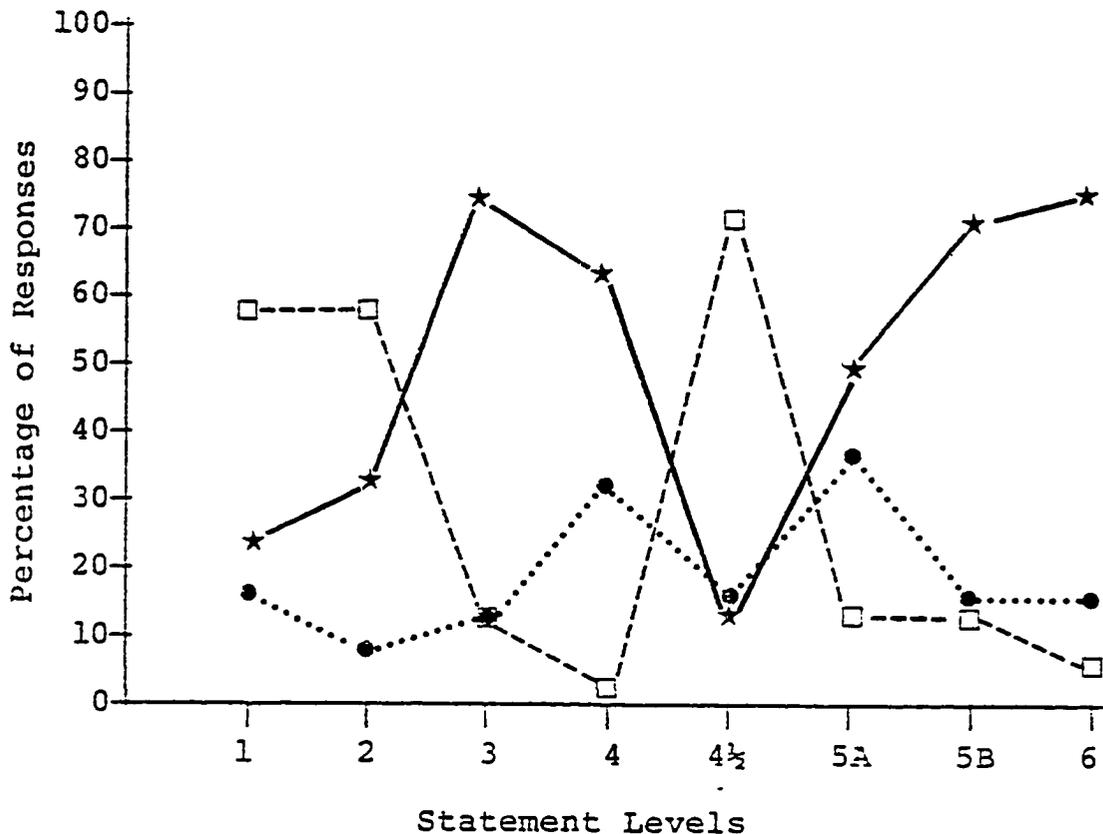
All other analyses indicated no significant differences between the two groups. Therefore, only partial acceptance of the research hypothesis number one was possible.

The analysis of the graphic representations was done by visual inspection. Latitudes of acceptance, rejection, and noncommitment were analyzed in terms of the stage statement only when the percentage of responses to any one statement exceeded approximately 50%. Therefore, only items that were chosen by 50% or more of the respondents were considered representative of that group of people. Figure 11 shows the graphic representation of the three latitudes for the conventional group, while Figure 12 allows inspection of the post-conventional group. Inspection of Figure 13 indicates both groups have latitudes of rejection that include Stage 1, 2, and 4½ statements. The latitudes of acceptance for both groups are the same also with Stage 3, 4, 5A, 5B, and 6 being included; however, Figure 14 shows the magnitude of these acceptances are different for the two groups. In the post-conventional group, Stages 5B and 6 are accepted by nearly 100% of all the respondents while acceptance of Stages 3, 4, and 5A is barely above 50%. Likewise, the conventional group shows about the same acceptance of Stages 3, 4, 5B, and 6 (around the 70% level), while Stage 5A is at the 50% level. This corroborates the results found in the one-way analyses of

variance where the post-conventional mean was significantly higher than the conventional level on the most acceptable item (partial support for hypothesis number one). Figure 15 shows that neither of the groups produced a latitude of noncommitment that exceeded the 50% level.

Figure 11

Latitudes of Acceptance, Rejection, and Noncommitment for the Conventional Stages



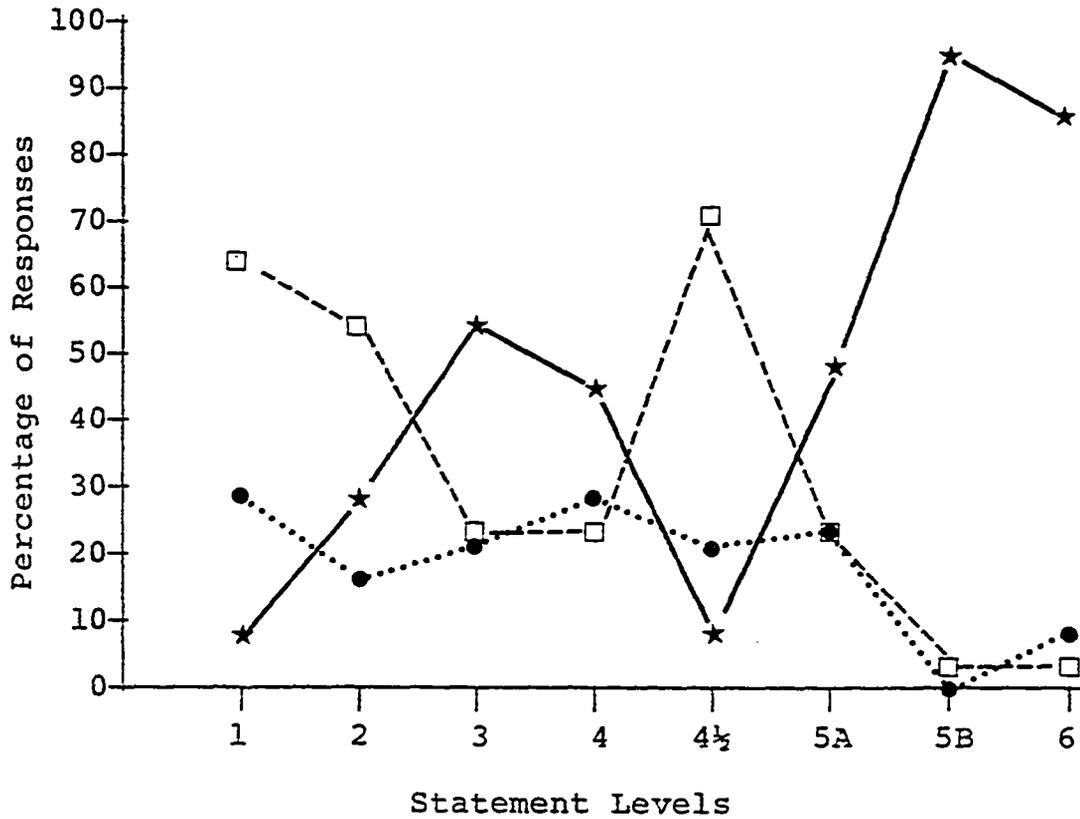
Number of Conventional subjects = 8

(Number of responses per statement level = 24)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 12

Latitudes of Acceptance, Rejection, and Noncommitment
for the Post-Conventional Stages



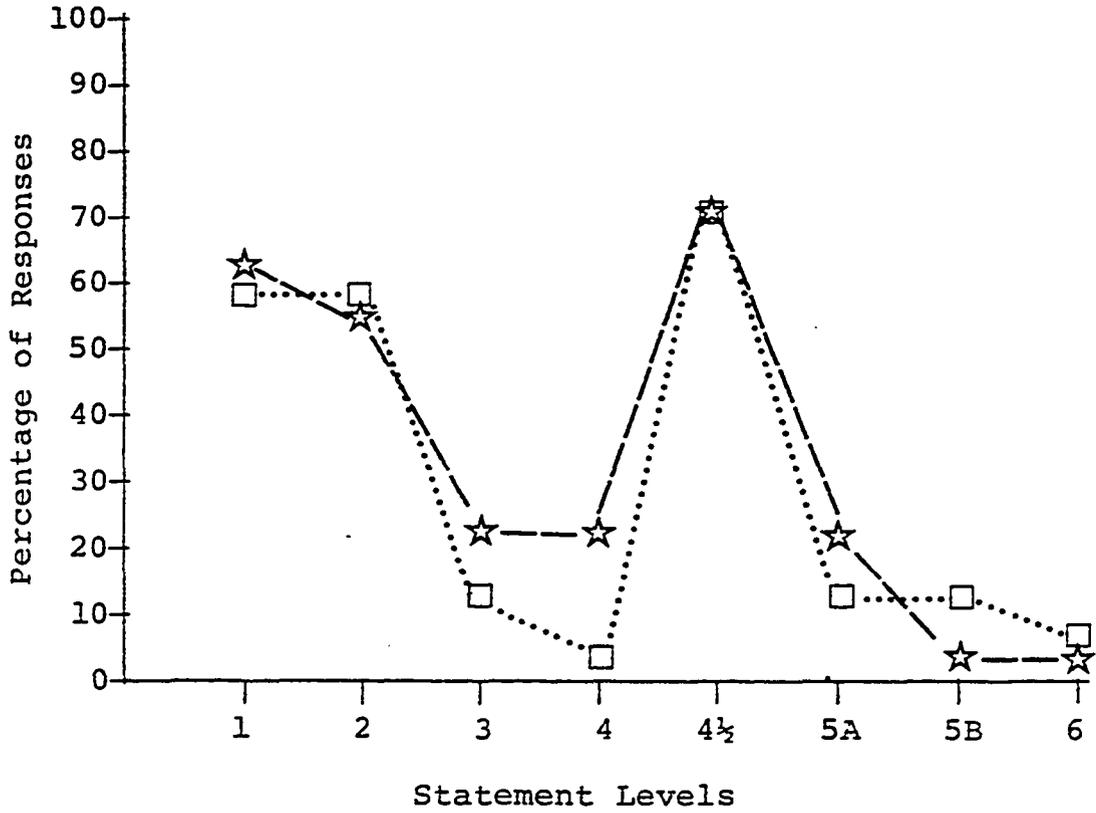
Number of Post-Conventional subjects = 8

(Number of responses per statement level = 24)

- ★ — ★ latitude of acceptance
- - - - □ latitude of rejection
- ● latitude of noncommitment

