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The Effect of ROTC Training on Moral Development in a College Population

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The present study was conducted to determine the effects of ROTC training on the moral development of college students. Sixty college subjects were assigned to one of four groups based on their year of schooling and participation or non-participation in ROTC training: ROTC upperclass, ROTC freshmen, college upperclass, or college freshmen. Subjects were administered the Rest Defining Issues Test to determine stage scores of moral reasoning. A 2 x 2 x 2 repeated measures analysis of variance was performed on stage scores for conventional and principled levels of moral reasoning. This analysis revealed

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that the ROTC students scored significantly higher than the non-ROTC students at both levels of moral reasoning (F [1,44] = 11.67, p <.01) and that upperclassmen scored higher than freshmen (F [1,44] = 5.99, p <.05). Subsequent analysis of group means indicated that ROTC students have higher percent scores on the DIT at the conventional level than their college counterparts for both freshmen (t [22] = 4.22, p <.001) and upperclass (t [22] = 6.68, p <.001). When compared on principled reasoning level, the ROTC freshmen scored significantly higher than the college freshmen (t [22] = 2.15, p <.05), but the difference between upperclass groups was non-significant. ROTC training appears to have no discernible effect on principled level of moral reasoning beyond that of a normal college education; however, it apparently promotes a higher regard for a conventional level of moral reasoning among its students.

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THE EFFECT OF ROTC TRAINING ON MORAL DEVELOPMENT IN A COLLEGE POPULATION

A Thesis

Presented in Partial Fulfillment of the Requirements for the

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in the

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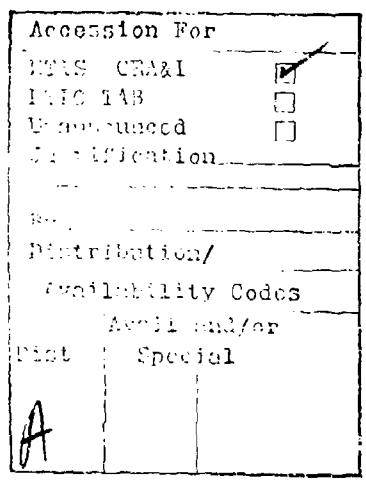

by

WILLIAM JOSEPH WATTENDORF

April 1981

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ABSTRACT

The present study was conducted to determine the effects of ROTC training on the moral development of college students. Sixty college subjects were assigned to one of four groups based on their year of schooling and participation or non-participation in ROTC training: ROTC upperclass, ROTC freshmen, college upperclass, or college freshmen. Subjects were administered the Rest *Defining Issues Test* to determine stage scores of moral reasoning. A 2 x 2 x 2 repeated measures analysis of variance was performed on stage scores for conventional and principled levels of moral reasoning. This analysis revealed that the ROTC students scored significantly higher than the non-ROTC students at both levels of moral reasoning (F [1,44] = 11.67, p <.01) and that upperclassmen scored higher than freshmen (F [1,44] = 5.99, p <.05). Subsequent analysis of group means indicated that ROTC students have higher percent scores on the DIT at the conventional level than their college counterparts for both freshmen (t [22] = 4.22, p <.001) and upperclass (t [22] = 6.68, p <.001). When compared on principled reasoning level, the ROTC freshmen scored significantly higher than the college freshmen (t [22] = 2.15, p <.05), but the difference between upperclass groups was non-significant. ROTC training appears to have no discernible effect on principled level of moral reasoning beyond that of a normal college education; however, it apparently promotes a higher regard for a conventional level of moral reasoning among its students.

INTRODUCTION

The development of principled moral reasoning in military leaders is an objective of special interest to the citizens of a democratic society. In this study, the author has attempted to provide some initial data on the effect of "Officer Training" conducted by the military at a civilian university--the University of Idaho. Subjects participating in the study were enrolled in the Naval ROTC program at the University. A control group was established from a matched group of college students not so enrolled. Two major concerns were investigated by this study: (1) The comparative level of moral reasoning exercised by freshmen enrolled in NROTC as compared to other college freshmen at the same university; and (2) The level of moral reasoning displayed by seniors completing the NROTC program as compared to a control group of other college seniors.

A finding of significant moral development and principled levels of moral reasoning among NROTC seniors would support the notion that moral reasoning is advanced by leadership training. A finding of little or no moral development during a program of officer training would provide impetus to the development of a program designed to enhance the development of moral reasoning. The control group will aid in isolating the specific effects of the ROTC training on moral development.

The ability to reason at a principled level of moral development is essential if blind obedience to authority is not to be the governing factor in the moral decisions made by our military leaders. History is replete with examples of the price we must pay for such 'moral' reasoning. The Nuremberg Trial of Nazi war criminals was a de facto condemnation of such 'morality.' Eichmann gave us a defense of his actions the reasoning: "I carried out my orders. . . . Where would we have been if everyone had

thought things out in those days?" The standards of justice that held an Eichmann or a Calley accountable to laws of respect for human life and dignity, despite the demands of their superiors, reveal a profound sense of what is moral, and that morality is not mere compliance with authority. Thus, it would appear that our responsibility not only to society, but to the individual, requires us to assure that any individual placed in a position of leadership and responsibility have as requisite knowledge the ability to reason at a principled level of morality. This ability to reason at an advanced level of moral development does not predict an individual's specific behavior, but rather assures an ability to analyze a situation in terms that will at least take into account the moral implications of any action. To do less is an injustice to all concerned.

The cornerstones of the military have often been identified as "discipline and obedience." I would contend that an equally relevant characteristic of a military organization is moral leadership. The first step in assuring that we have such leadership in our military is the measurement of the effectiveness of current leadership training in promoting moral growth. That is the goal of this study.

Moral Development

The study of moral development has proceeded along various avenues of research depending on certain underlying theoretical considerations. These variations in theoretical concepts of morality have profound implications for every aspect of one's conception and investigation of moral reasoning and behavior. H. J. Eysenck, in his book *Crime and Personality*, develops the theory of conscience as a "conditioned reflex." He develops a biological approach, which emphasizes the importance of cortical arousal

to "conditionability," and thereby to the development of conscience and moral reasoning. A purely social perspective of morality is developed by L. Berkowitz in a 1964 book entitled *Development of Motives and Values in a Child*. He defines moral values as the evaluation of actions believed by members of a society to be "right." This approach places morality squarely in the arena of conformity and raises a serious problem of having to identify the behavior of a loyal Nazi in the Third Reich as being moral. The fact that mere compliance with social expectations cannot define the upper levels of human morality is acknowledged by psychologists such as Justin Aronfreed and Harriet Mischel who seek to integrate social-learning theory with what is known about the complexities of cognitive-moral development. They make the distinction between "internalized control of conduct" which is nonevaluative, and control involving "moral decision-making" (Lickona, 1976). As we progress from a biological to social to cognitive approach to moral development, we encounter Lawrence Kohlberg, an individual who has had a profound effect on the entire field of moral development. Kohlberg is virtually the only contemporary psychologist to embrace philosophy as an essential ingredient in defining what is moral as the first step required in any study of moral development (Lickona, 1976). In a 1971 work entitled "From Is to Ought," Kohlberg argues that it is only the "epistemological blinders of logical positivism and behaviorism (equating knowing with learning and learning with behavior) that have prevented psychologists from seeing that the concept of morality is itself a philosophical (ethical) concept rather than a behavioral concept."

The theoretical perspectives taken in the study of moral development cover a broad spectrum of approaches, each defining morality in its own

terms and each defining different attributes necessary for the development of higher levels of moral reasoning. In the next section, we will take a brief look at three major theories of moral development and then examine in greater detail the cognitive-developmental theory proposed by Kohlberg and upon which this research will be based.

A Psychoanalytic Approach to Moral Development

The psychoanalytic approach has various proponents; as an exemplar of this approach, let us look at the work of Dr. James Gilligan, author of a work entitled *Beyond Morality: Psychoanalytic Reflections on Shame, Guilt, and Love*.

> Morality is dead. It killed itself; the self-criticism moral philosophy subjected itself to over the past two centuries left it no honest choice but to recognize that the only knowledge possible is of scientific facts, not of moral values.

In the light of psychoanalytic perspective, moralistic value judgements and condemnations are replaced by psychological understanding. Through psychoanalysis it became possible to study moral experience, defined in terms of: affects, reasoning, and behavior, empirically as a phenomenon of human psychology. Thus, it is maintained that with the psychoanalytic investigation of neurosis, the study of morality first passed from a philosophical to a scientific scrutiny.

Psychoanalytic theory of the affective sources of morality has centered on the endpoint, or highest stage, of moral development, guilt, and the morality derived from that affect. The precursor of guilt, the affect of shame is identified as the emotion that is of greatest importance in the moral experience of most people. Shame is defined as those feelings

of inferiority, humiliation, embarrassment, inadequacy, disgrace; the feeling of being vulnerable to, or actually experiencing, ridicule, contempt, or rejection. Guilt is defined as the feeling of having committed a sin or an injustice; the feeling of culpability; and the feeling of needing expiation and deserving punishment. Morality is identified as a necessary but immature stage of affective and cognitive development, so that fixation at the moral stage represents developmental retardation and regression to it represents psychopathology. Moral beliefs and value judgements are seen merely as a reflection of the underlying affects of shame and guilt. Moral judgements are motivated by the feelings of shame and guilt, and in turn, reinforce those feelings.

