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A STUDY OF MORAL DEVELOPMENT AND PERSONALITY RELATIONSHIPS IN ADOLESCENTS AND YOUNG ADULT CATHOLIC STUDENTS

by

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Thesis submitted to the School of Graduate Studies
of the University of Ottawa as partial fulfillment
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Abstract

Kohlberg (1969) has classified modes of thought into a hierarchy of six stages. Building upon the moral judgment stages of Kohlberg, Rest has developed an objective test for the assessment of moral judgment. Evidence presented by Rest (1974a) indicated that a person's preference for principled level (Kohlberg's Stages 5 and 6) issues in solving hypothetical moral dilemmas is a significant factor in determining developmental trends of moral judgment. Prior to this study, no research information was available as to the developmental trends of the importance attributed to principled levels of moral judgment of those involved within a religious educational environment. There was also a lack of information concerning the relationship between importance attributed to principled levels of moral judgment and personality characteristics.

The purpose of this study was (a) to determine if there are developmental trends in the importance attributed to principled levels of moral judgment of young people in attendance at Catholic high schools and colleges (undergraduate and graduate levels), (b) to compare preferenoe for principled levels of moral judgment between the present sample and Rest's comparative sample, and (c) to investigate the psychological characteristics soon related to an individual's preference for principled moral issues in making moral judgments. Five hundred forty-nine students in attendance at Catholic schools, 247 females and

302 males, were given measures of moral judgment and personality. The findings indicated that there are developmental trends in preference for principled levels of moral judgment of Catholic students. Preference for principled issues was significantly lower for the Catholic sample of this study. The results also indicated that each succeeding age group decreased in its preference for lower levels of moral reasoning. Those who preferred principled moral reasoning were seen as being dependable, creative, and intelligent in thought and action, and accepting of rules and constraints of society, but at the same time, able to think independently and aware of the need for change.

Introduction

Cognitive developmental theory and research concerning stages of moral development is critically evaluated with particular attention to the work of Kohlberg, and with special focus on young adulthood. The purpose of this study is:

1. to determine if there are developmental trends in the importance attributed to principled levels of moral judgment of young adults within a religious educational environment at the high school, college and graduate levels;

2. to compare preference for principled levels of moral judgment between the sample of the present study who have been exposed to a religious educational setting and the comparative sample who have not; and

3. to determine if a meaningful pattern of personality characteristics, as measured by the California Psychological Inventory, are significantly related to preference for principled levels of moral judgment.

The cognitive developmental view of moral development states that cognitive processes underlie moral responses and that the organization of these processes is different at different stages in a person's development (Kohlberg, 1969; Rest, 1973). The way a person thinks about conflicting social issues, and the verbal explanations given to justify a plan of action are classified into response categories which are called stages. Kohlberg (1969) has postulated a hierarchy of six stages divided into three

levels. Higher stages are thought to demonstrate a higher conceptual system which is more integrated and differentiated to reflect upon moral conflicts.

Evidence suggests that besides being an indicator of general cognitive development, moral judgment should be an indicator of the way a person perceives and structures his world, e.g., a function of the person, and not simply his capacity to think logically (Bernstein, 1973; Haan, 1972). Some support for this relationship between moral judgment and personality has been given by the research of Haan (1968, 1972) and that of Sullivan, McCullough, and Stager (1970), but scoring procedures have presented problems in comparative analysis.

Rest (1974a) offers a different approach in determining levels of moral judgment. He developed an objective test format which determines a person's preference for different moral stage issues in making a moral decision. Rest (1974a) has presented evidence to indicate that a person's preference for principled levels of moral reasoning (Kohlberg's highest stages) is a crucial factor in ascertaining developmental trends of moral judgment. If the higher levels of structural moral development provide a conceptual framework which enables an individual to resolve social issues where a conflict of interest occurs, then this ability could be reflected in an individual's overall personality characteristics. If such a relationship could be supported, then it would be possible

to help young adults to cope in a meaningful way with problems and challenges of late adolescence by stimulating a change to higher levels of moral development. Perhaps personality variables could also be changed to bring about advances in moral reasoning.

Rest (1974a) has shown that there are developmental age trends in preference for principled levels of moral judgment. Research by Haan (1969) and Woolf (1973) suggested that those who identify with a social institution such as the church, tend to be classified at the conventional levels, or lower levels of Kohlberg's theory. The present research seeks to use Rest's approach to study the nature of these developmental trends among young adults within a religious educational environment. The nature of such developmental trends of these young adults could hold significance for those involved in moral and religious education and those charged with the responsibility of developing meaningful curriculum materials that take into account the different levels of moral understanding. Such trends would be significant in considering the relevance of Rest's approach within the religious educational setting. The lack of research information along the lines of Rest's approach to study the nature of moral development of young adults within a religious educational setting and the possible personality correlates of moral development has initiated this study.

Chapter I

Review of Related Research

A review of the literature pertaining to moral development is presented in this chapter. This includes a discussion of Kohlberg's moral judgment stages, Rest's Defining Issues Test, and moral judgment and personality research.

Moral Judgment

The dimension of human functioning called "morality" has been the subject of much attention in recent years. London and Rosenhan (1968) state that morality research needs to differentiate between moral behavior, moral judgment, and moral feeling. While all share a similar relationship, different aspects need to be considered. For example, "A person who judges that some act is wrong may nevertheless do it and have little feeling about it" (p. 267). Kohlberg (1969) stated that cognitive dimensions of moral judgment define moral age development. Once moral judgment is understood, the development of moral action and moral affect is predictable. Moral judgment is related to the conclusions people reach in cases where moral rules are in conflict and equivocal. Also, the reasoning by which people justify a plan of action is included. Rest (1974a) stated that, "A central question asked of a subject in studies of moral judgment is, 'How do you judge what act in a moral situation would be right or wrong? On what basis can one say something is morally right or wrong?'"

(p. 2). The cognitive aspect underlying moral responses is based upon an assumption of cognitive theory. This assumption is that the first stage in a chain of events created by a stimulus event, and resulting in an act of behavior, is the product of a cognitive representation of the environment. This cognitive representation which includes a representation of the self provides the stimulus for the instigation, modification, and guidance of goal-directed behavior (Baldwin, 1969). Thus, according to this assumption, man is placed in the role of an executor of his behavior, acting on his environment instead of just acting in reaction to the internal or external environment.

Much of the work on the development of moral judgment commenced with the classic work of Piaget (1932). There is considerable literature to support Piaget's basic notion of developmental stages which are characterized by distinct types of thinking about moral issues (Kohlberg, 1963, 1964). Piaget's position is that cognitive processes underlie moral judgments and that these processes are different at different age levels. As personality and cognitive development proceed, moral judgments are subject to change. Growth toward greater moral maturity is established via interaction of one's cognitive structure with the structure of the environment. Cognitive theory understands the structural components to be the general characteristics, or organization of response rather than the

content. Thus, the way one thinks (or the quality of response) is considered as a determiner of behavior rather than the content (or the quantity of response). These structures (or patterns of thought) represent structural wholes rather than isolated bits of behavior. There is, therefore, a consistency of response in different situations. These structural wholes, or stages, form a developmental invariant sequence in a person's individual development. Cultural factors may have an effect on development (speed it up or slow it down). However, the sequence of moral development is not changed. These stages form a hierarchy where the higher stages are more integrated and differentiated. As development proceeds from one stage to another, the former processes are integrated into and replaced by a higher stage. There is a hierarchical preference in the individual or a disposition to prefer a solution of a problem at the highest level so far established (Kohlberg, 1969; Piaget, 1932; Rest, 1969). The research of Rest (1969) and Turiel (1969) seems to indicate that although a person may prefer higher stages, he generally comprehends only one stage above his modal level of reasoning. Thus, the clearly effective approach to help a person advance to the next stage above the one at which he is functioning is to provide moral dilemmas which are one stage above his modal functioning, rather than one stage below or two stages above it.

Kohlberg's Moral Judgment Stages

One of the most significant advancements of Piaget's work has been by Kohlberg (1958, 1963, 1964, 1969, 1971, 1975). Kohlberg has utilized in addition to Piaget, the work of Mead (1934), Baldwin (1906), and Dewey (1909) to establish a cognitive-developmental theory of moral judgment that includes three levels, each containing two stages. Each stage represents an established orientation to moral problems. The six stages are understood to represent an invariant, universal developmental sequence. Each higher stage is an advance over the preceding one in being a more differentiated and integrated structure. Such a structure is more adequate to resolve moral conflicts. An outline of Level I (preconventional), Level II (conventional), and Level III (postconventional) of Kohlberg's developmental hierarchy is presented below. There are two stages within each level. (For a precise account of stage characteristics, see appendix M.) The six stages or types of moral orientation grouped into three levels are summarized as follows:

Level I preconventional behavior (stages 1 and 2). External control of conduct is central to this level of functioning. The first stage interprets labels of good and bad in terms of the physical (hedonistic) consequences of actions such as punishments, rewards, or the exchange of favors. The second stage involves standards

which are obeyed because of adherence to outer demands of authority figures.

Level II conventional behavior (stages 3 and 4). At this level, right action is determined by the concerns and expectations of one's family group and nation. Conformity is based on the belief of goodness of authority and correctness of expectations and not on fear of authority, which is demonstrated at the first level. There is an attitude of loyalty to the social order and a vigorous identification with it.

Level III postconventional or principled level behavior (stages 5 and 6). Principled levels of moral reasoning require the development of new conceptualizations of social interactions and role-taking which fall in a higher level of abstraction. A person at this level becomes aware of the conflicts existing between social norms. However, at this level, one makes an effort to interpret moral values apart from the authority of groups, persons, or one's identification with such groups. Conformity is based upon the internalized standards that have met the test of individual conscience and rational universality.

The moral stages of Kohlberg parallel Piaget's cognitive stages. A given stage is necessary, but not enough for moral stage progression. For example, all principled subjects in Stage 5 and Stage 6 are formal operational; e.g., Piaget's highest logical stage which is marked by greater differentiated and integrated thinking. However, many who are formal operational are not principled. In other words, a person has to be intelligent or cognitively mature to be able to reason morally. Yet, one can be cognitively mature or intelligent and never reason morally. The reason for this difference is given by Kohlberg to be the involvement of social role-taking necessary for moral stage development. Insofar as the nature of morality deals essentially with the welfare of others within social relationships, the principle of justice, reciprocity, and equality is advanced only as one is able to take the point of view of the other person. Interaction between the individual and the environment provides the individual with role-taking opportunities. The person is provided with experiences to change himself as his exposure changes. In some groups, there will be more opportunities for role-taking. In other groups, moral progress may be retarded so that inhibiting anxieties may fixate a person at a premature early stage of development. As new experiences which cannot be properly understood converge upon the child, the child tries to reorganize his existing cognitive structures or his thinking. The new forces of

interaction create disequilibrium in the individual according to the research of Turiel (1969) and Haan (1971). Disequilibrium is defined as the person's state of disturbance as he discovers that his stage of cognitive or moral structuring is not capable of being supported; hence, he restructures his thinking to an advanced stage to resolve moral dilemmas.

In a revision of an earlier position, Kohlberg (1975) suggested that principled reasoning, Stages 5 and 6, or adult moral development is not reached until one reaches the age range falling in the late twenties. However, one does not automatically develop principled thinking by an accumulation of birthdays; Stage 4 appears to be the model stage for adults. Kohlberg presented specific experiences which create the disequilibrium required for the attainment of principled moral judgment. Part of this transition involves the experience of leaving home and entering a college community with conflicting values. Evidence suggests that formative experiences such as those sustained in the new settings encountered on a college campus create cognitive-moral stimulation which makes movement to higher levels of moral judgment more likely to occur (Kohlberg, 1973; O'Connor, 1972). Kohlberg (1973) concludes from a wide range of research findings that personal experiences of choice involving questioning and commitment in some sort of integration with stimulation to cognitive-moral reflection, seems required for movement from conventional

to Stage 5 thought; also, that this is probably the reason that principled thought is not attained in adolescence. Kohlberg's evidence for his cognitive stage theory is derived from (a) findings from cross-cultural studies of age differences in moral judgment which support his idea of stage development, (b) finding of a Guttman quasi-simplex pattern in the correlation of various types of thought, and (c) longitudinal studies of individual development (Kohlberg, 1971; Rest, 1969; Turiel, 1966).

A New Approach in the Assessment of Moral Judgment

Kohlberg's work has brought forth many important findings and ideas concerning moral development. However, virtually all of these are based on methods of assessment devised by Kohlberg in his dissertation in 1958 or slightly modified versions of it. For example, Kohlberg's method employed a single hypothetical story (presented one at a time) which raises a dilemma in which an actor has two choices of action. One of Kohlberg's stories (1958) depicts a man, Heinz, whose wife is dying of cancer and is in need of a drug which the druggist will only sell for an exorbitant price. Subjects are asked whether or not it would be right for Heinz to steal the drug from the druggist and subjects are asked to justify their views. The subject's response is then characterized in terms of a two-dimensional scoring grid of 25 aspects and 6 stages (125 scoring possibilities). Kohlberg's scoring method

yields either a global moral maturity score or a subject is designated as a moral type according to which stage has the most responses. Further research (Haan, 1972; Kohlberg and Kramer, 1973; and Turiel, 1969) has shown that revisions were necessary in the original methods and Kohlberg has since added additional subclassifications to account for transitional movements from stage to stage.

In reviewing Kohlberg's basic assumptions and assessment procedures, Rest (1974a) took issue with Kohlberg's stage typing and the problems associated with his open-ended interview method. Classifying a subject at a given stage is difficult because rarely if ever is their subject responding 100 percent at one stage. Movement from stage to stage is not abrupt but gradual with overlapping tendencies. In addition, research reported by Rest (1973) has shown (a) that there is considerable subject vacillation, particularly in transition periods of acquiring a new cognitive structure; (b) inconsistencies in response due to test stimuli characteristics; and (c) discrepancies due to different kinds of information-gathering procedures. The free-response interview method, such as Kohlberg's, may therefore be intruding discrepancies in stage scores not due to developmental differences.

Rest (1974b) feels that while Kohlberg's methods have been helpful in identifying certain characteristics of moral development, now that they have been identified, the other options need to be considered in the assessment of

moral judgment. For example, not only can a subject be asked to solve a hypothetical moral dilemma, but he can indicate a preference among moral judgment statements, or he can indicate the most important issue involved in a dilemma. Rest (1974b) further suggests:

> the various data gathering procedures have different properties. Some are more capacity measures whereas others are more indicators of personal values; some seem to tap the early phases of the acquisition of an idea, whereas others tap later phases, and some are relatively standardized and highly structured whereas others are openminded and unstructured (p. 21).

Building upon the basic theoretical constructs of Kohlberg, Rest (1973, 1974a, 1974b) has attempted to cope with some of the inadequacies of the Kohlberg assessment procedure by devising an objective test called the Defining Issues Test (DIT) which samples the subject's response to moral dilemmas (see Appendix C). Kohlberg's approach presents a subject with a list of issues and then asks the subject to determine which of the issues are most important. The issues presented to the subject are keyed to Kohlberg's stages and therefore each issue exemplifies a stage characteristic. The way a person judges what are the most important issues over a number of moral dilemmas is taken to be an indication of that person's level of moral judgment. The initial research has shown that one of the most meaningful scores is obtained by focusing on one type of response, (P score or Principled Morality). This is obtained by measuring the importance attributed to

principled levels (Stages 5A, 5B and 6) of moral reasoning across six stories. By looking at this one type of response, the stage typing problem is avoided. One simply looks at that stage as a continuous variable and disregards the fluctuations in other responses. In summarizing some of the advantages of the DIT, Rest (1974a) states:

> .....it is highly structured so that the information from each subject is comparable; it minimizes variance in stage scores due to individual differences in verbal expressivity; and it is objectively scored (can be computerized) saving time and minimizing scorer bias (p. 4).

The Defining Issues Test and Developmental Trends

Research conducted so far has shown that the P score (importance attributed to principled morality) shows developmental trends. Age trends such as these are typically the first line of evidence that researchers seek in investigating phenomena that may be developmental. The logic is that, in general, a group of older, more educated subjects should be further developed than a group of younger, less educated subjects. Piaget's (1932) evidence for the developmental nature of moral judgment was exclusively of this sort, Kohlberg's primary evidence in his dissertation (1958) for his six stages of moral judgment was cross-sectional age trends. Rest (1974a) demonstrated developmental trends through the administration of the DIT to middle class groups of 40 subjects each of junior high school and senior high school subjects, college juniors and seniors, and graduate students (25 Protestant seminarians

and 15 doctoral students in political science and moral philosophy). The presumption was that the ordering of these four groups represents an increasing advancement in moral judgment. A one-way analysis of variance of P scores across the four major groups of 40 subjects each yielded an F value far exceeding the .001 level of significance ($F = 48.5$). The Ph.D. philosophy students and political science graduate students in particular had very high scores on the DIT, thus providing an empirical hold at the upper end of the scale. The data from subsequent studies using the DIT indicate that junior high samples tend to have average P scores in the 20s and low 30s, senior highs in the upper 30s, college underclassmen in the 40s and in the 50s; for college upperclassmen, graduate students in the 60s, and academic specialists in the moral-social-political area in the 70s (Rest, 1974a).

Moral Judgment and Religious Education

Haan (1969) studied moral development among students in secular high schools and college. Using a modified version of Kohlberg's interview technique, Haan found that her conventionally moral young adult groups' religious upbringing was often Protestant or Catholic, and they more often retained the religious beliefs of their childhood and still attended church. Woolf's (1973) research appears to confirm this finding; e.g., conventionally moral persons indicated a marked coherence to a religious institution.

One study was found where Kohlberg's developmental stages were investigated in a sample of Mormon high school students. The sample was obtained from high school (ninth through twelfth grades) of a school sponsored by the Church of Jesus Christ of Latter-Day Saints (Mormon Church). The researcher used a written measure provided by Kohlberg, instead of the individual interview, to investigate moral development of 143 high school students in Provo, Utah (Gilliland, 1966). Using Kohlberg's global moral maturity score, no statistically significant differences were found between the different grade and age levels. Yet, some observable differences in the means suggested some developmental trends. The percentage of responses classified at each of Kohlberg's stages indicated that Stage 2 type of moral reasoning decreased gradually with age (15 to 19 years). Stage 3 type of moral reasoning increased gradually to age 17 and then decreased. Stage 4 fluctuated between ages, but overall made a gradual decrease. Stages 5 and 6 were found to increase gradually. Gilliland (1966) concluded:

> The moral judgment of teenagers in the Mormon Culture seem to generally be characterized by conformity to expected roles, showing respect for and seeking the approval of authority images, and strict obedience to rule (p. 48).

