COMPLEXITY, MORAL REASONING, AND ATTITUDES TOWARD CAPITAL PUNISHMENT

by

BRIAN DE VRIES

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Department of Psychology

The University of British Columbia
1956 Main Mall
Vancouver, Canada
V6T 1Y3

Date 26 September 1984
ABSTRACT

This study examined several interrelated issues in social-developmental psychology: (a) the relationship between conceptual and integrative complexity; (b) the relationship between conceptual complexity and moral reasoning; (c) the relationship between attitudes toward capital punishment and moral reasoning; (d) the relationship between attitudes toward capital punishment and conceptual and integrative complexity; and (e) the relationship between the levels of moral reasoning that subjects use to substantiate their own, versus an opposing, position on a moral problem (i.e., capital punishment). Participants were 72 university students (from first-year to graduate school) who completed the Paragraph Completion Test (assessing conceptual complexity), wrote an issue composition on capital punishment (assessing integrative complexity and moral reasoning), generated statements supporting and opposing capital punishment (assessing moral reasoning), and responded to a capital punishment attitude questionnaire. Results indicated that the two measures of complexity are comparable—but not equivalent—assessments of the cognitive structures in information processing, and that conceptual complexity and moral reasoning are moderately related. Integrative complexity and attitudes toward capital punishment related in a curvilinear manner with extreme attitudes (both pro and con) characterizing conceptual simplicity and moderate attitudes characterizing increasing complexity. Moral reasoning and attitudes toward capital punishment related in a linear manner with opposition to
capital punishment increasing with moral stage. Furthermore, subjects did not always use higher moral reasoning to substantiate their own attitude or position on this issue, rather they used higher moral reasoning when opposing it, regardless of their chosen position. The implications of these findings for the theories of moral reasoning and conceptual and integrative complexity are discussed and suggestions are advanced for the direction of future research.
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Introduction

The cognitive-developmental approach to morality (Kohlberg, 1973, 1976) posits stages of moral reasoning which are held to develop in an invariant and hierarchical sequence, each stage representing a more complex structure. Complexity, in this sense, is the ability to differentiate (referring to the number of categories or kinds of information a person is able to process in a given situation) and integrate (referring to the development of complex connections among these differentiated characteristics). These processes are hallmarks of the information processing theory of conceptual complexity, as proposed by Schroder and others (Harvey, Hunt, & Schroder, 1961; Schroder, Driver, & Streufert, 1967), and as such form an interesting and empirically verifiable parallel between these two theories.

The issue of capital punishment has been, and remains, a controversial topic and one that has been researched within the domain of attitudes (an information processing structure relevant to measures of complexity) as well as moral reasoning (as it is included in Kohlberg's structured interview and scoring manual, Colby et al., in press). As such, it forms the connective tissue between the above two theories and presents some interesting hypotheses to investigate.

The following sections present brief theoretical and methodological accounts of the areas of moral reasoning, conceptual and integrative complexity, and attitudes in general, and an integration of these three areas with the hypotheses that such interactions generate.
Moral Reasoning

Kohlberg (1969, 1973, 1976) has presented an approach to moral reasoning that can best be characterized as cognitive-developmental. Aligned with the general characteristics of cognitive stages as initially presented by Piaget (1960), Kohlberg believes that development proceeds through a series of qualitatively distinct stages, that the structure of thought can be distinguished from its content, and that the developmental stages occur in an invariant, hierarchical, and universal sequence. This approach is said to provide a valid conceptual and methodological framework within which moral reasoning can be developed without imposition of specific values. That is, higher stages of moral reasoning are predicated on the types of reasoning individuals provide as opposed to the values to which individuals adhere.

Kohlberg claims that morality should not be defined in terms of conformity with the prevailing group norm, for it remains a philosophical rather than a behavioral concept; a person's morality cannot be assessed without knowing that person's point of view and intentions. Kohlberg maintains that behavior has an underlying structure; it is not an aggregate of disconnected responses triggered by external stimuli. Nevertheless, Kohlberg (1978) has discussed the necessity and desirability of going beyond "cognitions" to the realm of behavior and towards such an end, Blasi (1980) has written a review article describing the relevant research in this area.

Before describing the Kohlbergian stage sequence, it would be instructive to examine more fully the nature and
characteristics of cognitive-developmental stages (Walker, in press). First, there are distinct qualitative differences between different stages of development; there is a logic underlying these qualitative differences. That is, the hierarchy follows a logical sequence in which each successive stage builds upon and elaborates on the preceding one. Second, each individual follows the same invariant sequence of stages. Cultural factors and the nature of one's social environment may cause the rate of development to vary or cause development to cease, but are held not to change the sequence of development. Third, each stage represents a structured whole. A response reflects the way in which an individual organizes thoughts: the structure of his/her reasoning. Individuals should be relatively consistent in their reasoning across varying contents and contexts. Fourth, the stages are seen as hierarchical integrations in that each subsequent stage is both more differentiated (there are more parts that are more complex) and more integrated (the parts are better organized and capable of being combined in new ways).

Of critical importance to the stage notion of moral development is the demonstration that the stages really represent an invariant sequence. Kohlberg has addressed this in his longitudinal study (Colby, Kohlberg, Gibbs, & Lieberman, 1983) reporting 6% regressions of stages and no stage-skipping, which is less than the level of measurement error. Walker (1982) has also investigated this claim by attempting to induce experimentally regression and stage-skipping—both violations of an invariance claim. Subjects were exposed in a brief role-
playing situation to one of the treatment conditions which entailed the presentation of reasoning statements at, below, or above the stage of reasoning demonstrated by the subjects during a pretest interview. Results supported the sequentiality claim as development was always to the next higher stage, regardless of stage to which subjects were exposed.

Equally important to this stage notion of moral development is the demonstration that the logic of each stage forms a structured whole. In line with this assumption, Colby et al. (1983) suggested that one would expect to find a high degree of internal consistency in the assigned stage scores. This internal consistency may be noted through a distribution analysis, for each subject, of proportion of reasoning at each of the five stages, where one would expect that the majority of subjects would receive all of their scores at either a single stage or at two adjacent stages. In fact, this is what Colby et al. (1983) have reported. The mean percentage of reasoning at individuals' modal stage was 67% for the three alternate forms of the interview combined and the mean percentage of reasoning at the two most frequently used stages (which were always adjacent) was 99% for the three forms combined. Further support for claims of structured whole comes from a factor analytic study also reported in Colby et al. (1983). They found that no more than one interpretable factor emerged, leading them to conclude that moral judgment is a single, general domain.