Freud saw guilt feelings as the cause of ethics and ethics as "a therapeutic attempt . . . an endeavour to achieve, by means of a command of the super ego, something which has so far not been achieved by means of any other cultural activities" (Freud, 1930). A developmental theory is posited by psychoanalytic theorists that divides each of the three psychosexual stages (oral, anal, and phallic) into two phases; the earlier one associated with shame and the latter one with guilt. Various psychopathological conditions are then seen as developing from any of these stages. Moral development is seen as the transition from shame ethics (a value system in which the most negatively valued experience is shame and in which the highest good is the opposite, namely, pride) to guilt ethics (a diametrically opposite value system in which the worst evil is pride, and the highest good is humility).

The contribution that psychoanalytic theory offers to the field of moral development is the ability to go beyond the question of "should" in

attempting to resolve a moral dilemma and addressing instead the question of "what do I want to do, and why do I want to do it?" Thus is moral reasoning replaced by psychological understanding.

Social-learning Theory of Moral Development

As we have seen, psychoanalytic theory of moral development concentrates on moral feelings, or the affective component of morality. Emphasis is placed on how the individual feels when he transgresses--shame, and later guilt, are identified as the basic feeling which motivate moral behavior. Social-learning theorists, on the other hand, are more concerned with the behavioral aspects of morality. Internalized rules governing behavior, so-called moral reasoning, is seen as merely a form of classical conditioning. If an individual is repeatedly punished after doing some "bad" action, then the bad feelings that accompany that action will eventually come to be associated with the act. The next time such an act is contemplated, the discomfort or fear associated with the punishment will be triggered and the action will be inhibited. In this view, morality is no more than learned avoidance reactions. Other social psychologists such as Albert Bandura have approached the question differently. They emphasize the role played by modeling for both the learning of the basic rules of right and wrong and the control of behavior. According to this view, what is right and what is wrong is learned both by being told specifically by an authority figure what is good and bad behavior, and by observing what role models actually do in various situations. In this view, inconsistent moral behavior is to be expected. What the individual chooses to do when faced with a temptation to transgress will depend to a large extent on the situational circumstances, on who else is around to

observe the behavior, on how similar the situation is to others he has seen modeled, and on how likely he is to be caught if he transgresses. Moral development then will be either a function of how consistent punishment was administered for wrongdoing, and how timely, or how consistently rules and behavior were modeled by parents or other role models. An apparent shortcoming of this theory of moral development is that it places conformity to rules or social expectations as the highest form of moral development. Such a theory can only condone as "moral" the behavior of the Nazi party member who unquestioningly followed orders.

Social psychologists have provided us with some important research data which have exposed for greater understanding such areas as conformity, obedience to authority, and bystander intervention. Asch's classic study (1952) on conformity revealed the extent to which individuals would conform to group pressure, even when the group opinion was different from their own. Milgram's (1963) obedience experiment shocked the academic community with its findings of the extreme to which humans would carry out orders of others, despite the perceived harm it did to an innocent subject. An interesting theory evolved in Milgram's experimental work. He proposed that all individuals develop an ability to operate out of two different states which he calls the "autonomous" and "agentic" states. When a person enters into an authority system voluntarily, he no longer views himself as acting out of his own purposes but rather comes to see himself as an agent for acting out the desires of another who is above him in the hierarchy. In this agentic state, the moral principles of the individual will hold less power to influence his behavior. Human beings, then, must have the capacity to operate in either the agentic state of autonomous

state. Once the shift into the agentic state has been elicited by circumstances, different behaviors can be expected than would be seen while the individual is operating in the autonomous state. The normal inhibiting factors and moral principles that act on him when he works alone become secondary when he is operating in a hierarchy (Brown & Herrnstein, 1975). This hypothesis has important implications for the military officer who performs within a hierarchy of fixed rank and command.

Kohlberg's Stage Theory of Moral Development

Kohlberg has taken a cognitive-developmental perspective of moral development and created a stage theory to define and measure that growth. In developing his theory of moral development, Kohlberg was influenced by various Western philosophers such as Dewey, Kant, Rawls, and in particular, Piaget. Piaget had posited the existence of two major stages in the development of moral thought: (1) Heteronomous morality during which moral rules come from an external source, especially from persons of authority. Rules at this stage are seen as sacred and unchangeable. Piaget spoke of this as a "morality of constraint." (2) Autonomous morality was identified as a more advanced stage of development usually achieved by children around the age of 12 to 13 years. This form of morality is developed through social life with its source being found in one's interactions with peers. Autonomous morality comes from within, despite its social origins. It develops out of the child's cognitive capacity to put him or her self in the position of others. This "role-taking" ability is of special importance in both Piaget's and Kohlberg's theories. Obligations and rights are seen as reciprocal in nature. This cognitive-developmental approach had a major influence on Kohlberg in his study of moral develop-

ment. Piaget used pairs of short stories as his vehicle to determine levels of moral reasoning. Each story in a pair involved similar situations that differed in some feature relevant to making a moral judgement. From this early work by Piaget, Kohlberg developed his moral dilemmas to investigate moral development.

While formulating and researching his theory of moral development, Kohlberg used a series of moral dilemmas imbedded in short stories as his primary research tool. There are several key elements of the dilemmas presented to subjects: (1) They are seen as genuine moral dilemmas to be resolved by the subject with conflicting social norms existing within the culture for each of the options available. Thus, the dilemma for the subject is to resolve the situation by deciding on the appropriate principles to be used in arriving at a decision. (2) Subjects are not scored for the actions chosen, but rather for his or her defense of that action. (3) The goal in creating the dilemmas was to make impartial the effect stages of moral reasoning would have on the decision reached. Thus, at any stage of moral reasoning, either choice would be equally likely. (In actuality, certain action-stage partialities appear to occur.) (4) Responses made by the subject require a content analysis for scoring purposes. Stages are conceived structurally and by intention are applicable to any moral dilemma. Thus, scoring requires responses made by the subject to be placed into the various stages of moral reasoning by a scorer. The scoring technique ultimately developed by Kohlberg is both complicated and somewhat subjective in its application. Thirty different dimensions must be applied to each of the six stages for a total of 180 cells to be analyzed. The scoring technique has been modified several times over the years as the

result of new data and resulting modifications to the original theory; therefore, results obtained using the new scoring guide cannot be strictly compared with results obtained by earlier research.

Kohlberg has posited that individuals pass through stages of moral development one step at a time as they progress from stage 1 to some advanced stage as high as stage 6. Certain critical attributes are identified by Kohlberg for these stages: (1) Stages follow one another in an invariant, sequential order. Sequential invariance holds across all cultures when structure, not content, is the defining issue. (2) Stages are linked to chronological age, but only roughly so. Not everyone will attain the higher stages and development may be delayed or halted at any stage. (3) Stage 4, concerned with issues of "Law and Order," is always the most common stage. In some social groups, no one has attained the postconventional level of moral reasoning. (4) Higher stages replace, and are not merely added to, previously held lower stage reasoning. Each advance in stage actually represents an improvement in the range of dilemmas it can solve, and the quality of those solutions (Brown, 1975). There is a parallelism between individual's logical stage (intuitive, concrete operational, and formal operational) as developed by Piaget and his moral stage of reasoning. While logical stage is seen as a necessary condition for moral development, it alone is not a sufficient condition. Thus, concerete operational individuals are limited to preconventional moral stages, low-formal operational individuals may achieve conventional levels, but only those individuals achieving the higher formal operational level of logical development will ever achieve a postconventional level of moral development. While moral stage is related to both cognitive

growth and moral behavior, our identification of moral stage must be based on moral reasoning alone.

The six stages of moral development identified by Kohlberg are grouped into three major levels: the preconventional level incorporating Stage 1 and 2, conventional level incorporating Stages 3 and 4, and a postconventional level incorporating Stages 5 and 6. The preconventional level is one at which the individual does not yet understand society's rules and expectations. S/he neither comprehends the grounds for their being nor does s/he have any sense of having participated in designing them. The individual at this level has a concrete individual perspective. Of paramount concern in his or her considerations is his or her own personal interests and, sometimes, those of isolated individuals of special concern. Responsiveness to rules at this level is based on anticipated physical or hedonistic consequences of his or her behavior. There is a deference to the superior power of authorities. This preconventional level is the level of most children under nine years of age, some adolescents, and many adult criminal offenders. The conventional level encompasses the vast majority of people, adolescents and adults, in all societies. People at this level advocate support of the law precisely because it is the law. Rules and expectations have become internalized by the self, hence the law is no longer experienced as an external imposition and compliance has a more volitional character. The perspective now becomes one of a member-of-society. The individual's interests are now seen as being secondary to the group's needs, welfare, and outlook. The individual at this level goes beyond mere compliance, seeking to actively maintain and justify the social order. A sense of loyalty is a strong feature at this level with

the individual enjoying a sense of shared membership in the group. The postconventional level is seldom arrived at before age twenty and even among an adult population relatively few people reach it. At this level, the acceptance of society's rules is founded upon the individual's own capacity to construct and comprehend the principles from which the rules derive. In time of conflict, convention is subordinated to individual principle. While at this level we see a return to an individual perspective rather than an unquestioning identification with the group, there is a distinctively different quality from the individualism of the preconventional level. In Kohlberg's own words:

> The individual point of view taken at the post-conventional level . . . can be universal; it is that of any rational moral individual. Aware of the member-of-society's perspective, the post-conventional individual questions and redefines it in terms of an individual moral perspective, so that social obligations can be defined in ways that are justifiable to any moral individual. An individual's commitment to basic morality or moral principle is seen as preceeding his taking society's perspective or accepting society's laws and values. (Lickona, 1976)

Kohlberg expects that there will be a greater consistency of moral choice among people operating at the post-conventional level because of the rational universality basis than among people at lower levels of moral development. He refers to this as a "probabilistic tendency" for people at the higher levels of moral development to reach consensual agreement. Kohlberg emphasizes that it is always the source and the nature of one's moral reasoning that we must know in order to determine the structural

level or stage of development.