Moral Judgment and Personality Research

Haan (1971) and Erickson (1950) suggest that the development of a moral ideology plays an important role

in the organization of personality as a person becomes committed to an integrated set of values. In reviewing the relationship between Erickson's ego stages and moral stages of development, Kohlberg (1973) differentiates the structural stages of moral development and the functional aspects of ego development. He sees the self as an executor or one who uses cognitive structures and other structures. Contrary to this, the focus of moral stages is on the form and content of objective and moral principles, and not on the process of choice to the self. Haan (1968) used a written version of Kohlberg's interview technique in part of her study to compare the different levels of moral judgment with a Q sort test for self and ideal-self descriptions, with a middle class college population. Principled subjects were determined by Kohlberg's moral maturity score. Seventy-eight percent of the principled subjects described themselves as having an autonomous sense of self, being ego-syntonic, tension free, and having concern for interpersonal obligations. Fifty-nine percent of the subjects who fell into the conventional level emphasized efficient control of self and social skillfulness instead of expressiveness and interpersonal concern emphasized by those who were classified at the principled level of moral judgment. They demonstrated a good relationship with traditional institutions, political and religious, and seemed to be isolated from conflicting values. Sixty-eight percent of the subjects

at the premoral level described themselves as the most rebellious. The large discrepancy between self and ideal-self items indicated that their rebellion was not ego-syntonic. They did not subscribe to the necessity of interpersonal obligation (empathy with others). Rather, they showed more interest with personal fulfillment. Though some of the relationships were at a low significance level, (p .003), Haan concluded that there seemed to be some indication of moral stages in the self-perception of the subjects.

The reliability estimate (.82) for responses to Kohlberg's stories was based upon the percentage of agreement between two judges. The Kohlberg instrument, however, is usually administered in an interview, and the paper and pencil version probably caused some subjects to abbreviate their responses to these dilemmas. This may have lowered reliability and led to an inflated proportion of moral types, so that findings of this study tend to be equivocal.

One study was found that explored the relationships between ego and conceptual systems and Kohlberg's moral developmental theory (Sullivan, McCullough and Stager, 1970). The age-developmental trends on the three major instruments were designated to measure ego, conceptual and moral developmental trends for 120 middle-class Canadian students drawn from three age levels, 12, 14, and 17 years. Low to moderate correlations were found between the three measures and age level (.66, .65, and .65

respectively). A modified version of Kohlberg's moral judgment interview was employed, where the inter-scorer reliability check on thirty percent of the protocols yielded a coefficient of .74. The researchers suggested that further, and more precise investigations into the common aspects of personality and moral development would be worthwhile.

Erickson's adolescent identity crisis was studied by Podd (1972) who used Marcia's (1966) interview technique to measure four ways of coping with the identity crisis. The concept of identity crisis represents one of eight stages of ego growth and is defined as the "adolescent's need for a consistent independent self definition in conjunction with societal demands that he define himself" (Podd, 1972, p. 497). An identity is achieved when a person has passed through a crisis or has reviewed alternatives and then has made a commitment. The operational definition of identity status is (a) identity achievement--where the individual has passed through a crisis and becomes committed, (b) moratorium--where the person is in a crisis with indefinite commitments, (c) foreclosure--where the person has experienced no crisis but is committed to goals and values of significant others, and (d) identity diffusion--where the individual has no commitment irrespective of a crisis. Podd used these four categories to classify 120 middle class college students who volunteered to act as subjects for his study: preconventional,

conventional, transitional (a mixture of stages), and post-conventional. Relationships were evidenced between moral ideology and identity status. Two-thirds of the individuals at the post-conventional level had an identity achievement status. Similar results were found for 40 percent of the conventional subjects. Those who were morally transient did not have an identity achievement status. About 10 out of 16, or 65 percent of this group were classified as identity diffusion. Although the sample was small, Podd concluded that achievement of an ego identity was accompanied by the development of mature moral values, thereby presenting support for Erickson's view that moral ideology is a factor in ego identity. Podd also found that subjects classified into the identity diffusion status demonstrated variability of moral reasoning. These subjects showed a predominant use of relatively mature moral judgments. In reviewing Podd's methodology, the reliability of his levels of moral judgment is to be questioned. Using a version of Kohlberg's instrument, subjects responded verbally to an interview composed of four moral dilemmas. After the data was collected, and each of five interviewers had rated his own tapes, a sample of 22 tapes was randomly drawn for the reliability check. The means and modes could be determined for only 20 percent of the sampled tapes. Also, where two kinds of moral reasoning coexisted in the same moral dilemma, it could not be meaningfully quantified. The interviews were

rated and rerated until all raters could agree upon the precise moral classification. Rest (1974) questions the validity of moral classifications made following this procedure in that scorers work over the responses of the subjects together, rather than separately and blinded, interpreting the set of interviews so that they would come out sequentially, e.g., preconventional, conventional, and postconventional levels.

Summary

In this chapter, selected studies in the literature related to the present investigation were described and the findings in these studies were reported. The present study focuses upon the cognitive developmentalist view of man and his ability to organize his experiences. Conceptual organization of moral reasoning appears to be developmental. Progression follows from lower stages to higher stages which are more adequate to resolve conflicts arising out of moral dilemmas.

Rest (1974a) developed an objective test for the assessment of moral judgment based upon the moral judgment stages of Kohlberg. Developmental age trends in the preference for principled levels of moral judgment in solving moral conflicts were given by Rest. There is no information about developmental trends of preference for principled levels of normal judgment in making moral decisions (P score) of students within a religious

educational setting. The invariant sequential nature of moral judgment suggests that those who function at lower levels of moral judgment do not conceptualize moral problems in the way that those who function at higher moral judgment levels. Difficulties in communication may result between teachers and students who are operating at different levels of moral judgment. The particular nature of these trends holds significance for those involved in moral education, particularly in developing meaningful curriculum materials that take into account different levels of moral understanding. The emphasis upon the problem-solving strategies of Kohlberg's approach could add a worthwhile dimension to a more individualized curricula.

Some evidence suggests that those who identify with the church and its beliefs tend to be classified at the lower levels of Kohlberg's theory. There is evidence, therefore, to suggest that a religious educational environment would influence students toward preference for Stage 4, a construct with authoritarian components. At Stage 4, the value of a system of moral laws or rules is not differentiated from the value of maintaining those rules and laws which is unquestioned. Thus, this study also seeks to investigate the influence of religious education on the importance attributed to principled levels of moral judgment, by comparing the P scores (preference for principled levels of moral judgment) of the present sample

drawn from a religious educational setting with a comparative sample of students drawn from a non-religious educational setting.

Limited evidence was presented demonstrating some relationship between levels of moral judgment and certain dimensions of personality. The few studies that have been done utilized various versions of Kohlberg's method of measuring cognitive-moral development. In view of Rest's (1974) research, the reliability of Kohlberg's instrument is brought into question. The findings, therefore, of the studies on moral judgment and personality would seem to be equivocal and indicate the need for further research. A review of literature shows that there have been no studies done to date using Rest's measurement of assessment of moral judgment to determine if the tendency to attribute importance to principled levels of moral judgment in making moral decisions is associated with a significant pattern of personality characteristics. If higher stages of moral judgment are thought to be more adequate ways of of resolving moral dilemmas where a conflict of interest occurs, then this should be reflected in the individual's essential personological characteristics. Therefore, the secondary thesis examined in this study is to investigate the psychological characteristics that are significantly related to an individual's preference for principled moral issues in making moral judgments. If such relationships can be substantiated, perhaps young adults can be assisted

in meeting the challenges of life by bringing about change to higher levels of moral judgment, or perhaps personality variables can be changed to bring about greater moral adequacy.

Statement of Hypotheses

The evidence presented by Kohlberg (1972) indicates that there are developmental trends in the manner in which individuals respond to moral dilemmas. The invariant sequential nature of moral judgment suggests that those operating at lower levels of moral judgment do not conceptualize moral dilemma problems in the same way as those operating at higher moral judgment levels. In fact, according to Kohlberg's theory, the teacher operating at a principled level could cause a communication gap by insisting that a preconventional student think in his terms. Evidence presented by Rest (1974a) has shown that there are developmental trends in the importance attributed to principled levels of moral judgment. This investigator wanted to know if these same trends were evident for students within a religious educational environment. Rest's Defining Issues Test has not been used to determine the development trends of young adults within a religious educational environment (high school, college and graduate levels). A study of such trends may lead to pedagogical considerations regarding the pertinence of Rest's approach, as well as the validity of Kohlberg's thinking within a

religious educational setting. Therefore, hypothesis 1 is stated:

Hypothesis 1

There will be a significant difference in the P scores (importance attributed to principle moral issues in making moral decisions) among nine groups of young adults (ninth grade through post high school) who are exposed to a religious educational environment.

The exploratory nature of the study seemed to justify a more precise effort to specifically compare the P scores (importance attributed to principled moral issues in making moral judgments) of the young adults of the present sample who have been exposed to a religious educational environment at the high school, college and graduate levels, with Rest's comparative sample of high school, college, and graduate students who have not had such exposure. There is evidence that suggests that a religious educational environment would encourage preference for conventional issues rather than principled issues in making moral judgments (Haan, 1969; Woolf, 1973). At least, this might be the case if the subject was particularly sensitive to the doctrinal commitment of the religious educational institution, as would be reasonably expected if he adhered to its religious practices. On the other hand, the influence of such an educational environment could be creating conflicts in moral adequacy, and thus, facilitate movement to the

higher stages, which would be reflected in a greater preference for principled moral issues (P score). Therefore, hypothesis 2 is stated:

Hypothesis 2

Students within a religious educational setting will accord a lower degree of importance to principled moral issues in making moral judgments (P score) than will students within a non-religious educational setting.

The additional point investigated in this study is that an individual's preference for principled moral issues in making moral judgments is significantly related to his personality. Kramer (Kohlberg and Kramer, 1969) and Haan (1969) have carried the research of Kohlberg on into adulthood. The results of Kramer's study suggested that "modes of moral thought are structures developed in childhood, but the uses of these modes of thought, their significance for the individual self, are matters for late adolescent development" (Kohlberg and Kramer, 1969, p. 116). This has reference to personality development or to the functional aspects of moral development. A dearth of studies using various forms of Kohlberg's interview technique to measure moral maturity have indicated that those who were classified at the principled levels of moral judgment had an identity achievement status and were characterized by more extensive and intensive coping (Podd, 1972; Haan, 1972). As far as this researcher knows, Rest's

measure has not been used to investigate the personality characteristics significantly related to principled morality. A similar investigation concerning social attitudes proved fruitful in the Berkeley studies of the authoritarian personality (Hogan, 1970). If the psychological characteristics related to moral values (principled morality) are similar to the factors which support social attitudes, then the search for the personality characteristics underlying or related to a person's preference for principled moral issues in making moral judgments is justified. Considering the exploratory nature of this question, and the inconclusive findings of previous limited studies it would not be reasonable to formulate definite hypotheses in reference to the relationship between personality characteristics as determined by the California Psychological Inventory, and the P score (importance given to principled moral issues in making moral judgments). Therefore, hypothesis 3 is stated:

Hypothesis 3

There will be a significant and positive relationship between personality characteristics as measured by the California Psychological Inventory and the importance attributed to principled levels of moral judgment.

Chapter II

Method

The aim of this chapter is to give a general description of the subjects, to describe the materials which were used in the investigation and to explain the procedure which was followed in gathering and organizing the data.

Subjects

A total of 549 subjects participated in this study. There were 302 males and 247 females. All came from the Roman Catholic high schools and colleges in the Archdiocese of New York in the New York Metropolitan area. Catholic high school and college students were used because of the availability of the students, and because a reasonable picture of students within a religious educational environment could be obtained within the Catholic high schools and colleges. The respondents at the post high school levels have had all their primary and secondary education in Catholic schools. The respondents at the high school levels have had all their primary education in Catholic schools. For practical purposes, "students exposed to a religious educational environment" will be also known as "students in attendance at Catholic high schools and colleges."

Without exception, the students at each grade level were practicing Catholics as indicated by reported responses to a sacramental activity index. Invariably, they went to

Mass and received Communion either every week or several times a month and went to Confession several times a year. (See Appendix A.)

The educational and occupational levels of the high school, undergraduate and graduate college students' parents indicated that the sample was largely middle class. The high school, college undergraduate, and graduate socio-economic status mean value ranged from 14.3 to 15.4 within a potential range of 5 to 30. (See Appendix B.)

The Catholic high schools were all basically academic high schools preparing students for college. The high school students numbered 230. They came from four different coeducational high schools in the New York Metropolitan area. The high schools were conducted by particular orders of Religious men and women. The students ranged in age from 13 to 17 years. They were drawn from the four years of high school. There were 87 students in the first year, 33 in the second year, 30 in the third year, and 80 in the fourth year of high school. Entrance into Catholic high schools in the Archdiocese of New York is by competitive entrance examinations since 1956. Thus, Catholic high school students are a select group.

The undergraduate college students and the graduate level students numbered 227 and 92 respectively. The undergraduate students came from four different Catholic coeducational institutions in the New York Metropolitan area. Two of the colleges were conducted by an order of

Religious Brothers and Priests respectively; the remaining two colleges were conducted by an order of Religious Sisters. The students were drawn from the four years of college. They ranged in age from 18 to 22 years. There were 75 in the first year, 47 in the second year, 41 in the third year, and 64 in the fourth year.

The graduate students were drawn from two of the above colleges, either from the masters or from the doctoral programs. They ranged in age from 21 to 59 years. The group had a mean age of 29 years. Table 1 shows the comparative general characteristics of each group.

In all this investigation, the good faith of the student and the honesty of their answers had to be assumed. In view of this and in accordance with the principles of sound research, no general conclusions regarding Catholic students can be made as a result of the findings of this study.

Measures

Two basic measures were used to evaluate the students: the Defining Issues Test and the California Psychological Inventory. Students were urged not to identify themselves on the measures by name, but to furnish such demographic information as age, sex, religious practices, degree of Catholic educational experience, and level of formal education and occupation of parents. (See Appendix C.)

Table 1

Mean Age and Sex of Nine Grade Levels

Group	N	Mean Age	Sex	
			Male	Female
High School				
Freshmen	87	13.4	48	39
Sophomore	33	15.4	16	17
Junior	30	16.3	19	11
Senior	80	17.2	52	28
College				
Freshmen	75	18.0	40	35
Sophomore	47	19.1	20	27
Junior	41	20.0	21	20
Senior	64	22.7	37	27
Graduate	92	29.3	49	43

Socio-Economic Status Questions

Kohlberg's studies (1971) indicate that some difference in rate of moral development across class lines exist. Consequently, it was important to be able to compare the SES level of the nine grade groups in the present sample. Employing the procedure established by Manaster and Havighurst (1972), the subjects' responses regarding occupation received a rating of 1 to 6 on the urban occupations scale they suggest (pp. 164-165). Although, in itself, occupation is the best single indicator of an individual's socio-economic status, adding level of educational attainment to the scale assists the measure since cognitive capacity is the variable of interest (as it was in this study). Since occupational level is a stronger indicator of social and economic status, occupation is weighted more heavily in the combined socio-economic status scale. This weighting method consists of multiplying occupational level by 3 and educational level by 2, and adding the products to determine the SES score for every subject.

Defining Issues Test

The Defining Issues Test (DIT) developed by Dr. James Rest and validated by Cooper (Rest et al., 1973) is an objective test established to determine levels of moral judgment, based upon Kohlberg's moral judgment stages. The test consists of six short paragraphs setting forth

moral dilemmas (some adapted from Kohlberg's instrument for measuring stages of moral reasoning), together with short sentences or phrases reflecting 12 issues or considerations bearing upon the dilemma. For instance, for the moral dilemma of whether a husband, Heinz, should steal an exorbitantly priced drug for his wife who is suffering from cancer (one of Kohlberg's standard dilemma-stories), subjects are asked to consider such issues as "whether or not a community's laws are going to be upheld, "Isn't it only natural for a loving husband to care so much for his wife that he'd steal?", "Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?", "What values are going to be the basis for governing human interactions," etc. For each of the six stories, subjects were asked to rank their first four choices of the issues most important to them in deciding what they would do.

Rest et al., (1973) designed each issue to exemplify some distinctive characteristic of a stage, based on recurrent types of responses given by subjects at various stages in the free-response mode of the Kohlberg interview protocol, for which Rest had been an interview trainer. Items were written for Stages 2, 3, 4, 5A, 5B, 6, Anti-establishment A and M (nonsense items), following Kohlberg's more recent conceptions of the stages (Kohlberg, 1973). In writing the issue statements, Rest emphasized the underlying stage structure of the item so that higher stage

statements appeared stark and abstract rather than lending themselves to being interpreted as fancier ways of stating a lower stage idea. For example, instead of a statement, "The value of life is more important than property," Rest had the statement, "What values are going to be the basis for governing human interactions?" The first statement could appeal to subjects below the principled level, whereas the second one did not.

Rest deliberately devised statements which were short minimizing the tendency to project into them, and which did not explicitly advocate any particular course of action, so that if a subject did not understand the reasoning he would not be drawn to the statement by any other cue. Expressing an issue in bipolar terms as a question (e.g., whether...or not...) also helped mitigate the problems of an acquiescent set toward plausible or acceptable sounding statements. Furthermore, among the items representing stages were nonsense items that used high-sounding phrases (e.g., "What is the value of death prior to society's perspective on personal values?"). Such distractor items provide a check on the tendency of subjects to choose on the basis of complex, abstruse verbiage rather than on meaning to them. Rest also took care to match issues from various stages on word length complexity of syntax, and use of technical or unusual terms. In each set of 12 considerations, 2 items representing a particular stage were included so that if one example of a stage's orientation

did not appeal to a particular subject, there would be another example of that orientation from which to choose.

The first task for the subject on each dilemma story was to declare a decision as to what the central figure in the story should do or should not do, with a third option being a "can't decide" response. The subject's decision was not used for research purposes, but was intended to develop involvement and concern on the part of the subject for the two ensuing tasks. The second task was to rate the 12 stage-coded issue statements accompanying each story on a 5-point Likert-type scale from "great importance" to "no importance." The third task was to rank the 4 most important issue statements of the 12 given with each story.

The P score. In experimental work with Rest's instrument, Cooper (1972) found that (a) factor analyses indicate that Stages 5A, 5B and 6 cluster together and hence could most economically be treated simply as a single set of issues at the principled level of morality, which includes all of Stages 5 and 6; and (b) that a subject's developmental level could be represented in terms of his usage of each stage or in terms of an overall composite score (like Kohlberg's moral maturity score).

Following Cooper's analysis, Rest recommends the following method of constructing an index of moral reasoning level because of its simplicity, and it was also followed in this investigation: (a) weights of 4, 3, 2,

and 1 were given to issues ranked first, second, third, and fourth, respectively, for each dilemma story; (b) these weights were attributed to principled issue statements (items stage-keyed as 5A, 5B, and 6) are summed over all six stories; and (c) the result is expressed in terms of the percentage of weights attributed to the principled stages. This number (designated as "P" for "principled") can range from 0 to 95, and is interpreted and defined as the relative importance a subject gives to morally principled considerations in making moral judgments.

Correlations with other measures. In test-retest data with a sample of ninth graders, the Defining Issues Test (DIT) P index had a test-retest Pearson correlation of .81. With a heterogeneous sample of high school students, college students, graduate students and adults out of school, the correlation of scores developed using Kohlberg's scalings and interviewing procedure with the DIT P score was .68. This is not high enough a correlation to justify regarding the two measures as equivalent tests; nevertheless, it is the highest correlation of Kohlberg's measure with any other measure that Rest is aware of for a sample of at least this size (Rest et al., 1973).

Correlations with other measures help define by process of elimination the moral reasoning construct which the DIT appears to be measuring. With a group of adult subjects, Coder (1975) found a nonsignificant

Pearson r of .13 between the DIT's P score and a measure of liberal political sentiment known as the Radical-Conservatism Scale (Nettler and Huffman, 1957), and a nonsignificant r of -.10 with age. Weber (1974) found a nonsignificant r of -.15 with the McCloskey Conservatism Scale (1958), and a nonsignificant r of -.14 with the Rokeach Dogmatism Scale (1960).