Empirical support may also be found for the cognitive-developmental hierarchical claim of this moral stage theory. Walker, de Vries, and Bichard (in press) extended and improved
upon previous research (e.g., Rest, 1973) demonstrating that subjects prefer, but fail to understand, higher stage reasoning. Walker et al. assessed evaluation and understanding of moral stage prototypic statements which had been equated for difficulty of language and found that subjects displayed a hierarchical pattern of responding: understanding of stage prototypic statements was cumulative and higher stage statements were preferred over lower stage statements, if subjects were capable of recognizing the difference.

Kohlberg's theory postulates three basic levels of reasoning about moral issues within each of which are embedded two stages. The initial study which led to the formulation of the stages of moral development was begun in the 1950's in suburban Chicago, in which groups of boys at different age levels were administered lengthy interviews about moral issues. (For example, should Heinz steal an overpriced drug to save his wife from dying? Should Heinz be punished for stealing?) They were subsequently reinterviewed every 3 or 4 years until they reached middle adulthood. The stages of moral reasoning that were derived from these interviews can be described as follows (complete stage descriptions are found in Kohlberg, 1981, and in the scoring manual, Colby et al., in press).

The preconventional level is characterized by a belief that what is right is limited to following concrete rules backed by power and punishment. When not prohibited, right behavior is that which serves one's own interests, or the interests of some other person. The reasons for upholding what is right include considerations of avoiding punishment, deference to power,
serving self-interests, and/or exchanging favors. The social perspective here is predominantly centered around the self and/or physical dimensions or consequences of rules and behaviors. Stage 1 is an orientation of punishment and obedience in which the physical consequences of an action and the dictates of authority define what is considered right and wrong. Stage 2 is an orientation of individualism, instrumental purpose, and exchange where right is defined as serving one's own interests and desires and cooperative interaction is based on terms of simple exchange. Reasoning at these stages is most typically found among children, some adolescents, and relatively few adults.

At the conventional level, the "right" is that which conforms to the expectations concerning "good" behavior of the larger society or some smaller segment of it. One is concerned with upholding societal rules, expectations, and roles. One should act properly in these regards, not out of concern for punishment or self-interest, as the previous level, but because of an inner motivation to do what is approved of and expected by society. The reasoner is concerned with social opinion, loyalty, and receiving the approval of others. In terms of social perspective, the highly egoistic orientation of the earlier level is now subordinated to the views and opinions of the larger social group of which one is a member. Stage 3 entails mutual interpersonal expectations, relationships and conformity and is one in which the emphasis is on good person stereotypes and a concern for approval. Stage 4—social systems and conscience maintenance—focuses on obeying the law and doing
one's duty in an effort to maintain social order, and following rules which are needed for the larger society as a whole. Reasoning at these stages is most characteristic of adults, but also found in some adolescents.

At the postconventional or principled level, right is defined by general or universal human rights, values, or principles which both the society and the individual are obligated to uphold. Rules and laws are perceived as necessary for the functioning of society and to guarantee justice, but one must also recognize their arbitrary nature and see that their validity lies in their acceptance by the members of society. The orientation is not to rules in and of themselves, but to the principles and purposes behind them. The social perspective of the principled level individual is one which precedes society and attachments to it. Social practice should be based upon morality, rather than morality deriving from social practices. Stage 5 supports social contract or utility and individual rights, and what is considered right is to uphold basic rights, values and the mutually agreed upon contracts of a society, even when doing so might be in conflict with certain concrete rules and laws of the social group. Stage 5 reasoning is the designated morality of the U.S. Constitution based upon rationally chosen principles of justice maximizing the welfare of the society. Stage 6 deals with universal ethical principles. It is an ethical stance derived from philosophical considerations. There are no concrete rules for behavior and as such, one must be guided by autonomous self judgment. Reasoning at either of these two stages is relatively rare (i.e., less
than 10% of adults have attained Stage 5, Colby et al., 1983).

These six stages exist in theory, but presently Kohlberg is practically acknowledging the existence of five stages. That is, the present scoring manual allows for the stage classification of five stages for current theorizing remains unclear as to whether Stage 6 is hierarchically distinct from that preceding it, and there is no evidence of Stage 6 in Kohlberg's longitudinal data (Colby et al., 1983).

Kohlberg assesses moral development by way of a structured interview consisting of three hypothetical dilemmas which put two moral issues in conflict. Subjects are read these dilemmas and a series of probing questions following each in an attempt to ascertain what should be done and why: to effectively draw out the individual's reasoning. The first dilemma deals with the issue of life versus law; the second deals with conscience versus punishment; and the third deals with contract versus authority. Scoring these responses entails matching what has been recorded with an existing criterion judgment.

Several other measures exist for the assessment of moral reasoning, but the one most relevant to this study is that advanced by Gibbs and Widaman (1982). Rather than an interview, these authors have constructed a "Social Reflection Questionnaire": a questionnaire booklet containing two social problems with questions for subjects to answer. The social problems are the standard Kohlberg dilemmas and the questions involve choosing an appropriate response and then elaborating upon that response in their own words. The benefit of such an approach to the measurement of moral reasoning is the potential
for group administration, indeed a time-saving device. Gibbs and Widaman (1982) report a correlation of .85 between the two tests.

**Conceptual and Integrative Complexity**

The work of Kelly (1955) has been heralded as the foundation and the subsequent inspiration for the many theoretical and methodological developments of conceptual complexity (Streufert & Streufert, 1978). His seminal contributions in the area of personality theory, in particular his Role Construct Repertory Grid, have formed the theoretical basis for the measure of conceptual complexity.

The basic unit, upon which Kelly has elaborated his theory, is the "construct": a bipolar dimension which is the result of an individual's process of construing or interpreting events. It is a cognitive dimension of similarity and contrast. In its most rudimentary form, a construct is a measure of differentiation whereby, given three objects or events, a person may organize or interpret the relationship among them such that two are similar and the third is in contrast.

The work of Bieri and others (Bieri, 1969; Bieri, Atkins, Briar, Leaman, Miller, & Tripodi, 1966) is an extension of the theoretical propositions of Kelly. Bieri, however, restricted his notions of cognitive complexity to the social realm and dealt with individuals' dimensional versatility in their social judgments (Bieri, 1968). Higher degrees of complexity come from greater numbers of available dimensions that could be organized in more versatile ways. Versatility refers to an individual's ability to differentiate independent dimensions (not categories
or concepts) as well as an individual's capacity for articulation, similar to discrimination. This latter aspect "refers to the process of making discriminations within a dimension rather than between dimensions, as in differentiation" (Streufert & Streufert, 1978, p. 20). Further developments can also be attributed to Zajonc (1960) and Scott (1969), primarily in the assessment of conceptual structure by way of trait-sorting techniques; but of greater relevance to this study is the systems theory articulated by Harvey, Hunt, and Schroder (1961), and the subsequent refinements, elaborations, and extensions by Schroder, Driver, and Streufert (1967) and Suedfeld (1978).