The differing perspectives held by individuals at each of these three levels are readily apparent by looking at characteristic attitudes toward the law. When the preconventional individual advocates obedience to the law, it is because harm may come to him if he doesn't obey it or good will come to him if he does obey it. When the conventional individual advocates support for the law, it is because he perceives it as necessary to the preservation of good relationships and social order, whereas the postconventional individual embraces the law only because he believes it to be based on principles which safeguard individual rights. Within any given level, the second stage is found to be more highly organized and mature in relation to its general perspective than the stage first entered into when arriving at that level of reasoning. As development is achieved a widening perspective is needed as the individual disengages from the environmental and cultural perspective, requiring an increasing capacity for abstract thinking, and at the same time, providing greater adequacy for moral reasoning.

There is a basic construct that underlies both role-taking and moral reasoning; this is the concept of socio-moral perspective which refers to the point of view the individual takes in defining social facts and socio-moral values:

Moral Judgement	Social Perspective
I. Preconventional	Concrete individual perspective
II. Conventional	Member-of-society perspective
III. Postconventional (Principled)	Prior-to-society perspective

The six stages of Kohlberg's moral development model can be character-

ized as follows: At Stage 1, the defining feature is the individual's conception of right as being obedient to those who hold the power. "Might makes right" reflects something of the essence of this stage. The value of life during Stage 1 reasoning is not differentiated from an individual's material possessions; thus, moral judgements regarding the relative value of any one person's life will be heavily influenced by that individual's wealth. At Stage 2, the concept of right is essentially one of stark reciprocity. The hallmark of this stage is pursuing one's self-interests and obtaining rewards, tempered only by a pragmatic sense of fairness as equal exchange. Of paramount importance is having one's own needs filled. At Stage 3, the individual goes beyond strict equality to a sense of equity. A conception of right is geared to meeting the expectations of friends and family. Loyalty and affiliation becomes of utmost importance. A concern for others is expressed with the desire to receive praise and avoid blame, a major influence on judgement as to what constitutes right and wrong. One is motivated to observe rules in order to maintain relationships. It is at this stage that the individual is aware in interpersonal relationships that the other person will make judgements about him or her based on his or her behavior. There is a sense of obligation to obey laws and perform duties. During Stage 4, laws are seen as necessary to maintain society, thus to maintain social order conformity to the laws is demanded. Stage 4 positive reciprocity is exchange of rewards for effort or merit, not the interpersonal exchange of goods or service. The equality element of justice appears as the uniform and regular application of the law. "Social inequality is allowed where it is reciprocal to effort, moral conformity, and talent, but unequal favoring of the idle and

immoral, poor, students, etc., is strongly rejected" (Kohlberg, 1971). The majority of adults in most societies are at this stage. While Stage 4 moral reasoning concentrates on maintaining the status quo, Stage 5 is defined by a qualitatively different conception of justice attuned to the necessity of changing unjust laws. Laws are seen to exist not merely to be obeyed, but to protect the rights of the individual and to enhance the general welfare. There is a legalistic orientation founded upon the social contract. It is not that there is a disrespect for the law, but rather that respect is based on the knowledge of the purpose laws are intended to fulfill. There is an emphasis upon the legal point of view, but with a recognition of the possibility of changing laws in terms of rational consideration of social utility. At Stage 5, there is a heightened awareness of the relativity of the positions held by those in a conflict situation. Despite the greater adequacy and universality that characterizes Stage 5 structural development in the moral realm, Kohlberg warns of the potential inherent in it for undermining individual rights in favor of the general welfare on some occasions because of its utilitarian foundation (Kohlberg, 1975). The rare person who has attained Stage 6 is characterized by moral reasoning that is fully autonomous. "He is completely decentered from society's expectations and bases his resolutions to ethical conflicts upon universal principles of justice which are prescriptively consistent without exception. Universality, consistency, and logical comprehensiveness are the central attributes that characterize the guiding principles of his conscience through which he chooses right over wrong" (Rosen, 1980). Kohlberg adamantly maintains that some ways of resolving moral dilemmas are inherently better than others, and Stage 6

offers a better way than any other. The justice principle, which is the foundation of Stage 6 thought, leads to ethical resolutions that would be accepted by any truly rational person who is able to engage in moral reasoning uninfluenced by his or her personal interests. At Stage 6, an unjust law constitutes sufficient grounds for civil disobedience, and that act of civil disobedience is considered to be an appropriate response because the principles of justice underlying a conception of morality transcend all else. As a modification and further development of his theory, Kohlberg addresses the apparent regression involved in stage development that was sometimes noted to occur during transition from Stage 4 to Stage 5. Kohlberg refutes the possibility of actual regression in stage of moral reasoning but rather explains this phenomenon in terms of a transition from conventional to postconventional morality during which the breakup of conventional morality is easy to confuse with the resurgence of preconventional morality. Kohlberg now identifies a transition Stage 4B, a stage characterized by skepticism which leads to the questioning of the principles that characterize that very stage they are beginning to move away from. Their moral reasoning appears to be relativistic as well as egoistic, as at Stage 2, because they now seem to be maintaining that any one person's choice, based on his or her own interests and desires, is as morally sound as another's, as there exists no objectively valided standard against which they may be assessed. The Stage 4B individual is on the verge of a breakthrough to principled moral reasoning that, while he does not yet realize it, will provide him with that new standard for which he is seeking. In the meantime, he has not yet achieved Stage 5, but is at a more abstract level of Stage 4 reasoning. The Stage 4

individual who is in transition alternates between relativism and absolutism, thereby coming up with distorted and inadequate moral solutions. Out of this interim phase will come a new moral vision based upon a social contract structure (Rosen, 1980). While both Stage 4B and 5 individuals are oriented to socio-moral concerns, the Stage 5 individual has questioned society's norms but then re-accepted them through the social contract.

Kohlberg has made a significant contribution to the field of moral development not only through his own theory, but for the heuristic value his research has had on others interested in the field--followers and detractors alike. He has provided a mechanism for evaluating the level of moral reasoning of an individual which has led to significant findings and the compiling of vast amounts of data.

James R. Rest and the Defining Issues Test

A cognitive-developmental approach to the study of morality assumes that as people develop they view moral dilemmas differently. The different conceptual frameworks for analyzing moral dilemmas and individual responsibilities are described in terms of stages of development (Kohlberg). Each moral judgement stage has distinctive ways of defining the relevant issues in a social problem and then rank-ordering those elements in terms of importance in formulating a decision as to what action should be taken. As we have seen, Kohlberg has developed a means of assessment which requires a subject to react to a hypothetical moral dilemma, indicating what ought to be done and then justifying that decision. This research has focused on an individual's thinking about moral dilemmas. As important as this kind of moral reasoning is, it is not the only important kind. People also make judgements about the moral reasoning of others. When

faced with a moral dilemma, people quite frequently seek advice of others rather than acting on their own. Their acceptance or rejection of another's moral reasoning is a decision of some relevance. In a public debate over moral or social dilemmas, a person is almost always aware of others' moral judgements before they must decide their own position. People are influenced not only by the decisions reached by others, but by the very way in which another person defines the problem. The crucial element of a problem might well be re-defined in various ways, with serious implications as to moral reasoning. Take, for example, one of the major social-moral problems of our times, which has been variously identified as "the bussing issue," "racial prejudice," "state's rights," or "equal opportunity." The particular definition of the problem is an important element in any subsequent moral reasoning and decision-making concerning that issue.

Rest has focused special attention in his research on the manner in which people choose the important issues inherent in a moral dilemma. He has developed a procedure called the "Defining Issues Test" (DIT) to categorize the essential concepts identified by an individual as being of special importance in resolving a moral dilemma. The DIT is structured such that the individual first reads a moral dilemma and then is asked to make a decision as to how it should be resolved. The individual is then asked to rank-order twelve statements as to their relative importance in arriving at a decision. Each issue statement represents a stage characteristic of Kohlberg's stage typology. As a subject ranks the statements in terms of relative importance in making a decision about the moral dilemma, he is, in effect, indicating the importance of the various stage-characteristic ways of viewing moral dilemmas.

The DIT is one of several recent attempts (see also Buchanan & Thompson, 1973; J. Carroll, 1974; Costanzo, Coie, Grument, & Farnill, 1973) to assess moral judgement by means of an objective format. Rest makes an important point in his analysis of the two basic options in moral reasoning assessment: (1) having the subject talk about his moral thinking in a free-response mode and then having a scorer use some standardized system to classify the response in terms of stage of moral development, (2) presenting the subject with a set of standardized alternatives representing the various scoring categories and having the subject rank them. The essential difference is that in the first case, the scorer judges how the subject's thinking fits the categories, whereas in the second case, the subject in effect decides the proper category fit by indicating which statements are closest to his own reasoning. Rest makes note of the fact that when research is in the ground-breaking phase, the open-ended method has the advantage of allowing the subject to express his thinking freely and the researcher to inductively formulate scoring categories from the raw material provided by the subject. This is an essential first step and it was research such as this that allowed for the development of the DIT. Findings from Kohlberg's early research made it possible to construct the actual DIT items and to formulate clearly the stage characteristics on which the items are based (Rest and Kohlberg-Lickona, 1976). Generally, items of an objective test for moral development should be based on actual responses given in the free-response mode. However, after recurrent response types have been identified and a scoring system has been devised, and when the purpose of the data collection is to assess moral judgement, the advantages of the free-response method are diminished.