Figure 13

Latitudes of Rejection for the Conventional and Post-Conventional Groups

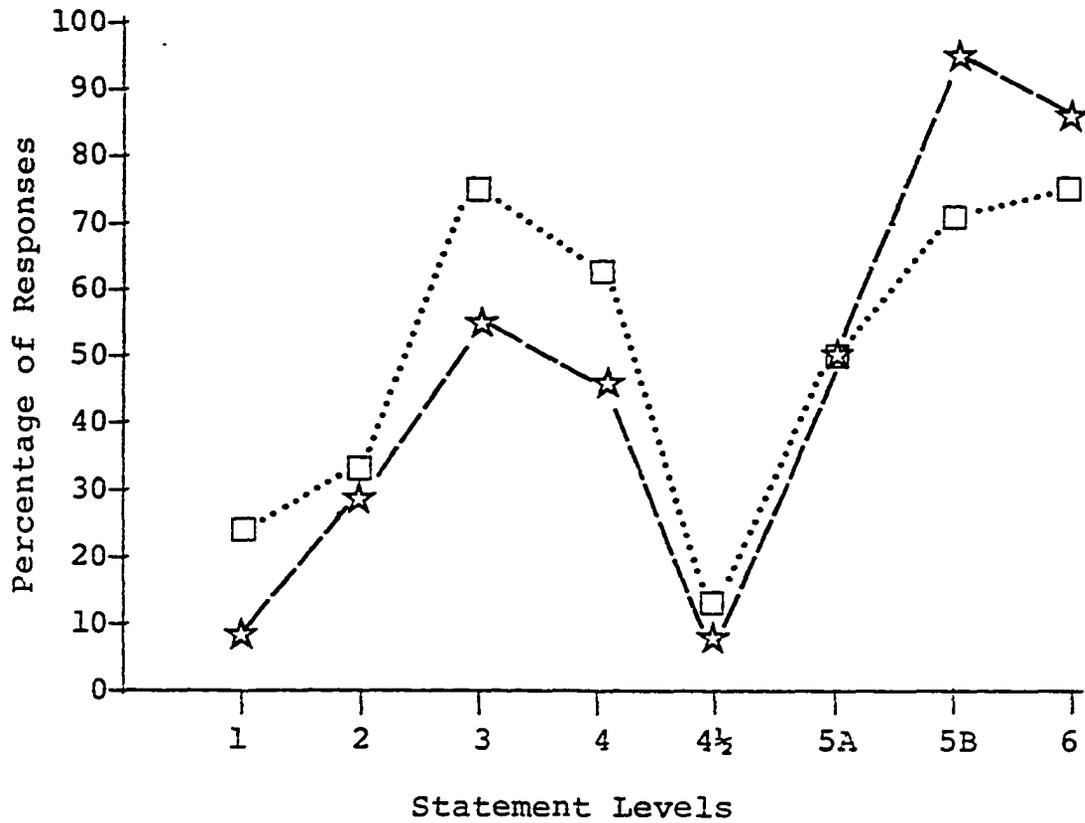


Number of subjects in each group = 8

□.....□ Conventional Group
 ☆——☆ Post-Conventional Group

Figure 14

Latitudes of Acceptance for the Conventional and Post-
Conventional Groups



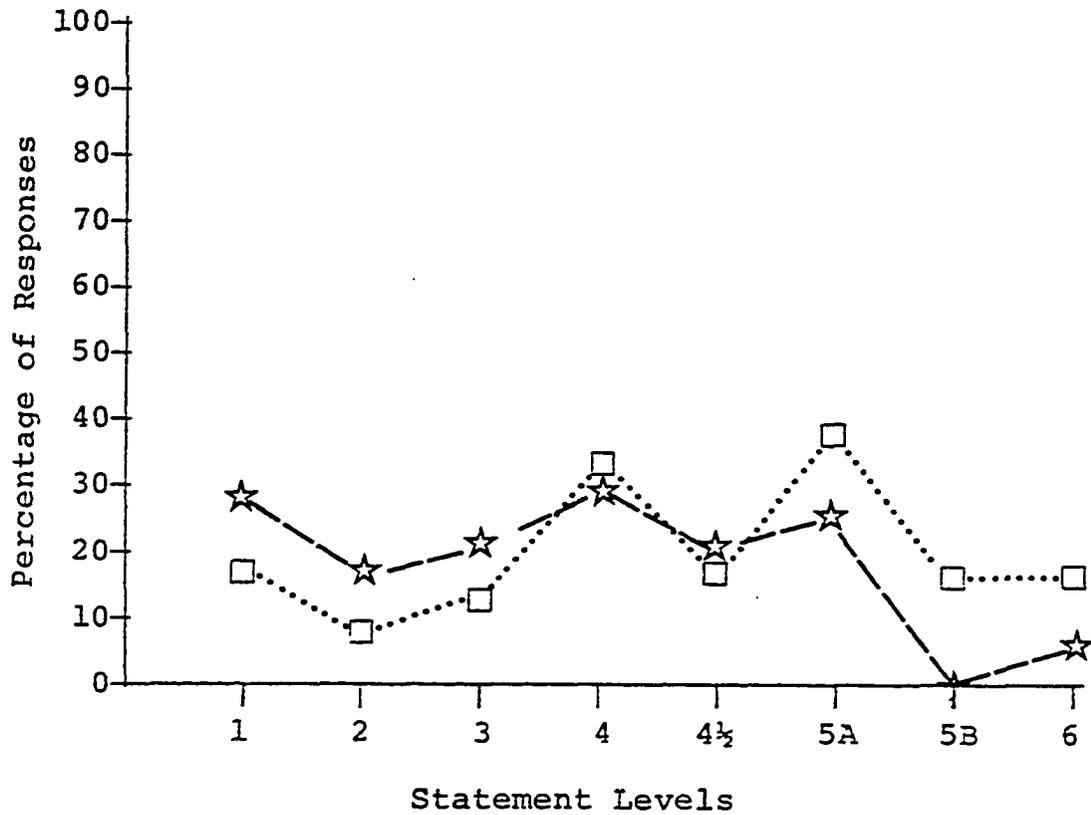
Number of subjects in each group = 8

□.....□ Conventional Group

☆——☆ Post-Conventional Group

Figure 15

Latitudes of Noncommitment for the Conventional and Post-
Conventional Groups



Number of subjects per group = 8

□.....□ Conventional Group

☆---☆ Post-Conventional Group

Appendix J shows the latitude of acceptance, rejection, and noncommitment for the groups of individuals representing the mean different stages of moral development. Individuals were placed into levels of moral development based on their scores on the DIT test and according to Rest's criteria for placement into stages. A printout of the DIT scores for the students and their stage types is shown in Appendix K. The results of the graphs must be considered tentative because of the small number of subjects per stage level. With this limitation in mind, however, there are some definite trends to the data. The Stage 4½ statements fell into the region of rejection for all the groups from the different levels except groups representing Stage 2 and Stage 4½. Generally, Stage 1 and Stage 2 statements fell into the latitudes of rejection for the different groups, except for the Stage 2 and Stage 5A groups. The Stage 2 group had a latitude of acceptance which included all the statements except for the Stage 4½ statements. Statements which represent the stage levels 3, 4, 5A, 5B, and 6 fell into the latitudes of acceptance for all the groups, with the exception of the Stage 5B group where statements for Stages 4 and 5A fell below the 50% level. The magnitude of the percentage scores for these statements that fell into the latitude of acceptance was usually less than 75% for all the groups except for the 5A, 5B, and 6 level groups. In these three groups, the magnitudes of the 5B and 6 level statements were well above 75% in each case. Also an interesting

finding was the higher levels of rejection of the Stage 1, 2, and 4½ statements by the level 6 group than by the other stage level groups. It appears that although the same statements were accepted and rejected by most of the groups, that the magnitude of the acceptances of the higher level statements was greater for the groups nearer the upper end of the moral development continuum. A similar finding was that the level six group showed an increased magnitude of its rejection of Stage 1, 2, and 4½ level statements.

Hypothesis number two, that there would be differences between the graphs of the seven different stages of moral development, has been partially accepted by inspections of the graphs; however, conclusive testing of this hypothesis will only be possible with a larger sample size.

Hypothesis number three, in which it was stated that Stage 4½ individuals would reject the Stage 4 statements and accept the Stage 5A statements, was also only partially supported. The Stage 5A statements were accepted, but so were the Stage 4 statements, if only at the 50% level. A larger sample of students from this group might also clarify this relationship.

With regard to hypothesis four, that individuals from each moral development stage would prefer the next higher stage in terms of acceptance of those statements, the results indicate again only partial agreement. Stages 2, 4½, and 5A showed a higher percentage of acceptance for the next stage

than any other stage. Stages 3, 4 (when Stage 5A is considered as the next stage up from Stage 4), and 5B showed acceptance for the next stage higher, although it was not necessarily the highest percentage present.

Discussion

The Social Judgment Instrument developed for this study proved to have adequate test-retest reliability at least for the three latitudes, and it seems to be adequately suited for the type of investigation for which it will be used.

Although there were only a limited number of students used in this pilot study, there were indications that trends may be evidenced in the latitudes of acceptance, rejection, and noncommitment for students with different levels of moral development according to results from the graphic representations. As stated in the Result Section, partial support was found for hypotheses one, two, three, and four. This included finding differences (that approached significance) between conventional and post-conventional groups in terms of their mean most acceptable items, with post-conventional's means being at a significantly higher moral level. Visual analysis of graphic representations of the latitudes of acceptance, rejection, and noncommitment showed differences in the configurations for groups representing different levels of moral development. In most cases, a preference, in terms of inclusion in latitude of acceptance, for at least one stage higher of moral development statements was shown by groups

of people at the different moral development levels. Although the Stage 4½ group did show this preference for the Stage 5A statements, it did not show a rejection of the Stage 4 statements as moral development theory would predict. Also, no evidence was found for differences in the size of the latitudes of acceptance, rejection, and noncommitment for individuals from the conventional level of moral development when compared to the post-conventional level.

The results of this pilot study indicate that relationships may exist between measurements made under the social judgment theory and those made under the moral development theory. With a more thorough investigation in which larger numbers of subjects are available for study, perhaps these relationships can be explored. Also, if a relationship does exist between the two theoretical areas, perhaps the research findings in the social judgment area on attitude change can be applied to the findings of change in levels of moral development. These are the topics of the proposed investigation.

References

- Carella, S. D. Discipline judgments of disruptive behaviors by individuals and dyads differing in moral reasoning (Doctoral dissertation, University of Oklahoma, 1977). Dissertation Abstracts International, 1977, 38(4), 1990A. (University Microfilms No. DBJ77-21368)
- Rest, J. Manual for the Defining Issues Test. Minneapolis: University of Minnesota, 1974.
- Rest, J., 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.
- Sherif, C. W., Sherif, M., & Nebergall, R. E. Attitude and attitude change: The social judgment-involvement approach. Philadelphia: W. B. Saunders, 1965.

Appendix C

The Defining Issues Test

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.

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Please give us the following information:

Name _____ female
Age _____ Class and period _____ male
School _____

In this questionnaire you will be asked to give your opinions about several stories. Here is a story as an example.

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. Below 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?

Instructions for Part A: (Sample Question)

On the left hand side check one of the spaces by each statement of a consideration. (For instance, if you think that statement #1 is not important in making a decision about buying a car, check the space on the right.)

IMPORTANCE:

Great	Much	Some	Little	No	
				✓	1. Whether the car dealer was in the same block as where Frank lives. (Note that in this sample, the person taking the questionnaire did not think this was important in making a decision.)
✓					2. Would a used car be more economical in the long run than a new car. (Note that a check was put in the far left space to indicate the opinion that this is an important issue in making a decision about buying a car.)
		✓			3. Whether the color was green, Frank's favorite color.
				✓	4. Whether the cubic inch displacement was at least 200. (Note that if you are unsure about what "cubic inch displacement" means, then mark it "no importance.")
✓					5. Would a large, roomy car be better than a compact car.
				✓	6. Whether the front connibilies were differential. (Note that if a statement sounds like gibberish or nonsense to you, mark it "no importance.")

Instructions for Part B: (Sample Question)

From the list of questions above, select the most important one of the whole group. Put the number of the most important question on the top line below. Do likewise for your 2nd, 3rd and 4th most important choices. (Note that the top choices in this case will come from the statements that were checked on the far left-hand side--statements #2 and #5 were thought to be very important. In deciding what is the most important, a person would re-read #2 and #5, and then pick one of them as the most important, then put the other one as "second most important," and so on.)

MOST SECOND MOST IMPORTANT THIRD MOST IMPORTANT FOURTH MOST IMPORTANT

5

2

3

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

IMPORTANCE:

Great Much Some Little No

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

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

- Most important _____
- Second Most Important _____
- Third Most Important _____
- Fourth Most Important _____

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

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

IMPORTANCE:

Great Much Some Little No

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

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

- Most Important _____
- Second Most Important _____
- Third Most Important _____
- Fourth Most Important _____

ESCAPED PRISONER

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

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

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

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?
					2. Everytime someone escapes punishment for a crime, doesn't that just encourage more crime?
					3. Wouldn't we be better off without prisons and the oppression of our legal systems?
					4. Has Mr. Thompson really paid his debt to society?
					5. Would society be failing what Mr. Thompson should fairly expect?
					6. What benefits would prisons be apart from society, especially for a charitable man?
					7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?
					8. Would it be fair to all the prisoners who had to serve out their full 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?
					11. How would the will of the people and the public good best be served?
					12. Would going to prison do any good for Mr. Thompson or protect anybody?

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

- Most Important _____
- Second Most Important _____
- Third Most Important _____
- Fourth Most Important _____

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

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					1. 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 her an overdose would be the same as killing her.
					3. 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.
					6. What is the value of death prior to society's perspective on personal values.
					7. 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.
					12. Can society allow suicides or mercy killing and still protect the lives of individuals who want to live.

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

- Most Important _____
- Second Most Important _____
- Third Most Important _____
- Fourth Most Important _____

WEBSTER

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

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

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

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

IMPORTANCE:

Great Much Some Little No

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

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

- Most Important _____
- Second Most Important _____
- Third Most Important _____
- Fourth Most Important _____

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

IMPORTANCE:

Great Much Some Little No

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

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

- Most Important _____
- Second Most Important _____
- Third Most Important _____
- Fourth Most Important _____

Appendix D

The Social Judgment Instrument

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. Answers will be averaged for the whole group, and no one will see your individual answers.

Name _____ Social Security No. _____

In this questionnaire you will be asked to give your opinions about several stories. Here is a story as an example:

FRANK JONES (Sample Story)

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.

Following are questions Frank Jones might have considered in deciding what car to buy.