The focus of the Harvey et al. (1961) work was on stylistic modes of information processing as dimensions of personality organization. They suggested that, rather than viewing individual differences from the point of view of the content and directionality of thought processes (such as attitudes and beliefs), it would be more profitable to examine the way in which individuals combine and use information. To this extent, both content and structure are important in understanding the orientation of an individual to his/her environment.

Harvey et al. (1961) proposed a stage sequence of development along a continuum of complexity of conceptual structure from concrete to abstract. Concrete structures are defined as minimal differentiation (referring to the number of categories or kinds of information an individual is able to process in a given situation) whereas abstract structures are
defined as maximal differentiation and integration (referring to the complex connections made among these differentiated characteristics). Progression along this continuum was seen to flow from reliance and dependence on external authority to rebellion and avoidance of external control to dependence once again, but this time "upon a finite number of persons, not upon rules (as in systems [i.e., stages] one and two)" (Harvey et al., p. 30) to independence "without negative or positive dependency on external criteria or negative or positive control, of or by others" (p. 30). Development is highly dependent on training and upbringing. Development may be arrested at any one of the four stages or at a point of transition between stages if the proper conditions for progression are not met.

In 1967, Schroder, Driver, and Streufert proposed a theory of information processing which refined and elaborated upon the work of Harvey et al. (1961). Schroder et al. (1967) saw the previous theory evolving into one in which structural and content variables were interrelated aspects of conceptual complexity. That is, conceptual development was described in terms of content such as dependence on external authority, primarily in the realm of interpersonal relationships. Furthermore, Harvey et al. (1961) spoke of the continuous dimension of complexity while also describing discontinuous developmental leaps in stages. The proposed theory, then, abandoned this developmental orientation, which was said to lack empirical support, in favor of a content-free individual difference approach to information processing; one that was said to deal with "the nature of the relationship between a person
and the objects of his world" (Schroder et al., 1967, p. 9).

In Schroder et al.'s approach, differentiation and integration remain the integral processes mapped onto a continuum of simplicity to complexity of information processing. Simplicity is characterized by black and white, categorical thinking. Conflict, uncertainty, or ambiguity is viewed as unpleasant and is warded off; unambiguous and quick resolutions to problems are sought as a manner of reducing incongruity or dissonance. Single or unidimensional and fixed rule structures underlie thought and there is an inability to consider another person's perspective.

A moderate position on this continuum would be represented by simultaneous generation of alternate and different perceptions of the same event demonstrating the availability of alternative rule structures. Similarities and differences are noted without considering their relationship, or expressing their interaction as a qualification as opposed to the emergence of a comparison rule.

At the complex end of the continuum, conflicting alternatives are tolerated and, in fact, are seen as instructive in that they may lead to new ways of organizing information and viewing the world. Causal statements may be made stemming from the generation of functional relations between alternatives. The generation of new solutions is made possible by looking at antecedent and subsequent events; a greater "connectiveness" between alternatives is made possible by theorizing as to the existence of these reasons.

The test most typically employed to examine this
information processing variable is the Paragraph Completion Test (PCT) developed by Schroder et al. (1967). This is a semi-projective test designed with the belief that complexity can be measured in verbal materials. Subjects are presented with six sentence stems designed to tap various domains of the decision-making environment. They are asked to complete the sentence already begun for them and write an additional two or three sentences in the 2 minutes allotted per stem. These completions are scored on a 7-point scale reflecting the continuum described above. Scorers are trained to look beyond the content and examine the underlying rule structure and the manner in which dimensions are created, examined, and combined.

As mentioned before, the primary emphasis of the Schroder group was to demonstrate characteristic levels of complexity of particular individuals. However, there was also a recognition of the interactive nature of environmental and dispositional factors with information processing. That is, research has shown that complexity levels vary not only among individuals, but also within the same individual as a function of the situation. For example, it has been shown (Schroder et al., 1967) that as environmental stress and threat increase, there is a corresponding decrease in levels of complexity of decision makers in that environment.

It is this latter line of research that has stimulated the work of Suedfeld and his colleagues. Rather than viewing conceptual complexity as a relatively stable personality characteristic, Suedfeld investigates the cognitive aspect of information processing that interacts with the environment. As
such, the term "integrative complexity" (Suedfeld & Tetlock, 1979) has been adopted to distinguish the two orientations. Suedfeld's emphasis differs from those previously discussed (i.e., Harvey et al., 1961; Schroder et al., 1967) in two other, more methodological ways: (a) The materials to be scored are drawn from archival sources (e.g., speeches, texts) rather than sentence completions. (b) Stemming from the first, hypotheses that formerly eluded investigation are now possible, through the analysis of communications of national and international decision makers and political figures in history, for example. The scoring of this archival material is an adaptation of that prepared for the Paragraph Completion Test and has been found to be appropriate for a wide variety of connected verbal materials provided that they are of sufficient length (Suedfeld, 1978). It is one objective of this study to attempt to validate this claim and provide an empirical demonstration of the relationship between materials scored under the rubric of integrative complexity and the PCT.

A series of studies have been conducted by Suedfeld and his coinvestigators that have demonstrated the interaction between characteristics of the environment and information processing in high level decision-makers. Suedfeld and Tetlock (1977) examined the relationship between communication complexity and crisis resolution demonstrating that complexity levels in the communications of major decision-makers were significantly lower during crises that ended in war than during crises that were resolved peacefully. Similar findings resulted from another study by Suedfeld, Tetlock, and Ramirez (1977).
Attitudes

The study of attitudes has long played an integral role in the endeavors of social psychologists. In fact, Gordon Allport once said that "the concept of attitudes is probably the most distinctive and indispensible concept in contemporary social psychology" (1958, p. 36). As one comes to expect however, such a popular and important field of inquiry is not left untouched by controversy. For example, controversy has arisen in regards to the definition of an attitude and how it differs from a belief or an opinion. Moreover, the translation of an attitude (an internal process) into a behavior or something that is quantifiable externally is also not a universally accepted process (Zimbardo, Ebbesen, & Maslach, 1977). The proposed resolutions to these controversies have shaped the study of attitudes and present a springboard into a discussion of this topic.