Information about an individual's moral reasoning can be elicited by asking a subject to perform any of several different tasks: solve hypothetical moral dilemmas, indicate a preference among moral judgement statements, or rank the most important issues in a dilemma. The various data gathering procedures have different properties, and more research in comparing them is needed, but it is evident that a complete picture of one's moral reasoning cannot come from any one type of information. The choice of a specific method of data gathering must depend on the specific aims of the study. If the primary goal is the identification of new scoring characteristics, then the open-ended interview is appropriate; if one is interested in cognitive capacities, a comprehension measure is more suitable; if interest is in equating moral reasoning to behavior or attitude, then a structured test of preference such as the DIT would be the most appropriate measure (Rest-Lickona, 1976).

The DIT will be used in this study in order to assess moral development as it relates to behavior and the effect of participation in an ROTC program. Rest has based his stages of moral development on the work of Kohlberg, but he has incorporated minor changes into his stage definitions. Rest has defined moral judgement as the concern "with how the benefits and burdens of social cooperation are to be distributed." Moral development is analyzed in terms of its successive conceptions of "how mutual expectations among cooperating individuals are established, and how the interests of individuals are to be equilibrated" (Rest, 1979). It is perhaps important to note that morality, as Rest uses the term, refers to social interaction and does not concern individual values that do not effect other people. The characteristic concepts of each stage of moral development are as follows:

Stage 1: Obedience, "You do what you are told." Right and wrong are defined simply in terms of obedience to fixed rules. Punishment is seen as inevitably following disobedience, and anyone who is punished must have been bad. Stage 2: Instrumental Egoism and Simple Exchange, "Let's make a deal." An act is right if it serves an individual's desires and interests and one should obey the law only if it is prudent to do so. Cooperation interaction is based on simple exchange, the rudiments of equality and reciprocity. Stage 3: Interpersonal Concordance, "Be considerate, nice and kind, and you will get along with people." A crucial advance seen at this stage is the ability for "reciprocal role taking." An act is good if it is based on a pro-social motive. A person's general inner disposition is now seen as being of greater importance than occasional deviant acts undertaken in behalf of sustaining personal relationships. Being moral implies concern for the other's approval. Stage 4: Law and Duty to the Social Order, "Everyone in society is obligated to and protected by the law." Right is defined by categorical rules, binding on all, that fix shared responsibilities and expectations, thereby providing a basis for social order. Values are derived from and subordinated to the social order and maintenance of the law. Respect for delegated authority is seen as part of one's obligation to society. Stage 5: Societal Consensus, "You are obligated by whatever arrangements are agreed upon by due process procedures." Moral obligations derive from voluntary commitments of society's members to cooperate. Procedures exist for selecting laws that maximize welfare as discerned in the majority will. Stage 6: Non-arbitrary Social Cooperation, "How rational and impartial people would organize cooperation is moral." Moral judgements are ultimately justified by principles of

ideal cooperation. Individuals each have an equal claim to benefit from the governing principles of cooperation. The work of John Rawls, 1971, clearly illustrates this principle in what he terms "original position," a moral exercise involving the playing in one's mind the roles of all persons involved in a situation under a "veil of ignorance"--that is thinking of a situation as if one did not know which role or roles was to be played by oneself. The principle arrived at by using this exercise is, according to Rawls, the "principle of the greatest liberty for oneself that is consistent with an equal liberty for all others" (Brown & Herrnstein, 1975)

When subjects are presented with different ways of defining the most important issue in a moral dilemma, not all subjects select the same issues as being most important. The differences in judgement appear to be largely due to different stages of development of the individuals, according to evidence from several different sources. The Defining Issues Test has proven capable of differentiating between groups assumed to differ in their relative advance in thinking about moral problems (for example: groups from junior high, senior high, college, and graduate school). Additional evidence that differences on the DIT are developmental come from correlations with other measures usually assumed to correlate with development. The P score, that is the percent of an individual's reasoning that is represented by the principled stages of moral reasoning--Stages 5 and 6--shows substantial correlation with Kohlberg's measures of moral development, with the Comprehension of Social-Moral Concepts Test, and with the Differential Abilities Test, among others. These correlations suggest that as an individual develops cognitively, he comes to define moral dilemmas more complexly and comes to place greater emphasis on

principled moral thinking than does the less cognitively advanced individual (Rest-DePalma, 1975). Thus, it appears that the Defining Issues Test measures the stage development of moral reasoning in a valid and reliable manner.

The Relevance of Moral Reasoning to Behavior

In cognitive-developmental theory of moral development, an individual's level of moral reasoning is determined based on verbal judgement displayed in resolving a moral dilemma. Perhaps the single most common and important question invoked by this approach to socio-moral knowledge is concerned with the relationship between levels of moral reasoning and behavior. This question is of critical importance as it shifts the emphasis from a theoretical issue to one which may have a critical impact on real-world behavior, and ultimately, it is the behavior of the citizen that is of primary concern to the society. Richard Peters, a philosopher, writes that "moral principles cannot prescribe precisely what we ought to do, but at least they rule out certain courses of action and sensitize us to features of a situation that are morally relevant" (Peters, 1970). This feature of moral principles is of specific importance to the military leader in analyzing a situation to determine a proper course of action.

The position adopted by proponents of the cognitive-developmental approach is that the level of moral reasoning does influence the choice of appropriate behavior. The key here is use of the word influence rather than determine. It is acknowledged that there are other variables than one's stage of moral development that will come to bear in determining action. The role played by each of these variables is the basis of continuing research. Personality attributes, situational conditions, affective arousal, and degree of personal risk or loss involved are just some of the

critical components involved in determining actual behavior. A vast body of data has supported Hartshorne and May's (1928) basic findings that state: variations in a situation may produce variations in moral behavior observed. Social learning theorists Mischel and Mischel develop the hypothesis that, rather than acquiring a "homogeneous conscience" that can be expected to lead to similar behavior across situations, people develop a subtle ability to discriminate between situations based on certain moderating variables and the ability to encompass diverse components such as moral judgement, delay-of-reward, resistance to temptation, self-evaluation, and other factors in reaching a decision as to the appropriate action.

Roger Brown (1965) has formulated the hypothesis that moralization involves at least four different kinds of learning: cognitive learning of moral concepts, reinforcement shaped response acquisition, imitation or modeling, and classical conditioning. Each of these acquire a specific importance for the different dimensions of morality; hence, uneveness in moral behavior is to be expected. A critical factor intervening between an individual's stage of moral reasoning and his or her subsequent behavior is the individual's conception of the situation, the values involved and the issues that are considered to be relevant. Perhaps a key element in the apparent dichotomy between moral reasoning and action is the basic premise that actions alone cannot be rank-ordered in terms of morality. It is necessary, as has been pointed out, to have knowledge of the content of the reasoning used to support a specific action before we can discuss its moral implications. Thus, we may find individuals at very different stages of moral reasoning forming quite different conceptions and judgements of a particular situation that nontheless converge on a common action. A well-researched example of this can be found in Kohlberg's

study of the 1964 Free Speech Movement at Berkeley. This field study of moral action and reasoning indicated that, while certain predictions could be made about behavior based on stage of moral reasoning, knowledge of the individual's conception of the situation provided a much clearer determinant. Stage 2 and Stage 6 individuals were found to have participated in the sit-in in proportionately greater numbers, while Stage 4 individuals, for the most part, did not participate; yet, the level of moral reasoning used in arriving at the decision to participate or not was much more similar between Stage 4 and 6 than between Stage 2 and 6. The underlying reasoning which supported the decision to participate in the sit-in was vastly different for Stage 6 and Stage 2 individuals; yet, their actions were seen as being identical. Again, it is important to emphasize that morality cannot be judged by the act alone. It is essential that the conception of the situation formed by the individual, and from which the action follows, be considered if we wish to evaluate level of moral reasoning. This is done by the DIT.

Kohlberg states in "From Is to Ought" that when confronted with a conflict situation, there is a tendency for individuals at a specific stage to favor one course of action over another in keeping with the characteristic reasoning they exhibit, though it obviously happens that individuals at different stages will arrive at the same choice, but for different reasons. He further maintains that individuals at the higher, and particularly principled levels of moral development are more likely to be consistent in their behavior patterns than those at lower levels. The reason for this can be found in the fact that those operating at higher levels of moral reasoning are governed by more stable considerations based on principle,

while those at Stages 1, 2, and 3 are governed by more personal and situational factors, which are more likely to change. Kohlberg believes that stage structure imparts a "cognitive disposition," which is the critical element exercised in determining moral action (Rosen, 1980). Krebs and Kohlberg in "Moral Judgement and Ego Controls" report research substantiating the view that certain internal variables are predictive of moral behavior, contrary to Hartshorne and May's conclusions. The actual degree to which situational determinants are a factor may be a function of level of moral reasoning.