- _____ 1. Whether the car dealer was in the same block as where Frank lives.
- _____ 2. Would a used car be more economical in the long run than a new car.
- _____ 3. Whether the color was green, Frank's favorite color.
- _____ 4. Whether the cubic inch displacement was at least 200.
- _____ 5. Would a large, roomy car be better than a compact car.
- _____ 6. Whether the front connibilities were differential.
- _____ 7. Whether the car had sport wheels or not.

What is your opinion about these reasons for making the decision? Complete the following steps.

1. Which one statement do you find as the most acceptable reason for making the decision? Put MA (indicating most acceptable) in front of that statement.
2. Which other statements do you find as acceptable reasons for making the decision? Put A (indicating acceptable) in front of those statements.
3. Which one statement do you find as the most objectionable reason for making the decision? Put MO (indicating most objectionable) in front of that statement.
4. Which other statements do you find as objectionable reasons for making the decision? Put O (indicating objectionable) in front of those statements.
5. There may be statements left over that you find neither acceptable nor objectionable (neutral). Leave those statements blank.

An example of how your answer sheet might look is as follows:

- 0 1. Whether the car dealer was in the same block as where Frank lives.
- MA 2. Would a used car be more economical in the long run than a new car.
- L 3. Whether the color was green, Frank's favority color.
- MO 4. Whether the cubic inch displacement was at least 200.
- A 5. Would a large, roomy car be better than a compact car.
6. Whether the front connibilies were differential.
- 0 7. Whether the car had sport wheels or not.

If you have any questions at this point, raise your hand and the examiner will give you assistance. If not, continue the questionnaire.

For each problem situation, read the story and the statements that follow it carefully. Follow precisely the instructions for making the decision and for ranking the statements after each story.

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

REASONS FOR MAKING THE DECISION:

- _____ 1. Whether Heinz considers that criminals always get caught in the long run.
- _____ 2. Whether Heinz could steal the drug and get away with it.
- _____ 3. Whether it is natural for a loving husband to care so much for his wife that he'd steal.
- _____ 4. Whether a community's laws are going to be upheld.
- _____ 5. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
- _____ 6. Would a majority of the people in Heinz's community feel that Heinz is justified in stealing the drug.
- _____ 7. Whether by stealing the drug Heinz would be following a moral belief he feels is above the law.
- _____ 8. Are there higher principles that must be followed when a human life is involved.

From the list of statements given above, indicate the following:

- M A = the one most acceptable statement
- A = all other acceptable statements
- M O = the one most objectionable statement
- O = all other objectionable statements
- = neutral statements

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

REASONS FOR MAKING THE DECISION:

- _____ 1. Doesn't Mrs. Jones realize that criminals must pay for breaking the law.
- _____ 2. Would it be worth while for Mrs. Jones to go through all the problems associated with having to report Mr. Thompson.
- _____ 3. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person.
- _____ 4. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances.
- _____ 5. Wouldn't we be better off without prisons and the oppression of our legal systems.
- _____ 6. How would the will of the people and the public good best be served.
- _____ 7. Although societal rules are important, there are times when consideration of the individual involved must rule what a person should do.
- _____ 8. Whether Mr. Thompson needs to be judged with higher principles that take into account all his actions.

From the list of statements given above, indicate the following:

- M A = the one most acceptable statement
- A = all other acceptable statements
- M O = the one most objectionable statement
- O = all other objectionable statements
- = neutral statements

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

REASONS FOR MAKING THE DECISION:

- _____ 1. Has the principal considered that his oral agreement may be considered a legal contract and he is breaking the law.
- _____ 2. Would the students start protesting even more if the principal stopped the newspaper.
- _____ 3. Whether Fred was using the newspaper to stir up hatred and discontent.
- _____ 4. Is the principal following the rules as set out by the governing body of the school.
- _____ 5. Whether the principal should be allowed to make this type of decision that only serves his own interest.
- _____ 6. By stopping the newspaper would the principal be following what the majority of the people (both students and adults) in the community want.
- _____ 7. What effect would stopping the paper have on the student's education in critical thinking and judgments.
- _____ 8. Is stopping the paper consistent with principles of justice.

From the list of statements given above, indicate the following:

- M A = the one most acceptable statement
- A = all other acceptable statements
- M O = the one most objectionable statement
- O = all other objectionable statements
- = neutral statements

Appendix E
Evaluation of Advice

Name: _____

Story: _____

Advice 1 Advice 2
(check the one you chose)

EVALUATION OF ADVICE

On each of the following 4 lines, circle the number of the one statement that best describes how you feel about the advice you chose.

1	2	3	4	5	6	7
no sense	very little sense	little sense	neutral	some sense	good sense	very good sense
1	2	3	4	5	6	7
very unreasonable	unreasonable	somewhat unreasonable	neutral	somewhat reasonable	reasonable	very reasonable
1	2	3	4	5	6	7
very illogical	illogical	somewhat illogical	neutral	somewhat logical	logical	very logical
1	2	3	4	5	6	7
very bad advice	bad advice	relatively bad advice	neutral	relatively good advice	good advice	very good advice

Appendix F
The Judge's Outline*

*Some passages and examples in the Judge's Outline were taken verbatim from Kohlberg's standard scoring system booklet and from an unpublished manuscript by J. R. Rest (1978) entitled "A Theoretical Analysis of Moral Judgment Development" which is available from 330 Burton Hall, 178 Pillsbury Dr., Minneapolis, Minn. 55455.

Judge's Outline

Stage 1

Morality of obedience (You do what you are told).

Moral is being obedient. Right and wrong are defined simply in terms of obedience to fixed rules. Punishment inevitably follows disobedience. Right and wrong are determined by non-crucial but physically obvious aspects of an act, with a neglect of the actor's intentions and overall purpose.

Examples (from the Heinz story):

A. "When you take a drug like that it's stealing. Stealing has always been against the law."

B. "You shouldn't steal the drug because you'll be caught and sent to jail if you do. Criminals always get caught in the long run. And you'll feel bad thinking how the police will catch up with you."

C. "He can't just go and break into a store--maybe break through a window or break the door down. He'd be a bad criminal doing all that damage. That drug is worth a lot of money, and stealing anything so expensive would really be a big crime."

Stage 2Morality of Instrumental Egoism and Simple Exchange

(Lets make a deal).

Right is determined by what is instrumental in serving an individual's desires and interests. Human relations are viewed in terms like those of the market place. One should obey the law only if it is prudent to do so. Cooperative interaction is based on simple exchange.

Examples (fron the Heinz story):

A. "The druggist can do what he wants and Heinz can do what he wants to do. It's up to each individual to do what he wants with what he has. But if Heinz decides to risk jail to save his wife, it's his life he's risking; he can do what he wants with it. And the same goes for the druggist; it's up to him to decide what he wants to do."

B. "Stay within the law and you can save yourself a lot of trouble. Some laws are pretty stupid, but if you don't obey them, you might get caught and have to pay a fine or spend some time in jail."

C. "(Heinz is) running more risk than it's worth unless he's so crazy about her he can't live without her. Neither of them will enjoy life if she's an invalid."

Stage 3

Morality of Personal Concordance (Be considerate, nice and kind, and you'll get along with people).

Morality is a matter of establishing and maintaining enduring positive relationships. An act is good if it is based on a prosocial motive. Being moral implies concern for other's approval. Some standard good-person stereotypes are used. Behavior is often judged by intentions--"he meant well." Orientation is to maintaining fixed rules or respect for authority.

Examples (from the Heinz story)

A. "Stealing is bad, but . . . Heinz isn't doing wrong in trying to save his wife . . . He is only doing something that is natural for a good husband to do. You can't blame him for doing something out of love for his wife."

B. "If you were so heartless as to let your own wife die, you would feel terrible and everybody would really think you were inhuman. It would be terrible to think of what you allowed to happen to your own wife and what they must have thought when she realized you weren't going to save her."

C. "A druggist is supposed to be in business to help people, not to let them die. It seems sort of useless for the druggist to work all those years to invent the drug and then not to help someone with the drug when they need it."

Stage 4

Morality to Law and Duty to Social Order (Everyone in society is obligated and protected by the law).

Right is defined by categorical rules, binding all, with fixed shared expectations of all society, thereby providing a basis for social order. Values are derived from and subordinate to the social order and maintenance of law. No personal consideration or circumstances can supersede the law. Respect for delegated authority is one's obligation to society--one must respect authority.

Examples (from the Heinz story):

A. "It is a natural thing for Heinz to want to save his wife, but it's still always wrong to steal. You have to follow the rules regardless of how you feel or regardless of the special circumstances. Even if his wife is dying, it's still his duty as a citizen to obey the law. No one else is allowed to steal, why should he be? If everyone starts breaking the law in a jam, there'd be no civilization, just crime and violence."

B. "A human life is important but so is law and order. Stealing is against the law and against the commandments. You can't throw away laws and religion because that's what keeps human life sacred in the first place."

Stage 4½

Morality of Ethical Relativism and Egoism (Social duty doesn't compare with personal decisions).

Morality of stage four's "society's point of view" is rejected. An egoism or relativism is displayed that is abstract and philosophical, not subjective or concrete like stage two's instrumentalism. Society's duty is understood but questioned from the point of view of an individual making a personal decision, who can step outside society's viewpoint. Responses often reflect an anti-establishment orientation.

Examples (from the Heinz story):

A. "How can you blame Heinz for stealing the drug. I hate to use the word blame because you are imposing a moral of society and who is to say what you should do and shouldn't do."

B. "I am an individualist. I believe in individuals and no one tells me what is right or wrong. People, my parents, can guide me and say what is legally right or wrong, but I have to make my own choice. Just as the husband here would have to make his own choice here of what was right or wrong."

Stage 5A

Morality of Societal Consensus (What laws the people want to make is what ought to be).

Moral obligation derives from voluntary commitments of society's members to cooperate. Procedures for selecting laws that maximize welfare are discerned by the majority will. Right actions tend to be defined in terms of general rights and standards that have been critically examined and agreed upon by the whole society. Personal values and opinions are clearly seen as relative, with emphasis upon procedural rules for reaching consensus. Therefore, there is an emphasis upon the social point of view but also with emphasis upon the possibility of changing rules due to rational considerations of their social worth. Individuals may set out to change the law but do not bypass the law--even though it may be unjust.

Examples (from the Heinz story):

A. "The law represents the basis of how people have agreed to live with each other. By continuing to live in that society, he has agreed to respect and maintain its laws."

A. "Heinz has to respect the general will of his society as it is set down in the law. The law represents the basis of how people have agreed to live with each other."

Stage 5B

Morality of Societal Consensus but with Overriding Individual Rights (Societal laws are alright if they don't interfere with human rights).

Stage 5A social contract is recognized, but there is an intuitive feel that individual human rights take precedent over societal perspectives. Concern for universal rights, self-development and perfection of individuals as human beings. Sometimes referred to as intuitive humanism, where the individual often will follow his own conscience if he sees it as being above the societal laws.

Examples (from the Heinz story):

A. "Heinz should steal the drug. Since the purpose of law in general is the protection of life, or the right to live. That is, Heinz was not violating the purpose behind the law."

B. "We must consider the welfare of the society as a whole, but also a major component of that welfare is the protection of the individuals. Therefore a person sometimes has to follow his own convictions to see to it that these rights are upheld."

Stage 6

Morality of Non-Arbitrary Social Cooperation (How rational and impartial people would organize cooperation is moral).

There is a more ultimate test of morality than social consensus. Moral judgments are ultimately justified by principles of ideal cooperation. Individuals have an equal claim to benefit from the governing principles of cooperation. Stage six has an appeal to abstract principles of justice, human rights, and dignity of human beings as individual persons. Represents a universal moral point of view.

Example (from the Heinz story):

A. "Where the choice must be made between disobeying a law and saving a human life, the higher principle of preserving life makes it morally right--not just understandable--to steal the drug If Heinz does not do everything he can to save his wife, then he is putting some value higher than the value of life By not acting in accordance with your sense of the value of human life, you would condemn yourself . . . you would know that you have betrayed your own moral integrity."

Appendix G

Ninety-six Reasoning Statements for the Six

DIT Stories

Reasoning Statements for Heinz Story

1. Whether Heinz considers that taking the drug is stealing and he will be caught and sent to jail.
2. Whether Heinz considers that criminals always get caught in the long run.
3. Whether Heinz could steal the drug and get away with it.
4. Whether Heinz is willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help.
5. Whether the druggist deserves to be robbed for being so greedy and cruel.
6. Whether it is natural for a loving husband to care so much for his wife that he'd steal.
7. Whether a community's laws are going to be upheld.
8. Whether the druggist's rights to his invention have to be respected.
9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
10. Whether Heinz should be required to obey a law set up by bureaucrats without regard for human dignity.
11. Would a majority of the people in Heinz's community feel that Heinz is justified in stealing the drug.
12. Whether stealing would in such a case bring about more total good for the whole society or not.
13. Whether Heinz would be upholding his own values with regard to stealing the drug for his wife.