Attitudes have generally been considered as a form of mental readiness or internal predisposition that exert some general and consistent influence on a fairly large class of evaluative responses. In such a sense then, attitudes are internal and private events whose existence may only be inferred through introspection or from some form of behavior (Zimbardo et al., 1977). The verbalization of such an attitude is what is commonly considered an opinion. A belief, on the other hand and in accordance with Kogan (1980), is said to represent a more strictly cognitive appraisal. The difference lies in that the latter is one that can hypothetically be checked for its accuracy. This is not to suggest that beliefs are necessarily
affectively neutral; it is that beliefs are best seen as stemming from a more consensually validated data base. Thus, one would expect less variance, in a given population, on a measure of beliefs than one would on a measure of attitude. Correspondingly, any instrument that confuses the two (belief and attitude) raises the issue of just what a score on that instrument signifies.

Investigators in this area (e.g., Rosenberg & Hovland, 1960) have found it helpful to conceptualize attitudes as having three components: affect, cognition, and behavior. The affective component is said to consist of a person's liking or emotional evaluation of some target object. The cognitive component consists of a person's beliefs about, or factual knowledge of, the target object. The behavioral component involves the person's overt behavior toward the target object. This conceptualization has received a great deal of attention and utilization especially in the realm of attitude change. An inherent confusion from such a conceptualization, however, stems from the distinctions laid out above. It seems possible that one could draw parallels between the terms attitude, belief, and opinion and the components affect, cognition and behavior, respectively. That is, an attitude "implies that one is favorably or unfavorably disposed toward the target object of the attitude" (Kogan, 1980, p. 301); a belief is the more strictly cognitive appraisal; and, an opinion is the overt verbalization (behavioral expression) with respect to the target object. Such interaction of terminology can only serve to generate confusion in understanding this area.
Perhaps a more useful and relevant distinction to make concerning the concept of an attitude is that proposed by Schroder et al. (1967). They claim that attitudes are typically described in terms of the magnitude and direction of their contents (i.e., the degree of item endorsement). Cognitive structural processes, however, should strongly affect the way in which content is assimilated, organized, and expressed. That is, from the foregoing discussion of conceptual complexity, "integratively complex structures differentiate and integrate more complex information than do concrete structures. Attitudes are formed as a consequence of the differentiation and integration of dimensions of information about a domain of stimuli" (Schroder et al., 1967, p. 126).

The result of such a line of argument is the expectation that concrete attitudes are: (a) based on less information since less information tracking occurs associated with less differentiation and integration; (b) more stable over time since less information is sought and assimilated or accommodated; and are consequently (c) more categorical.

On the other hand, complex attitudes: (a) perceive a broader range of information as being relevant; (b) tend to integrate other than only the salient items of information or more than one dimension leading to a more flexible, less extreme attitude; and are therefore (c) less categorical.

Several different paper-and-pencil tests have been developed to measure attitudes. Typically, these tests entail the presentation of a series of statements and subjects are requested to check those statements with which they agree.
(Thurstone's Method of Equal-Appearing Intervals; Thurstone & Chane, 1929) or to indicate the extent to which they agree or disagree with each statement or item on a 5-point scale (Likert's Method of Summated Ratings; Likert, 1932). Two other tests that have also been fairly highly refined and extensively used are: Guttman's Scaldogram in which the attitude is measured by having the subject check all the statements on a unidimensional scale that are acceptable (Guttman, 1950), and Osgood's Semantic Differential in which the procedure is to have subjects judge a particular concept on a set of semantic scales which are verbal opposites separated by seven discriminable steps (Osgood, Suci, & Tannenbaum, 1957).

The use of such scales is understandably widespread for they are simple to administer and easy to score. They can be given to large numbers of people for which a great deal of data may be collected in a short space of time. "They also have the convenience of a neat continuum of scores that will probably closely resemble a normal distribution enabling the investigator to employ conventional statistics for his or her analyses" (Kogan, 1982, p. 307).

A serious conceptual problem, however, is the methodological simplicity in the use of such scales. Attitude items or statements of the sort employed in the above scales necessarily force subjects to generalize about the stimulus class or event. An example of this problem is found in the work of Kogan (1979). He administered his scale of Attitudes Toward Old People to a sample of elderly subjects with the expectation that the elderly individuals would respond more consistently
because of their direct personal involvement in the target attitudinal domain. The response patterns were generally less consistent, for which Kogan (1982) offered the following explanation:

Instead of the overgeneralized, low salient attitude likely to be typical of younger samples, older persons will have had personal experience with older people who fit some of the items, but will not have known older peers to engage in behaviors or hold opinions expressed in other items. In other words, the older respondent's view of his age peers is likely to be more differentiated than that held by younger persons, and such differentiation cannot be accommodated by generalized attitude scales, and, in fact, is responsible for reducing the indices that make such scales psychometrically adequate.

I raised the possibility that attitude scales may have prompted us to ask the wrong question. Instead of asking about the degree of positivity or negativity in views held about older people, one might more profitably ask how differentiated is a respondent's view of older persons. (p. 308)

Perhaps the answer lies in using no single or unitary measure, but rather a combination in which differentiated views may be displayed in conjunction with the easily administered item-endorsement technique. Perhaps, too, such a combination would address the content-structure distinction proposed by Schroder et al. (1967). That is, in providing individuals with
the opportunity to both describe their attitudes—in their own words—and indicate their agreement or disagreement with relevant attitudinal statements, one could more easily examine the structure of their thought on this issue and the content around which this structure is formed.

The three areas of moral reasoning, conceptual complexity and attitudes have been described separately in an attempt to promote clarity. This separation might be considered artificial on both conceptual and empirical grounds, however, for there is a common thread connecting these topics. A discussion of these interrelationships is the purpose of the following sections; an examination of these interrelationships is the purpose of this study.

Moral Reasoning and Conceptual Complexity

Kohlberg (1981) has stated that his stages of moral judgment development represent a cumulative hierarchy of cognitive complexity in that each succeeding stage in the hierarchy is more cognitively differentiated and better integrated. Such references suggest that there should be a relationship between his stages and measures of conceptual complexity. The demonstrated relationship between increases in role-taking ability and moral maturity (Walker, 1980; Selman, 1976) also suggests that there might be a relationship to conceptual complexity. As described by Flavell (1968), in order to take on the role of another, one must be able to discriminate or differentiate his or her role attributes.