In any attempt at equating stage of moral reasoning to some form of behavior it is particularly important to understand and address the concept of "stage mix" (Turiel, 1969). An individual does not possess a pure stage of moral reasoning, but rather has a 'modal' stage as well as the ability to draw from other stages at the same time. Consistency of behavior and reasoning must be defined from the subject's point of view. A conception of the subject's point of view--his reasoning--must be understood in determining the morality of the action. Consistency then must be defined in terms of the individual's rationale for his or her behavior and cannot be equated with behavioral predictability. Thus, any research considering moral reasoning and behavior must address this issue. It suggests that data on behavior has little moral implication without some assessment of its cognitive-motivational base.

The ultimate question, how are moral reasoning and moral action related, is a complex one that we are not fully able to answer. Does moral reasoning or stage of moral development allow us to predict a particular behavior? The answer is clearly--No! Does moral reasoning corre-

late to moral behavior? Yes, it does, but not in any simple one-to-one, cause and effect manner. The stage of moral development at which an individual reasons appears to predispose the individual to analyze the problem, or dilemma, in a specific way. The action that results from that analysis will vary depending on a number of other intervening variables. As has been stated, morality of any action needs to be analyzed in terms of the individual's reasoning for that action. A "moral" action performed under compulsion of another hardly qualifies as being moral. Likewise, an action construed as being immoral, done for the principled reasons, may well be moral.

Moral Education

The theory of moral development is well researched and supported by a substantial body of data. It appears quite clear that people do progress in a developmental sequence through various stages of moral reasoning, with each progressive stage providing a broader and more differentiated perspective from which the individual can analyze a situation and seek a moral resolution. Behavior does appear to be correlated with moral reasoning, though not in any simple one-to-one manner. The ability to reason at a higher level predisposes an individual to analyze a situation in a more objective and moral manner than those at lower levels of moral reasoning. That individual who has the ability to reason at principled levels of moral thought is more likely to base his or her actions on some higher principle of justice than is the individual operating at the lower stages of moral reasoning. If then we find principled moral reasoning to be desirable, can and should we be teaching it within our schools, and particularly to those who will command our military forces? This question

is by no means a new one.

> The old-fashioned school regarded the obedience to authority the one essential; the new ideal regards insight into the reasonableness of commands the chief end. It is said, with truth, that a habit of unreasoning obedience does not fit one of the exigencies of modern life, with its partisan appeals to the individual and its perpetual display of grounds and reasons, specious and otherwise, in the newspapers. The unreasoning obedience to a moral guide in school may become in later life unreasoning obedience to a demagogue or to a leader in crime.

That statement was made by William T. Harris in the Editor's introduction to The Moral Instruction of Children, Washington D. C. in 1892. The concern for human morality and its development is not new, but it is of ever increasing significance to our society and world.

Research has supported the view that moral development can be promoted by various interventions. Exposure to reasoning one stage above the reasoning an individual is currently using, when that individual is attempting to resolve a moral dilemma, whether hypothetical or actual, has been shown to facilitate moral development. As a specific device for moral education, the "Original Position" exercise proposed by Rawls appears to have more interesting possibilities than any other method being used in the classroom (Brown & Herrnstein, 1975). Mere exposure to a moral dilemma with the requirement to propose a solution and explain one's reasoning for the chosen course of action has a positive effect on moral growth. Enthusiasm for the development of postconventional stages of moral reasoning should be tempered by an important concern: when one

considers that exemplars of Stage 6 reasoning, according to Kohlberg, are individuals such as Socrates, Jesus, Lincoln, and King, and when one takes a moment to reflect on their fates, the intriguing question arises about the possible inherent danger of being at Stage 6 in a predominantly conventional society. Brown makes a similar observation saying:

> The possibility of encouraging young people or adults to reason about moral questions maladaptively for their circumstances is a real one. It should serve as a governor on the possibly premature enthusiasm for moral education now felt by some. Such studies should not be discouraged, but their value for the individual should be determined by additional studies on the effects of an unjust world. (Brown, 1975)

This is obviously an area in need of serious deliberation and consideration if we are to espouse teaching of moral development to military officers. Equally certain, in the mind of the author, is that we cannot tolerate a military force in a democratic society led by individuals whose sole recourse to moral reasoning is based on "blind obedience" to authority. A moral military leadership must be a keystone to our armed forces.

Method and Procedures

Subjects. The data was derived from group testing of college students at the University of Idaho. Volunteers were obtained from the Navy ROTC program comprising two distinct groups: freshmen and upperclassmen. A total of 18 freshmen and 18 upperclassmen completed the testing and passed the consistency tests required. The upperclass group was comprised of 4 seniors and 14 juniors. A comparison group was then obtained from the general college population with students who had not enrolled in the ROTC programs on campus. Matching was based on age and years of education. All

subjects were white male students currently enrolled full time at the University of Idaho campus. After an initial analysis of the data obtained, it was revealed that a total of 12 students included in the ROTC program had had prior service as enlisted members of the armed forces. Six of these individuals were in the freshmen group and six were in the upperclass group (all juniors). The comparison group did not include any individuals with prior service. As this had the potential to be a contaminating variable, these 12 were not included in the analysis of their respective groups, but were used to make a new group of prior service ROTC. Subsequent analysis was performed on this group as compared to other ROTC students. To maintain matching on the critical factors of age and years of schooling, the comparison members from the freshmen group matched to those ROTC with prior service were also deleted. The control group consisting of college upperclassmen not enrolled in ROTC only consisted of 12 subjects from the start as it was not possible to match on age the prior service individuals. The resulting groups were as follows: 12 ROTC upperclassmen (4 seniors, 8 juniors) average age 21.6; 12 college upperclassmen (4 seniors, 8 juniors) average age 22.1; 12 ROTC freshmen average age 18.2; 12 college freshmen average age 18.2; and 12 ROTC students with prior service (6 freshmen and 6 juniors) average age 23.9. Participation of all subjects was voluntary and anonymity was insured.

Materials. Each subject was asked to complete Rest's *Defining Issues Test* (see Annex B). Individuals were encouraged to take their time and carefully consider each response. It was emphasized that there were no right or wrong answers, and that their personal opinion was being sought. Subjects were assured that individual responses would remain anonymous and

general background information was collected solely for the purpose of matching. The test required each subject to read six situations, each of which contained a moral dilemma. After reading a situation, the subject was asked to choose an appropriate course of action and then select from a list of 12 statements those which were most important to him for consideration in arriving at a decision. The four most relevant statements selected were then to be rank-ordered in descending order of importance.

For example, in the *Heinz and the Drug* dilemma, the subject first had to decide if it was morally correct for Heinz to steal the drug to save his wife. Next, he read a series of 12 statements concerning possible relevant issues to be considered in making a decision and rated them according to the importance he placed on each item in arriving at his decision. Issues involved concerns such as the value of human life, the rights of other individuals, the consequences of one's action, and the values on which laws should be based. From those statements the subject felt were very important in arriving at a decision, he chose the four most important and rank-ordered them.

In scoring test protocols, the first choice was given a weighted score of 4, second choice 3, third choice 2, and fourth choice 1. The 12 statements considered by the subject were developed to be characteristic of a specific stage of moral reasoning and the weighted scores were thus assigned to the appropriate stage which corresponded to the statement chosen. Had the subject chosen an issue such as the likelihood of being punished as his major concern, four points would have been placed in Stage 2 as that is reflective of Stage 2 reasoning. On the other hand, if he had chosen as a major concern a statement dealing with the underlying principles which should

govern a society, he is reflecting Stage 6 level of reasoning and appropriate points would be assigned to that stage. For each dilemma, the subject would have ten points (4, 3, 2, 1) distributed across the various stages of moral reasoning. Raw scores would consist of the total points obtained within a specific stage. P score is defined as the raw score obtained at the principled, or in Kohlberg's term, postconventional, level of reasoning, including scores for Stages 5 and 6. Raw scores are converted into percent scores by dividing by .6; this figure indicates the percent of total possible points (60) which fell within a particular stage or level. For example, if our subject had a total of 12 points in Stage 5 and 6 points in Stage 6, those would be the raw scores for the respective stages. Raw score for the principled level or P, would be the sum of these scores or 18. The corresponding percent score would be 18/.6 or 30%. That score would be the individual's P % score. It would reflect the fact that 30% of the subjects' choices of the most important issues in resolving the dilemmas were indicative of principled level of moral reasoning. A sample of the scoring table and instructions for its use are included in Appendix C. The specific instructions given to subjects for completing the test are included in Appendix A. Subjects were allowed 50 minutes to complete the test in compliance with Rest's recommendation. All subjects completed the test within the alloted time.

Results and Discussion

The basic concern underlying this study was to determine the effect of ROTC training on the moral development of college students. A 2 (ROTC vs. College) x 2 (Upperclassmen vs. Freshmen) x 2 (Conventional vs. Principled Level of Moral Reasoning) repeated measures analysis of variance was

performed on the DIT scores of each subject. (See Appendix D, Table 1). Mean scores and standard deviations for each group are indicated in Table 1 below.