It is clear then, that the DIT is not just another measure of social ideology. It is not an IQ test. Using the Quick Word Test (Nunnally, 1972) as a measure of intelligence, and a moral comprehension test measuring comprehension of the DIT dilemma stories and issue statements, Coder (1975) found that the P score from the DIT correlated with moral comprehension more highly than it correlated with intelligence. When intelligence scores were partialled out, the P scores were still correlated with moral comprehension scores at a high level (45, p .001), (Coder, 1975).

Further evidence that the level of moral reasoning the DIT is measuring is not just a variant form of intelligence comes from a study of pre- and post-test scores on the DIT for two college classes, one in ethics and one in formal logic. If the DIT is selectively sensitive to gains in moral thinking in contrast to gains in sheer complexity of logical thinking in general, then one would expect higher gains for students in the ethics class. Panowitsch (1973) found that the difference

between pre- and post-testing in the ethics class was significant (p .002) whereas the difference for the logic class was not. Pretest differences between the ethics class and the logic class were not significant, but post-test differences were (p .03). Panowitsch followed up a subsample of students from the two classes five months after their course and found that the ethics class students maintained their gains and the logic students remained the same.

What the DIT measures. Rather than measuring either intelligence or ideology, the DIT measures advancement or maturity in moral judgment in terms of preference for more complex, differentiating, and discriminating moral considerations. As stated earlier, in chapter I, Rest (Rest et al., 1973) demonstrated this through administration of the DIT to groups of 40 subjects each of junior highs, senior highs, college, and graduate students. The presumption was that the ordering of these four groups represents an ordering of increasing advancement in moral judgment. A one-way analysis of variance of P scores across the four major groups of 40 subjects each yielded an F value far exceeding the .001 level of significance ($F = 48.5$). The Ph.D. graduate students (in philosophy and political science) had very high scores on the DIT, thus giving empirical anchoring to the upper end of its scale.

Why the DIT was chosen. The DIT was chosen in

preference to Kohlberg's measure for both practical and theoretical reasons. Since the scope of this investigation involved sizeable numbers of individuals who were volunteers, a paper-and-pencil test requiring 35-40 minutes for subjects had a clear advantage over an unstructured interview protocol requiring hours. Furthermore, the other instrument planned for this investigation (the California Psychological Inventory) was also a paper-and-pencil test.

A theoretical consideration favoring the DIT over the Kohlberg interview procedure is that the DIT focuses the subject's attention on a standardized array of stimuli statements, and systematically inventories the subject's reactions to them. In contrast, Kohlberg's free response interview method of data collection can allow a subject to wander from point to point, and even to forget to mention some ideas that had earlier come to mind. Furthermore, in the interview method different interviews are not strictly comparable since all subjects are not likely to touch on the same points and issues, and if an interviewer uses any of his clinical sense to probe interesting comments of subjects then each interview situation will not involve the same set of stimuli, and it is even more unlikely that the same sequence of stimuli would occur. The Kohlberg procedure calls for the probing questions of the interviewer to vary in accordance with the subject's original judgment on a dilemma story, and so each subject

receives a different set of interviewer questions. Kurtines and Grief (1974, p. 456) point out that the inherent judgmental nature of Kohlberg's coding procedure introduces a potential for scorer bias.

Another consideration commending the DIT is that it taps a wider array of cognitive acquisition than the ability to generate spontaneous de novo responses and verbalize a given stage of moral reasoning. Kohlberg's procedure involves only a production task, asking subjects to produce solutions to hypothetical moral dilemmas and their logical-moral justifications for such solutions. The DIT measures comprehension of and preference for stages of moral reasoning, cognitive abilities which developmentally precede the capacity to generate logical arguments at any given stage (Rest, Turiel, and Kohlberg, 1969). Thus, the DIT is a more sensitive index of moral maturation.

Since this test was being administered under the auspices of a religious educational setting, it could be argued that subjects might be inclined to "fake good" on a measure of their moral reasoning. McGeorge (1975) asked 146 first year teachers' college students to fake bad, or to fake good, or to record their own genuine views in five different test-retest combinations using Rest's instrument. Subjects asked to fake bad were able to score significantly lower than when asked to respond genuinely, but subjects asked to fake good were unable to do so. The

students' inability to fake upward cannot be attributed to a ceiling effect as standard scores were in the middle range of possible P scores. The results support Kohlberg's and Rest's general theory of a sequence of cognitive stages of moral judgment; subjects can recognize stages they have passed through as being immature and can respond appropriately when asked to fake low, while stages higher than the subject's own are not accessible. Thus, faking upward is precluded. There was no reason for the investigator to expect the students of the present study to "fake-bad" for her; hence, this evidence that they could do so if they wished would seem to have no bearing on the present research.

California Psychological Inventory (CPI)

The California Psychological Inventory (CPI) was developed by Gough (1975) for diagnosis and evaluation of normal individuals, rather than with clinical nosological groups. Gough built upon the foundation laid by the authors of the Minnesota Multiphasic Personality Inventory (MMPI). The two tests share 178 identical items. However, the emphasis of the test is upon interpersonal behavior and dispositions relevant to social interaction.

The CPI contains 468 true-false statements, 12 of which appear twice for a total of 480 items. No time limit is imposed, but most subjects finish in about one hour. The test requires fourth grade reading ability, and it has been administered to persons ranging in age from 12 years to 70 years. The content is geared to students and young adults than to older groups. Most of the content consists of reports of behavior patterns and feelings, opinions and attitudes about social, ethical, and family matters. The CPI lacks symptom oriented material. In contrast to The Sixteen Personality Factor Questionnaire with the Parmia and Alexia scales and the Minnesota Multiphasic Personality Inventory with the K and F scales, the CPI measures common traits such as dominance and responsibility.

The 18 scales of the CPI have been divided into four groups to aid understanding of results (Gough, 1975). The six Class I scales measure poise, ascendancy, self-assurance, and interpersonal adequacy. The scales included in this group are: Dominance (Do), Capacity for Status (Cs), Sociability (Sy), Social Presence (Sp), Self-Acceptance (Sa), and Sense of Well-Being (Wb). The Class II measures assess socialization, maturity, responsibility, and intrapersonal structuring of values. The six Class II scales are: Responsibility (Re), Socialization (So), Self-Control (Sc), Tolerance (To), Good Impression (Gi), and Communality (Cm). The Class III measures contain three scales relating to achievement

potential and intellectual efficiency: Achievement via Conformance (Ac), Achievement via Independence (Ai), and Intellectual Efficiency (Ie). The three scales in the last class, Class IV measures are: Psychological Mindedness (Py), Flexibility (Fx), and Femininity (Fe). These scales are designed as measures of these various personality traits. Wb, Gi, and Cm are validity scales which also have interpretive significance.

These four classes are groupings developed to facilitate interpretation rather than define psychometric factors or clusters. Class I and Class II correspond to the first and second factors that emerge from factor analyses of the CPI (Megargee, 1977). Five factors emerged from such analyses: Factor 1, positive adjustment, includes Wb, Re, So, To, Gi, Sc, Ai, Ac, Ie, and Py; Factor 2, interpersonal effectiveness, consists of scales Do, Cs, Sy, Sp, and Sa. However, a number of these scales also have high loadings on other factors as well. The third factor, intellectual effectiveness and independence, is relatively smaller than the first two and consists of To, Ai, Ie, and Fx. The fourth factor, conventionality, is defined by So and Cm. The fifth factor, emotional sensitivity versus masculine toughness, is represented by high loadings on the Fe scale.

The respondent indicates on a separate answer sheet (which can be hand or machine scored) whether he thinks the test statements are true or false for him. The CPI

yields 18 raw scores. The items in each scale are assigned unit weights (0-1) and raw scores are converted to standard scores with means of 50 and standard deviations of 10. The norms reported in the manual are based on over 6,000 male and 7,000 female cases (Gough, 1975). The author does not state that these normative groups represent a random sample of the general population; rather, the normative groups represent a wide range of ages, socio-economic groups, and geographical areas. The manual presents separate mean profiles for males and females, college and high school subjects. Raw scores and standard deviations of 30 varied groups, 19 male and 11 female, for each of the 18 scores.

The purpose of each scale is to predict what an individual will do in a specified context and/or to identify individuals who will be described in a certain way. Gough clarifies these aims which distinguish his test from measures of trait specification. "If a scale is intended to define a unidimensional trait of personality, then it must meet minimal statistical requirements of internal homogeneity, domain reliability, and factorial independence. However, if the purpose of a scale is to forecast what a person will say or do and/or how he will be described by those who know him, then these statistical considerations become relevant if, and only if, it can be shown that the predictive utility of the measure is improved by their fulfillment" (Gough, 1968, p. 2).

Thus, a high score on the tolerance scale of the CPI does not mean that the individual tested has a trait of tolerance, but rather in viewpoint and outlook, he tends to resemble people who are tolerant. Therefore, he may be tolerant already, or possessed of those dispositions that will lead him toward such attainment.

The CPI shows two long-termed reliability studies using the test-retest method (Gough, 1975). For 225 high school subjects tested after one year, the median test-retest correlation was .65 for males and .68 for females. Test-retest reliabilities for 200 male prisoners retested after one to three weeks range from .49 to .87. The short-termed coefficients reported by Hase and Goldberg (1967) range from .71 to .90 with a median of .80. The long-termed coefficients are mostly in the .60s and .70s indicating moderate stability over one year even among adolescents. Py (Psychological-Mindedness) and Cm (Communality) yield lower coefficients because of their particular characteristics. The Cm scale (28 items) has an extremely skewed distribution. The modal score in a test sample is usually 25 or 26, with values below 20 rarely observed. This clustering of high scores means that a fluctuation of response to one or two items will markedly affect a person's relative standing on Cm. The Py scale contains only 22 items and because of its shortness is susceptible to changes in one or two items (Gough, 1975). No data on split-half reliabilities are reported

in the manual. Intercorrelations of scales are relatively high. All but four scales correlate at least .50 with one or more of the other scales. This lack of independence, resulting in redundancy among the 18 scores, has been understood to be the chief limitation of the CPI (Anastasi, 1968).

All of the CPI scales have been cross-validated a number of times. Criteria used have included ratings by peers, superiors, teachers, principals, and professional psychologists; scores on other tests; and objective behavioral data. Further evidence of the functional validity of each scale is provided by a list of adjectives indicating the way in which persons who score high and low on each of the scales are seen by assessment staff members or peers in an assessment program.

Kleinmuntz (1967) stated, "The CPI is already well on its way to becoming one of the best personality measuring instruments of its kind" (p. 239). Anastasi (1968) cites the CPI as "one of the best personality inventories currently available . . . . its technical development is of a high order, and it has been subjected to extensive research and continuous improvement" (p. 448). Goldberg (1975) states that more solid nontest predictions can be made from the CPI than from most other comparable instruments on the market at this time. In conclusion, the CPI appears to have passed its infancy and is especially well suited for this study.

Procedure

The normative survey technique is one of the research methods used to study groups of persons. This was the method of procedure followed in this study.

The research was conducted during the scholastic year of 1977-1978. There was little difficulty in getting schools to provide subjects for the study. Participation in this study was on a voluntary basis throughout the grade levels, high school to graduate level. All subjects were tested during the Spring of 1978.

At the high school level, on the day set apart for the testing, three periods (45 minutes each) were set apart for the testing. This meant that there was approximately 135 uninterrupted minutes. The high school students were administered the test by the investigator during this time. The test packets distributed were accompanied by a letter from the investigator (See Appendix E) briefly discussing the purpose of the study and some initial instructions. Specific instructions were then verbally given. (See Appendix F.) Emphasis was placed on the fact that the students should not put their name on any of the tests. Thus, anonymity was maintained.

The college students and the graduate students who were willing to cooperate were given the test packets to complete outside of class periods. Severe snow storms during the early part of the semester obstructed class schedules to the point that the time periods so generously

established by most departmental administrators for the administration of the tests during class time had to be cancelled. The college students and the graduate students were given the test packets containing the same cover letter given to the high school group. Arrangements were made to collect the completed test packets within a week of distribution during class time. Those who decided that they did not wish to participate for various reasons after committing themselves, returned the original test packets, or the partially completed test packets the following week. In the case of the student's absence, the cooperating students returned the completed test packet to their professor who then returned it to the investigator.

It is important to note that the measures of this study were not administered under a controlled situation e.g., the tests were administered to high school students within the classroom setting on one afternoon, whereas the college and graduate students were permitted to take the test packets home to complete. Although both procedures of administration are standard, this lack of uniformity may have produced possible contamination of test results.

Data Analysis

To determine if a significant difference existed between nine grade groups on importance attributed to principled levels of moral judgment, a two-factor analysis

of variance for unequal cell frequencies was performed. Additional analyses were performed to determine if a significant difference existed between the nine grade groups on Stage 2, Stage 3, and Stage 4.

A t test for the difference between the means of the independent samples was computed between the sample means of the high school, college, and graduate groups and the means of the comparative sample.

Pearson r correlations were computed between the P scores of the Defining Issues Test and the mean scores of the eighteen scales of the California Psychological Inventory.

Chapter III

Results

The analysis of the results of the investigation of moral development of high school, college, and graduate students in attendance at Catholic schools and the personality characteristics that are significantly related to preference for principled levels of moral judgment are presented in this chapter. The divisions of the chapter follow the order of the hypotheses posed in Chapter I.

Hypothesis 1

This hypothesis stated that there would be a significant difference in the importance attributed to principled levels of moral judgment among nine grade levels of students in attendance at Catholic high schools and colleges.

In order to test this hypothesis, a two-factor analysis of variance for unequal cell frequencies as outlined by Kirk (1968) was performed on the importance attributed to principled levels of moral judgment or P score for male and female subjects in the nine grade groups. The results are presented in Table 2. The results of the analysis of variance are summarized in Table 2. The hypothesis was accepted. There was a significant difference in the importance attributed to principled levels of moral judgment between the nine grade groups. Table 2 shows that the main effect for groups was significant

Table 2

Summary of Analysis of Variance on Preference for Principled Levels of Moral Judgment (P score) for Nine Grade Groups

Source	Sum of Squares	df	Mean Square	F	Significance
Sex	49.77	1	49.77	.77	NS
Group	9601.42	8	1200.18	18.48	.001
Sex & Group	764.82	8	95.60	1.47	NS
Error	34478.39	531	64.93		

(F = 18.48, df = 8, 531, p .001). Although sex differences have been rarely found to be significant in DIT research, additional analysis was performed to determine if there were significant sex differences in preference for principled levels of moral judgment. The main effect for sex was not significant.

In order to determine which groups were significantly different from each other, the Tukey H.S.D. multiple technique as outlined by Kirk (1968) was performed. The means were ordered from lowest to highest, and all mean differences were calculated as shown in Table 3. One can see from examining Table 3 that high school freshmen, sophomores, and juniors do not differ significantly from each other. However, these same groups differ significantly from all of the other groups. Further examination of the table reveals that high school seniors, college freshmen, college sophomores, college juniors, and college seniors are not significantly different from each other. However, these groups do differ significantly from the groups of high school freshmen, high school sophomores, high school juniors, and the graduate group. The graduate group is significantly different from all of the high school groups and the college groups except for the college seniors where no level of significance was reached.

Further analyses were performed on each of the other stages. (See Appendix G.) A summary of the percentage of importance attributed to each stage of moral judgment

Table 3

Difference Among the Means of Preference for Principled Levels of Moral Judgment (P-Score) for the Nine Grade Groups

	High School				College				
	Junior 13.81	Soph. 14.81	Fresh. 15.10	Senior 20.14	Fresh. 20.15	Soph. 21.74	Junior 22.48	Senior 23.43	Graduate Level 27.00
High School									
Junior	-	1.00	1.29	6.33*	6.34*	7.93*	8.67*	9.62*	13.19*
Sophomore		-	.29	5.33*	5.34*	6.93*	7.67*	8.62*	12.19*
Freshmen			-	5.04*	5.05*	6.64*	7.38*	8.33*	11.90*
Senior				-	.01	1.60	2.34	3.28	6.85*
College									
Freshmen					-	1.59	2.33	3.27	6.84*
Sophomore						-	.74	1.69	5.26*
Junior							-	.95	4.52*
Senior								-	3.57
Graduate									-

*p < .001

is found in Table 4. One can see from examining Table 4 that there are differences between the nine grade groups on Stage 2, Stage 3, and Stage 4 (p .0001). However, there are no significant differences between the nine grade groups on the anti-establishment classification or A score. (See Appendix G.)

Hypothesis 2

In order to compare the P scores (importance attributed to principled moral issues in making moral judgments), the Catholic high school, college and graduate sample with the comparative sample of non-Catholic school students, it was necessary to combine the P scores of the students in attendance at Catholic high schools, colleges and graduate levels respectively. Each respective grade group (freshman through senior in high school; freshman through senior in college) was combined because the comparative data do not include separate means for each of these grade levels. Table 5 contains the means of both the Catholic and non-Catholic school sample. In order to determine if students, within a religious educational environment, differ in their preference for principled levels of moral judgment (P score) from non-religious school students, a *t* test for the difference between two independent sample means was computed for each sample mean and its corresponding comparative group mean. Their values are presented in Table 5. The hypothesis was accepted. The results

Table 4

Stage Characteristics of Defining Issues Test

on Nine Grade Groups

Group	N	Stage 2		Stage 3		Stage 4		Stage 6 (P-Stage)		Anti-Establishment	
		$\bar{X}^a$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
High School											
Freshmen	87	8.26	3.20	23.40	5.27	35.35	5.90	25.16	6.36	2.10	2.17
Sophomore	33	8.63	3.19	21.96	4.54	36.53	4.25	26.68	4.46	2.16	2.36
Junior	30	8.76	3.86	22.71	6.78	37.41	7.46	23.01	8.64	2.23	2.24
Senior	80	6.25	3.19	30.31	5.89	31.76	6.24	33.56	8.97	1.96	2.44
College											
Freshmen	75	5.66	3.41	19.58	6.33	31.91	5.61	33.58	7.44	2.40	2.56
Sophomore	47	5.75	3.13	17.55	4.69	31.10	7.17	36.23	8.91	2.37	3.43
Junior	41	5.65	2.87	20.50	5.86	27.73	5.77	37.46	8.40	2.12	2.30
Senior	64	5.66	2.90	17.18	5.43	30.06	6.85	39.03	9.70	2.03	2.44
Graduate	92	3.5	2.16	13.73	5.12	29.51	6.11	45.0	8.20	1.79	2.31

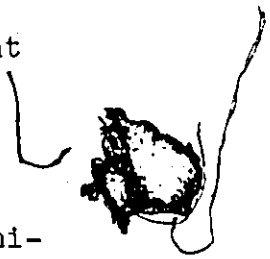
[a] $\bar{X}^a$ is the average percentage of ranks (weighted 4 for first rank, 3 for second rank, 2 for third rank, 1 for fourth rank) given to the "issues" of each stage.

Table 5

Comparison of the Mean P Scores (Preference for Principled Levels of Moral Judgment) for Catholic High School Students, Catholic College Students, and Catholic Graduate Students with that of the Comparative Sample

Catholic Sample				Comparative Sample				
Group	N	$\bar{X}$	SD	N	$\bar{X}$	SD	t	Significance
High School	230	28.02	13.13	40	35.05	14.75	-3.06	.001
College	227	36.37	14.50	40	54.9	13.6	-7.50	.001
Graduate	92	45.0	13.67	40	65.1	11.7	-8.04	.001

indicate a significant difference ($p < .001$) in the importance attributed to principled levels of moral judgment between the three grade groupings of Catholic school students and their comparative non-Catholic school counterparts at the high school, college, and graduate levels. The P score means of the Catholic sample of the present study were consistently lower.