The progression of the two theories seems to develop from rules and expectations as being perceived as external to the
self, through to the self as identified or equated with the rules, to the self as differentiated from prevailing conventions. Kohlberg (1976) clearly describes this in his description of the three levels of moral reasoning as do Harvey et al. (1961) in their systems theory and Schroder et al. (1967) in their analysis of ranges along the simplicity-complexity continuum.

Furthermore, both theories emphasize form or structure as a basis rather than content. The focus is on the cognitive structure that underlies thought, with the structure becoming increasingly complex as one moves up the hierarchy or along the continuum. In moral reasoning, higher stages are seen as being more morally adequate than the lower stages to the extent that higher stages are more cognitively differentiated or capable of handling more problems or moral conflicts. The stages represent an increased differentiation and hierarchical integration of moral values.

Given this conceptual basis, it is surprising to note that relatively few studies have addressed this interrelational issue. Two shall be reviewed here.

Sullivan, McCullough, and Stager (1970) explored the relationships between ego development (Loevinger, 1966), conceptual systems development (Harvey et al., 1961), and moral judgment development (Kohlberg, 1973) with a sample of adolescents. Of particular interest to this discussion is the relationship between the latter two areas of development—for which an overall correlation of .62 was found. The authors commented that this correlation clearly represents the
correspondence between these two measures, but that, even under ideal measurement conditions, one could not expect "that the ... dimensions would be perfectly related if they are tapping somewhat similar yet different dimensions of personality development" (Sullivan et al., 1970, p. 410). That is, they are not equivalent measures. Thus, there is at least moderate support for the relationship between conceptual complexity and moral reasoning.

A study by Falconer (1973) also lends qualified support to the hypothesized relationship between these two areas. Falconer used Bieri's (1969) measure which defines complexity as "the tendency to construe social behavior in a multi-dimensional way such that a more cognitively complex individual has available a more versatile system for perceiving the behavior of others than does a less cognitively complex person" (p. 46). Complexity, in this sense, is a differentiative ability embracing only half of the conceptualization as proposed by Harvey et al. (1961) and Schroder et al. (1967). Perhaps, this, in part, explains the resultant moderate support generated. A significant difference was found on the Bieri measure of complexity between the lowest and highest stages of moral development evidenced in the sample. There were no differences found between adjacent stages of moral development; however, a nonsignificant trend was noted.

This discussion leads to the second proposed objective of the present study: an investigation of the relationship between conceptual complexity and moral reasoning. The design of the present study improves upon the two studies cited above for several reasons: (a) Complexity is defined in the terms provided
by Schroder et al. (1967) encompassing both differentiation and integration (as opposed to Bieri's method) and representing the cognitive ability for information processing as opposed to a less validated cognitive developmental sequence (as proposed by Harvey et al., 1961). (b) Throughout the years, Kohlberg's theory of moral development has been reworked and refined resulting in a more stringent stage criteria (Colby et al., 1983). In fact, Carroll and Rest (1982) have reported a modest correlation of .39 between the present scoring system (now in apparently final form) and the initial one. The greatest support for the theory and the measure has come using this present formulation. It is for these two important reasons that this proposed study is seen as an improvement and extension of the work preceding it.

**Moral Reasoning and Capital Punishment**

Capital punishment has been, and remains, a controversial issue intensely debated by both armchair and professional social scientists, theologians, and politicians around the world. A main focus of research into this area has been of a factual nature; in particular, researchers have examined the deterrent effect, a question that largely remains unanswered. Representative research comes from Sellin (1959) and Phillips (1980). Sellin (1959) has examined a large mass of homicide data and concludes that the death penalty has largely failed as a deterrent. He claims that its use has exercised no influence on the extent of the fluctuating rates of capital crimes. Phillips (1980), however, sees it differently. His sociological, archival analysis suggests that the wrong metric
has been used in examining deterrent effects; observing yearly murder rates of capital crimes in correspondence to the death penalty clouds or obscures the demonstrated weekly or monthly deterrent effects. A definitive answer has yet to be advanced.

What seems apparent, however, is that this research on the factual aspects of capital punishment has left little time or energy for researchers to pay attention to the moral-psychological issues (Kohlberg & Elfenbein, 1981). The research that has been done in the more attitudinal realm has often observed the correlation between attitudes toward capital punishment and other personality measures such as the authoritarian personality (Vidmar & Ellsworth, 1974), a constellation of attitudes of prejudice, ethnocentrism, conservatism, and authority as initially conceived by Adorno, Frenkel-Brunswic, Levinson, and Sanford (1950). As Kohlberg and Elfenbein (1981) point out, however, it would probably be more fruitful to examine capital punishment from the perspective of an interaction between an individual's moral assumptions (for the moral nature of a decision regarding capital punishment seems intuitive) and attitudes.

Such a conceptualization fits in well with the content-structure distinction in moral reasoning made by Kohlberg whereby the content of a stage is the attitude or judgment formed and the structure is the method of reasoning employed. "Whether or not a subject approves of capital punishment, for example, is a matter of content; the rationale he adopts is a matter of structure" (Kohlberg & Elfenbein, 1981, p. 270).

Without denying the existence of structure and content as
separable and separate concepts, Kohlberg and Elfenbein (1981) admitted that there is a "probabilistic tendency for certain stage structures to generate specific moral attitudes" (p. 270). This was addressed by examining the relationship of moral stage to opinion about capital punishment using 30 longitudinal subjects. Kohlberg and Elfenbein (1981) predicted a linear relationship with opposition to capital punishment increasing with stage of moral reasoning. Since the principled level represents a formal conception of justice as reversible role-taking (following from Rawls' theory of justice, 1971), Kohlberg (1981) claimed that the upper level principled thinker assumes the position of having an equal (or unknown) chance of being anyone in a particular society and thus sets up a fair mental representation so that any principles agreed upon will be just. For example, Kohlberg and Elfenbein (1981) say that any rational person would risk a penalty less harsh than death (if one assumed the position of ordinary citizen or victim) thus leading to the rejection of capital punishment. They found that at Stage 3 and below, almost all of the subjects claimed that it was right to give the death penalty; Stage 4 subjects were divided on this issue; and Stage 5 subjects unanimously rejected the use of capital punishment. Kohlberg and Elfenbein (1981) concluded that "on the whole, the early stages of development are characterized by moral approval of the death penalty, but as individuals progress in their moral development, their moral reservations about capital punishment multiply and they gradually come to condemn it as immoral" (p. 271).