Table 1

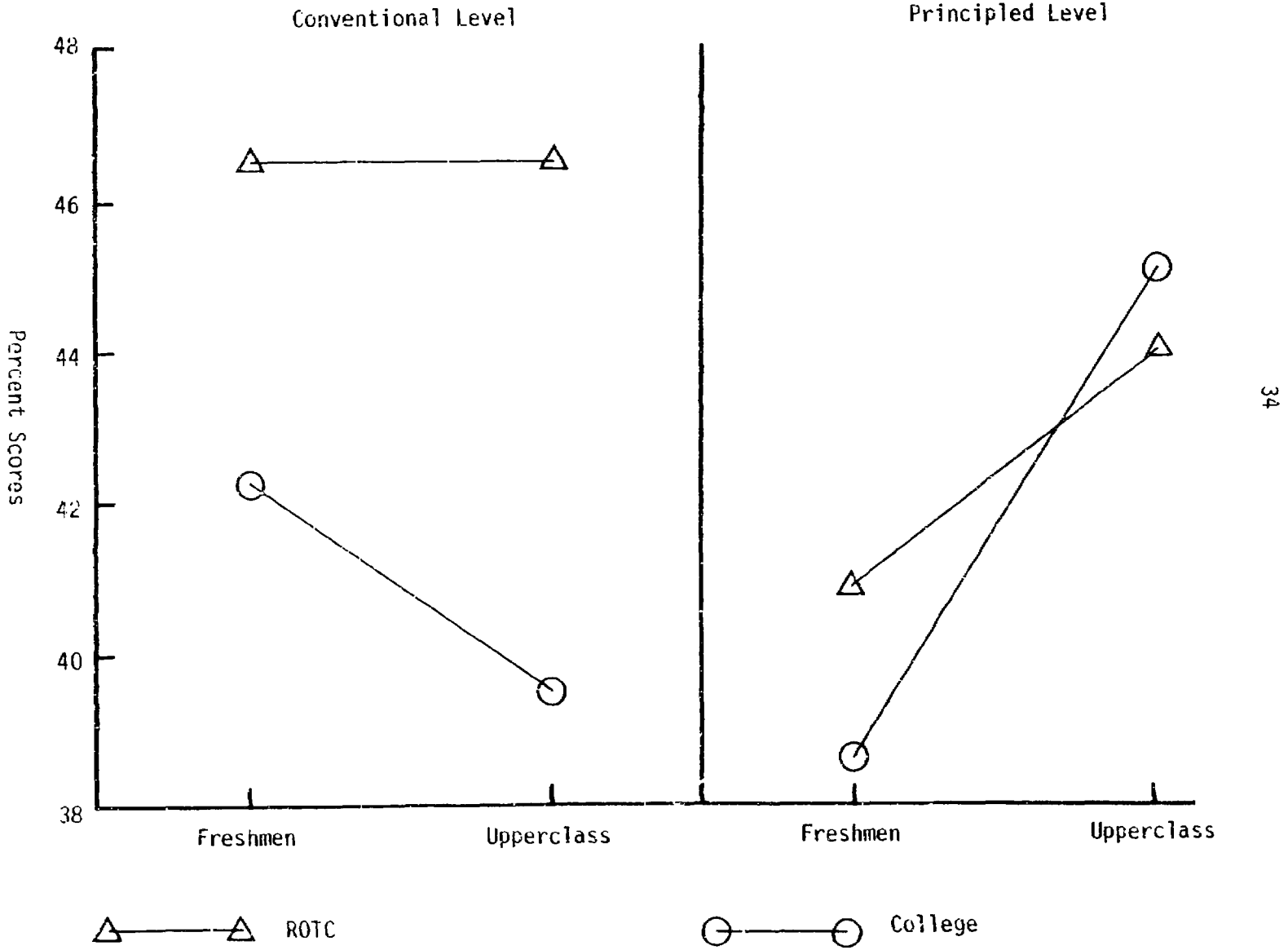
Mean Percent Scores of ROTC and College Subjects for Conventional and Principled Levels of Moral Reasoning on the DIT

Group	Levels of Reasoning			
	Conventional		Principled	
	M	SD	M	SD
ROTC				
Freshmen	46.55	9.35	40.83	11.08
Upperclass	46.54	8.63	44.00	12.38
$\bar{X}$	46.54		42.42	
College				
Freshmen	42.22	6.85	38.62	10.85
Upperclass	39.58	9.95	45.13	15.15
$\bar{X}$	40.90		41.88	

The results of this analysis revealed that the ROTC students scored significantly higher than the non-ROTC students on the DIT (F [1,44] = 11.67, p <.01) and that upperclassmen had higher DIT scores than freshmen tested (F [1,44] = 5.99, p <.05). Subsequent analysis of group means indicated that ROTC students have higher percent scores at the conventional level of moral reasoning than their college counterparts at both the freshmen (t [44] = 4.22, p <.001) and the upperclass level (t [44] = 6.78, p <.001). When these groups were compared on principled level of reasoning, the ROTC freshmen scored significantly higher than the college freshmen (t [44] = 2.15, p <.05), but the difference between the upperclass groups was non-significant (see Figure 1).

Figure I

Percent Scores for Conventional and Principled Levels of Moral Reasoning for ROTC and College Groups



The significant difference found between ROTC and College students at the Conventional level of moral reasoning can be attributed in part to the propensity of individuals who are high in conventional moral reasoning to seek out compatible, highly structured organizations which advocate a "law and order" approach to moral reasoning. Moral reasoning at the conventional level is reinforced by the organization and thus, very little decline, if any, is observed in conventional reasoning by members. The comparison group, on the other hand, showed a decline in conventional reasoning and an increase in principled reasoning during the same college years. While both upperclass groups tested had acquired a similar level of principled reasoning, perhaps due to their common college experience, ROTC upperclass maintained a high level of conventional reasoning as a result of their ROTC training or personal propensity.

Further analysis of the difference between freshmen and upperclass DIT scores revealed that, while the difference between the two groups was non-significant at the conventional level of moral reasoning, the upperclassmen scored significantly higher than the freshmen ($\underline{t}$ [44] = 3.36, $\underline{p}$ <.05) at the principled level of moral reasoning. This finding is in accordance with developmental theory of moral reasoning. The older, more educated upperclass group was expected to score higher on the DIT for principled reasoning than their freshmen counterparts. This finding supports the hypothesis that educational level is correlated with level of moral reasoning.

Investigation of the data obtained on the ROTC subjects revealed the presence of a unique group that appeared to differ from the others tested. Fully one third of both the upperclass and freshmen ROTC groups tested had

enlisted service prior to joining the ROTC program. The juniors in this group were significantly different in that they had entered the ROTC program and the University as juniors, having had sufficient credits accrued at the college level to be so recognized. This unique group had had the educational exposure to college level courses, but not the socialization which occurs on a college campus to the full-time student. A separate 2 x 2 x 2 repeated measures analysis of variance was performed on the ROTC students with prior service vs. those ROTC students without any prior service. Matching on age was not possible as the prior service individuals were in all cases older than their counterparts. Mean scores and standard deviations for these groups are indicated in Table 2 below.

Table 2

Percent Scores for Conventional and Principled Levels of Reasoning for ROTC Students With and Without Prior Enlisted Service

Group	Levels of Reasoning			
	Conventional		Principled	
ROTC w/o Prior Service	M	SD	M	SD
Upperclass	46.11	13.85	46.94	12.31
Freshmen	48.06	10.72	39.72	9.27
$\bar{X}$	47.09		43.33	
ROTC w/ Prior Service				
Upperclass	48.07	8.88	35.00	17.60
Freshmen	45.57	9.78	38.33	9.83
$\bar{X}$	46.82		36.67	

The ANOVA revealed a significant difference between those ROTC members having had prior service and those without prior service (F [1,20] = 8.25, p <.01) (see Appendix D, Table 2). Subsequent analysis revealed no signi-

ficant difference between groups at the conventional level of moral reasoning for either upperclass or freshmen. At the principled level of moral reasoning, there was no significant difference between freshmen groups; however, the ROTC juniors with prior service were found to be significantly lower in principled reasoning than those without prior service (t [20] = 8.05, p <.001) (see Figure II). We can only speculate on the cause of this difference at this time, but it might be that those choosing to enlist in the military following high school were already different in level of moral reasoning than their contemporaries who chose to go on immediately to college. During a critical developmental time, the individuals serving as enlisted members of the armed forces may have been significantly influenced by their exposure to a highly structured environment, which rewards a conventional morality--compliance with authority and laws--above all others. These individuals, when they finally got to a college environment, may have been more firmly established at a conventional level of reasoning and less susceptible to change. Further research should be conducted in this area to attempt to isolate the basis for this observed difference. Studies might be conducted at Officer Candidate Schools where students have an enlisted background and often have not had the benefit of a college education. Particular emphasis might be given to the development of moral reasoning in this environment.