14. Whether by stealing the drug Heinz would be following a moral belief he feels is above the law.
15. Are there higher principles that must be followed when a human life is involved.
16. Whether by denying Heinz's wife the drug she is being denied the human dignity any person should expect.

Reasoning Statements for Student Story

1. Whether the students realize they will be caught and punished for breaking the law.
2. Whether the students considered that when you break the law you are a criminal and always pay in the long run.
3. Do the students realize that they might be arrested and fined, and even expelled from school.
4. How getting arrested or expelled from school would affect the student's educational goals.
5. Will the takeover anger the public and give all students a bad name.
6. Did the president bring this misunderstanding on himself by being so unreasonable and uncooperative.
7. Would allowing one student take-over encourage many other student take-overs.
8. Do the students have any right to take over property that doesn't belong to them.
9. Whether running the university ought to be in the hands of a few administrators or in the hands of all the people.
10. Should the students be required to follow arbitrary rules set up by the administration.
11. Would taking over the building in the long run benefit more people to a greater extent.
12. Whether the president stayed within the limits of his authority in ignoring the faculty vote.

13. Are the students following principles which they believe are above the law.
14. Would the students be following their own convictions by taking over.
15. Is taking over a building consistent with principles of justice.
16. Have the basic human rights of each student at the University been considered in the decision to take over.

Reasoning Statements for Prisoner Story

1. Has Mrs. Jones considered the fact that Mr. Thompson is a criminal and will eventually be brought to justice.
2. Doesn't Mrs. Jones realize that criminals must pay for breaking the law.
3. Even though Mrs. Jones doesn't want to report Mr. Thompson could she get into trouble for not doing so.
4. Would it be worth while for Mrs. Jones to go through all the problems associated with having to report Mr. Thompson.
5. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person.
6. How could anyone be so cruel and heartless as to send Mr. Thompson to prison.
7. Has Mr. Thompson really paid his debt to society.
8. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances.
9. Wouldn't we be better off without prisons and the oppression of our legal systems.
10. Should Mrs. Jones be obligated to turn Mr. Thompson in just to obey a law that was passed by unfeeling politicians.
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.
13. Although societal rules are important, there are times when consideration of the individual involved must rule what a person should do.

14. By not turning in Mr. Thompson, would Mrs. Jones be following beliefs that are above the law.
15. Whether Mr. Thompson needs to be judged with higher principles that take into account all his actions.
16. Will real justice be served if Mr. Thompson is required to return to prison.

Reasoning Statements for Doctor Story

1. Has the doctor considered that mercy killing will only result in punishment.
2. Doesn't the doctor know that people who break the law are always found out.
3. Whether the doctor could make it appear like an accident.
4. Does the doctor realize that he could possibly be sent to prison if he gives her the overdose.
5. Whether the woman's family is in favor of giving her the overdose or not.
6. Whether the doctor has sympathy for the woman's suffering or cares more about what society might think.
7. Is the doctor obligated by the same laws as everybody else if giving her an overdose would be the same as killing her.
8. Whether only God should decide when a person's life should end.
9. Whether people would be much better off without society regimenting their lives and even their deaths.
10. Why should the doctor be required to follow laws that were passed by uninformed individuals.
11. Does the state have the right to force continued existence on those who don't want to live.
12. Can society allow suicides or mercy killing and still protect the lives of individuals who want to live.

13. What values the doctor has set for himself in his own personal code of behavior.
14. Would the mercy killing be an action that was followed due to beliefs that are above the law.
15. Is helping to end another's life ever a responsible act of cooperation.
16. Does any person have the right to take the life of another.

Reasoning Statements for Webster Story

1. Doesn't Webster realize that he must obey the law, otherwise punishment is bound to result.
2. Doesn't Mr. Webster realize that people who violate the law are always brought to justice.
3. Whether hiring a good mechanic or paying attention to his customers' wishes would be best for his business.
4. Does Mr. Webster realize that Mr. Lee could take him to court and possibly win punitive damages.
5. Whether Mr. Webster is prejudiced against orientals himself or whether he means nothing personal in refusing the job.
6. If someone is in need, shouldn't he be helped regardless of what you get back from him.
7. Does the owner of a business have the right to make his own business decisions or not.
8. Whether there is a law that forbids racial discrimination in hiring for jobs.
9. Whether the greedy and competitive capitalistic system ought to be completely abandoned.
10. Whether the unjust, profit-grabbing system we live in has caused Mr. Webster to act as he did.
11. Do a majority of people in Mr. Webster's society feel like his customers or are a majority against prejudice.
12. Whether hiring capable men like Mr. Lee would use talents that would otherwise be lost to society.

13. Would refusing the job to Mr. Lee be consistent with Mr. Webster's own moral beliefs regardless of how the society feels.
14. Would giving the job to Mr. Lee be more consistent with Mr. Webster's own beliefs although it did hurt his business.
15. What individual differences ought to be relevant in deciding how society's roles are filled.
16. Would denying Mr. Lee the job prevent him from getting what any person should justly expect.

Reasoning Statements for Newspaper Story

1. Doesn't the principal know that he will be punished in the long run for breaking his word.
2. Doesn't the principal know you can't break your word.
3. Would there be more discipline problems for the principal because of his actions.
4. Would the students start protesting even more if the principal stopped the newspaper.
5. Whether Fred was using the newspaper to stir up hatred and discontent.
6. Whether the principal's order would make Fred lose faith in the principal.
7. Is the principal following the rules as set out by the governing body of the school.
8. Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve one issue at a time.
9. Should the entire system governing the High School be abandoned and a new system set up.
10. Whether the principal should be allowed to make this type of decision that only serves his own interest.
11. By stopping the newspaper would the principal be following what the majority of the people (both students and adults) in the community want.
12. Whether Fred was in any way violating the rights of others in publishing his own opinions.

13. What effect would stopping the paper have on the student's education in critical thinking and judgments.
14. Will stopping the paper really follow what the principal believes to be morally correct.
15. Is stopping the paper consistent with principles of justice.
16. Have the human rights of each student been considered in stopping the paper.

Appendix H

Number of Judges Correctly Classifying Reasoning Statements

Table 4
 Number of Judges Correctly Classifying Reasoning Statements

	Stages															
	1		2		3		4		4½		5A		5B		6	
	Statements															
Story	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Heinz	3	4*	4	4*	3	5*	5*	4	5*	3	5*	2	1	4*	5*	2
Students	3	4	1	4	3	3	3	3	1	3	0	0	2	1	2	1
Prisoner	3	4*	1	5*	5*	4	1	5*	3*	3	4*	0	5*	2	3*	2
Doctor	3	5	2	1	2	3	2	5	2	2	0	2	2	4	3	3
Webster	4	3	4	1	2	2	0	5	4	4	3	2	1	2	1	0
Newspaper	1	5*	3	4*	4*	4	5*	2	2	4*	5*	2	3*	1	3*	2

* indicates statements chosen for the final test instrument

Appendix I

One-way Analyses of Variance for Conventional and Post-
Conventional Groups on Five Dependent Variables

Table 5

Analyses of Variance for Conventional and Post-Conventional
Groups on Five Dependent Variables

Dependent Variable	Source	df	Sum of Squares	Mean Squares	F	p
Most Acceptable Item	Between Groups	1	45.563	45.563	3.546	.081
	Within Groups	14	179.875	12.848		
	Total	15	225.437			
	Group	N	3 Story Mean	S.D.	MA Item Mean	
	Conventional	8	16.625	3.292	5.55	
	Post-Conventional	8	20.000	3.855	6.67	
Most Objectionable Item	Between Groups	1	0.000	0.000	0.000	1.000
	Within Groups	14	108.000	7.714		
	Total	15	108.000			
	Group	N	3 Story Mean	S.D.	MO Item Mean	
	Conventional	8	10.000	2.268	3.33	
	Post-Conventional	8	10.000	3.207	3.33	
Size of Latitude of Acceptance	Between Groups	1	0.063	0.063	0.008	.931
	Within Groups	14	111.375	7.955		
	Total	15	111.437			
	Group	N	3 Story Mean	S.D.	LA Item Mean	
	Conventional	8	11.250	2.435	3.75	
	Post-Conventional	8	11.375	3.160	3.79	

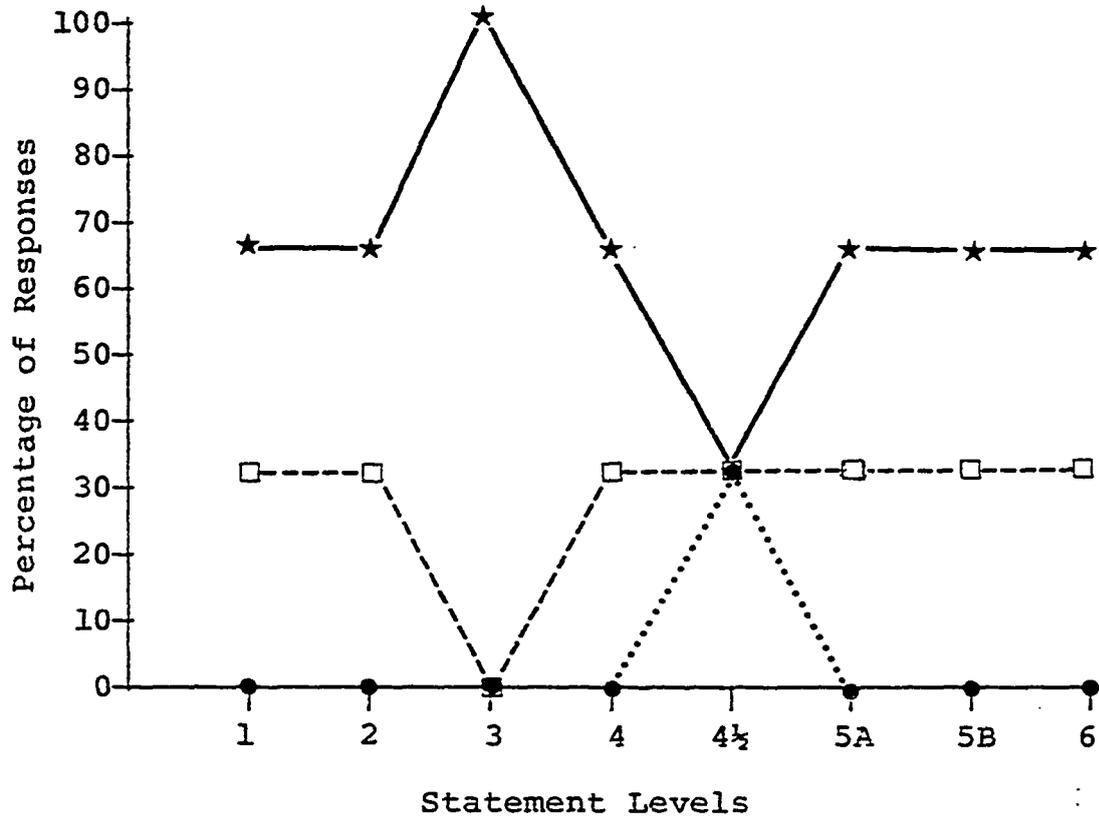
Dependent Variable	Source	df	Sum of Squares	Mean Squares	F	p
Size of Latitude of Rejection	Between Groups	1	0.063	0.063	0.009	.926
	Within Groups	14	98.874	7.063		
	Total	15	98.937			
	Group	N	3 Story Mean	S.D.	LR Item Mean	
	Conventional	8	8.000	2.450	2.67	
	Post-Conventional	8	8.125	2.850	2.71	
Size of Latitude of Noncommitment	Between Groups	1	0.250	0.250	0.021	.887
	Within Groups	14	167.500	11.964		
	Total	15	167.750			
	Group	N	3 Story Mean	S.D.	LNC Item Mean	
	Conventional	8	4.750	3.412	1.58	
	Post-Conventional	8	4.500	3.505	1.50	

Appendix J

Latitudes of Acceptance, Rejection, and Noncommitment for
Different Stage Level Groups