DeWolfe and Jackson (1984) supported this finding in a
study which found principled moral reasoning (as determined by Rest's, 1979, Defining Issues Test, a questionnaire measure assessing preference for principled moral reasoning statements) to relate negatively to attitudes toward capital punishment ($r = -0.41$). That is, preference for upper level reasoning was associated with increasing opposition to capital punishment.

The conclusion of both of these studies is congruent with other research suggesting that higher stages of moral reasoning are typically associated with liberal attitudes (Candee, 1976; Fishkin, Keniston, & MacKinnon, 1973; Haan, Smith, & Block, 1968). This has become a somewhat controversial issue in itself, as it has led others (i.e., Sullivan, 1977) to criticize Kohlberg's theory of moral development on the grounds of a liberal ideological bias. In response, Kohlberg and Elfenbein (1981) point to the probabilistic (as opposed to deterministic) relationship between structure and content as a function of factual assumptions made by subjects connected to the values of their culture. Thus, they suggest that this is a cultural phenomenon rather than a bias inherent in the theory. Any predominance of liberalism is a societal function and not a theoretical bias.

It is from this foregoing body of research that a third objective of this study emerges: to examine the relationship between stage of moral reasoning and attitudes toward capital punishment. Rather than replicating the work already described, the proposed study differs in a least three fundamental ways. (a) Kohlberg derived the content of an individual's reasoning by way of the subject's response to the question: "Is it ever right
to give capital punishment?". However, it would seem more quantitatively and qualitatively valid to allow a range of responses, as opposed to only a dichotomy, in the assessment of an attitude. Hence, an attitude questionnaire permitting responses from strongly disagree to strongly agree in response to a series of statements surfaces as an appropriate measure. In conjunction with Kohlberg's method of assessment, the attitude towards capital punishment is to be derived from Likert's method of summated ratings by way of a measure developed by Palys (1981). (b) Kohlberg and Elfenbein (1981) used an exclusively male sample in their study. The sample of this study will comprise equal numbers of males and females. (c) Kohlberg and Elfenbein (1981) used a now outdated scoring system. This study uses the present scoring system (Colby et al., in press). Given the changes in stage descriptions, it would be interesting to note the relationship between the present conceptualization of moral reasoning and attitudes toward capital punishment.

The derivation of the fourth objective of this study is probably best understood in relation to the foregoing discussion. As mentioned earlier, the manner in which moral reasoning is assessed comes from presenting subjects with a situation in which two moral values are in conflict, and then questioning them as to what should or should not be done in this situation. Thus, a choice is always involved. For example, in response to the question, "Is it ever right to give capital punishment?", a subject is faced with the option of responding in the affirmative or the negative. This is their content
evaluation. Their moral stage, however, is derived from their elaboration of this response supplying the reasons to the questions why or why not. Structurally, reasons for either answer may be identical, but with respect to the content, the two responses may be in complete disagreement. The disagreement is on the issue, not on the reasoning.

The scoring of a moral reasoning protocol entails matching the subject's responses to criterion judgments provided in the scoring manual. The protocol stage score is derived by summing across stage-scored responses for both sides of the issue and weighting the favored or chosen position more heavily (by a ratio of 3:2). The underlying assumption here is that better reasoning is provided for the chosen position.

What has become apparent, in reviewing the relevant literature in this area, is that there has been no systematic investigation of the differences in level of reasoning between chosen and nonchosen positions within individuals and within moral dilemmas. In fact, the closest approximation to such a task has been the study by Nisan and Kohlberg (1982) who examined stage scores across issues, but not by chosen versus nonchosen position. Thus, it is an intent of this study to examine any differences in the level of moral reasoning of subjects as they consecutively support and oppose the use of capital punishment. The cognitive-developmental notion of structured whole suggests that reasoning on both sides of the issue will be at comparable or equivalent stages. This appears somewhat inconsistent with the aforementioned weighting procedures and the underlying rationale. This study will
attempt to deal with this incongruity in Kohlberg's theory.

Conceptual Complexity and Capital Punishment

As outlined above, Schroder et al. (1967) have proposed a most useful distinction between the content and structure of an attitude. An attitude structure refers to the conceptual processes that an individual employs in organizing and processing information about a particular range of stimuli. The content is typically a description of an attitude in terms of its magnitude and direction relevant to a particular range of stimuli. As such, simple attitudes are based on a narrow range of highly salient information. Information that is discrepant or that does not fit the existing attitude is only minimally perceived or utilized. Hence, attitudes that are structurally simple are expected to be more categorical. The more abstract or complex the attitude, however, the broader the range of information that is perceived as relevant. As such, the potential for inclusion of discrepant units of information is higher, typically resulting in a less categorical, and subsequently, less extreme attitude.

At least partial substantiation of the above theoretical positions comes from a number of experiments in which the F Scale (as advanced by Adorno et al., 1950) has been correlated with complexity in the range of -.25 to -.55 (as reported in Schroder et al., 1967). The occurrence of such correlations stems from the overrepresentation of cognitively simple persons among high F scorers.

Further support for this position exists in the work of Linville and others (Linville, 1982; Linville & Jones, 1980).
Linville (in press) has proposed a model focusing on the link between cognitive factors and affective factors in information processing. The cognitive factor refers to the complexity of the knowledge structure used in thinking about a particular domain, whereas the affective factor refers to the extremity of responses to stimuli or information in that domain. Linville has noted that the majority of psychological theories about social evaluation have tended to emphasize—if not overemphasize—the unidirectional effects and biases. For example, Linville (in press) has stated that "greater extremity does not refer to a consistent tendency to rate stimuli more extremely in only one direction, but rather to rate stimuli more extremely in both directions, either more positively or more negatively depending on the favorability of information about the stimulus" (p. 5). Thus, the basic premise of the model is as follows:

The less complex a person's representation of a given domain, the more extreme will be the person's affect regarding stimuli in that domain. In other words, if the representation is simple, that is, a person's thinking is in terms of fewer nonredundant features or aspects, affect will be relatively extreme. When the representation is more complex, affect will be more moderate. (Linville, in press, p. 5)

A research program conducted by Linville (Linville & Jones, 1980; Linville, 1982) has provided empirical support for her complexity-extremity hypothesis. Linville (1982), for example, correlated an individual-difference measure of complexity (by
way of a trait-sorting technique, after Scott, 1962, 1969) with extremity of evaluation for the target group of older males. College-age males participated in this study in which it was shown that greater complexity regarding older males related to less extreme evaluations of the same. The complexity and evaluative extremity scores were significantly negatively correlated ($r = -0.65$). Moreover, cognitively simple subjects were both more favorable toward the favorable older male stimulus and more unfavorable toward the unfavorable older male stimulus. Similar results have also been reported using race and sex as ingroup-outgroup variables.