The effect of varying moral dilemmas on levels of moral reasoning was analyzed by an ANOVA (see Table III, Appendix D). A significant difference was found at the .05 level indicating that individuals are not consistent in the level of reasoning they use when analyzing various moral dilemmas, but vary as the specific situation changes. By observing the graph at

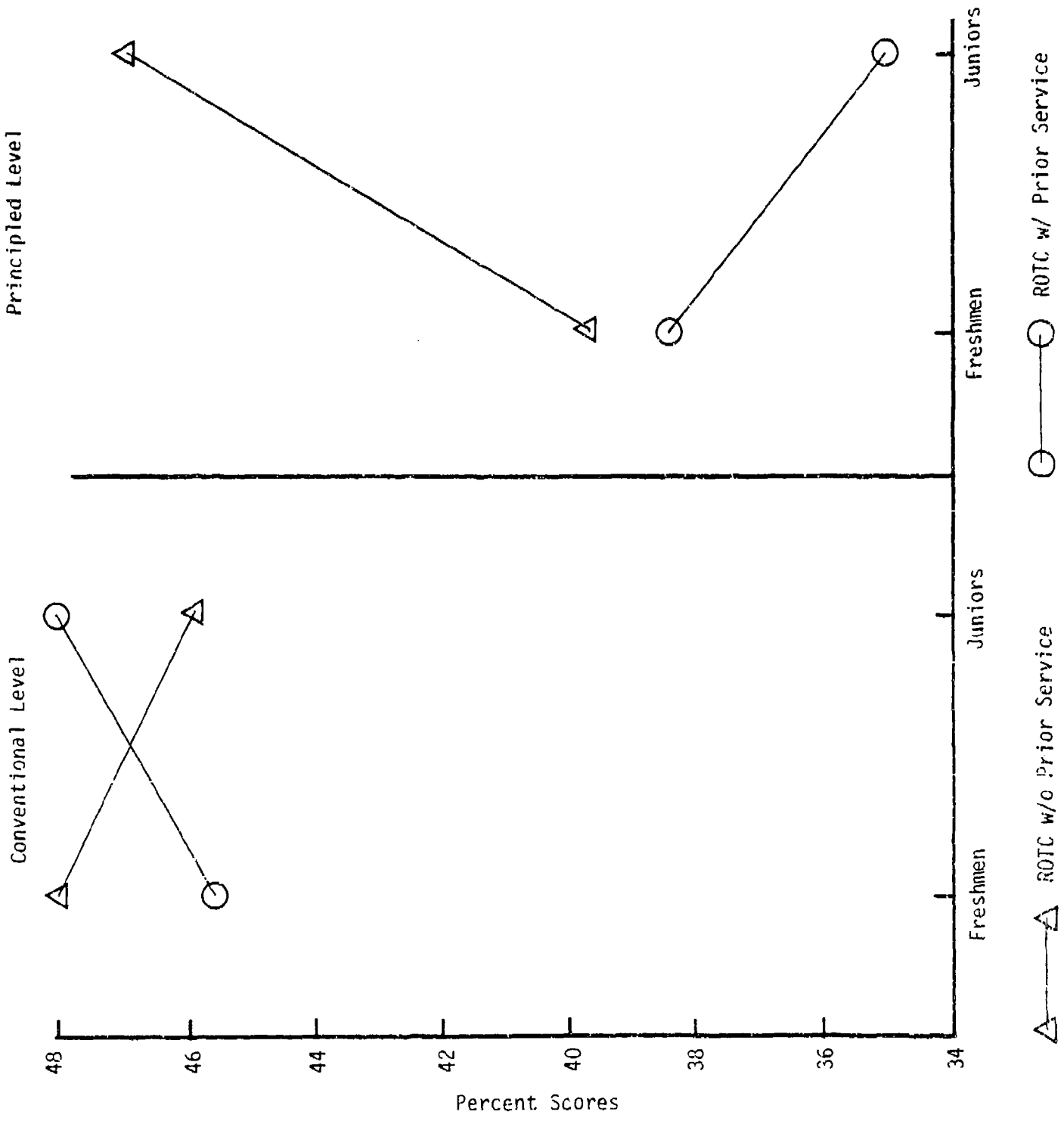


Figure 11

Percent Scores for Conventional and Principled Levels of Moral Reasoning For Prior Service and Non-Prior Service ROTC Groups

Figure III, we can see considerable variance in principled reasoning across dilemmas; this variance is particularly strong in the freshmen groups. While we found no significant difference between freshmen and upperclassmen in overall level of principled reasoning, we do observe markedly greater variability in level of reasoning displayed by freshmen. This variance based on situational factors is an indication of moral relativism and is more likely to be observed in those operating primarily at a conventional level of morality that depends to a greater extent on the context of the situation than in a principled individual who has formulated and internalized moral principles which will govern all his actions. This variance in stage of moral reasoning based on the nature of the moral dilemma is an area which is open to further investigation. It is interesting to note that this observed variance in moral reasoning is due only to the nature of the dilemma presented and does not include, at least to the same extent, other variables that may affect real-life behavior in resolving moral dilemmas. This marked variance in moral reasoning offers further support for the development of principled levels of reasoning in which the marked fluctuations will not be as likely. It would appear that predictability of moral reasoning, and possibly moral behavior, will increase as the individual assimilates principled levels of moral reasoning.

Conclusions and Recommendations

The findings reported in this study need to be replicated with a larger sample and with several methodological improvements. Data in the current study was not collected from subjects until one month into the spring semester. More reliable analysis could be made if data was collec-

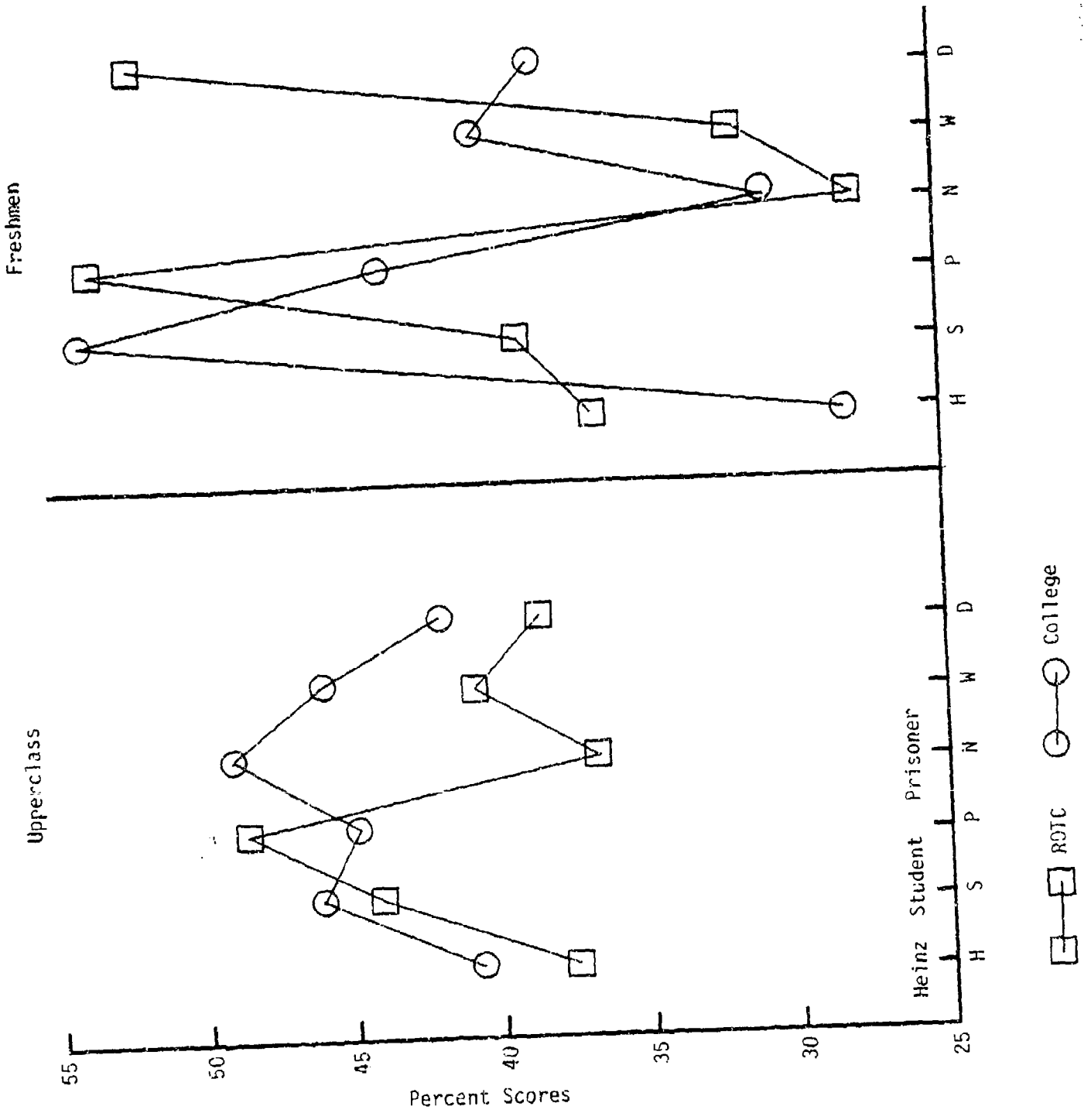


Figure III

Percent Scores for Principled Level of Moral Reasoning
Across Dilemmas for Upperclass and Freshmen Groups

ted from freshmen during the first week of their college education. This would preclude any changes in moral reasoning as a result of their college experience. Other studies have indicated that there are significant gains made in moral reasoning during the freshmen year of college. In the present study, any gains made by the freshmen group during the first semester would contaminate the data obtained. Likewise data should be collected from a sample of college seniors just prior to graduation. In the current study, a combination junior/senior sample had to be used because of the non-availability of sufficient ROTC seniors to participate in the study. Replication of this study with the methodological changes suggested would maximize any difference in moral reasoning between groups.

If the findings of this study can be replicated by further research, it would appear that the ROTC student being commissioned into the officer corps of the armed services is slightly more prone to use conventional moral reasoning in solving moral dilemmas than his counterpart. Despite special emphasis on moral education within the ROTC program, upperclassmen in ROTC are roughly equivalent in moral reasoning to their college peers. Current moral education in officer training programs should be augmented with a program which emphasizes development of moral reasoning. The present approach to the teaching of morality has a heavy emphasis on moral traits which are to be learned and hopefully internalized. While this is a valid and doubtlessly important component of moral education for the future military officer, outlining as it does some of the ideals and expectations of the organization to which the individual will belong, it is not sufficient. It is essential that the prospective military officer learn to reason for himself and develop principles which will

allow for an honorable resolution of moral dilemmas.