Figure 16

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 2 Level Group

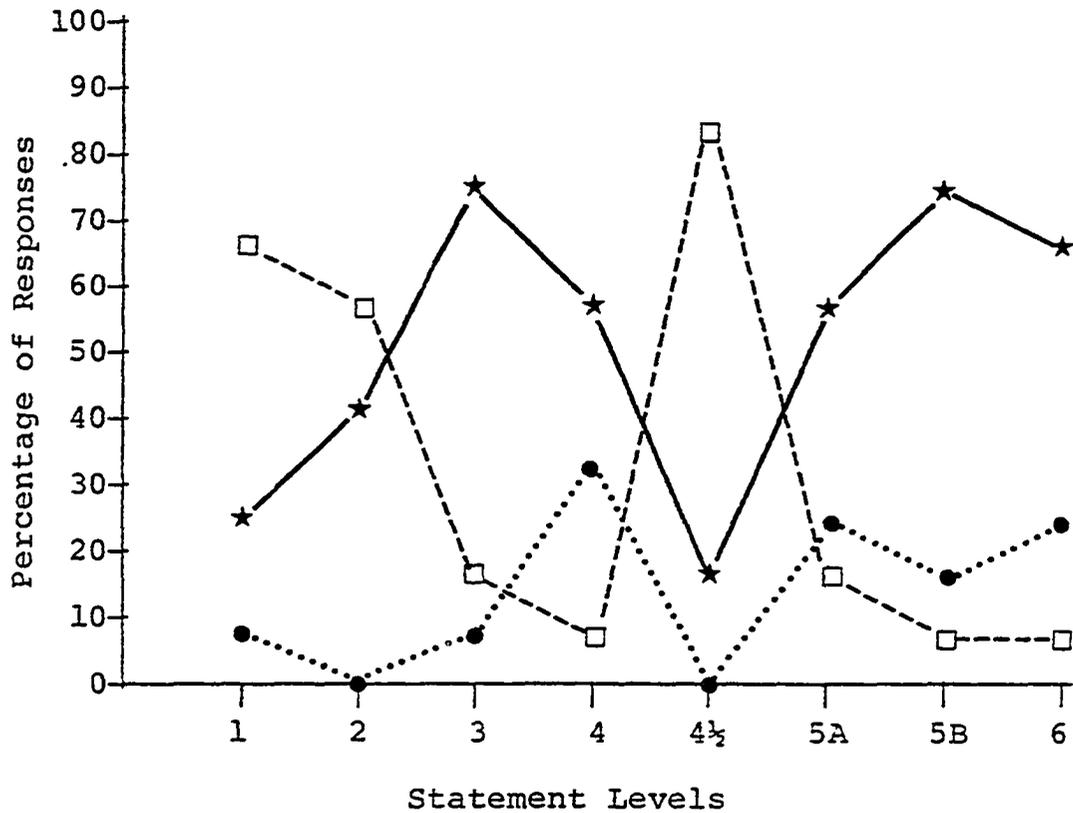


Number of Stage 2 subjects = 1

(Number of responses per statement level = 3)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 17
 Latitudes of Acceptance, Rejection, and Noncommitment
 for the Stage 3 Level Group

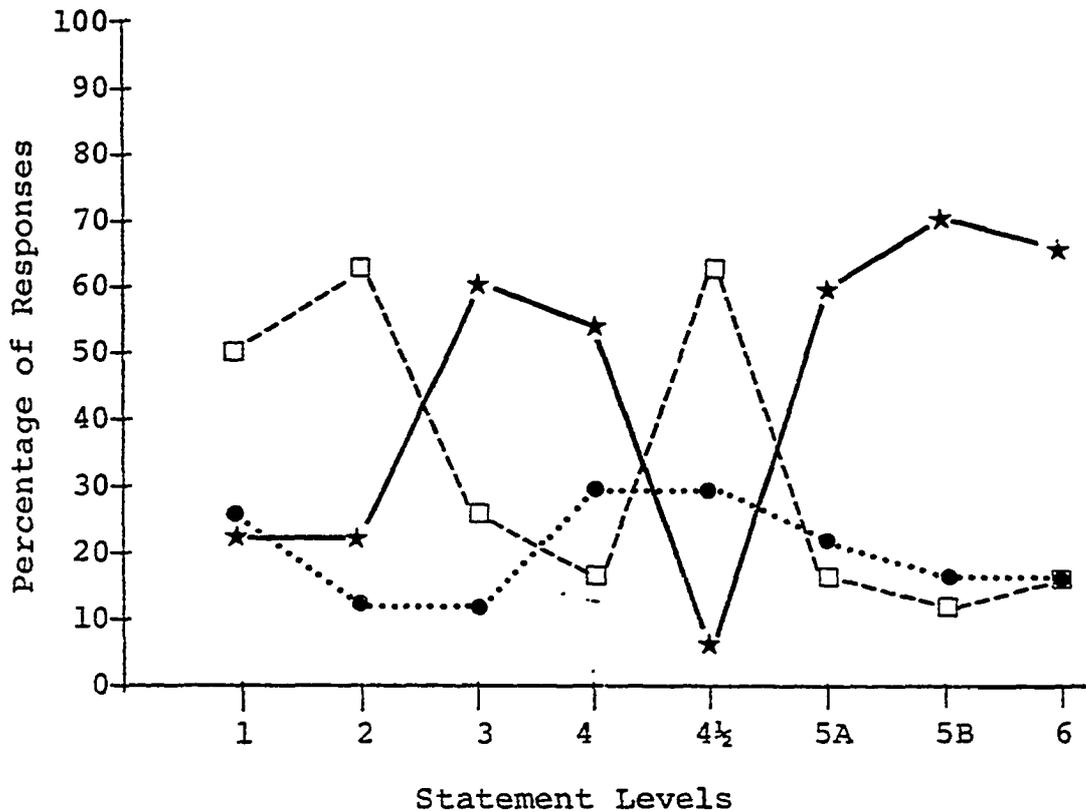


Number of Stage 3 subjects = 4

(Number of responses per statement level = 12)

★——★ latitude of acceptance
 □-----□ latitude of rejection
 ●.....● latitude of noncommitment

Figure 18
 Latitudes of Acceptance, Rejection, and Noncommitment
 for the Stage 4 Level Group



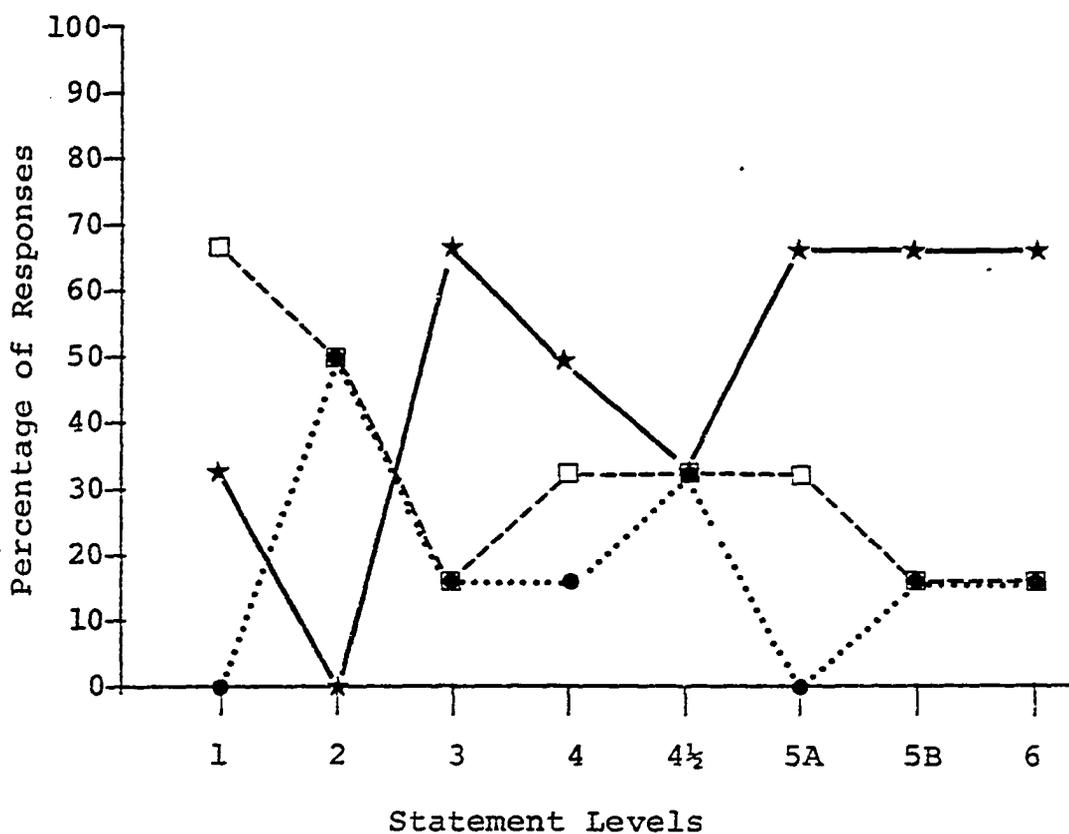
Number of Stage 4 subjects = 10

(Number of responses per statement level = 30)

★——★ latitude of acceptance
 □-----□ latitude of rejection
 ●.....● latitude of noncommitment

Figure 19

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 4½ Level Group

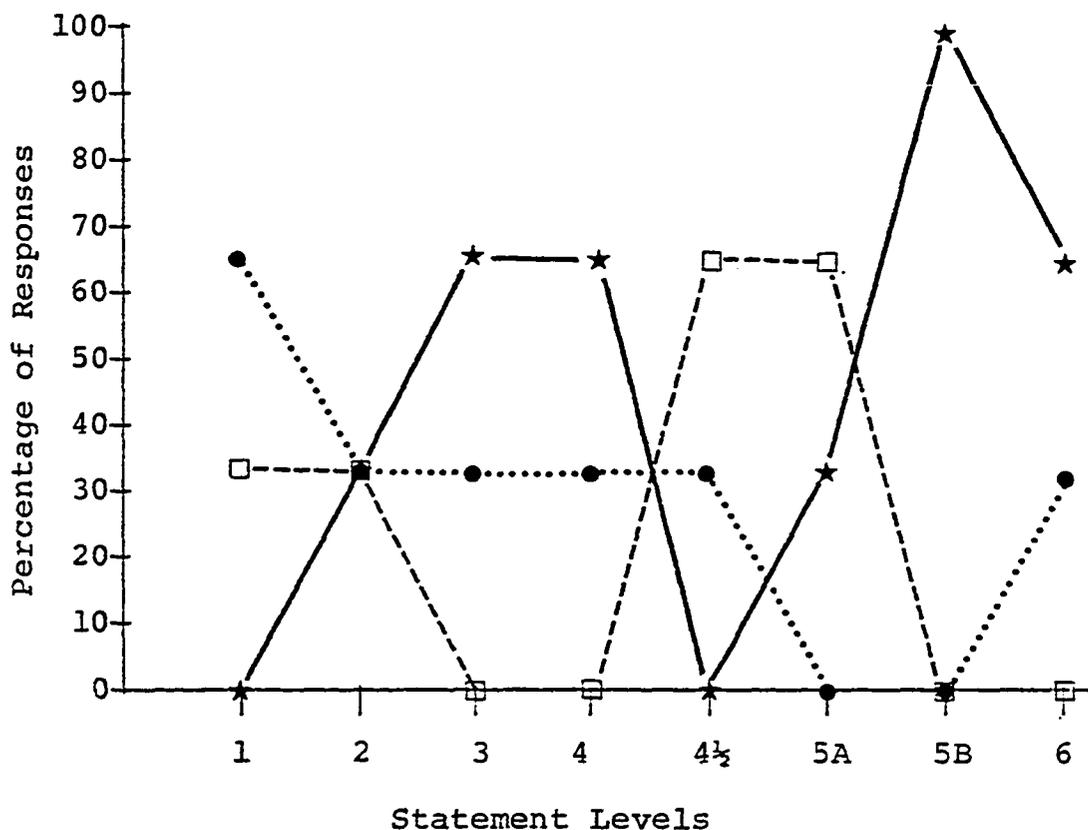


Number of Stage 4½ subjects = 2

(Number of responses per statement level = 6)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 20
 Latitudes of Acceptance, Rejection, and Noncommitment
 for the Stage 5A Level Group