Hypothesis 3

This hypothesis stated that there would be a significant and positive relationship between personality characteristics as measured by the California Psychological Inventory (CPI) and the importance attributed to principled levels of moral judgment. The hypothesis was supported. However, some of the relationships were slight. Table 6 shows the correlation coefficients between the P score (importance attributed to principled levels of moral judgment) and the 18 major scores of the CPI for high school, college, and graduate levels. Significant correlations were found between the P score and the following CPI variables (Gough, 1975).

High School, College and Graduate Groups

1. Achievement via Independence (Ai) identifies factors of interest and motivation which facilitate achievement in settings where independence of thought, creativity and self-actualization are positive behaviors.

2. Intellectual Efficiency (Ie) indicates the degree of personal and intellectual efficiency which the individual has attained.

Table 6

Correlation Coefficients Between the P Score on Defining Issues Test and CPI[a] Scales

Variable	High School	College	Graduate
1 Tolerance	.32***	.45***	.19
2 Achievement via Conformity	.26***	.20***	.13
3 Achievement via Independence	.44***	.48***	.40***
4 Capacity for Status	.30***	.36***	.07
5 Dominance	.18**	.15**	.06
6 Intellectual Efficiency	.36***	.38***	.34***
7 Responsibility	.32***	.31***	.21*
8 Socialization	.03	.00	.11
9 Sociability	.13*	.03	-.01
10 Well-Being	.16**	.10	.13
11 Social Presence	.09	.14*	.01
12 Self-Acceptance	.14**	.02	.01
13 Self-Control	.08	.12	.03
14 Psychological Mindedness	.29***	.10	.18
15 Good Impression	.06	.04	-.10
16 Flexibility	.10	.31***	.15
17 Femininity	.02	.09	.00
18 Communality	.07	.17**	.10

* $p < .05$ significance
** $p < .01$ significance
*** $p < .001$ significance

[a]California Psychological Inventory

3. Responsibility (Re) identifies persons of conscientious, responsible, dependable disposition and temperament; those who believe life is best if governed by reason.

High School and College Groups

1. Tolerance (To) identifies persons with permissive, accepting and non-judgmental social beliefs and attitude.

2. Capacity for Status (Cs) appraises those qualities of ambition and self-assurance that underlie and lead to status.

3. Dominance (Do) assesses factors of leadership ability, persistence, and social initiative.

4. Achievement via Conformity (Ac) identifies factors of interest and motivation which facilitates achievement in any setting where conformance is a positive behavior.

High School Group

1. Sociability (Sy) identifies persons of outgoing, sociable, participative temperament.

2. Well-Being (Wb) identifies persons who minimize worries and complaints, and who are relatively free from self-doubt and disillusionment.

3. Self-Acceptance (Sa) assesses sense of personal worth, self-acceptance, capacity for independent thinking and action, self-confidence and egotistical.

4. Psychological Mindedness (Py) measures the degree to which an individual is interested in, and responsive to, the inner needs, motives, and experiences of others.

College Group

1. Social Presence (Sp) assesses factors such as poise, spontaneity, and self-confidence in personal and social interaction.

2. Flexibility (Fx) indicates the degree of flexibility and adaptability of a person's thinking and social behavior.

3. Communality (Cm) indicates the degree to which an individual's reactions and responses correspond to the modal ("common") pattern established for the inventory.

Chapter IV

Discussion

One of the purposes of this study was to determine if there were developmental trends in the importance attributed to principled levels of moral judgment (P score of the DIT) of nine grade groups (four high school and five post high school) of students who attend Catholic high schools and colleges. The findings indicated a significant difference and are consistent with the developmental trends which have been reported by Rest (1974a). There was a progressive increase in the responses that were classified at the principled levels. High school students did not differ significantly from each other at the first three grade levels. The high school senior level and the college senior level seemed to be the crucial pivotal points where the respondents were noted to have a significantly higher preference for principled levels of moral judgment in making moral decisions than those subjects who preceded them in their respective grade groups. The senior high school and senior college levels appear to mark a transitional period suggesting that as one grows older and has further role-taking opportunities, he/she advances in his moral judgment. Small, yet notable, fluctuations were evidenced within these trends at the high school sophomore and junior grade levels where these

students' respective P scores were comparatively lower than the P scores of the high school lower classmen and upperclassmen. This finding appears to support Erickson's position that the outstanding characteristic of the adolescent ideological stage when contrasted with adulthood is its imbalance and inconsistency. According to Erickson (1968), "In adolescence an ethical view is approximated, but it remains susceptible to an alteration of impulsive judgment and odd rationalization" (p. 225).

In comparing each of the stages, interesting trends were observed. While the older students increased in the number of responses to principled levels of moral judgment (P scores), they decreased in the number of Stage 2 (preconventional) responses, Stage 3 (first stage conventional) responses, and Stage 4 (conventional) responses. (See Table 4.)

Age Trend Comparisons

A total comparison was not possible between the previous research (Gilliland, 1966) and the present study. The sample used in the present study extended into the post high school period while the former study's sample was limited to high school students. Exact scores were not recorded in that sample; however, the evidence presented in Appendix H indicated the general percentage of responses to each of the stages of moral judgment. There was a decrease in Stage 2 and Stage 3 responses, an increase in Stage 5 and Stage 6 responses, and a small

decrease in Stage 4 responses. The percentage of usage for Stage 2 and Stage 3 was largely greater for Gilliland's subjects. However, there may have been variations in the scoring techniques that could account for such differences. Gilliland's study employed a written version of Kohlberg's technique where the responses of the students to moral dilemma stories were evaluated by judges into stage categories. It is important to note that the similarity of responses at each stage level between the two samples offered support for the validity of the Defining Issues Test. Also, the varying percentage of responses given each moral stage, as age increases, illustrates the inadequacy of stage typing an individual. A person's moral development may be more adequately characterized by considering the probability of a person responding at each particular stage level.

Comparisons with Rest's (1974a) Sample

Differences were suggested by a comparison of the average percentage of responses across the nine [redacted] groups of the present study with Rest's (1974a) comparative age trends. (See Appendix D.) Rest's (1974a) sample was mostly middle class consisting of 40 ninth grade students, 40 twelfth grade students, 40 college students, and 40 doctoral students. One can see from examining Table 4 that the percentage of responses in Stage 2 indicated that the high school students of the present sample were attending less to Stage 2 issues.

Stage 3 comparisons showed that the students in Rest's (1974a) comparative sample were less attentive to Stage 3 issues than were the students of the present sample. Comparisons at the Stage 4 level demonstrated that students of the present study differed significantly across age groups; e.g., 35 percent at the ninth grade level to 29 percent at the graduate level. Rest's sample decreased from 35 percent at the junior high school level to 18 percent at the graduate level. While both groups showed significant decreases in percentage of responses to Stage 4 issues (conventional morality), the sample of the present study was more attentive to Stage 4 issues than Rest's comparative groups. The P score means of the graduate students of the present study ($\overline{X}$ = 45.0) were found to be significantly lower than those found in Rest's (1974a) study of college undergraduates ($\overline{X}$ = 54.9), whereas the means ($\overline{X}$ = 36.37) of the college undergraduates of the present sample were closely comparable to those of the high school students ($\overline{X}$ = 35.05) studied by Rest. These findings may be accounted for by the sample of the present study. The students were all Catholics drawn from the Catholic schools where perhaps a lack of exposure to disequilibrating conflict of opinion may have directed them to conventional moral reasoning. These students were active in their religious practices. This finding is consistent with the research reported by Gilliland (1966) and Woolf (1973) where they found a

tendency for students in a religiously oriented culture to be categorized within the conventional classification of Kohlberg's scale. Also, the fewer responses made in the lower level of moral judgment (Stage 2) in comparison to Rest's sample suggests that the religious educational setting tends to influence those of younger ages to progress from Stage 2 to Stage 3 and Stage 4 issues. (See Table 4.)

Another consideration is that the Defining Issues Test may be designed in such a manner that Catholic students in attendance at Catholic schools and colleges respond to certain items as most important without first considering other alternatives. In other words, a person may be able to think in higher level terms but have a cultural set in responding to certain test stimuli. For example, a comparison was made between the nine grade groups on the Number 9 issue of the "Doctor's Dilemma" story. (See Appendix C.) The Number 9 issue refers to God knowing the best solution. Table 7 shows that a large percentage of the "most important response" was given to the Number 9 issue to be an important consideration in making moral decisions. For students who believe in the continued revelation from God, a natural response would be to consider God in one's decision. Therefore, students could be more sophisticated in their moral thinking and still give Stage 4 responses as defined by Kohlberg. Rest (1974b) discusses the problem

associated with writing statements which are representative of a stage. Rest has indicated that one or two items are not total indicators of a person's moral thinking. Thus, a comparison was made with all other Stage 4 issues of the "Doctor's Dilemma" story, as well as one Stage 5A issue. (See Tables 7 & 8.) The results indicated that most of the other Stage 4 issues were not considered to be nearly important. The majority of responses fell into Number 9 and also Number 12 which is a Stage 5A issue or the first stage of principled thinking. Tables 7 and 8 indicated that while the other Stage 4 issues are considered, an ample percentage of the responses are attending to Number 9 and 12 issues. These results demonstrated that the nine grade groups directed a substantial percentage of responses to the Number 9 issue (Stage 4) while still attending to a considerable percentage of principled issues. This may mean that a person operating at a higher level may still prefer a Stage 4 item because of a cultural set. This is just one comparison. However, further study directed at an item analysis comparison of the subjects of this study with Rest's sample would be beneficial in determining any significant differences in the overall selection of responses.

Personality Discussion

An understanding of the dynamics underlying the Defining Issues Test's P scores (percentage of importance attributed to principled levels of moral judgment) may be

Table 7

Percent Who Selected Certain Issues of the Doctor's Dilemma Story as the Most Important

Group	Stage 4 Issues			Stage 5A Issues
	#2	#9	#11	#12
High School				
Freshmen	17	37		3
Sophomore	9	39	3	12
Junior	7	63		3
Senior	9	30	5	11
College				
Freshmen	5	29	4	11
Sophomore	4	38		19
Junior	10	17	2	2
Senior	8	22	3	19
Graduate	2	37	1	15

Table 8

Percent Who Selected Certain Issues of the Doctor's Dilemma Story as One of the Four Most Important

Group	Stage 4 Issues			Stage 5A Issues
	#2	#9	#11	#12
High School				
Freshmen	58	71	18	31
Sophomore	52	70	33	42
Junior	50	77	27	37
Senior	53	58	21	56
College				
Freshmen	53	55	35	45
Sophomore	49	68	28	62
Junior	34	44	27	44
Senior	38	42	41	59
Graduate	36	58	33	64

obtained by examining the pattern of its correlations with the California Psychological Inventory (Gough, 1975). Table 9 contains the groupings of scales of the CPI which were significantly related to the P scores of high school, college, and graduate students. In order to provide the study with greater cohesiveness and direction, the CPI scales were grouped into four categories based upon 20 factor analyses of the CPI (Megargee, 1977) which yielded five clearly defined and identifiable CPI factors; four of these factors are presented in Table 9 (Gough, 1978). High school students and young adults at the college levels had P scores which were significantly related to CPI measures of social poise and extroversion (Factor 2) indicating that those who were high in preference for principled levels of moral judgment were person-oriented. This finding is consistent with Haan's (1968) research. Haan's study of young adult moral development evidenced that a greater number of her subjects who were at the principled levels of moral judgment showed concern for interpersonal relationships. Expressiveness and interpersonal responsiveness were valued by her principled group. It is interesting to note that one of the CPI scales which comprises Factor 2, the Dominance scale, was significantly correlated with an increase in preference for principled levels of moral judgment. High scores on this scale identify a confident, self-assertive individual who is sure of his goals and their philosophic moral

Table 9

Grouping of CPI[a] Scales Significantly Related to P-Scores According to Factorial Structure for Three Grade Groups

	High School	College	Graduate
CPI Factors			
Factor 1	Responsibility	Responsibility	Responsibility
Positive Adjustment Adaptation of Self to Reality	Achievement via Conformity Sense of Well-Being	Achievement via Conformity	
Factor 2	Dominance	Dominance	
Interpersonal Effectiveness	Capacity for Status Socialability Self-Acceptance	Capacity for Status Social Presence	
Factor 3	Tolerance	Tolerance	
Intellectual Effectiveness and Independence	Intellectual Efficiency Achievement via Independence Psychological Mindedness	Intellectual Efficiency Achievement via Independence Flexibility	Achievement via Independence Intellectual Efficiency
Factor 4			
Conventionality		Communality	

[a]California Psychological Inventory

worth. Thus, an increase in preference for principled moral thinking need not be a rejection of one's moral ideology. Podd (1972) found that his subjects who were at the principled levels of moral judgment had an identity achievement status. This tendency toward positive adjustment is qualified by the significant correlations obtained for the high school and college groups between the P score and another Factor 2, CPI scale which identifies the subjects' ability to meet stress and unforeseen circumstances without anxiety or self-doubt (Capacity for Status). This finding is not surprising in view of the exposure these students have had within a religious educational setting. Exposure of this kind may have led to the experience of integrating the diverse systems of the personality into a harmonious whole. James Lee (1972) calls this the experience of "Christian Living" or the sum total of an individual's personality structure which is integrated into and acts in accord with behavior that can be called Christian. This notion is expanded by Allport (1960) in speaking about the integral function of mature religion, "It is . . . capable of confering marked integration upon personality, engendering meaning and peace in the face of the tragedy and confusion of life" (p. 142). The absence of correlations with Factor 2 scales of the CPI and P scores of the graduate group is worthy of note. Increases in percentage of importance attributed to principled levels of moral judg-

ment appear to be unrelated to measures of affiliative and outgoing tendencies for the adult graduate group. The criteria employed in making moral decisions seem to be dependent more upon the creative and independent use of intellectual resources (Factor 3) and preference for a rational approach to life (Responsibility, Factor 1). Educated adults tend to reach principled moral conclusions by the use of logic and objective criteria. The higher percentage of preference for principled levels of moral judgment appears to be largely associated with an intellectual advantage for educated adults. This finding was consistent for the adolescent high school and young adult college groups as well. In general, subjects who score higher on achievement and intelligence like measures (Ac, Ai, and Ie) were more likely to be further along in cognitive development in moral judgment.

The purported cognitive developmental component of the DIT suggests that there should be significant correlations between the P score and IQ type tests. Thus, correlations between the P score and the grouping of scales which identify individuals who have a capacity for independent thought and action (Factor 3) further qualifies the relationship between preference for principled levels of moral judgment and positive adjustment already established. In other words, those who increased in preference for principled levels of moral judgment also appeared to exercise an adaptive autonomy and hold inde-

pendent, non-authoritarian attitudes. This is consistent with Haan's (1968) findings. A majority of her subjects who were at the principled levels of moral judgment were relatively ego-syntonic and had achieved an autonomous sense of themselves, as well as a sense of interpersonal obligation. Correlations between the P score and Factor 1 grouping of CPI scales for the high school and post-high school groups evidenced that increases in preference for principled levels of moral judgment were significantly related to a scale designating the extent to which an individual is adapted to reality; e.g., demonstrates dependability, personal efficiency, need for structure, order and a life governed by reason (Responsibility). This finding tends to be supported particularly at the college level where the students' P scores were significantly related to a measure of conventionality (Communality). Haan (1969) found that her conventional subjects demonstrated a tendency to avoid open conflict and had harmonious relationships with traditional institutions. It could be expected, then, that students who were drawn from a religious educational environment would develop an apparent identification over time with traditional institutions. However, there was a significant decrease observed in the percentage of Stage 4 (authoritarian, law-of-God orientation) responses which would tend to indicate that the social conformity evidenced across the grade levels did not represent an inflexible normativism.

A distinction between social conformity, e.g., conventionality, and social maturity, at this point, is necessary to clarify the conformity and value orientation of the present sample. If social conformity is understood to be a contented normativism, social maturity would then include this construct but have a much broader interpretation. The person who is socially mature is receptive to change and may rebel against the established order if it becomes repressive, or if in conscience, one is unable to accept the establishment. This concept of social maturity defines persons who are motivated by a sensitivity to and concern for others. Martin Luther King, Mahatma Gandhi, Christ, Buddha, St. Paul, St. Francis of Assisi, etc., are but a few of the individuals who can be categorized as being socially mature. The identifying factor is high principle that may run counter to the established convention, certainly not egoistic, but, on the contrary, concerned with the dignity of others. These personages are similar to those listed by Kohlberg and Turiel (1971) as the moral heroes of Stage 6 of principled moral thinking. In order to determine the extent to which the sample of the present study were adapted to social conventionality, additional analysis was performed. Correlation coefficients were computed between the P score and the Social Maturity Index (SM), a score derived by Gough (1966b) from the CPI. The social maturity index identifies subjects who are well socialized, yet not oversocialized;

e.g., they are opened to and accepting of change. Significant positive correlations were found between preference for principled levels of moral judgment and the social maturity index scores for the high school and college levels ($p < .001$) and the graduate level ($p < .05$). (See Appendix I.) This finding indicates that while the respondents in the present study had internalized and implemented conventional values in their lives, they were not fixed in their normativism. Those who increased in percentage of importance attributed to principled levels of moral judgment were well socialized individuals who could not be expected to adhere to outmoded rules and who were flexible enough to recognize faults within a system and seek to change them.

The most consistent relationships were observed between subjects' P scores (preference for principled levels of moral judgment) and CPI measures of dependability, respect for reason (Responsibility), creative, independent use of intelligence (Achievement via Independence; Intellectual Efficiency) and social maturity (SM). Increases in P scores indicated that the individuals were becoming more differentiated in their moral reasoning. Those who preferred principled moral reasoning in making moral decisions were seen as being dependable, creative, intelligent, and flexible in thought and action. The Catholic students in the sample of the present study who demonstrated an increase in principled

moral thinking, while their preference for conventional moral judgments decreased significantly) may have been exposed to a value oriented, religious educational program which placed emphasis upon the understanding of social-ethical issues rather than upon the assimilation of religious doctrine. This may be the case since the post-conciliar Church seems to have encouraged a stage of moral reasoning higher than Stage 4 or conventional morality. Vatican Council II stated explicitly:

> Authentic freedom is an exceptional sign of the divine image within man. For God has willed that man be left "in the hand of his own counsel" (Sir. 15:4) so that he can seek his creator spontaneously and come freely to utter and blissful perfection through loyalty to him. Hence man's dignity demands that he act according to a knowing and free choice. Such a choice is personally motivated and prompted from within. It does not result from blind internal impulse or from mere external pressure (Abbott, 1966, p. 214).

This study did not control for quality and degree of religious education. It would be worthwhile to research the relationship between religious education in the Catholic schools and the DIT scores.

The absence of correlations with Factor 5, defined by high loadings on the Femininity (Fe) scale, is also worthy of note. For example, an increase in preference for principled moral thinking is unrelated to masculinity or femininity of interests. Sex has not been found to be a powerful variable in moral judgment research. The absence of sex differences on the DIT was evidenced in the sample of the present study. The lack of a signifi-

cant correlation between the P scores and emotional sensitivity (Femininity) observed in this study is consistent with Rest's (1976) thinking that moral judgment is an assessment of the adequacy of conceptualizing solutions to moral problems and not a measure of how compassionate or sympathetic a person is.