The advancement of moral development among potential officers is an important goal of the military. That goal will be well served if officer training programs will incorporate some of the ideas presented by Lawrence Kohlberg as to the teaching of moral development. It is important that students be presented with moral dilemmas and afforded the opportunity to resolve them. Discussion of the individual's reasoning in arriving at a decision is an essential ingredient of this procedure. The student must both evaluate his own reasoning and be exposed to other higher levels of moral reasonong, that he might begin to assimilate a more advanced form of morality. Programs of instruction based on the Kohlberg model should be incorporated into all leadership programs with the express purpose of promoting further moral development among participants. The Rest *Defining Issues Test* provides an easily scored instrument to evaluate the success of any such program.

APPENDIX A

Instructions to Subjects

Thank you for your voluntary participation in this experiment. We are interested in obtaining your personal opinions about some controversal social issues. Different people will have different opinions and there is no right or wrong answers. The time allowed should be more than ample to complete the questionnaire; you should consider each item carefully in making your determinations. You will be presented with six stories, each presenting a dilemma needing to be resolved. After choosing a course of action, you will turn the page and consider the 12 issue statements listed. The first task after completing the story and choosing a course of action will be read each of the 12 statements carefully and rate it in importance. Ratings will vary from "of great importance" to "no importance" with ratings of much, some, and little importance in between. After rating the importance to you of each issue in resolving the dilemma, I would like you to rank order the four most important items. This will be clearer if you look at the sample case on the first page of your test (see annex B). Please note that the sample case illustrates items which might not be comprehended (Item 4) or which sound like gibberish (item 6). You are to mark such items as of "no importance." You may find throughout the test certain items that either you don't comprehend or that appear to be meaningless; be sure to mark such items as being of no importance. Items should be rated and then ranked in terms of how important that issue is to you in making a moral decision. (Which is the crucial question that an individual should focus on in making a decision?)

Do you have any questions? If at any time during the test you are

unclear as to what is expected of you, please raise your hand and I will attempt to clarify the matter for you. When you have completed the questionnaire, I would appreciate your filling out the subject data form and bringing both items up here to me. Again, thank you for your assistance. All information will be compiled to obtain group norms and you will not be identified with your individual responses. I do not need nor want your name on any paper.

APPENDIX B

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.

Please give us the following information:

Name _____ _____ female

Age _____ Class and period _____ _____ male

* * * * * *

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

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

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

PART A. (SAMPLE)

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

GREAT importance	MUCH importance	SOME importance	LITTLE importance	NO importance	
___	___	___	___	✓	1. Whether the car dealer was in the same block as where Frank lives.
✓	___	___	___	___	2. Would a <u>used</u> car be more economical in the long run than a <u>new</u> 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 connibilies were differential.

PART B. (SAMPLE)

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

Most important 5

Second most important 2

Third most important 3

Fourth most important 1

HEINZ AND THE DRUG

In Europe a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid $200 for the radium and charged $2000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife.

Should Heinz steal the drug? (Check one)

____ Should steal it

____ Can't decide

____ Should not steal it

HEINZ STORY

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

GREAT importance	MUCH importance	SOME importance	LITTLE importance	NO importance		
___	___	___	___	___	1.	Whether a community's laws are going to be uphel.
___	___	___	___	___	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 burgle or going to jail for the chance that stealing th 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 encompassi- than the termination of dying, socially and indi- vidually.
___	___	___	___	___	8.	What values are going to be the basis for govern- ing how people act towards each other.
___	___	___	___	___	9.	Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
___	___	___	___	___	10.	Whether the law in this case is getting in the way of the most basic claim of any member of society.
___	___	___	___	___	11.	Whether the druggist deserves to be robbed for being so greedy and cruel.
___	___	___	___	___	12.	Would stealing in such a case bring about more total good for the whole society or not.

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

Most important ____

Second most important ____

Third most important ____

Fourth most important ____

STUDENT TAKE-OVER

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

STUDENT TAKE-OVER

GREAT importance	MUCH importance	SOME importance	LITTLE importance	NO importance	
___	___	___	___	___	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 scho.
___	___	___	___	___	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 buisness. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison 8 years before, and whom the police had been looking for.

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

_____ Should report him

_____ Can't decide

_____ Should not report him

ESCAPED PRISONER

GREAT importance	MUCH importance	SOME importance	LITTLE importance	NO importance		
___	___	___	___	___	1.	Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?
___	___	___	___	___	2.	Everytime someone escapes punishment for a crime doesn't that just encourage more crime?
___	___	___	___	___	3.	Wouldn't we be better off without prisons and the oppression of our legal system?
___	___	___	___	___	4.	Has Mr. Thompson really paid his debt to society?
___	___	___	___	___	5.	Would society be failing what Mr. Thompson should fairly expect?
___	___	___	___	___	6.	What benefits would prisons be apart from society especially for a charitable man?
___	___	___	___	___	7.	How could anyone be so cruel and heartless as to send Mr. Thompson to prison?
___	___	___	___	___	8.	Would it be fair to all the prisoners who had to serve out their full 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 _____

NEWSPAPER

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

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

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

Should the principal stop the newspaper? (Check one)

_____ Should stop it

_____ Can't decide

_____ Should not stop it

NEWSPAPER

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

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

Most important ____
Second most important ____
Third most important ____
Fourth most important ____

WEBSTER

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

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

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

____ Should have hired Mr. Lee

____ Can't decide

____ Should not have hired him

WEBSTER

GREAT importance	MUCH importance	SOME importance	LITTLE importance	NO importance		
___	___	___	___	___	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 to this case.
___	___	___	___	___	12.	If someone's in need, shouldn't he be helped regardless of what you get back from him?

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

Most important ____

Second most important ____

Third most important ____

Fourth most important ____

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

DOCTOR

GREAT importance	MUCH importance	SOME importance	LITTLE importance	NO importance		
___	___	___	___	___	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 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 ____

3.1

APPENDIX C

SECTION 3: SCORING THE DIT

Stage Scores: Hand Scoring

If you are hand scoring your questionnaires, follow these steps:

1. Prepare a data sheet for each subject as follows:

Story

STAGES	2	3	4	5A	5B	6	A	M	P	Rate-Rank Inconsistencies
Heinz										
Students										
Prisoner										
Doctor										
Webster										
Newspaper										
Raw Stage Scores										
Stage Percentages										

2. Only look at first four rankings at the bottom of the test page.

3. For the item marked as "most important" consult the chart below to find out what stage the item exemplifies. For instance, if a subject's first rank on the Heinz story was Item 6, this would be a Stage 4 choice; Item 10 on the Heinz story is Stage 5A; Item 4 on the Heinz story is an "M" item (explained in Interpretation section).

Story

ITEM	1	2	3	4	5	6	7	8	9	10	11	12
Heinz	4	3	2	M	3	4	M	6	A	5A	3	5A
Stu.	3	4	2	5A	5A	2	6	4	3	A	5B	4
Pris.	3	4	A	4	6	M	3	4	3	4	5A	5A
Doc.	3	4	A	2	5A	M	3	6	4	5B	4	5A
Web.	4	4	3	2	6	A	5A	5A	5B	3	4	3
Newsp.	4	4	2	4	M	5A	3	3	5B	5A	4	3

APPENDIX D

Anova Summary Table I

Source	SS	dF	MS	F	p
Between Ss	394	47			
A: ROTC vs. College	74	1	74	11.67**	<.01
B: Upperclass vs. Fresh.	38	1	38	5.99*	<.05
AB	3	1	3	.47	
ERROR BETWEEN	279	44	6.34		
Within Ss	4426	48			
C: Conventional vs. Principled Reasoning	33	1	33	.34	
AC	32	1	32	.33	
BC	80	1	80	.82	
ABC	4	1	4	.04	
ERROR WITHIN	4277	44	97.2		

APPENDIX D
(Contd.)

Anova Summary Table II

Source	SS	dF	MS	F	p
Between Ss	194	23			
A: ROTC w/ Prior Svc. vs. ROTC w/o Prior Svc.	52	1	52	8.25**	<.01
B: Juniors vs. Freshmen	5	1	5	.79	
AB	10	1	10	1.59	
ERROR BETWEEN	126	20	6.3		
Within Ss	2578	24			
C: Conventional vs. Principled Reasoning	209	1	209	1.85	
AC	44	1	44	.39	
BC	2	1	2	.02	
ABC	61	1	61	.54	
ERROR BETWEEN	2262	20	113.1		

APPENDIX D
(Contd.)

Anova Summary Table III

Source	SS	dF	MS	F	p
Between Ss	434.78	47			
A: ROTC vs. College	.89	1	.89	.09	
B. Upperclass vs. Freshmen	18.00	1	18.00	1.91	
AB	.89	1	.89	.09	
ERROR BETWEEN	415.00	44	9.43		
Within Ss	1417	240			
C: Dilemmas	73.74	5	14.75	2.7*	<.05
AC	54.57	5	10.91	1.99	
BC	52.71	5	10.54	1.93	
ABC	32.31	5	6.46	1.18	
ERROR WITHIN	1203.67	220	5.47		

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