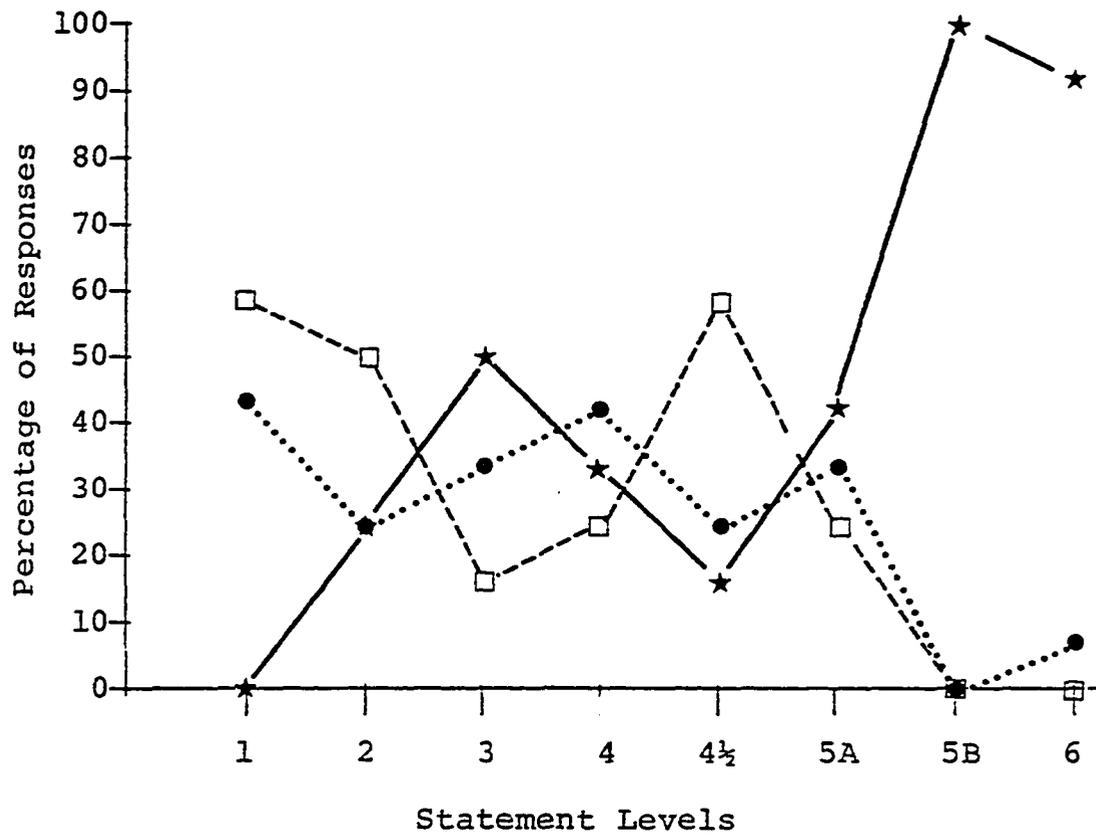
Number of Stage 5A subjects = 1

(Number of responses per statement level = 3)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 21

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 5B Level Group



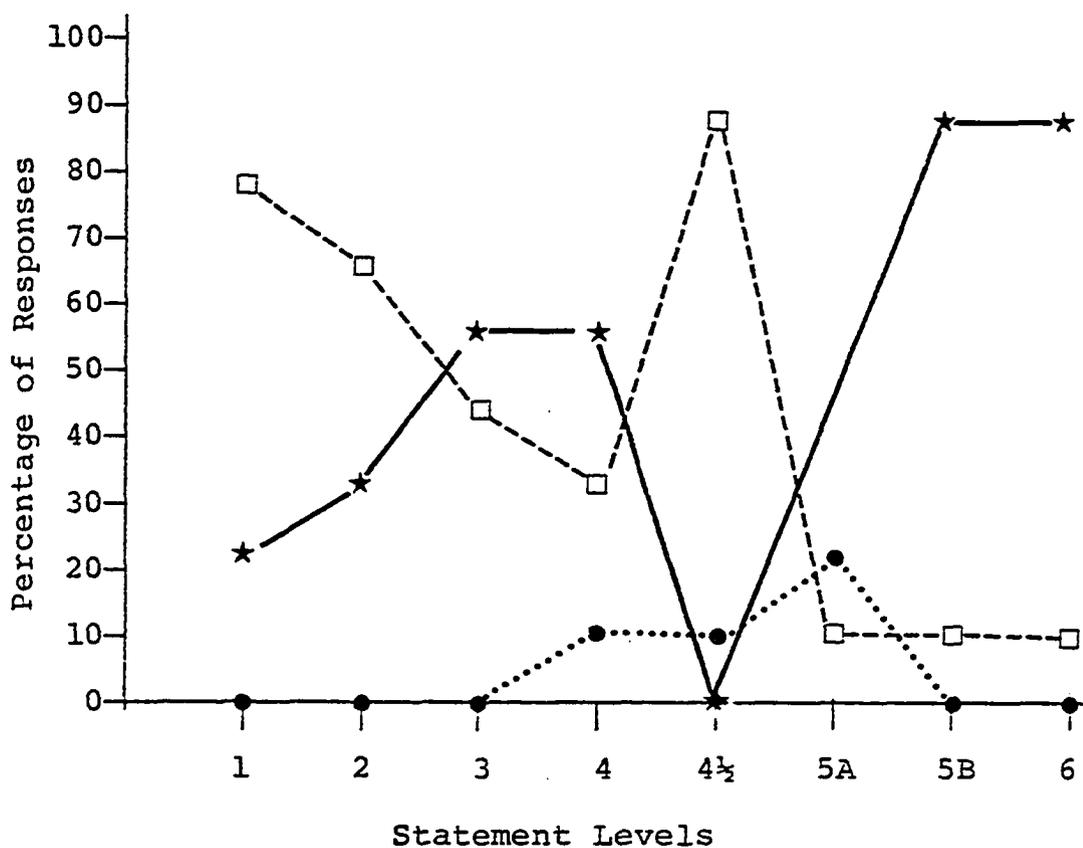
Number of Stage 5B subjects = 4

(Number of responses per statement level = 12)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 22

Latitudes of Acceptance, Rejection, and Noncommitment
for the Stage 6 Level Group



Number of Stage 6 subjects = 3

(Number of responses per statement level = 9)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Appendix K
Individual Scores on the DIT

Table 6

Individual Scores on the Defining Issues Test

Subject	Stage						A	M	P	Stage Type Values							Subject Stage Level	
	2	3	4	5A	5B	6				*2	*3	*4	*5A	*5B	*6	*A		*M
1	4	6	36	3	1	10	0	0	14	-0.036	-0.638	3.039	-1.809	-1.361	1.578	-1.016	-1.122	4
2	1	3	27	18	6	0	1	4	24	-0.854	-1.166	1.736	0.304	0.081	-1.285	-0.604	0.533	4
3	11	12	23	8	0	0	3	3	8	1.874	0.419	1.156	-1.105	-1.649	-1.285	0.218	0.119	2
4	5	6	21	20	1	4	0	3	25	0.237	-0.638	0.866	0.585	-1.361	-0.139	-1.016	0.119	-
5	1	1	9	35	3	7	0	4	45	-0.854	-1.518	-0.872	2.698	-0.784	0.719	-1.016	0.533	5A
6	3	5	19	14	12	3	1	3	29	-0.309	-0.814	0.577	-0.260	1.811	-0.426	-0.604	0.119	5B
7	5	9	15	13	7	1	4	6	21	0.237	-0.109	-0.003	-0.401	0.369	-0.998	0.630	1.360	-
8	5	10	6	21	11	0	4	3	32	0.237	0.067	-1.307	0.726	1.423	-1.285	0.630	0.119	5B
9	0	10	16	19	9	5	1	0	33	-1.127	0.067	0.142	0.445	0.946	0.147	-1.016	-0.708	-
10	4	11	25	11	2	4	0	3	17	-0.036	0.243	1.446	-0.682	-1.072	-0.139	-1.016	0.119	4
11	0	3	16	24	10	7	0	0	41	-1.127	-1.166	0.142	1.234	1.149	0.719	-1.016	-1.122	5A
12	2	7	23	11	4	5	0	8	20	-0.581	-0.461	1.156	-0.682	-0.496	0.147	-1.016	2.188	-
13	0	3	4	21	13	18	0	1	52	-1.127	-1.166	-1.596	0.726	2.099	3.869	-1.016	-0.708	6
14	8	6	30	8	1	0	2	5	9	1.056	-0.638	2.170	-1.105	-1.361	-1.285	-0.193	0.947	4
15	4	9	11	19	5	2	8	2	26	-0.036	-0.109	-0.582	0.445	-0.207	-0.712	2.275	-0.295	4½
16	5	1	17	22	7	5	0	3	34	0.237	-1.518	0.287	0.867	0.369	0.147	-1.016	0.119	-

Subject	Stage						Stage Type Values										Subject Stage Level	
	2	3	4	5A	5B	6	A	M	P	*2	*3	*4	*5A	*5B	*6	*A		*M
17	0	12	18	13	10	3	0	4	26	-1.127	0.419	0.432	-0.401	1.234	-0.426	-1.016	0.533	5B
18	7	5	21	17	5	5	0	0	27	0.783	-0.814	0.866	0.163	-0.207	0.147	-1.016	-1.122	-
19	9	5	29	9	3	0	0	5	12	1.329	-0.814	2.025	-0.964	-0.784	-1.285	-1.015	0.947	4
20	1	5	9	24	13	2	4	2	39	-0.854	-0.814	-0.872	1.149	2.099	-0.712	0.630	-0.295	5B
21	4	6	26	17	1	3	3	0	21	-0.036	-0.638	1.591	1.153	-1.361	-0.425	0.210	-1.122	4
22	5	17	10	15	5	2	4	2	22	0.237	1.300	-0.727	-0.119	-0.207	-0.712	0.630	-0.295	3
23	2	6	15	15	8	8	3	3	31	-0.581	-0.638	-0.003	-0.119	-0.658	1.006	0.218	0.119	6
24	6	1	38	3	2	3	2	5	8	0.510	-1.518	3.329	-1.809	-1.072	-0.426	-0.193	0.947	4
25	8	18	9	18	0	0	3	4	18	1.056	1.477	-0.872	0.304	-1.649	-1.285	0.218	0.533	3
26	0	6	16	22	9	6	0	1	37	-1.127	-0.638	0.142	0.867	0.946	0.433	-1.016	-0.708	-
27	0	1	15	16	13	11	4	0	40	-1.127	-1.518	-0.003	0.022	2.099	1.865	0.630	-1.122	5B
28	4	12	25	7	3	5	0	4	15	-0.036	0.419	1.466	-1.246	-0.784	0.147	-1.016	0.533	4
29	7	6	21	16	4	2	2	2	22	0.783	-0.638	0.866	0.022	-0.496	-0.712	-0.193	-0.295	-
30	3	14	22	9	2	3	4	3	14	-0.309	0.772	1.011	-0.964	-1.072	-0.426	0.630	0.119	4
31	0	5	8	18	10	9	2	8	37	-1.127	-0.814	-1.017	0.304	1.234	1.292	-0.193	2.100	6
32	0	10	29	12	4	2	3	0	18	-1.127	0.067	2.025	-0.541	-0.496	-0.712	0.218	-1.122	4
33	1	7	10	22	7	10	0	3	39	-0.854	-0.461	-0.727	0.867	0.369	1.578	-1.016	0.119	6
34	0	16	12	12	8	3	4	5	23	-1.127	1.124	-0.437	-0.541	0.658	-0.426	0.630	0.947	3

Subject	Stage									Stage Type Values							Subject Stage Level	
	2	3	4	5A	5B	6	A	M	P	*2	*3	*4	*5A	5B*	*6	*A		*H
35	5	1	20	15	2	2	1	6	19	0.237	-1.518	1.880	-0.119	-1.072	-0.712	-0.604	1.360	4
36	5	13	29	4	5	1	0	3	10	0.237	0.596	2.025	-1.668	-0.207	-0.998	-1.016	0.119	4
37	7	22	16	10	1	0	2	2	11	0.783	2.181	0.142	-0.823	-1.361	-1.285	-0.193	-0.295	3
38	1	12	18	19	3	2	5	0	24	-0.854	0.419	0.432	0.445	-0.784	-0.712	1.041	-1.122	4½

Appendix L

The SJI with Revised Instructions

OPINIONS ABOUT SOCIAL PROBLEMS

Name: _____ Date: _____

In this questionnaire you will be asked to give your opinions about several stories. The aim of this questionnaire is understanding how people think about different social problems.

After reading through a short story and a list of reasons for making a decision that follow the story, you are to complete the following steps:

1. Put MA (meaning most acceptable) in front of the one statement that you feel is the most acceptable reason for making the decision. Each story must have one and only one MA.
2. Put MO (meaning most objectionable) in front of the one statement you feel is the most objectionable reason for making your decision. Each story must have one and only one MO.
3. Put A (meaning acceptable) in front of any other statements you feel are acceptable reasons for making your decision. You may have 0 to 6 A s for each story.
4. Put O (meaning objectionable) in front of any other statements you feel are not acceptable reasons for making your decision. You may have 0 to 6 O s for each story.
5. If you have statements left over that you cannot label either acceptable or objectionable, leave them blank (meaning they are neutral).

Below is a sample story and a list of reasons for making a decision. The responses have been marked as an example of how a completed page might look.

SAMPLE STORY

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.

REASONS FOR MAKING THE DECISION

- O 1. Whether the car dealer was in the same block as where Frank lives.
- MA 2. Would a used car be more economical in the long run than a new car.
- A 3. Whether the color was green, Frank's favorite color.
- MO 4. Whether the cubic inch displacement was at least 200.
- A 5. Would a large, roomy car be better than a compact car.
- _____ 6. Whether the front connibilities were differential.
- O 7. Whether the car had sport wheels or not.
- A 8. Whether air conditioning was really necessary.