The limitations which should be considered in the interpretation of the results of this study are as follows:

1. Because the sample was not randomly selected, the results of this study may not be representative of all Catholic students in attendance at Catholic high schools and colleges.

2. Because of the particular nature of Catholic education, caution should be used in generalizing the results to other students in other religious educational environments. Other religious groups may have different moral judgment patterns.

3. Caution should be exerted in the interpretation of results by inferring developmental trends from cross-sectional data. The lack of longitudinal information does not reveal if the students of the present study were increasing or decreasing in the importance attributed to various levels of moral judgment.

The results of this study suggest that the cognitive-developmental approach to the study of moral development has merit and should be considered by parents, educators,

religious organizations, and others who are concerned with the moral characteristics of individuals. An understanding of an individual's justifications for a particular moral action can provide a useful tool for better understanding and assisting that person. Research documents that there are differences in the way people define and justify moral actions. Parents, teachers, and others who are in the helping professions need to be aware of the influence of their own moral developmental level as well as the moral development of the individuals they are assisting. Rest's objective approach in evaluating moral judgment has advanced a new dimension in methodology. Further research to further clarify how individuals define the important issues of moral dilemmas and the relationship this has with other personality functions is presented in the following chapter.

Chapter V

Summary

The purpose of the present investigation was to survey the moral development of students who were exposed to a religious educational environment and the personality characteristics related to their preference for principled levels of moral judgment. Cognitive-developmental theory and research concerning stages of moral development is critically brought into focus in the present research. The cognitive-developmental approach to moral development understands a person to progress through invariant stages which are composed of different modes of thinking about moral problems. Particular attention is given to the work of Kohlberg (1969) who has designated a hierarchy of six stages of moral development to represent these modes of thought. Advancing the work of Kohlberg, Rest has developed an objective test format to assess moral judgment (preference for principled levels of moral judgment, Stages 5 and 6 of Kohlberg's schema). Research shows that the importance attributed to principled levels of moral judgment, by the individual in solution to hypothetical moral dilemmas, is a significant factor in ascertaining developmental trends of moral judgment. Therefore, the purpose of the present investigation was to survey the Catholic high school, college, and graduate

students' moral development (the importance they attribute to principled levels of moral judgment) and the personality characteristics related to their preference for principled moral thinking. Specifically, the investigation sought to answer the following questions.

1. Were there developmental trends in the importance attributed to principled levels of moral judgment of students who are in attendance at Catholic high schools, colleges, and graduate schools (ninth grade to graduate level)?

2. Were there significant differences in preference for principled levels of moral judgment between students who attend Catholic schools (ninth grade to graduate level) and students who do not?

3. Were personality characteristics, as measured by the California Psychological Inventory, related significantly to preference for principled levels of moral judgment?

The Defining Issues Test, the California Psychological Inventory, and a questionnaire to obtain demographic and religious practices information were administered to 549 subjects. All subjects were enrolled in the Catholic high schools, colleges, and universities in the Archdiocese of New York in the New York Metropolitan area in the school year of 1977-1978. There were nine grade groups: 230 high school students, 87 freshmen, 33 sophomores, 30 juniors, and 80 seniors; 227 college undergraduates, 75

freshmen, 47 sophomores, 41 juniors, and 64 seniors; and 92 students at the master and doctoral levels of graduate school. All students had received their education via the Catholic school system.

The results indicated that there was a significant difference between the nine grade groups on the importance attributed to principled levels of moral judgment. There was a linear relationship between the different means. With exception of the second and third year high school students (sophomores and juniors), each succeeding age group preferred a higher percentage of principled level issues in solving hypothetical moral dilemmas. Females demonstrated a slightly higher preference for principled issues than males. Also, the results indicated that as age group increased, there was a significant decrease in its preference for lower levels of moral reasoning: Stage 2, Stage 3, and Stage 4 of conventional morality.

Significant relationships were discovered between the importance attributed to principled levels of moral judgment (P score) and certain California Psychological Inventory (CPI) variables. Those who preferred principled moral reasoning in making moral decisions were seen as being dependable, creative, intelligent, and flexible in thought and action.

Conclusions

The results of this study suggested the following conclusions:

1. There are developmental age trends in preference for principled levels of moral judgment of students in attendance in Catholic high schools and colleges (undergraduate and graduate levels).

2. The P score means (preference for principled levels of moral judgment) of the Catholic school sample are consistently lower than those of the non-Catholic school reference groups.

3. There is a significant relationship between certain personality characteristics and preference for principled levels of moral judgment.

Recommendations

Based on the findings of this study, several recommendations can be made.

1. The comparison of a psychologically deviant group with a psychologically normal group would add a worthwhile dimension to this study. Further research would be desirable to compare both deviant and normal groups to see if there are significant moral development differences as well as different personality variables.

2. Further research would help to clarify the reasons given by an individual for choosing a particular stage issue. A person may choose a Stage 4 issue for Stage 6 reasons. Individual interviews could clarify a person's justification for choosing a particular stage issue.

3. The results of this study suggest that additional validation efforts should be made to determine if there are culturally biased items on the Defining Issues Test, particularly for a Roman Catholic population.

4. Similar research using the same measurements would be advantageous with different subjects; i.e., Catholic high school students in public schools, Catholic college students and graduate students in secular colleges and universities. This would clarify secular educational environmental influences upon Roman Catholic students toward preference for principled levels of moral judgment.

5. The students' religious activities may have been performed in compliance with the external pressure of parents and of school authority, at least at the high school and undergraduate levels. On the other hand, such religious practices may have been established upon an intrinsic value-determining religious orientation (Allport, 1968), which seems to parallel Level III or principled moral reasoning. This study did not take into account the motivational factors underlying religious practices. Further research dealing with the relationship between religious motivational factors and preference for principled levels of moral judgment would be beneficial.

6. The Catholic Church at times is concerned with the development of the whole person and then it promulgates an ideal of freedom. But, at other times, it takes

on the function of moral guardian. At such times, it concerns itself with the promulgation of moral laws and encourages adherence to these laws. This double faceted role has caused two different pedagogic techniques to be employed in the area of moral education. This study did not control for quality and kind of religious education; e.g., materials and methodology. Further research, focused upon the relationship between religious education in the Catholic schools and DIT scores, would be worthwhile.

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APPENDIX A

Table A

Means and Standard Deviations for Responses to Sacramental Index by Nine Age Groups

	How Often Do You Go to Mass?		How Often Do You Receive Holy Communion?		How Often Do You Go to Confession?	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
High School						
Freshmen	3.80	1.24	4.36	1.44	6.57	.94
Sophomore	3.78	1.33	4.93	.61	5.09	.64
Junior	3.13	.51	4.89	.86	5.37	.67
Senior	4.55	1.78	4.93	1.82	7.09	.95
College						
Freshmen	4.47	1.76	5.05	2.01	7.20	1.02
Sophomore	4.57	2.01	4.97	2.06	7.44	.89
Junior	5.17	2.01	5.87	2.15	7.48	.84
Senior	5.12	2.10	5.74	2.08	7.50	.93
Graduate	2.96	2.23	3.13	2.44	6.60	1.12

APPENDIX B

Table B

Demographic Data for Sample

Group	N	SES Mean*	SD*	
High School				
Freshmen	87	15.43	4.12	
Sophomore	33	15.84	6.36	
Junior	30	14.72	4.53	N = 230
Senior	80	15.65	3.82	
College				
Freshmen	75	13.63	4.75	
Sophomore	47	13.89	4.22	N = 227
Junior	41	14.43	5.63	
Senior	64	14.32	2.78	
Graduate	92	14.62	2.86	N = 92

*Means and Standard Deviations of Socio-Economic Status.

APPENDIX C

PREVIOUSLY COPYRIGHTED MATERIAL

IN APPENDIX C, LEAVES 98 to 118

AND APPENDIX K, LEAVES 145-156

NOT MICROFILMED

98 - 118 - Defining Issues Test.

MAY BE OBTAINED FROM

Rest, James, Cooper, D, et al. University of Minnesota
Contained in An Objective test of moral judgment for adolescents and adults. (Unpublished manuscript, University of Minnesota, 1973.)

145-156 - California Psychological Inventory, by Harrison G. Gough.

MAY BE OBTAINED FROM

Consulting Psychologists Press, Inc.

APPENDIX D

Table C

Age Trends of Defining Issues Test[a]

Student Group		2	3	4	5 and 6 (P)
Junior High (N = 40)	$\bar{X}$[b]	11.6	20.5	35.2	32.7
	SD	(7.3)	(9.8)	(11.8)	(14.1)
Senior High (N = 40)	$\bar{X}$	9.6	22.3	30.7	37.4
	SD	(6.7)	(10.1)	(11.4)	(15.4)
College (N = 40)	$\bar{X}$	5.5	14.6	24.9	54.9
	SD	(4.8)	(7.8)	(10.7)	(13.6)
Graduate (N = 40)	$\bar{X}$	3.5	13.0	18.4	65.1
	SD	(4.5)	(10.7)	(7.9)	(11.7)
a) Seminarians (N = 25)	$\bar{X}$	4.7	15.5	17.9	61.9
b) Political Science and Philosophy Majors (N = 15)	$\bar{X}$	2.2	8.8	18.8	70.3

[a]Adapted from Rest (1974).

[b]$\bar{X}$ is the average percentage of ranks (weighted 4 for first rank, 3 for second rank, 2 for third rank, 1 for fourth rank) given to the "issues" of each stage.

APPENDIX E

INSTRUCTIONS FOR STUDENTS - PLEASE READ

Dear Student,

I am studying moral reasoning among different age levels of young people and adults. This study is part of a research project in the area of moral development. Your name is not required on the questionnaires; you will remain anonymous. I will show my appreciation for your cooperation by sharing results with your class.

Enclosed in this packet are two questionnaires as follows:

1. Opinions about Social Problems
2. California Psychological Inventory (CPI)

a. Please fill out questionnaires in the order presented above.

b. Mark your answers for questionnaire #1 directly on to the questionnaire and please use a dark pencil #2.

c. Questionnaire #2, the California Psychological Inventory, requires you to mark your answers on to the green IBM answer sheet. Do not place your answers to the CPI in the test booklet--use the IBM answer sheet.

d. Please use a #2 pencil to mark your answers on to the IBM answer sheet for the California Psychological Inventory (CPI).

e. You will find instructions for each of the questionnaires on the front of the booklets. PLEASE FOLLOW THESE INSTRUCTIONS EXACTLY.

f. Please answer all items without exception. Try to answer each item truthfully and spontaneously.

g. There are no right or wrong answers.

h. When you have finished, please check to see that you have answered each and every item.

Your participation in this research project may help other people in the future. I wish to express my gratitude and appreciation for your attention and cooperation.

APPENDIX F

Verbal Instructions for Test Administration

in the High Schools

1. You are being asked to complete two questionnaires. I am interested in your honest responses to determine how young individuals think and feel about certain issues. Your answers are confidential; this means that no one will see your personal responses. This information will be given to a computer and so will the different groups be studied. I wish to thank you in advance for your assistance with this project.
2. The instructions and examples are then read and discussed with the students for each test.
3. After everyone understands how to take the test, the testing commences. There is no discussion except to answer individual questions.

APPENDIX G

Table D

Summary of Analysis of Variance for Stage Two

(Preconventional Morality)

for Nine Grade Groups

Source	Sum of Squares	df	Mean Square	F	Significance
Group	573.9336	8	71.74	7.66	.0001
Error	5057.5850	540	9.36		

Table E

Summary of Analysis of Variance for Stage Three

(First Stage of Conventional Morality)

for Nine Grade Groups

Source	Sum of Squares	df	Mean Square	F	Significance
Group	1831.7578	8	228.97	7.39	.0001
Error	16742.9124	540	31.00		

Table F

Summary of Analysis of Variance for Stage Four

(Conventional Morality)

for Nine Grade Groups

Source	Sum of Squares	df	Mean Square	F	Significance
Group	1745.5000	8	218.12	5.26	.0001
Error	20620.4453	540	41.42		

Table G

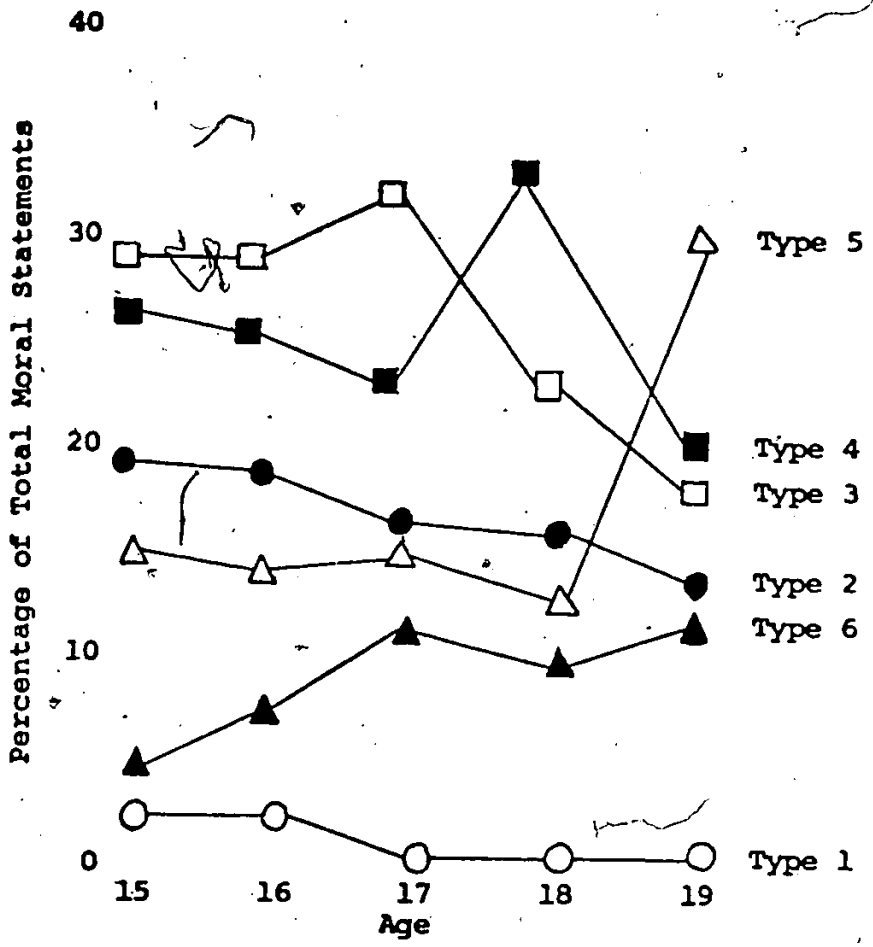
Summary of Analysis of Variance for A-Score

(Anti-Establishment Stage)

for Nine Grade Groups

Source	Sum of Squares	df	Mean Square	F	Significance
Group	52.9897	8	5.888	0.972	.4627 N.S.
Error	2363.3683	540	6.0545		

APPENDIX H



Percentage of Usage of Each Type by Each Age Group[1]

[1]Adapted from Gilliland (1966).

APPENDIX I

Table H

*Correlation Coefficients between the P-Score on the Defining Issues Test and the CPI[a] Social Maturity Index for Three Grade Groups

CPI Variable	High School	College	Graduate
Social Maturity Index	.25***	.20***	.21*

p < .001

p < .05

*Gough (1966) derived a multiple regression equation by contrasting CPI scores of 881 male juvenile delinquents with those of 2,146 non-delinquents. Raw scores were used in the calculations. The equation is as follows: SM = 28.062 + .148 Dom + .334 Re + .512 So - .317 Gi - .274 Cm + .227 Fx.

[a]California Psychological Inventory

APPENDIX J

PROGRAM DIT: A SCORING PROGRAM FOR THE DEFINING ISSUES TEST
NUMBER OF STORIES TO BE SCORED = 6
ORDER OF STORIES = HEINZ STUDENT PRISONER DOCTOR WEBSTER PAPER
INPUT FORMAT = (1X,A4,6X,3(2X,12I1,4I2),/,11X,3(2X,12I1,4I2))

PAT POLOVY
DIT SCORES
SUBJECTS = 549

A VALUE OF 99.0 INDICATES THAT THE SCORE CAN NOT BE COMPUTED BECAUSE OF MISSING DATA.

387387

SUBJECT ID | REST-DAVISON SCORING SYSTEM

	STAGE SCORES								P	PERCENT	D
	2	3	4	5A	5B	6	A	M	SCORE	P	SCORE
1856	1.0	14.0	15.0	15.0	0	6.0	5.0	4.0	21.0	35.0	18.696
1869	2.0	16.0	31.0	10.0	0	1.0	0	0	11.0	18.3	15.180
1111	6.0	10.0	27.0	14.0	1.0	0	2.0	0	15.0	25.0	14.806
1112	3.0	4.0	18.0	24.0	5.0	4.0	2.0	0	33.0	55.0	45.996
1113	12.0	19.0	16.0	5.0	3.0	0	2.0	3.0	8.0	13.3	10.034
1114	8.0	11.0	22.0	2.0	3.0	4.0	6.0	4.0	9.0	15.0	2.785
1115	2.0	17.0	21.0	3.0	3.0	6.0	7.0	1.0	12.0	20.0	16.054
1117	6.0	6.0	22.0	10.0	5.0	5.0	5.0	1.0	20.0	33.3	17.050
1118	5.0	16.0	17.0	9.0	3.0	2.0	8.0	0	14.0	23.3	17.418
1120	11.0	17.0	22.0	6.0	1.0	0	0	3.0	7.0	11.7	16.235
1121	7.0	4.0	19.0	15.0	7.0	2.0	1.0	5.0	24.0	40.0	17.780
1124	0	24.0	12.0	4.0	7.0	7.0	0	6.0	18.0	30.0	10.878
1126	8.0	19.0	14.0	12.0	3.0	0	4.0	0	15.0	25.0	9.162
1128	5.0	3.0	30.0	7.0	2.0	9.0	0	4.0	18.0	30.0	11.323
1130	0	13.7	25.3	7.4	1.1	5.3	7.4	0	13.7	22.8	10.504
1133	10.0	6.0	28.0	7.0	1.0	0	3.0	5.0	8.0	13.3	4.239
1134	2.0	5.0	32.0	14.0	3.0	3.0	1.0	0	20.0	33.3	16.919
1135	3.0	23.0	13.0	16.0	1.0	4.0	0	0	21.0	35.0	6.527
1137	0	7.0	18.0	8.0	3.0	11.0	5.0	8.0	22.0	36.7	25.541
1146	6.0	15.0	20.0	7.0	4.0	1.0	0	7.0	12.0	20.0	6.683
1145	0	14.0	23.0	18.0	0	0	5.0	0	18.0	30.0	20.030
1138	9.0	23.0	18.0	6.0	0	0	0	4.0	6.0	10.0	-.012
1140	10.0	8.0	22.0	6.0	3.0	4.0	3.0	4.0	13.0	21.7	21.257
1143	6.0	17.0	19.0	7.0	3.0	0	1.0	7.0	10.0	16.7	20.921
1142	4.0	20.0	25.0	4.0	2.0	0	0	5.0	6.0	10.0	8.823
1148	3.0	22.0	16.0	9.0	3.0	3.0	0	4.0	15.0	25.0	10.809
1149	0	19.0	25.0	5.0	3.0	3.0	4.0	1.0	11.0	18.3	14.579
1664	2.0	19.0	15.0	14.0	2.0	5.0	3.0	0	21.0	35.0	20.478
1665	4.0	14.0	18.0	8.0	4.0	6.0	1.0	5.0	18.0	30.0	16.303
1393	11.0	17.0	20.0	3.0	3.0	4.0	2.0	0	10.0	16.7	7.343
1151	7.0	14.0	26.0	6.0	1.0	3.0	2.0	1.0	10.0	16.7	10.894
1394	0	11.0	6.0	17.0	11.0	5.0	3.0	7.0	33.0	55.0	40.185
1666	6.0	15.0	18.0	14.0	4.0	0	1.0	2.0	18.0	30.0	15.032
1392	6.0	13.0	13.0	13.0	4.0	8.0	1.0	2.0	25.0	41.7	17.627
1671	8.0	6.0	31.0	8.0	0	3.0	1.0	3.0	11.0	18.3	21.727
1667	2.0	10.0	7.0	23.0	8.0	0	2.0	8.0	31.0	51.7	24.585
1672	4.0	18.0	19.0	10.0	1.0	1.0	6.0	1.0	12.0	20.0	11.997
1669	5.0	6.0	29.0	5.0	10.0	1.0	0	4.0	16.0	26.7	22.977
1389	3.0	12.0	17.0	20.0	3.0	1.0	3.0	0	24.0	40.0	23.713
1390	2.0	14.0	20.0	10.0	3.0	7.0	4.0	0	20.0	33.3	17.592
1668	5.0	18.0	14.0	15.0	0	1.0	1.0	6.0	16.0	26.7	20.764
1449	3.0	9.0	25.0	11.0	5.0	1.0	0	6.0	17.0	28.3	16.859
1880	8.0	16.0	21.0	8.0	5.0	0	0	2.0	13.0	21.7	8.093
1842	9.0	14.0	25.0	6.0	1.0	2.0	0	3.0	9.0	15.0	3.887
1641	5.0	9.0	26.0	16.0	0	0	0	4.0	16.0	26.7	21.482
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