Linville and Jones (1980) tested the complexity-extremity hypothesis by directly manipulating complexity through task instructions which induced subjects to adopt a simple or complex orientation toward a set of stimuli. The subject was asked to think about a stimulus (a strong or weak essay) in terms of several features (six features for the high complexity condition) prior to making a favorability rating. As predicted, those in the low complexity condition rated the strong essay more extremely favorable and rated the weak essay more extremely negative compared to subjects in the high complexity condition who were more moderate. Similar results were achieved in a second study where subjects tasted and evaluated five different types of chocolate-chip cookies ranging in quality given either two or six features to consider.

These results demonstrate the existence of a relationship between complexity of thought or cognitive structures and styles of evaluation. In particular, more simplistic cognitive
structures relate to more extreme evaluations and more complex cognitive structures relate to more moderate evaluations. Complexity, however, in the terms described by Linville (1982), is the assessment of discrimination, and not integration. Although Linville likens her measure of complexity to that of Schroder et al. (1967), it actually embraces only half of this conceptualization in its failure to assess integrative ability. Tetlock (1983b, 1984) has provided results exploring the total realm of complexity in its relation to political ideology.

Tetlock (1983b) assessed the integrative complexity of speeches given by United States senators who were known to have liberal, moderate, or extremely conservative voting records. It was assumed that right-wing orientations were generally more dogmatic and intolerant of ambiguity than left-wing or moderate orientations. The results add credence to such a position: the policy statements of extremely conservative senators were less integratively complex than were those of moderate or liberal senators (between whom there was no significant difference).

More directly relevant to this study, however, is Tetlock's (1984) analysis of cognitive style and political belief systems in the British House of Commons. In a sample of 89 parliamentarians, Tetlock was able to classify individuals as adhering to one of the following four political orientations: extreme socialist, moderate socialist, moderate conservative, and extreme conservative. Following Rokeach (1973), moderate socialists are seen to value freedom and equality more highly than extreme socialists (who value equality more highly than freedom) or moderate or extreme conservatives (who value freedom
more than equality). Tetlock (1984) suggested that adherents to ideologies that value both freedom and equality highly are under greater pressure to consider policy issues in more integratively complex terms than are advocates of ideologies that place a greater weight on only one value. He refers to this as the value pluralism model. Results supported this model in that both extreme groups had similar low levels of integrative complexity and significantly lower levels than moderate socialists and moderate conservatives.

A final objective of this study, then, that stems from the foregoing research, is to address the relationship between complexity and evaluation in the important and controversial attitudinal domain of capital punishment. Like Linville (1982), this study will examine complexity in relation to ratings of attitudinal statements, but differs in the measure of complexity utilized. Like Tetlock (1984), this study will examine integrative complexity, but also includes conceptual complexity and the examination of these two measures in relation to capital punishment with more of a moral, as opposed to political, analysis. Thus, the present study will explore the total realm of complexity as defined by Schroder and others, who would predict a curvilinear relationship between attitudes and complexity. That is, the more extreme the evaluation of capital punishment (whether it be extremely in favor of, or in opposition to, capital punishment) the less complex will be the structure of that attitude. A more moderate attitude would be associated with a more complex structure.
Hypotheses

In summary, the hypotheses to be addressed in this study are:

Hypothesis I. It is expected that the writings of individuals describing their attitude towards capital punishment (integrative complexity) will be related, in terms of complexity, to the completions of sentence stems in the Paragraph Completion Test (conceptual complexity). Both of these measures are assessing the structural complexity of thought (albeit, in different domains) and, as such, a moderate correlation (i.e., accounting for less than 50% of the variance) is predicted.

Hypothesis II. Following from the theoretical descriptions of Schroder et al. (1967) and Streufert and Streufert (1978), as well as the work of Linville (1982) and Tetlock (1984), it is expected that extreme attitudes (both pro and con) will be related to a more simple structure and more moderate attitudes will be related to a more complex structure.

Hypothesis III. It is expected that there will be a significant, positive relationship between the measures of moral reasoning and conceptual complexity, both assessing the structure of thought.

Hypothesis IV. Following from the work of Kohlberg and Elfenbein (1981) and DeWolfe and Jackson (1984), a linear relationship between attitudes toward capital punishment and stage of moral reasoning is expected. In particular, it is hypothesized that opposition to capital punishment will increase with stage of moral reasoning.
Hypothesis V. Although never explicitly addressed by Kohlberg, it is implied that reasoning about the chosen position is, in some way, more advanced and better formulated than reasoning about the nonchosen position. It is therefore hypothesized that there will be a difference between reasoning of the chosen position and reasoning of the nonchosen position. Specifically, it is expected that the chosen position will be represented by higher levels of moral reasoning than the nonchosen position.
Method

Subjects

Participants were 36 male and 36 female students who were drawn in equal numbers from three educational levels (introductory and senior undergraduate, and graduate) in an attempt to generate a range on several of the measures (e.g., conceptual complexity, moral development). Specifically, graduate students in the departments of law, philosophy, theology, and medicine were recruited under the assumption that such fields offer their students the opportunity to discuss philosophical and moral issues, perhaps promoting advanced understanding and reasoning of such issues. Introductory and senior undergraduate students were recruited from first- and third-year psychology courses, respectively.

The mean age of the introductory students was 18.9 years, with a range of 17 to 28 years. The mean age of the senior undergraduates was 24.7 years, with a range of 18 to 45 years. The graduate population had a mean age of 28.3 years, with a range of 22 to 35 years.

Measures

Participants were administered, either individually or in groups, the following battery of tests in a single session of approximately 1 hour. (The complete battery of tests can be found in Appendix A.)

1. **The Paragraph Completion Test** (PCT). This test consisted of six sentence stems tapping different domains of the decision-making environment (Schroder et al., 1967). Participants were requested to complete the sentence which was
already begun for them, and then to write at least one more sentence in the 2 minutes that were provided for each completion. This measure was comprised of the following stems:

(a) Rules . . .
(b) When I don't know what to do . . .
(c) When I am criticized . . .
(d) Policemen . . .
(e) When a friend acts differently towards me . . .
(f) Confusion . . .

These completions were scored for the level of conceptual complexity.