If you have any questions at this point, raise your hand, and the examiner will give you assistance. If not, continue the questionnaire.

REMEMBER--

- MA = most acceptable reason; you must mark one for each story
MO = most objectionable reason; you must mark one for each story
A = acceptable reasons; mark as many as apply
O = objectionable reasons; mark as many as apply
 _____ = neutral reasons

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

REASONS FOR MAKING THE DECISION

1. Whether Heinz considers that criminals always get caught in the long run.
2. Whether Heinz could steal the drug and get away with it.
3. Whether it is natural for a loving husband to care so much for his wife that he'd steal.
4. Whether a community's laws are going to be upheld.
5. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
6. Would a majority of the people in Heinz's community feel that Heinz is justified in stealing the drug.
7. Whether by stealing the drug Heinz would be following a moral belief he feels is above the law.
8. Are there higher principles that must be followed when a human life is involved.

IMPORTANT--COMPLETE THE FOLLOWING STEPS:

Mark one (and only one) MA on the reason you feel to be the most acceptable.

Mark one (and only one) MO on the reason you feel to be the most objectionable.

Mark A by all other reasons you feel are acceptable for making the decision.

Mark O by all other reasons you feel are objectionable for making the decision.

Leave blank the statements you have left over (i.e. _____=neutral).

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 Should not report him Can't decide

REASONS FOR MAKING THE DECISION

1. Doesn't Mrs. Jones realize that criminals must pay for breaking the law.
2. Would it be worth while for Mrs. Jones to go through all the problems associated with having to report Mr. Thompson.
3. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person.
4. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances.
5. Wouldn't we be better off without prisons and the oppression of our legal systems.
6. How would the will of the people and the public good best be served.
7. Although societal rules are important, there are times when consideration of the individual involved must rule what a person should do.
8. Whether Mr. Thompson needs to be judged with higher principles that take into account all his actions.

IMPORTANT--COMPLETE THE FOLLOWING STEPS:

Mark one (and only one) MA on the reason you feel to be the most acceptable.

Mark one (and only one) MO on the reason you feel to be most objectionable.

Mark A by all other reasons you feel are acceptable for making the decision.

Mark O by all other reasons you feel are objectionable for making the decision.

Leave blank the statements you have left over (i.e. ___ = neutral).

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

REASONS FOR MAKING THE DECISION

1. Has the principal considered that his oral agreement may be considered a legal contract and he is breaking the law.
2. Would the students start protesting even more if the principal stopped the newspaper.
3. Whether Fred was using the newspaper to stir up hatred and discontent.
4. Is the principal following the rules as set out by the governing body of the school.
5. Whether the principal should be allowed to make this type of decision that only serves his own interest.
6. By stopping the newspaper would the principal be following what the majority of the people (both students and adults) in the community want.
7. What effect would stopping the paper have on the student's education in critical thinking and judgments.
8. Is stopping the paper consistent with principles of justice.

IMPORTANT--COMPLETE THE FOLLOWING STEPS:

Mark one (and only one) MA on the reason you feel to be the most acceptable.

Mark one (and only one) MO on the reason you feel to be most objectionable.

Mark A by all other reasons you feel are acceptable for making the decision.

Mark O by all other reasons you feel are objectionable for making the decision.

Leave blank the statements you have left over (i.e. = neutral).

Appendix M

Advice Statements Used in Treatment Sessions

Advice Statements for the Heinz StoryStatements at Stage 2

Advice 1. The druggist can do what he wants and Heinz can do what he wants to do. It's up to each individual to do what he wants with what he has. But if Heinz decides to risk jail to save his wife, it's his life he's risking; he can do what he wants with it. And the same goes for the druggist; it's up to him to decide what he wants to do.

Advice 2. Stay within the law and you can save yourself a lot of trouble. Some laws are pretty stupid, but if you don't obey them, you might get caught and have to pay a fine or spend some time in jail.

Statements at Stage 3

Advice 1. It is definitely wrong to steal the drug. Heinz knows this deep down inside, but at this point he is desperate. There seems to be no other way. Heinz's wife has to have the drug. There is nothing to do but steal it. It's wrong, but desperate men do many bad things in times of stress. Maybe he could go to the authorities to try and get it or search for another way to persuade the druggist to let him have the drug. Legally he is not justified in stealing.

Advice 2. If you were so heartless as to let your own wife die, you would feel terrible and everybody would really think you were inhuman. It would be terrible to think of what you allowed to happen to your own wife and what she must have thought when she realized you weren't going to save her.

Statements at Stage 4

Advice 1. Yes, if he were prepared to suffer the consequences of stealing, that is, to go to jail. He should steal the drug and give it to his wife and then inform the legal authorities of his stealing.

Advice 2. It is a natural thing for Heinz to want to save his wife, but it's still always wrong to steal. You have to follow the rules regardless of how you feel or regardless of the special circumstances. Even if his wife is dying, it's still his duty as a citizen to obey the law. No one else is allowed to steal, why should he be? If everyone starts breaking the law in a jam, there'd be no civilization, just crime and violence.

Statements at Stage 5

Advice 1. The law represents the basis of how people have agreed to live with each other. By continuing to live in that society, he has agreed to respect and maintain its laws. Heinz has to respect the general will of his society as it is set down in the law. The law represents the basis of how people have agreed to live with each other.

Advice 2. Heinz should steal the drug. Since the purpose of law in general is the protection of life, or the right to live. That is, Heinz was not violating the purpose behind the law. We must consider the welfare of the society as a whole, but also a major component of that welfare is the protection of the individuals. Therefore, a person sometimes has to follow

his own convictions to see to it that these rights are upheld.

Statements at Stage 6

Advice 1. Where the choice must be made between disobeying a law and saving a human life, the higher principle of preserving life makes it morally right--not just understandable--to steal the drug. If Heinz does not do everything he can to save his wife, then he is putting some value higher than the value of life. By not acting in accordance with your sense of the value of human life, you would condemn yourself; you would know that you have betrayed your own moral integrity.

Advice 2. He's operating out of a value of human life. It's a higher principle. He's recognized that there are other kinds of values, but he's saying the value of life is higher than these. I think he's making judgments out of principles. If I didn't act in accord with this value, it isn't that I'd feel bad because I'm supposed to feel bad, or because of the loss I have had, or because of what other people think of me or a judgment outside of myself. Betrayal by your own moral integrity implies, one, that I organize in my life some system of principles and values, that I live consistently out of these values--or try to live consistently out of these values--and that these values and principles then become organized into really who I am, and how I live, and who man is in this world. And to violate these principles then is to violate my integrity, which is to violate my whole person, and mankind too for that matter.

Advice Statements for the Prisoner StoryStatements at Stage 2

Advice 1. Because it is none of Mrs. Jone's business, I would tell her that it is up to her. If she can't make up her mind, nothing will happen to her. She would just be minding her own business if she didn't report him--plus maybe she didn't want to get into trouble.

Advice 2. Cops don't care if you report anyway--they don't check up on all crimes. That thing happened almost 10 years ago and they have all forgotten about it. No--it's dumb to report something that happened 10 years ago.

Statements at Stage 3

Advice 1. It is a good citizen's duty to report Thompson, since he has done something wrong. People who aren't good citizens don't care about their city and they never report anything that is wrong.

Advice 2. No, she should not report him. Mr. Thompson has worked more for people than for himself. He didn't hurt anyone but he helped many people.

Statements at Stage 4

Advice 1. No, she shouldn't report Mr. Thompson, because he paid his debt to society. I think by helping those in need and by giving benefits to his workers he has really helped others out. It seems he has payed back for the thing he had done earlier.

Advice 2. A citizen should report every crime that could infringe on anyone's rights. A good citizen should not take the law into his hands and say whether Thompson should or shouldn't go to prison. Mrs. Jones has a right as a citizen and member of society to uphold the law.

Statements at Stage 5

Advice 1. I think yes. Knowing the background of the situation I think a responsible citizen should if he knew the situation. Well, because we all depend on each other for an orderly society and every man is making his own decisions about the laws and which ones to obey and which ones not to obey and there are situations and maybe this is one of them where it is a little tougher, but basically if there are extenuating circumstances such as there are in this story, I think it is best for the society and the courts to decide and not for an individual like Mrs. Jones. A decision on a situation like this should be made by the institutions of society and not by individuals, otherwise you have people with different standards, making independent decisions and you have inconsistencies of treatments, you don't have a consistent system of justice.

Advice 2. No. Not only has the statute of limitations for jailbreak probably run out, but Mrs. Jones should realize that by telling the police, who would it help? Certainly not Thompson who has no doubt "reformed" his "evil ways." If Mrs. Jones knows anything about Thompson's case, she would realize that only bad would come out of reporting him. Doing what the

law says does not, per se, make a person a good citizen. There is a higher form of good citizenship. Does it benefit the person who would be punished? Does it benefit the society from which that person would be separated? Is the law just, proper and precisely fulfilling those purposes for which it was conceived? Is the citizen's own judgment properly objective, does he know the relevant facts and the nuances of the individual's case? What would be the negative results of following the law or one's own judgment? Do these negative results outweigh the positive or vice versa?

Statement at Stage 6

Advice 1. In deciding whether to turn Mr. Thompson in, Mrs. Jones has more to consider than just following the law. She must look rationally and ethically at the whole situation. Like in the judicial system, if a group of rational people would agree that Mr. Thompson would serve society best as a free man, then that should be her decision. Sometimes you have to go with principles that are above the law.

Advice 2. This is a very difficult decision to make. I can see that Mrs. Jones might not report him because in the true sense of the word, that might better serve justice in Mr. Thompson's case. She might feel she has an obligation to judge him for himself rather than what the law or society says. Sometimes the law which really comes from principles of justice does not really serve justice. She must make her decision with this in mind.

Appendix N

Tables Relevant to Statistical Analyses

Table 7
 One-way Analyses of Variance for Conventional and
 Post-Conventional Groups on Five Dependent Variables

Dependent Variable	Source	df	Mean Squares	F	p
Most Acceptable Item	Between Groups	1	97.59	11.23	.002
	Within Groups	44	8.69		
	Total	45			
	Group	N	Mean	S.D.	
	Conventional	23	17.22	2.73	
	Post-Conventional	23	20.13	3.15	
Most Objectionable Item	Between Groups	1	46.00	5.09	.029
	Within Groups	44	9.03		
	Total	45			
	Group	N	Mean	S.D.	
	Conventional	23	11.57	2.92	
	Post-Conventional	23	9.57	3.09	
Size of Latitude of Acceptance	Between Groups	1	.78	.10	.749
	Within Groups	44	7.57		
	Total	45			
	Group	N	Mean	S.D.	
	Conventional	23	12.65	2.72	
	Post-Conventional	23	12.91	2.77	

Dependent Variable	Source	df	Mean Squares	F	p
Size of Latitude of Rejection	Between Groups	1	.09	.02	.899
	Within Groups	44	5.40		
	Total	45			
	Group	N	Mean	S.D.	
	Conventional	23	8.26	1.74	
	Post-Conventional	23	8.35	2.79	
Size of Latitude of Noncommitment	Between Groups	1	1.39	.21	.646
	Within Groups	44	6.51		
	Total	45			
	Group	N	Mean	S.D.	
	Conventional	23	3.09	2.64	
	Post-Conventional	23	2.74	2.45	

Table 8

Tukey's HSD Test on DIT Change Scores

Condition	Mean	-1	0	+1	+2
-1	14.4		.6	1.7	.9
0	15.0			2.3	1.5
+1	12.7				.8
+2	13.5				

HSD level to exceed at the .05 level = 7.23

Table 9

Tukey's HSD Test on the MA, LA, and LR for the
Heinz and Prisoner Stories

Story	Condition		Mean	-1	0	+1	+2
Heinz	MA	-1	10.5		.2	1.6	.2
		0	10.3			1.4	.4
		+1	8.9				1.8
		+2	10.7				
(HSD level to exceed at the .05 level = 2.74)							
Heinz	LA	-1	9.0		1.4	1.2	1.1
		0	10.4			.2	.3
		+1	10.2				.1
		+2	10.1				
(HSD level to exceed at the .05 level = 1.57)							
Heinz	LR	-1	9.4		.5	.3	.4
		0	9.9			.2	.1
		+1	9.7				.1
		+2	9.8				
(HSD level to exceed at the .05 level = 1.17)							

Story	Condition		Mean	-1	0	+1	+2
Prisoner	MA	-1	10.2		.4	.3	0.0
		0	10.6			.1	.4
		+1	10.5				.3
		+2	10.2				
(HSD level to exceed at the .05 level = 2.66)							
Prisoner	LA	-1	9.7		.2	0.0	.8
		0	9.9			.2	.4
		+1	9.7				.2
		+2	10.5				
(HSD level to exceed at the .05 level = 2.51)							
Prisoner	LR	-1	9.9		.1	.4	.1
		0	10.0			.5	.2
		+1	9.5				.3
		+2	9.8				
(HSD level to exceed at the .05 level = 1.48)							