1878	3.0	9.0	19.0	18.0	6.0	0	4.0	1.0	24.0	40.0	23.933
1876	4.0	20.0	18.0	12.0	5.0	0	1.0	0	17.0	28.3	12.213
1875	10.0	11.0	11.0	14.0	4.0	2.0	4.0	4.0	20.0	33.3	17.537
1865	10.0	16.0	20.0	4.0	5.0	0	2.0	3.0	9.0	15.0	12.094
1860	7.0	13.0	28.0	7.0	3.0	2.0	0	0	12.0	20.0	17.766
1853	5.0	6.0	31.0	11.0	2.0	4.0	0	1.0	17.0	28.3	11.095
1850	2.0	18.0	24.0	9.0	0	0	6.0	0	10.0	16.7	11.309
1851	4.0	17.0	25.0	8.0	0	0	3.0	3.0	8.0	13.3	8.163
1852	8.0	14.0	26.0	7.0	0	0	2.0	3.0	7.0	11.7	7.789
1871	9.0	17.0	21.0	9.0	2.0	0	2.0	0	11.0	18.3	1.239
1877	6.0	21.0	21.0	6.0	0	1.0	1.0	4.0	7.0	11.7	8.458
1847	3.0	6.0	22.0	15.0	3.0	6.0	1.0	4.0	24.0	40.0	22.292
1848	5.0	6.0	19.0	20.0	0	5.0	2.0	3.0	25.0	41.7	21.487
1870	5.0	14.0	22.0	15.0	2.0	2.0	0	0	19.0	31.7	11.117
1866	9.0	7.0	29.0	9.0	1.0	1.0	0	4.0	11.0	18.3	24.275
1822	5.0	18.0	19.0	8.0	7.0	0	2.0	1.0	15.0	25.0	14.700
1855	3.0	18.0	18.0	9.0	4.0	3.0	2.0	3.0	16.0	26.7	16.376
1843	8.0	13.0	28.0	8.0	0	0	0	3.0	8.0	13.3	14.335
1862	3.0	18.0	8.0	18.0	10.0	1.0	0	2.0	29.0	48.3	17.679
1872	9.0	10.0	31.0	9.0	0	0	0	1.0	9.0	15.0	9.072
1867	7.0	14.0	29.0	8.0	2.0	0	0	0	10.0	16.7	12.207
1861	1.0	13.0	15.0	9.0	7.0	5.0	2.0	8.0	21.0	35.0	24.343
1879	8.0	14.0	17.0	10.0	2.0	2.0	4.0	3.0	14.0	23.3	19.435
1845	7.0	14.0	22.0	4.0	7.0	3.0	2.0	1.0	14.0	23.3	15.096
1854	4.0	20.0	19.0	13.0	1.0	3.0	0	0	17.0	28.3	10.106
1844	5.0	22.0	19.0	10.0	2.0	0	0	2.0	12.0	20.0	13.324
1874	0	21.0	29.0	2.0	3.0	1.0	1.0	3.0	6.0	10.0	12.966
1873	0	14.0	10.0	20.0	4.0	2.0	6.0	4.0	26.0	43.3	20.279
1846	8.0	13.0	21.0	5.0	4.0	4.0	2.0	3.0	13.0	21.7	23.994
1857	0	11.0	19.0	14.0	3.0	2.0	8.0	3.0	19.0	31.7	22.293
1858	5.0	10.0	28.0	7.0	8.0	0	2.0	0	15.0	25.0	16.218
1868	3.0	13.0	20.0	19.0	0	0	1.0	8.0	15.0	25.0	12.583
1849	7.0	17.0	26.0	3.0	4.0	0	0	3.0	7.0	11.7	14.066
1859	2.0	28.0	17.0	6.0	0	5.0	1.0	1.0	11.0	18.3	11.675
9974	8.0	21.0	18.0	10.0	0	1.0	0	2.0	11.0	18.3	7.125
0902	12.0	3.0	25.5	9.0	0	7.5	3.0	0	16.5	27.5	6.436
9965	4.0	15.0	21.0	9.0	2.0	4.0	1.0	7.0	12.0	20.0	15.957
9977	7.0	13.0	24.0	6.0	3.0	1.0	3.0	3.0	10.0	16.7	5.331
9984	2.0	12.0	17.0	12.0	5.0	2.0	4.0	6.0	19.0	31.7	16.645
9928	7.0	8.0	30.0	8.0	6.0	0	0	1.0	14.0	23.3	16.216
9964	5.0	18.0	19.0	7.0	7.0	2.0	0	2.0	16.0	26.7	17.029
9805	7.0	5.0	30.0	14.0	4.0	0	0	0	18.0	30.0	20.351
9976	6.0	18.0	20.4	9.6	1.2	1.2	2.4	1.2	12.0	20.0	15.241
9978	9.0	9.0	29.0	8.0	1.0	0	2.0	2.0	9.0	15.0	15.036
9003	3.0	12.0	23.0	13.0	7.0	0	2.0	0	20.0	33.3	30.973
9895	4.0	7.0	20.0	14.0	3.0	3.0	2.0	7.0	20.0	33.3	21.228
9982	1.0	7.0	25.0	10.0	7.0	4.0	6.0	0	21.0	35.0	13.736
9981	12.0	10.0	24.0	6.0	2.0	4.0	0	2.0	12.0	20.0	19.336
9973	2.0	16.0	25.0	6.0	4.0	3.0	0	4.0	13.0	21.7	20.994
9979	7.0	16.0	20.0	3.0	0	3.0	10.0	1.0	6.0	10.0	9.736
9826	10.0	11.0	17.0	13.0	2.0	2.0	3.0	2.0	17.0	28.3	21.683
9972	6.0	11.0	23.0	10.0	3.0	2.0	0	5.0	15.0	25.0	21.428
9896	6.0	9.0	21.0	19.0	10.0	3.0	1.0	0	23.0	38.3	11.218
9980	8.0	14.0	23.0	9.0	3.0	0	3.0	0	12.0	20.0	17.716
9825	7.0	15.0	19.0	11.0	1.0	3.0	4.0	0	15.0	25.0	8.491
9817	4.0	15.0	18.0	16.0	0	4.0	0	3.0	20.0	33.3	19.777
9050	10.0	13.0	19.0	13.0	2.0	0	0	3.0	15.0	25.0	17.489
9987	6.0	10.0	13.0	10.0	1.0	10.0	4.0	6.0	21.0	35.0	14.219
9986	5.0	16.0	21.0	12.0	1.0	3.0	0	2.0	16.0	26.7	15.748
9070	8.0	14.0	17.0	6.0	2.0	3.0	6.0	4.0	11.0	18.3	9.970
9989	1.0	11.0	26.0	18.0	3.0	1.0	0	0	22.0	36.7	22.162
9929	4.0	17.0	17.0	3.0	6.0	6.0	4.0	3.0	15.0	25.0	16.024
9975	0	12.0	20.0	9.0	7.0	5.0	3.0	9.0	16.0	26.7	11.754
9863	3.0	12.0	31.0	6.0	3.0	0	4.0	1.0	9.0	15.0	16.848
9971	0	9.0	25.0	11.0	0	8.0	4.0	3.0	19.0	31.7	11.323

9989	1.0	11.0	26.0	18.0	3.0	1.0	0	[illegible]	26.0	38.[illegible]	[illegible]
9929	4.0	17.0	17.0	3.0	6.0	6.0	4.0	3.0	15.0	25.0	16.024
9975	0	12.0	20.0	9.0	2.0	5.0	3.0	9.0	16.0	26.7	11.754
9863	3.0	12.0	31.0	6.0	3.0	0	4.0	1.0	9.0	15.0	16.848
9971	0	9.0	25.0	11.0	0	8.0	4.0	3.0	19.0	31.7	11.323
9970	1.0	25.0	22.0	8.0	4.0	0	0	0	12.0	20.0	15.374
9931	0	23.0	21.0	7.0	1.0	1.0	3.0	4.0	9.0	15.0	9.696
9864	8.0	11.0	25.0	5.0	3.0	1.0	0	7.0	9.0	15.0	5.212
0934	6.0	14.0	25.0	6.0	2.0	4.0	0	3.0	12.0	20.0	16.673
0955	7.0	7.0	23.0	12.0	7.0	0	1.0	3.0	19.0	31.7	11.612
0942	5.0	24.0	23.0	3.0	0	1.0	1.0	3.0	4.0	6.7	13.498
0933	9.0	27.0	16.0	3.0	3.0	0	0	2.0	6.0	10.0	[illegible]
0932	0	10.0	28.0	16.0	3.0	0	1.0	2.0	19.0	31.7	19.40[illegible]
0939	8.0	22.0	19.0	1.0	0	1.0	5.0	4.0	2.0	[illegible]	6.979
0956	0	6.0	30.0	9.0	0	3.0	4.0	8.0	12.0	20.0	19.901
0935	1.0	24.0	16.0	14.0	0	3.0	2.0	0	17.0	28.3	16.830
0957	10.0	10.0	23.0	8.0	0	4.0	0	5.0	12.0	20.0	16.189
0967	4.0	14.0	30.0	3.0	2.0	2.0	4.0	1.0	7.0	11.7	6.620
0940	9.0	16.0	16.0	5.0	0	2.0	5.0	7.0	7.0	11.7	5.211
0983	2.0	12.0	25.0	7.0	5.0	2.0	0	7.0	14.0	23.3	10.391
0095	2.0	7.0	20.0	18.0	0	7.0	6.0	0	25.0	41.7	35.122
0936	3.0	13.0	22.0	9.0	11.0	0	0	2.0	20.0	33.3	19.833
0941	9.0	17.0	14.0	7.0	0	0	5.0	8.0	7.0	11.7	5.979
0951	5.0	22.0	20.0	7.0	5.0	1.0	0	0	13.0	21.7	14.506
0959	7.0	13.0	32.0	3.0	0	0	5.0	0	3.0	5.0	13.354
0958	7.0	15.0	32.0	1.0	1.0	0	0	4.0	2.0	3.3	9.081
0948	4.0	1.0	31.0	16.0	0	1.0	4.0	3.0	17.0	28.3	20.874
0961	16.0	21.0	15.0	5.0	1.0	2.0	0	0	8.0	13.3	.643
0952	6.0	4.0	31.0	10.0	2.0	2.0	0	5.0	14.0	23.3	25.166
0950	2.0	18.0	12.0	13.0	7.0	1.0	7.0	0	21.0	35.0	28.126
0949	0	13.0	28.0	5.0	9.0	2.0	2.0	1.0	16.0	26.7	26.005
0937	2.0	8.0	32.0	13.0	0	0	4.0	1.0	13.0	21.7	15.754
0962	4.0	11.0	26.0	8.0	0	10.0	0	1.0	18.0	30.0	16.587
0960	6.0	24.0	22.0	5.0	0	1.0	1.0	1.0	6.0	10.0	7.718
0968	0	11.0	25.0	15.0	2.0	0	3.0	4.0	17.0	28.3	25.451
0988	8.0	12.0	11.0	14.0	5.0	3.0	4.0	3.0	22.0	36.7	23.136
2840	4.0	11.0	13.0	17.0	8.0	0	4.0	3.0	25.0	41.7	21.339
2802	4.0	11.0	19.0	12.0	4.0	8.0	0	2.0	24.0	40.0	22.373
2839	8.0	7.0	23.0	4.0	1.0	7.0	4.0	6.0	12.0	20.0	10.094
2824	4.0	7.0	23.0	16.0	2.0	4.0	4.0	0	22.0	36.7	15.773
2828	9.0	10.0	24.0	10.0	0	3.0	1.0	3.0	13.0	21.7	10.030
2836	0	3.0	21.0	19.0	3.0	7.0	4.0	3.0	29.0	48.3	35.510
2831	9.0	15.0	21.0	6.0	1.0	2.0	2.0	4.0	9.0	15.0	13.319
2800	7.0	15.0	19.0	8.0	6.0	2.0	3.0	0	16.0	26.7	18.905
2808	4.0	16.0	22.0	9.0	3.0	2.0	4.0	0	14.0	23.3	10.780
2830	8.0	7.0	17.0	17.0	4.0	2.0	4.0	1.0	23.0	38.3	23.882
2832	1.0	16.0	15.0	17.0	3.0	7.0	0	1.0	27.0	45.0	26.922
2833	4.0	20.0	24.0	6.0	4.0	0	0	2.0	10.0	16.7	16.065
2812	10.0	12.0	30.0	8.0	0	0	0	0	8.0	13.3	8.687
2813	1.0	19.0	13.0	26.0	0	0	1.0	0	26.0	43.3	21.397
2801	1.0	9.0	23.0	18.0	2.0	2.0	0	5.0	22.0	36.7	25.376
2821	1.0	9.0	19.0	15.0	3.0	6.0	3.0	4.0	24.0	40.0	23.844
2804	3.0	7.0	23.0	19.0	4.0	0	2.0	2.0	23.0	38.3	23.027
2814	1.0	6.0	29.0	8.0	3.0	8.0	0	5.0	19.0	31.7	27.394
2820	3.0	7.0	21.0	11.0	4.0	3.0	6.0	5.0	18.0	30.0	15.830
2819	2.0	24.0	21.0	8.0	0	1.0	3.0	1.0	9.0	15.0	14.456
2816	2.0	15.0	9.0	21.0	7.0	0	1.0	5.0	28.0	46.7	24.844
2835	2.0	5.0	16.0	22.0	2.0	5.0	0	8.0	29.0	48.3	25.640
2815	4.0	9.0	29.0	4.0	8.0	0	4.0	2.0	12.0	20.0	11.850
2834	1.0	7.0	29.0	16.0	7.0	8.0	1.0	0	31.0	51.7	31.289
2809	4.1	12.2	18.3	15.3	1.0	1.0	3.1	5.1	17.3	28.8	23.561
2818	4.0	24.0	26.0	4.0	0	2.0	0	0	6.0	10.0	13.084
2837	5.0	20.0	25.0	1.0	2.0	3.0	0	4.0	6.0	10.0	10.347
2838	5.0	12.0	19.0	10.0	6.0	3.0	1.0	4.0	19.0	31.7	21.694
2827	3.0	14.0	19.0	8.0	8.0	0	4.0	4.0	16.0	26.7	20.619
1102	12.0	13.0	31.0	2.0	1.0	0	0	1.0	3.0	5.0	10.227