Table 10

Tukey's HSD Test on the Evaluation of Advice for the
Heinz and Prisoner Stories

Story	Condition	Mean	-1	+1	+2
Heinz	-1	21.6		2.2	.6
	+1	23.8			2.8
	+2	21.0			
Prisoner	-1	17.1		6.7*	5.6*
	+1	23.8			1.1
	+2	22.7			

*p < .05

HSD level for Heinz story to exceed at .05 level = 3.38

HSD level for Prisoner story to exceed at .05 level = 4.14

Table 11

Tukey's HSD Test on Posttest DIT Scores

Condition	Mean	Treatment	Pretest- Posttest	Posttest
Treatment	19.5		1.9	3.6
Pretest-Posttest	21.4			5.5
Posttest	15.9			

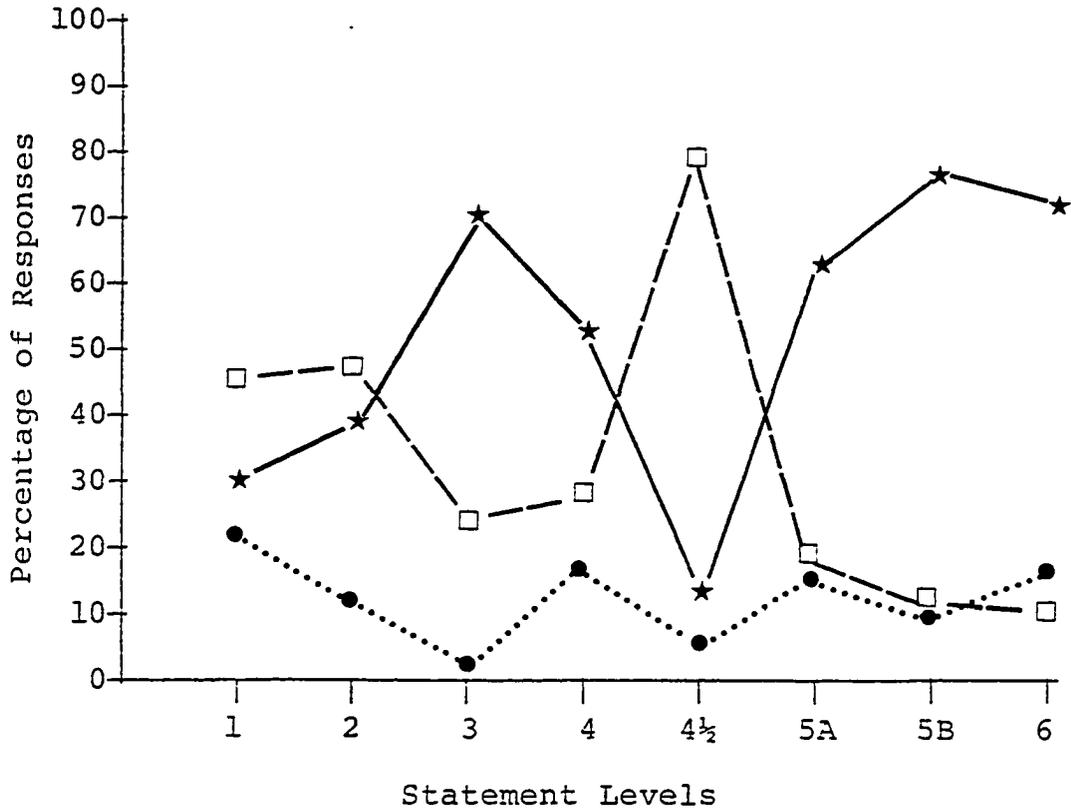
HSD level to exceed at the .05 level = 7.13

Appendix O

Figures Representing Conventional and Post-Conventional
Latitudes of Acceptance, Rejection, and Noncommitment

Figure 23

Latitudes of Acceptance, Rejection, and Noncommitment for the
Conventional Stages



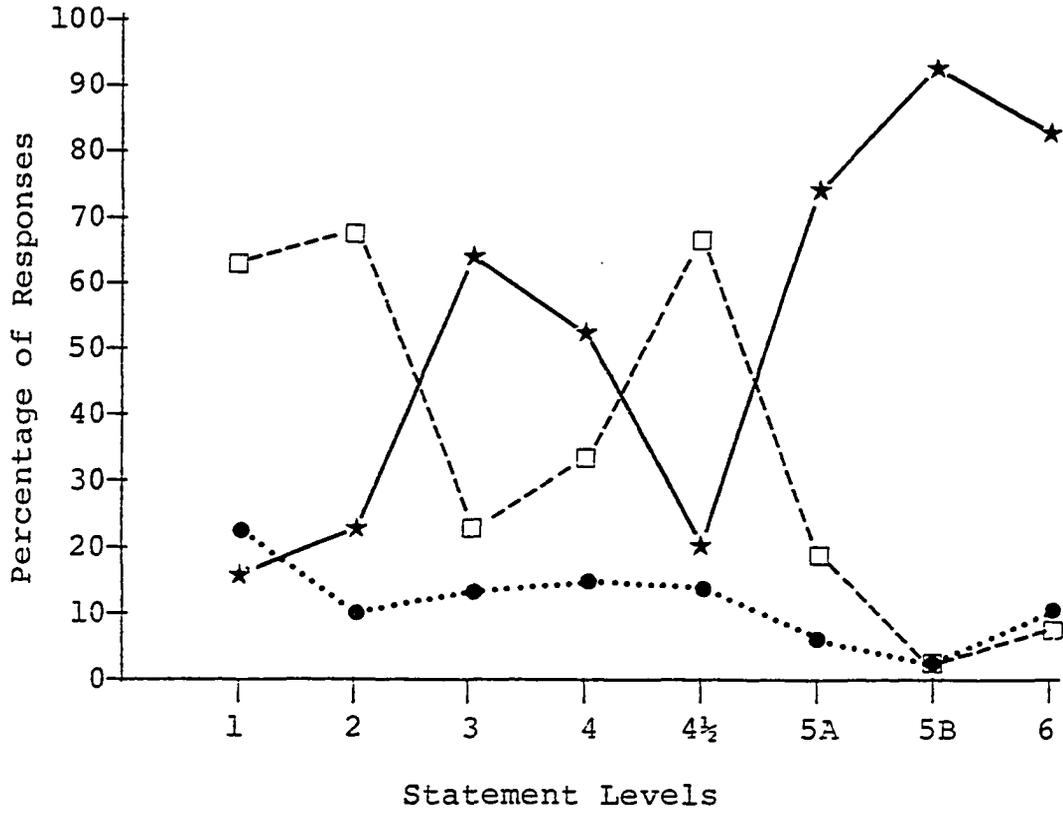
Number of Conventional subjects = 23

(Number of responses per statement level = 69)

- ★——★ latitude of acceptance
- latitude of rejection
-● latitude of noncommitment

Figure 24

Latitudes of Acceptance, Rejection, and Noncommitment
for the Post-Conventional Stages



Number of Post-Conventional subjects = 23

(Number of responses per statement level = 69)

- ★ ——— ★ latitude of acceptance
- - - - - □ latitude of rejection
- ● latitude of noncommitment

Appendix P

Abstract

ABSTRACT

This study applied the constructs of the social judgment-involvement theory to Kohlberg's moral developmental theory in order to investigate reasoning at different stage levels and to provide a model for explaining change from one level to the next.

The investigation was in two parts. First, 100 students in Education undergraduate classes were tested on the Defining Issues Test (DIT), which produces a principled score and stage types the individual, and on the Social Judgment Instrument (SJI), which produces most acceptable and most objectionable items, and latitudes of acceptance, rejection, and noncommitment on several moral issues. The students were classified into different moral stages based on the DIT and compared in terms of their social judgments on the SJI both in terms of line graphs and a series of analyses of variance. Results indicated that there was a significant difference between students in the conventional level of moral development and those in the post-conventional level in terms of the most acceptable and most objectionable SJI items. These differences were in the predicted direction, with students at the post-conventional level having higher stage level statements as

most acceptable and lower stage level statements as most objectionable than did the conventional students.

The second part of the study investigated changes in both moral reasoning and social judgments. Students read and listened to pieces of advice that represented solutions to two of the moral dilemmas in the SJI and DIT. The sets of advice were either one stage below (-1), one stage above (+1), or two stages above (+2) the student's own level, based on the treatment condition that student was randomly assigned to. The three treatment groups plus a control group, that heard no advice, were compared on change scores on the DIT and SJI and on a rating scale of the advice that they heard (Evaluation of the Advice - EOA). Predictions based on moral development literature were that the plus-one condition students would change more on the DIT and on the SJI. Also, it was predicted that students in the +1 condition would evaluate the advice they heard more highly due to an assimilation effect. The results indicated no significant differences between the treatment conditions in terms of change on either the DIT or SJI. Higher evaluations (EOA) were, however, shown for students in the +1 and +2 conditions when compared to the -1 condition on one of the dilemmas. Therefore, only partial support was found for the predictions based on previous moral development research.

The results of this study provides only partial support for the application of social judgment constructs to the area of moral development. However, the social judgment theoretical area of attitude and attitude change is one that has been thoroughly researched over the years and is one that should provide insights into moral development. It was suggested that future research in this area include other social judgment constructs such as level of ego-involvement, different sources of the communication, etc., to further investigate the possible relationships between moral development and social involvement theory.

Appendix Q
Proportion Tests

Table 12
 Proportion Tests on Stage Level Statements
 For Different Latitudes (N = 23)

Statement Level & Latitude	Story	Statement Inclusion	Conventional	Post-Conventional	\underline{z}
Stage 1	Heinz	Included	5	3	
LA		Not Included	18	20	.778
	Prisoner	Included	10	3	
		Not Included	13	20	-2.292*
	Newspaper	Included	6	5	
		Not Included	17	18	.346
Stage 2	Heinz	Included	8	4	
LA		Not Included	15	19	-1.343
	Prisoner	Included	3	0	
		Not Included	20	23	-1.194
	Newspaper	Included	16	12	
		Not Included	7	11	-1.208
Stage 2	Heinz	Included	12	16	
LR		Not Included	11	7	1.208

Statement Level & Latitude	Story	Statement Inclusion	Conventional	Post-Conventional	\bar{z}
Stage 2	Prisoner	Included	17	23	
LR		Not Included	6	0	2.627*
	Newspaper	Included	5	7	
		Not Included	18	16	.672
Stage 3	Heinz	Included	2	5	
LNC		Not Included	21	18	1.231
	Prisoner	Included	0	1	
		Not Included	23	22	1.011
	Newspaper	Included	0	3	
		Not Included	23	20	1.791
Stage 5A	Heinz	Included	4	2	
LNC		Not Included	19	21	-.876
	Prisoner	Included	4	1	
		Not Included	19	22	-1.421
	Newspaper	Included	3	1	
		Not Included	20	22	-1.047

Statement Level & Latitude	Story	Statement Condition	Conventional	Post-Conventional	\underline{z}
Stage 5A LA	Heinz	Included	13	12	
		Not Included	10	11	-.296
	Prisoner	Included	16	22	
		Not Included	7	1	2.334*
	Newspaper	Included	15	18	
		Not Included	8	5	.982
Stage 5B LR	Heinz	Included	4	1	
		Not Included	19	22	-1.421
	Prisoner	Included	1	1	
		Not Included	22	22	.000
	Newspaper	Included	3	0	
		Not Included	20	23	-1.791

* $\underline{p} < .05$

Table 13

Stage Level & Latitude	Story	Statement Inclusion	Statement Stage Level		<u>z</u>
			3	4	
Stage 3 LA	Heinz	Included	11	4	
		Not Included	10	7	-3.204*
	Prisoner	Included	10	6	
		Not Included	1	5	-1.915
	Newspaper	Included	6	5	
		Not Included	5	6	-.426
Stage 3 LNC	Heinz	Included	0	5	
		Not Included	11	6	2.544*
	Prisoner	Included	0	0	
		Not Included	11	11	.000
	Newspaper	Included	0	1	
		Not Included	11	10	1.024
Stage 5B LA	Heinz	Included	10	10	
		Not Included	1	1	.000
	Prisoner	Included	10	9	
		Not Included	1	2	-.621

Stage Level & Latitude	Story	Statement Inclusion	<u>Statement</u> 5B	<u>Stage Level</u> 6	<u>z</u>
Stage 5B	Newspaper	Included	10	7	
LA		Not Included	1	4	-1.526

* = $\underline{p} < .05$