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2809	4.1	12.2	18.3	15.3	1.0	1.0	3.1	5.1	17.3	28.8	23.561
2818	4.0	24.0	26.0	4.0	0	2.0	0	0	6.0	10.0	13.084
2837	5.0	20.0	25.0	1.0	2.0	3.0	0	4.0	6.0	10.0	10.347
2838	5.0	12.0	19.0	10.0	6.0	3.0	1.0	4.0	19.0	31.7	21.694
2827	3.0	14.0	19.0	8.0	8.0	0	4.0	4.0	16.0	26.7	20.619
1102	12.0	13.0	31.0	2.0	1.0	0	0	1.0	3.0	5.0	10.227
1103	0	18.0	23.0	12.0	3.0	3.0	1.0	0	18.0	30.0	18.323
1104	4.0	10.0	23.0	6.0	0	8.0	6.0	3.0	14.0	23.3	12.033
1105	4.0	11.0	27.0	4.0	3.0	4.0	3.0	4.0	11.0	18.3	8.203
1106	4.0	18.0	23.0	6.0	3.0	0	4.0	2.0	9.0	15.0	9.692
1107	2.0	10.0	30.0	14.0	0	1.0	3.0	0	15.0	25.0	14.329
1108	3.0	23.0	20.0	6.0	2.0	2.0	3.0	1.0	10.0	16.7	6.997
1109	9.0	15.0	17.0	11.0	3.0	1.0	0	4.0	15.0	25.0	6.206
2187	0	6.0	8.0	25.0	7.0	0	10.0	4.0	32.0	53.3	27.961
2185	1.0	6.0	8.0	20.0	7.0	6.0	6.0	6.0	33.0	55.0	26.134
2176	11.0	7.0	7.0	19.0	5.0	9.0	0	2.0	33.0	55.0	16.365
2169	1.0	9.0	16.0	16.0	9.0	6.0	0	3.0	31.0	51.7	24.895
2186	1.0	12.0	8.0	24.0	7.0	8.0	0	0	39.0	65.0	28.550
2150	0	7.0	25.0	16.0	3.0	1.0	6.0	2.0	20.0	33.3	25.857
2387	0	11.0	25.0	13.0	9.0	2.0	0	0	24.0	40.0	28.238
2170	5.0	11.0	15.0	14.0	7.0	4.0	1.0	3.0	25.0	41.7	19.284
2159	1.0	3.0	15.0	16.0	16.0	6.0	0	3.0	38.0	63.3	37.455
2177	7.0	14.0	21.0	4.0	6.0	8.0	0	0	18.0	30.0	18.685
2388	5.0	13.0	22.0	8.0	6.0	6.0	0	0	20.0	33.3	20.766
2197	6.0	17.0	23.0	8.0	0	2.0	3.0	1.0	10.0	16.7	12.083
2189	0	11.0	27.0	10.0	8.0	1.0	0	3.0	19.0	31.7	19.493
2199	0	11.0	13.0	17.0	9.0	3.0	3.0	4.0	29.0	48.3	33.061
2174	0	15.0	12.0	21.0	0	0	0	12.0	21.0	35.0	16.862
2386	5.0	6.0	22.0	17.0	4.0	0	0	6.0	21.0	35.0	28.343
2193	3.0	7.0	4.0	29.0	10.0	3.0	2.0	2.0	42.0	70.0	35.402
2167	12.0	5.0	25.0	5.0	6.0	7.0	0	0	18.0	30.0	19.451
2195	5.0	9.0	19.0	13.0	6.0	1.0	4.0	3.0	20.0	33.3	24.311
2180	0	4.0	36.0	6.0	6.0	3.0	0	3.0	15.0	25.0	26.547
2161	2.0	8.0	27.0	6.0	6.0	6.0	0	5.0	18.0	30.0	23.037
2152	0	7.0	11.0	20.0	11.0	6.0	0	5.0	37.0	61.7	29.627
2179	2.0	11.0	14.0	22.0	4.0	2.0	3.0	2.0	28.0	46.7	27.634
2165	8.0	16.0	19.0	12.0	0	0	1.0	4.0	12.0	20.0	13.692
2166	4.0	26.0	18.0	6.0	0	0	4.0	2.0	6.0	10.0	2.804
2164	2.0	7.0	26.0	9.0	2.0	4.0	4.0	6.0	15.0	25.0	8.855
2153	8.0	19.0	22.0	6.0	0	1.0	1.0	3.0	7.0	11.7	11.664
2163	6.0	16.0	11.0	16.0	6.0	0	4.0	1.0	22.0	36.7	14.399
2175	0	33.0	12.0	10.0	3.0	1.0	1.0	0	14.0	23.3	12.252
2182	9.0	13.0	15.0	14.0	1.0	2.0	2.0	4.0	17.0	28.3	17.253
2160	3.0	3.0	11.0	22.0	0	8.0	12.0	1.0	30.0	50.0	20.152
2162	5.0	19.0	15.0	18.0	0	2.0	0	1.0	20.0	33.3	20.489
2198	2.0	18.0	22.0	10.0	0	0	3.0	5.0	10.0	16.7	21.603
2196	8.0	6.0	12.0	16.0	10.0	8.0	0	0	34.0	56.7	23.413
2188	5.0	17.0	26.0	4.0	2.0	4.0	0	2.0	10.0	16.7	18.240
2191	1.0	15.0	30.0	5.0	0	4.0	1.0	4.0	9.0	15.0	17.060
2184	13.0	12.0	24.0	6.0	5.0	0	0	0	11.0	18.3	15.240
2194	5.0	13.0	23.0	7.0	2.0	3.0	3.0	4.0	12.0	20.0	-.279
2183	1.0	6.0	26.0	14.0	4.0	2.0	4.0	3.0	20.0	33.3	15.561
2178	0	8.0	13.0	12.0	8.0	7.0	0	12.0	27.0	45.0	17.080
2181	2.0	19.0	19.0	6.0	5.0	4.0	2.0	3.0	15.0	25.0	15.550
2200	9.0	19.0	17.0	4.0	2.0	2.0	6.0	1.0	8.0	13.3	-1.354
2100	4.0	14.0	15.0	13.0	8.0	3.0	0	3.0	24.0	40.0	23.468
2099	2.0	6.0	17.0	15.0	13.0	3.0	0	4.0	31.0	51.7	25.053
2897	2.0	16.0	21.0	13.0	3.0	2.0	0	3.0	18.0	30.0	14.244
2098	5.0	16.0	26.0	3.0	5.0	0	0	5.0	8.0	13.3	15.695
2097	3.0	25.0	22.0	4.0	1.0	1.0	1.0	3.0	6.0	10.0	13.903
2096	7.0	11.0	19.0	12.0	2.0	0	8.0	1.0	14.0	23.3	8.330
2007	1.0	13.0	12.0	9.0	12.0	10.0	0	3.0	31.0	51.7	25.037
2008	0	14.0	11.0	17.0	15.0	2.0	1.0	0	34.0	56.7	34.450
2809	4.0	16.0	17.0	8.0	9.0	1.0	2.0	3.0	18.0	30.0	18.086
3058	1.0	12.0	8.0	14.0	5.0	12.0	3.0	5.0	31.0	51.7	16.853

2098	5.0	16.0	26.0	3.0	5.0	0	0	5.0	8.0	13.3	15.695
2097	3.0	25.0	22.0	4.0	1.0	1.0	1.0	3.0	6.0	10.0	13.903
2096	7.0	11.0	19.0	12.0	2.0	0	8.0	1.0	14.0	23.3	8.330
2007	1.0	13.0	12.0	9.0	12.0	10.0	0	3.0	31.0	51.7	25.037
2008	0	14.0	11.0	17.0	15.0	2.0	1.0	0	34.0	56.7	34.450
2009	4.0	16.0	17.0	8.0	9.0	1.0	2.0	3.0	18.0	30.0	18.086
3058	1.0	12.0	8.0	14.0	5.0	12.0	3.0	5.0	31.0	51.7	16.853
3047	5.0	17.0	30.0	2.0	0	0	6.0	0	2.0	3.3	5.046
3093	0	16.0	24.0	10.0	6.0	2.0	0	2.0	18.0	30.0	23.595
3094	4.0	15.0	12.0	19.0	6.0	1.0	0	3.0	26.0	43.3	18.767
3088	6.0	9.0	22.0	14.0	2.0	4.0	0	3.0	20.0	33.3	23.353
3078	5.0	11.0	17.0	15.0	0	5.0	1.0	6.0	20.0	33.3	20.429
3080	4.0	6.0	21.0	22.0	5.0	2.0	0	0	29.0	48.3	25.382
3090	0	3.1	20.3	7.1	10.2	7.1	7.1	5.1	24.4	40.7	20.797
3030	9.0	20.0	9.0	15.0	3.0	3.0	0	1.0	21.0	35.0	9.092
3053	2.0	28.0	11.0	5.0	3.0	6.0	3.0	2.0	14.0	23.3	.706
3049	4.0	14.0	21.0	7.0	3.0	0	7.0	4.0	10.0	16.7	15.355
3048	0	15.0	17.0	11.0	2.0	4.0	8.0	3.0	17.0	28.3	22.332
3439	4.0	18.0	25.0	8.0	0	0	0	5.0	8.0	13.3	10.981
3482	6.0	6.0	23.0	10.0	8.0	5.0	2.0	0	23.0	38.3	24.361
3481	0	12.0	21.0	17.0	8.0	0	2.0	0	25.0	41.7	28.390
3662	6.0	23.0	18.0	8.0	1.0	1.0	3.0	0	10.0	16.7	14.037
3443	1.0	13.0	16.0	16.0	8.0	4.0	2.0	0	28.0	46.7	23.992
3480	0	7.0	19.0	15.0	8.0	8.0	2.0	1.0	31.0	51.7	27.044
3380	1.0	1.0	22.0	15.0	2.0	12.0	1.0	6.0	29.0	48.3	39.479
3781	4.0	22.0	20.0	7.0	1.0	4.0	2.0	0	12.0	20.0	23.338
3268	0	11.0	22.0	8.0	8.0	4.0	2.0	5.0	20.0	33.3	21.494
3267	11.0	8.0	22.0	13.0	5.0	1.0	0	0	19.0	31.7	22.257
3374	1.0	11.0	21.0	9.0	4.0	2.0	5.0	7.0	15.0	25.0	15.052
3373	4.0	8.0	29.0	14.0	5.0	0	0	0	19.0	31.7	26.372
3264	9.0	9.0	22.0	14.0	3.0	0	0	3.0	17.0	28.3	14.635
3379	3.0	9.0	16.0	20.0	2.0	3.0	0	7.0	25.0	41.7	19.878
3370	5.0	6.0	31.0	11.0	0	6.0	0	1.0	17.0	28.3	2.585
3378	3.0	19.0	21.0	5.0	4.0	2.0	1.0	5.0	11.0	18.3	14.409
3363	2.0	20.0	21.0	3.0	4.0	4.0	4.0	2.0	11.0	18.3	16.127
3258	10.0	14.0	19.0	10.0	0	0	5.0	2.0	10.0	16.7	6.805
3318	0	3.0	24.0	15.0	7.0	6.0	5.0	0	28.0	46.7	25.677
3497	2.0	11.0	21.0	22.0	0	3.0	0	1.0	25.0	41.7	28.800
3634	4.0	22.0	15.0	11.0	3.0	2.0	0	3.0	16.0	26.7	18.843
3657	9.0	6.0	23.0	19.0	3.0	0	0	0	22.0	36.7	22.557
3661	3.0	11.0	22.0	8.0	3.0	4.0	5.0	4.0	15.0	25.0	17.423
3375	0	23.0	18.0	4.0	1.0	9.0	2.0	3.0	14.0	23.3	12.508
3051	0	5.0	21.0	10.0	6.0	8.0	4.0	6.0	24.0	40.0	16.672
3067	1.0	4.0	16.0	11.0	15.0	9.0	4.0	0	35.0	58.3	28.497
3313	8.4	15.6	30.0	2.4	3.6	0	0	0	6.0	10.0	10.043
3311	0	11.0	10.0	17.0	5.0	0	10.0	7.0	22.0	36.7	23.461
3290	0	19.0	16.0	12.0	5.0	5.0	3.0	0	22.0	36.7	16.365
3283	0	18.0	17.0	13.0	9.0	0	0	3.0	22.0	36.7	18.798
3352	0	3.0	24.0	18.0	3.0	6.0	6.0	0	27.0	45.0	29.956
3253	0	7.0	13.0	7.0	11.0	8.0	4.0	10.0	26.0	43.3	24.333
3257	2.0	5.0	23.0	12.0	4.0	4.0	7.0	3.0	20.0	33.3	27.421
3278	2.0	7.0	15.0	23.0	5.0	5.0	3.0	0	33.0	55.0	23.617
3207	7.0	7.0	22.0	9.0	9.0	0	0	4.0	18.0	30.0	22.311
3261	1.0	7.0	27.0	15.0	3.0	0	2.0	5.0	18.0	30.0	28.082
3445	4.0	4.0	14.0	19.0	5.0	2.0	4.0	8.0	26.0	43.3	28.227
3294	3.0	13.0	14.0	18.0	4.0	1.0	0	7.0	23.0	38.3	21.181
3269	3.0	5.0	21.0	9.0	9.0	6.0	0	7.0	24.0	40.0	10.095
3277	0	6.0	16.0	20.0	1.0	14.0	1.0	2.0	35.0	58.3	25.050
3633	6.0	18.0	26.4	2.4	1.2	2.4	2.4	1.2	6.0	10.0	9.762
3354	3.0	17.0	24.0	7.0	4.0	1.0	1.0	3.0	12.0	20.0	19.924
3251	6.0	7.0	9.0	20.0	4.0	6.0	8.0	0	30.0	50.0	22.940
3350	0	17.0	17.0	12.0	4.0	2.0	3.0	5.0	18.0	30.0	19.113
3351	0	2.0	25.0	18.0	13.0	1.0	0	1.0	32.0	53.3	32.554
3353	12.0	9.0	14.0	17.0	1.0	0	3.0	4.0	18.0	30.0	16.115
3293	3.0	20.0	15.0	8.0	6.0	1.0	3.0	4.0	15.0	25.0	17.274

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[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.0	0	27.0	45.0	20.189
5223	0	24.0	17.0	4.0	3.0	0	6.0	6.0	7.0	11.7	7.122
5286	6.0	18.0	14.0	8.0	1.0	3.0	5.0	5.0	12.0	20.0	15.720
5292	0	8.0	26.0	11.0	4.0	6.0	0	5.0	21.0	35.0	7.889
5330	6.0	10.0	28.0	13.0	1.0	0	0	2.0	14.0	23.3	10.315
5231	11.0	7.0	19.0	17.0	4.0	0	0	2.0	21.0	35.0	18.671
5327	5.0	16.0	14.0	11.0	2.0	3.0	5.0	4.0	16.0	26.7	19.754
5239	0	9.0	19.0	24.0	3.0	5.0	2.0	7.0	32.0	53.3	13.782
5624	9.0	18.0	13.0	3.0	8.0	2.0	4.0	3.0	13.0	21.7	7.127
5626	6.0	15.0	23.0	6.0	0	2.0	1.0	7.0	8.0	13.3	17.767
5452	7.0	12.0	20.0	13.0	2.0	0	4.0	2.0	15.0	25.0	7.565
5395	7.0	10.0	14.0	11.0	2.0	7.0	7.0	2.0	20.0	33.3	11.167
5312	2.0	14.0	8.0	14.0	14.0	3.0	0	5.0	31.0	51.7	20.599
5228	0	6.0	16.0	18.0	6.0	9.0	0	5.0	33.0	55.0	27.836
5224	1.0	20.0	15.0	13.0	9.0	0	0	2.0	22.0	36.7	13.581
5201	4.0	8.0	21.0	11.0	3.0	6.0	4.0	3.0	20.0	33.3	21.752
5625	4.0	24.0	15.0	11.0	3.0	0	0	3.0	14.0	23.3	14.819
5296	0	6.0	13.0	22.0	9.0	3.0	0	7.0	34.0	56.7	22.534
5321	4.0	11.0	7.0	22.0	9.0	4.0	3.0	0	35.0	58.3	35.698
5244	1.0	11.0	10.0	28.0	5.0	1.0	2.0	2.0	34.0	56.7	31.144
5235	4.0	14.0	13.0	12.0	5.0	3.0	5.0	4.0	20.0	33.3	19.112
5211	0	9.0	15.0	15.0	8.0	7.0	4.0	2.0	30.0	50.0	35.460
5212	1.0	10.0	10.0	25.0	3.0	6.0	1.0	4.0	34.0	56.7	27.688
6073	8.0	14.0	13.0	17.0	2.0	0	6.0	0	19.0	31.7	19.655
6320	1.0	9.0	24.0	11.0	2.0	5.0	0	8.0	18.0	30.0	22.866
6046	10.0	18.0	22.0	4.0	0	0	5.0	1.0	4.0	6.7	2.446
6059	5.0	10.0	35.0	4.0	0	1.0	0	5.0	5.0	8.3	13.500
6730	8.0	8.0	12.0	19.0	6.0	7.0	0	0	32.0	53.3	30.014
6700	0	16.0	15.0	12.0	9.0	3.0	1.0	4.0	24.0	40.0	30.268
6701	4.0	11.0	18.0	15.0	4.0	7.0	0	1.0	26.0	43.3	25.714
6699	0	7.0	7.0	22.0	5.0	12.0	2.0	5.0	39.0	65.0	29.515
6245	3.6	7.2	18.0	12.0	9.6	0	8.4	1.2	21.6	36.0	17.700
6220	2.0	3.0	13.0	21.0	6.0	12.0	0	3.0	39.0	65.0	32.570
6431	3.6	10.8	27.6	13.2	2.4	2.4	0	0	18.0	30.0	25.370
6426	0	12.0	16.8	25.2	4.8	0	1.2	0	30.0	50.0	29.564
6331	3.0	4.0	15.0	24.0	7.0	7.0	0	0	38.0	63.3	29.337
6217	5.0	2.0	22.0	21.0	5.0	5.0	0	0	31.0	51.7	26.664
6337	0	2.0	24.0	21.0	5.0	3.0	1.0	4.0	29.0	48.3	30.091
6339	3.0	16.0	16.0	13.0	4.0	1.0	3.0	4.0	18.0	30.0	18.748
6322	0	6.0	12.0	21.0	7.0	6.0	4.0	4.0	34.0	56.7	27.380
6383	2.0	7.0	21.0	8.0	5.0	4.0	4.0	9.0	17.0	28.3	32.893
6246	0	5.0	26.0	11.0	4.0	10.0	0	4.0	25.0	41.7	27.720
6438	2.0	9.0	18.0	9.0	7.0	5.0	0	10.0	21.0	35.0	14.680
6660	3.0	12.0	10.0	26.0	9.0	0	0	0	35.0	58.3	28.116
6270	4.0	7.0	17.0	3.0	7.0	6.0	9.0	7.0	16.0	26.7	15.637
6332	6.0	14.0	20.0	11.0	7.0	0	2.0	0	18.0	30.0	16.169
6247	0	23.0	8.0	12.0	6.0	4.0	4.0	3.0	22.0	36.7	22.701
6230	0	18.0	30.0	8.0	0	2.0	2.0	0	10.0	16.7	13.178
6226	7.0	3.0	10.0	23.0	0	7.0	6.0	4.0	30.0	50.0	17.899
6214	4.0	10.0	1.0	26.0	11.0	8.0	0	0	45.0	75.0	37.430
6206	5.0	14.0	6.0	18.0	11.0	4.0	0	2.0	33.0	55.0	25.561
6234	4.1	6.1	18.3	21.4	0	4.1	3.1	3.1	25.4	42.4	28.396
6252	4.0	16.0	17.0	14.0	2.0	3.0	4.0	0	19.0	31.7	13.718
6358	2.0	0	17.0	24.0	7.0	6.0	0	4.0	37.0	61.7	26.976
6361	5.0	3.0	18.0	24.0	4.0	6.0	0	0	34.0	56.7	24.205
6087	3.0	11.0	6.0	26.0	4.0	4.0	5.0	1.0	34.0	56.7	29.187
6615	6.0	21.0	25.0	3.0	0	1.0	0	4.0	4.0	6.7	17.531
6628	1.0	12.0	6.0	29.0	8.0	1.0	0	3.0	38.0	63.3	44.791
6610	0	10.0	22.0	9.0	10.0	3.0	4.0	2.0	22.0	36.7	30.769
6619	0	7.0	16.0	14.0	6.0	9.0	2.0	6.0	29.0	48.3	31.597
6622	0	12.0	21.6	12.0	8.4	2.4	0	3.6	22.8	38.0	31.566
6309	4.0	6.0	27.0	13.0	1.0	3.0	1.0	5.0	17.0	28.3	22.519
6381	5.0	3.0	26.0	14.0	3.0	7.0	0	2.0	24.0	40.0	34.406
6282	7.0	14.0	10.0	17.0	9.0	3.0	0	0	29.0	48.3	31.128
6289	0	6.0	13.0	24.0	6.0	6.0	0	5.0	36.0	60.0	30.870
6225	4.0	8.0	15.0	21.0	6.0	1.0	3.0	2.0	28.0	46.7	32.706

7419	0	14.7	18.9	16.8	4.2	0	0	5.3	21.1	35.1	18.706
7618	0	11.0	2.0	21.0	11.0	8.0	4.0	3.0	40.0	66.7	30.799
7478	1.0	8.0	23.0	15.0	7.0	2.0	2.0	2.0	24.0	40.0	14.758
7401	4.0	9.0	15.0	13.0	3.0	10.0	6.0	0	26.0	43.3	21.480
7407	7.0	14.0	30.0	1.0	1.0	0	2.0	5.0	2.0	3.3	11.519
7410	2.0	10.0	25.0	9.0	4.0	6.0	2.0	2.0	19.0	31.7	30.253
7416	7.0	5.0	6.0	21.0	4.0	7.0	4.0	6.0	32.0	53.3	21.216
7731	0	14.0	7.0	18.0	10.0	9.0	1.0	1.0	37.0	61.7	30.089
7425	3.0	2.0	20.0	17.0	3.0	3.0	1.0	11.0	23.0	38.3	12.889
7496	3.0	6.0	20.0	17.0	1.0	10.0	0	3.0	28.0	46.7	32.844
7427	0	5.0	14.0	21.0	3.0	8.0	4.0	5.0	32.0	53.3	37.855
7494	0	8.0	19.0	11.0	12.0	3.0	1.0	6.0	26.0	43.3	24.032
7990	0	6.0	22.0	14.0	9.0	6.0	3.0	0	29.0	48.3	38.365
6064	3.0	1.0	21.0	15.0	6.0	12.0	2.0	0	33.0	55.0	42.678
6604	1.2	16.8	8.4	12.0	7.2	1.2	6.0	7.2	20.4	34.0	26.012
6621	4.0	14.0	11.0	19.0	0	1.0	7.0	4.0	20.0	33.3	20.715
5803	6.0	17.0	13.0	15.0	5.0	0	4.0	0	20.0	33.3	21.534
5082	7.0	7.0	22.0	11.0	0	8.0	3.0	2.0	19.0	31.7	27.329
5083	0	10.5	13.5	22.5	3.0	4.5	0	6.0	30.0	50.0	31.180
5081	6.0	11.0	16.0	16.0	2.0	6.0	1.0	2.0	24.0	40.0	21.537
4065	2.0	12.0	25.0	11.0	0	0	1.0	9.0	11.0	18.3	14.430
4892	9.0	8.0	18.0	14.0	4.0	6.0	0	1.0	24.0	40.0	24.736
4893	5.0	8.0	11.0	27.0	1.0	4.0	4.0	0	32.0	53.3	34.595
4910	2.0	7.0	28.0	7.0	1.0	8.0	0	7.0	16.0	26.7	15.056
4912	3.0	8.0	14.0	22.0	4.0	0	5.0	4.0	26.0	43.3	27.896
4891	1.0	7.0	5.0	30.0	0	5.0	8.0	4.0	35.0	58.3	32.482
4900	1.0	14.0	13.0	13.0	6.0	8.0	0	5.0	27.0	45.0	28.466
4908	8.0	18.0	20.0	12.0	1.0	0	0	1.0	13.0	21.7	5.662
4918	5.0	14.0	18.0	3.0	3.0	2.0	5.0	10.0	8.0	13.3	11.395
3912	1.0	26.0	12.0	14.0	0	0	5.0	2.0	14.0	23.3	18.155
3066	7.0	9.0	9.0	23.0	7.0	0	1.0	4.0	30.0	50.0	28.478
3068	0	21.0	10.0	13.0	5.0	4.0	2.0	5.0	22.0	36.7	18.265
3917	0	11.0	18.0	12.0	12.0	0	3.0	4.0	24.0	40.0	24.903
3916	7.0	6.0	27.0	17.0	1.0	2.0	0	0	20.0	33.3	18.158
3914	0	16.0	15.0	16.0	2.0	3.0	4.0	4.0	21.0	35.0	25.131
3901	10.0	12.0	22.0	4.0	0	6.0	2.0	4.0	10.0	16.7	10.011
3909	7.2	6.0	12.0	20.4	7.2	3.6	0	3.6	31.2	52.0	29.728
3075	8.0	15.0	22.0	8.0	2.0	2.0	0	3.0	12.0	20.0	14.156
3006	0	6.0	19.0	13.0	6.0	5.0	8.0	3.0	24.0	40.0	19.938
3052	3.0	15.0	22.0	14.0	0	5.0	0	1.0	19.0	31.7	18.582
3904	12.0	16.0	16.0	7.0	5.0	0	0	4.0	12.0	20.0	12.922
8641	0	8.0	11.0	21.0	6.0	10.0	0	4.0	37.0	61.7	34.681
8642	0	2.0	15.0	31.0	6.0	6.0	0	0	43.0	71.7	43.152
8644	0	5.1	11.2	26.4	9.2	4.1	2.0	2.0	39.7	66.1	38.140
8645	4.0	6.0	11.0	17.0	7.0	7.0	5.0	3.0	31.0	51.7	18.984
8646	0	6.0	19.0	12.0	2.0	8.0	6.0	7.0	22.0	36.7	32.911
8656	4.0	0	22.0	16.0	5.0	5.0	5.0	3.0	26.0	43.3	29.077
8659	2.0	7.0	17.0	18.0	5.0	7.0	0	4.0	30.0	50.0	19.472
8461	1.0	5.0	14.0	17.0	4.0	6.0	4.0	9.0	27.0	45.0	35.098
8617	0	4.0	27.0	18.0	5.0	6.0	0	0	29.0	48.3	34.018
8741	3.0	14.0	22.0	10.0	6.0	4.0	0	1.0	20.0	33.3	19.680
8462	0	7.0	30.0	9.0	4.0	5.0	0	5.0	18.0	30.0	18.259
8702	6.0	13.0	23.0	10.0	3.0	0	0	5.0	13.0	21.7	9.872
8397	0	3.0	18.0	20.0	8.0	7.0	0	4.0	35.0	58.3	31.151
8737	1.0	6.0	14.0	21.0	9.0	5.0	0	4.0	35.0	58.3	33.031
8396	2.0	10.0	18.0	9.0	8.0	3.0	3.0	7.0	20.0	33.3	31.879
8706	4.0	7.0	23.0	13.0	2.0	6.0	0	5.0	21.0	35.0	31.242
8398	5.0	25.0	12.5	13.8	0	3.8	0	0	17.5	29.2	17.575
8738	3.0	13.0	15.0	16.0	10.0	1.0	0	2.0	27.0	45.0	26.236
8733	0	8.0	14.0	20.0	7.0	7.0	3.0	1.0	34.0	56.7	32.801
8704	1.0	10.0	18.0	20.0	10.0	0	1.0	0	30.0	50.0	28.733
8474	0	6.0	15.0	20.0	6.0	12.0	0	1.0	38.0	63.3	35.512
8475	2.4	22.8	16.8	4.8	9.6	1.2	0	2.4	15.6	26.0	20.265
8456	10.0	10.0	3.0	13.0	12.0	9.0	0	3.0	34.0	56.7	21.552
8454	0	4.0	20.0	14.0	8.0	12.0	0	2.0	34.0	56.7	42.494
8457	2.0	12.0	11.0	18.0	4.0	4.0	3.0	6.0	25.0	43.3	28.189

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6622	0	12.0	21.6	12.0	8.4	2.4	0	3.6	22.8	38.0	31.666
6309	4.0	6.0	27.0	13.0	1.0	3.0	1.0	5.0	17.0	28.3	22.519
6381	5.0	3.0	26.0	14.0	3.0	7.0	0	2.0	24.0	40.0	34.406
6282	7.0	14.0	10.0	17.0	9.0	3.0	0	0	29.0	48.3	31.128
6289	0	6.0	13.0	24.0	6.0	6.0	0	5.0	36.0	60.0	30.870
6225	4.0	8.0	15.0	21.0	6.0	1.0	3.0	2.0	28.0	46.7	32.706
6204	7.0	3.0	26.0	17.0	1.0	2.0	0	4.0	20.0	33.3	22.847
6202	0	7.0	9.0	21.0	12.0	2.0	4.0	5.0	35.0	58.3	31.824
6240	8.0	15.0	14.0	11.0	3.0	5.0	0	4.0	19.0	31.7	18.275
6238	1.1	11.1	31.1	14.4	2.2	0	0	0	16.7	27.8	23.884
6242	2.1	22.1	23.2	8.4	3.2	1.1	0	0	12.6	21.1	22.231
6241	4.0	13.0	12.0	18.0	7.0	1.0	4.0	1.0	26.0	43.3	24.481
6216	8.0	11.0	22.0	5.0	3.0	6.0	4.0	1.0	14.0	23.3	14.990
6623	0	16.0	23.0	14.0	4.0	3.0	0	0	21.0	35.0	21.956
6627	10.0	12.0	20.0	7.0	2.0	0	4.0	5.0	9.0	15.0	13.378
6630	0	5.0	15.0	20.0	13.0	7.0	0	0	40.0	66.7	38.851
6618	3.0	14.0	27.0	10.0	1.0	1.0	2.0	2.0	12.0	20.0	6.917
6319	2.0	3.0	26.0	13.0	2.0	8.0	0	6.0	23.0	38.3	35.709
6359	1.0	9.0	10.0	29.0	6.0	4.0	0	1.0	39.0	65.0	35.015
6218	3.0	10.0	22.0	16.0	1.0	2.0	0	6.0	19.0	31.7	21.827
7946	4.0	9.0	12.0	14.0	8.0	1.0	7.0	5.0	23.0	38.3	29.237
7485	3.0	9.0	18.0	17.0	4.0	3.0	5.0	1.0	24.0	40.0	24.343
7969	0	7.0	18.0	19.0	10.0	5.0	1.0	0	34.0	56.7	33.847
7607	4.0	9.0	21.0	15.0	5.0	2.0	3.0	1.0	22.0	36.7	21.298
7458	1.0	6.0	16.0	19.0	14.0	3.0	1.0	0	36.0	60.0	32.333
7084	0	1.0	21.4	20.3	9.2	8.1	0	0	37.6	62.7	40.680
7675	0	3.0	18.0	16.0	8.0	7.0	4.0	4.0	31.0	51.7	20.822
7409	7.0	7.0	11.0	14.0	4.0	8.0	0	9.0	26.0	43.3	24.358
7423	0	8.0	28.0	2.0	6.0	6.0	3.0	7.0	14.0	23.3	21.462
7698	6.0	8.0	24.0	6.0	9.0	0	3.0	4.0	15.0	25.0	20.732
7403	0	21.0	15.0	8.0	5.0	3.0	5.0	3.0	16.0	26.7	18.679
7467	4.0	14.0	21.0	8.0	0	6.0	0	7.0	14.0	23.3	35.130
7469	2.0	7.0	13.0	16.0	11.0	8.0	0	3.0	35.0	58.3	31.569
7402	1.0	7.0	14.0	22.0	7.0	3.0	4.0	2.0	32.0	53.3	14.459
7415	0	15.0	11.0	14.0	8.0	12.0	0	0	34.0	56.7	29.618
7039	3.0	17.0	15.0	15.0	1.0	0	3.0	6.0	16.0	26.7	20.139
7034	4.0	5.0	22.0	7.0	6.0	12.0	0	4.0	25.0	41.7	26.196
7408	2.4	7.2	26.4	6.0	6.0	7.2	0	4.8	19.2	32.0	28.014
7418	3.0	4.0	12.0	26.0	6.0	5.0	4.0	0	37.0	61.7	28.818
7417	1.0	13.0	19.0	13.0	5.0	3.0	2.0	4.0	21.0	35.0	17.749
7406	1.0	4.0	4.0	25.0	12.0	3.0	11.0	0	40.0	66.7	38.039
7470	0	6.0	26.0	14.0	2.0	10.0	0	2.0	26.0	43.3	37.498
7466	4.0	-15.0	15.0	9.0	11.0	5.0	0	1.0	25.0	41.7	22.598
7471	4.8	9.6	24.0	18.0	2.4	1.2	0	0	21.6	36.0	26.545
7472	4.0	3.0	20.0	18.0	2.0	4.0	5.0	4.0	24.0	40.0	19.636
7724	3.6	1.2	26.4	8.4	10.8	9.6	0	0	28.8	48.0	32.742
7420	5.0	6.0	14.0	20.0	7.0	7.0	0	1.0	34.0	56.7	30.583
7044	3.0	4.0	27.0	13.0	3.0	5.0	3.0	2.0	21.0	35.0	29.975
7042	0	12.0	14.0	20.0	4.0	9.0	0	1.0	33.0	55.0	27.384
7041	4.0	3.0	21.0	17.0	0	6.0	5.0	4.0	23.0	38.3	20.591
7723	0	13.0	12.0	17.0	9.0	7.0	2.0	0	33.0	55.0	27.582
7484	2.0	0	9.0	21.0	14.0	12.0	0	2.0	47.0	78.3	44.143
7031	0	10.5	15.0	18.0	0	3.0	6.0	7.5	21.0	35.0	19.926
7411	4.0	17.0	14.0	13.0	7.0	5.0	0	0	25.0	41.7	19.088
7450	4.0	3.0	26.0	11.0	3.0	9.0	1.0	3.0	23.0	38.3	30.580
7424	0	3.0	20.0	18.0	12.0	3.0	0	4.0	33.0	55.0	34.442
7489	1.0	1.0	26.0	13.0	7.0	9.0	0	3.0	29.0	48.3	37.463
7600	5.0	12.0	26.0	6.0	5.0	0	0	6.0	11.0	18.3	18.977
7419	0	14.7	18.9	16.8	4.2	0	0	5.3	21.1	35.1	18.706
7618	0	11.0	2.0	21.0	11.0	8.0	4.0	3.0	40.0	66.7	30.799
7478	1.0	8.0	23.0	15.0	7.0	2.0	2.0	2.0	24.0	40.0	14.758
7401	4.0	9.0	15.0	13.0	3.0	10.0	6.0	0	26.0	43.3	21.480
7407	7.0	14.0	30.0	1.0	1.0	0	2.0	5.0	2.0	3.3	11.519
7410	2.0	10.0	25.0	9.0	4.0	6.0	2.0	2.0	19.0	31.7	30.253
7416	7.0	5.0	6.0	21.0	4.0	7.0	4.0	6.0	32.0	53.3	21.216
[illegible]	0	14.6	7.0	18.0	[illegible]	2.0	1.0	1.0	37.0	61.7	30.089

3873

8736	3.0	13.0	15.0	16.0	10.0	0	1.0	27.0	45.0	26.236
8733	0	8.0	14.0	20.0	7.0	3.0	7.0	34.0	56.7	32.801
8704	1.0	10.0	18.0	20.0	10.0	1.0	0	30.0	50.0	28.733
8474	0	6.0	15.0	20.0	6.0	0	12.0	38.0	63.3	35.512
8475	2.4	22.8	16.8	4.8	9.6	0	1.2	15.6	26.0	20.265
8456	10.0	10.0	3.0	13.0	12.0	0	9.0	34.0	56.7	21.552
8454	0	4.0	20.0	14.0	8.0	0	12.0	34.0	56.7	42.494
8457	2.0	12.0	11.0	18.0	4.0	3.0	4.0	26.0	43.3	28.189
8735	3.0	7.0	17.0	13.0	10.0	0	9.0	32.0	53.3	34.148
8694	1.0	5.0	14.0	11.0	6.0	0	13.0	30.0	50.0	41.273
8476	1.0	5.0	10.0	22.0	15.0	0	4.0	41.0	68.3	36.370
8695	2.0	9.0	14.0	22.0	3.0	0	9.0	34.0	56.7	37.927
8473	3.2	16.8	21.1	7.4	10.5	0	1.1	18.9	31.6	21.396
8696	0	6.0	14.0	23.0	5.0	0	4.0	32.0	53.3	34.464
8693	1.0	3.0	16.0	20.0	6.0	0	10.0	36.0	60.0	28.425
8692	1.0	18.0	17.0	10.0	7.0	0	3.0	20.0	33.3	26.286
8683	0	5.0	22.0	15.0	7.0	1.0	8.0	30.0	50.0	30.111
8680	6.0	12.0	23.0	7.0	0	4.0	2.0	9.0	15.0	7.904
8463	2.0	8.0	13.0	9.0	14.0	4.0	8.0	31.0	51.7	26.589
8460	1.0	7.0	25.0	17.0	4.0	2.0	4.0	25.0	41.7	19.425
6013	11.0	14.0	15.0	14.0	2.0	4.0	2.0	18.0	30.0	8.914
6002	3.0	12.0	19.0	10.0	4.0	1.0	8.0	22.0	36.7	22.186
6016	8.0	14.0	24.0	4.0	0	6.0	2.0	6.0	10.0	12.647
6011	4.0	19.0	25.0	2.0	0	5.0	1.0	3.0	5.0	10.714
6324	4.0	15.0	21.0	7.0	9.0	1.0	3.0	19.0	31.7	24.543
7943	3.0	7.0	14.0	24.0	1.0	7.0	2.0	27.0	45.0	28.311
7037	0	18.0	17.0	14.0	8.0	0	0	22.0	36.7	21.865
7991	0	4.0	30.0	12.0	2.0	1.0	8.0	22.0	36.7	31.652
7927	1.0	1.0	25.0	14.0	4.0	6.0	4.0	22.0	36.7	28.443

APPENDIX K

APPENDIX L

Table I

Means, Medians and Standard Deviations of

the California Psychological Inventory

CPI Variable		High School			College			Graduate		
		$\bar{X}$	Median	SD	$\bar{X}$	Median	SD	$\bar{X}$	Median	SD
1	TOL	42.79	42.10	7.54	49.67	49.55	8.68	54.69	54.95	8.57
2	AC	45.51	44.95	8.53	50.17	49.95	9.30	57.57	57.45	9.46
3	AI	45.70	44.45	8.77	52.25	52.05	9.74	57.11	57.15	9.58
4	CS	46.38	46.25	8.84	51.22	51.15	9.09	55.56	55.25	9.78
5	DOM	49.28	49.80	8.77	50.98	50.60	8.45	55.63	54.75	9.54
6	IE	46.21	45.85	8.80	50.89	50.00	9.93	55.49	53.95	10.92
7	RE	42.27	42.65	7.83	45.57	45.95	8.42	52.40	51.95	7.26
8	SO	49.38	48.60	8.78	49.18	49.21	9.19	52.04	52.45	6.74
9	SY	51.53	51.45	8.76	52.61	52.95	9.42	52.74	53.35	9.16
10	WB	42.42	42.05	7.57	49.60	46.25	7.92	52.74	53.35	9.17
11	SP	53.34	52.75	7.58	55.17	55.01	8.32	52.78	52.75	9.38
12	SA	51.73	51.68	9.03	52.00	51.65	8.27	52.48	52.50	8.16
13	SC	43.11	42.95	7.82	46.67	45.92	7.77	52.03	51.25	7.60
14	PY	49.65	49.50	8.78	53.15	52.75	9.18	56.58	55.95	9.10
15	GI	44.72	44.75	10.0	46.44	47.15	9.17	52.04	52.95	9.85
16	FX	51.47	52.25	9.58	54.54	55.25	10.27	54.86	56.85	9.86
17	FE	49.72	49.41	8.02	52.17	51.75	8.37	54.46	53.75	6.88
18	CM	49.52	49.35	10.28	49.63	50.45	10.38	51.56	52.25	10.01
19	SM	48.90	49.11	3.69	49.98	50.11	4.01	52.20	52.45	2.87

APPENDIX M

Table J

* Classification of Moral Judgment into Levels and Stages of Development

Levels	Basis of Moral Judgment	Stages of Development
I	Premoral Moral value resides in external quasi-physical happenings, in bad acts, or in quasi-physical needs rather than in persons and standards.	Stage 1: Obedience and punishment orientation. Egocentric deference to superior power or authority. Stage 2: Instrumental Relativists orientation. Right action is instrumentally satisying one's needs and occasionally others'. Awareness of relativism of value to each actor's needs and perspective.
II	Conventional Moral value resides in performing good or right roles, in maintaining the conventional order and the expectancies of others.	Stage 3: Personal Concordance Good-boy orientation. Orientation to approval and to pleasing and helping others. Conformity to stereotypical images of majority or natural role behavior, and judgment by intentions. Stage 4: Law and Order, Authority and social-order maintaining orientation. Orientation to "doing duty" and to showing respect for authority and maintaining the given social order for its own sake.
III	Principled Moral value resides in conformity by the self to shared or shareable standards, rights or duties.	Stage 5: Social Contract legalistic orientation. Recognition of an arbitrary element or starting point in rules or expectations for the sake of agreement. Stage 6: Individual Principles, or conscience orientation to principles of choice involving appeal to logical universality and consistency. Conscience is directing agent. Orientation is to mutual respect and trust.

*Adapted from Kohlberg (1969).

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