2. The Capital Punishment Issue Composition. In this task, participants were requested to write a relatively brief composition (i.e., 5 to 10 paragraphs) discussing the issue of capital punishment as they perceived it. They were instructed to present their opinion and attitude toward capital punishment and to include the discussion of any factors considered relevant. This task was scored both for levels of integrative complexity and moral reasoning. Moreover, individuals' position on the issue of capital punishment (i.e., either pro or con) was also determined from this measure. This procedure is not unlike that used by Kohlberg and Elfenbein (1981) in which attitude was assessed by response to the question, "Is it ever right to use capital punishment?".

3. Statements supporting and opposing capital punishment. This task required subjects to generate detailed reasons to both support and oppose the use of capital punishment, counterbalanced for order of presentation. These statements,
along with the preceding issue composition, were scored for moral development, to more fully assess reasoning on both sides of the issue. This follows from Colby et al. (in press) who base an individual's moral reasoning profile on scores from both the chosen and nonchosen position on the issue (i.e., the preferred and nonpreferred position), both explicitly addressed in their structured interview.

4. The Capital Punishment Questionnaire (CPQ). This Likert-type questionnaire (Palys, 1981) provided 24 statements of opinion regarding capital punishment (12 in a pro-capital punishment direction and 12 in a anti-capital punishment direction). Subjects were asked to indicate the extent to which they agreed or disagreed with each statement on a 7-point scale ranging from -3 (strongly disagree) through 0 (neutral, no opinion) to +3 (strongly agree).

Scoring

Conceptual complexity. The assessment of conceptual complexity came from the PCT, the most frequently used and most thoroughly validated of the tests designed to tap an individual's characteristic mode or style of information processing (Porter & Suedfeld, 1981). The paragraph completions were scored on a 7-point scale for level of conceptual complexity as defined in terms of differentiation and integration (previously described). The scoring procedure follows directly from the manual provided by Schroder et al. (1967), as well as subsequent publications from Princeton University ("Princeton Manual Guidelines", undated) and the University of British Columbia ("UBC Guidelines for the Scoring
Schroder et al. (1967) have described a number of gradations or scores that fit onto the 7-point scale defining the simplicity-complexity continuum of information processing. A score of 1 reflects minimal or no differentiation and no integration; a score of 3 reflects moderate to high differentiation with no real integration; a score of 5 reflects moderate to high differentiation and moderate to high integration; and a score of 7 reflects maximal differentiation and integration. Scores of 2, 4, and 6 can be seen to represent transitional points between adjacent levels. It should be noted that this system of scoring focuses on the underlying cognitive structure of thought patterns and not on the content, and is therefore not biased for or against any particular political philosophy (Suedfeld & Rank, 1976).

Completions were deemed unscorable if only one sentence had been written or if the sentences were incoherent, descriptive (as opposed to evaluative), clichés, quotations, or satire. According to these criteria, only 9 of the 432 completions were found to be unscorable. All other completions were appropriate for the scoring procedures outlined above. For each subject, a mean score of the PCT stems was calculated and this was the measure employed in subsequent analyses.

The PCT completions were blindly scored by stem, and not by subject, to prevent bias. In addition, a random sample of 96 completions (the 6 PCT stems for each of 16 subjects) was scored by another trained scorer to assess reliability. Interjudge reliability was found to be $r = .79$. 
Integrative complexity. The issue composition task was included as a method of assessing integrative complexity, a term coined by Suedfeld and Tetlock (1977) as a means of distinguishing between the more traditional personality characteristic variable of conceptual complexity and this more novel approach to information processing. Clearly, the parameters of the issue composition differ from that of the PCT in that the former is both longer, void of time restrictions, and on a specific issue. However, the issue composition also differs from material typically scored under the rubric of integrative complexity in that the composition is not from an archival source and therefore material for these subjects is limited to that which was written for purposes of this study. This difference, however, is more of a shift in emphasis or a difference in source rather than a difference in the underlying theory of complexity or the basic scoring system. That is, materials from both archival sources and the PCT are similarly scored along the 7-point simplicity-complexity continuum as a function of differentiation and integration.

Further differences warrant discussion at this point. Archival materials have typically been speeches and diplomatic communications by leading decision makers (Suedfeld & Rank, 1976; Suedfeld & Tetlock, 1977) or personal correspondence by eminent public figures (Porter & Suedfeld, 1981; Suedfeld, in press) which were written over time and in a variety of settings and situations. The material used in this analysis came from university students writing about capital punishment at a single point in time. Differences between these populations and the
parameters within which they were studied appear worthy of mention. First, it could be reasonably suggested that high-level political policy-makers, philosophers, and authors differ in some significant way from university students. One would expect differences in performance between subjects on an individual difference variable, however, without jeopardizing the validity of the measure. Second, archival studies have typically addressed complexity as a variable over time and situations, whereas this study examined it at a single point in time. This once again is more representative of a shift in focus than it is of an inappropriate application of the scoring system to a particular body of material. The main emphasis of the Schroder group was on the characteristic complexity levels of particular individuals, but some of their work has also addressed fluctuations and variations of conceptual level within individuals as a function of the situation/environment (Schroder et al., 1967). It is, therefore, appropriate to examine complexity from a between- and/or within-subjects perspective. This study concentrated on the former. Thirdly, it could be suggested that differences lie in the motivation of the individuals who were supplying the data. That is, participants in the study were requested to write on a specific topic and perhaps it could be said that they were less motivated than those individuals selected for study in archival analyses writing on more internally generated issues (with the implicit assumption that motivation affects complexity). This line of argument weakens, however, when one considers that letters and speeches are typically intended for certain audiences and often
in response to other letters, speeches, or actions. With this in mind, however, the instructions for the issue composition were kept intentionally inexplicit and open-ended ("Discuss the issue of capital punishment"), so as not to favor any particular position, not elicit any particular structure. To summarize this discussion, the important point is that, although the scoring system for the PCT was designed for the material of the test, it has been found to be appropriate for a wide variety of connected verbal materials with the provision that they are of sufficient length (Suedfeld, 1978).

The basic scoring unit in integrative complexity is the paragraph (Suedfeld, 1978), defined as two or more sentences. "Sufficient length" for this material is considered to be 5 to 10 paragraphs. Subjects generated an average of 6.3 paragraphs in their composition on capital punishment, with a range of from 2 to 12. The guidelines and restrictions for the scoring of the PCT, as outlined above, are equally applicable here. In accordance with these, only 2 of 453 paragraphs were classified as unscorable.

The paragraphs of the issue composition were blindly scored by paragraph and not by subject, one randomly chosen paragraph at a time. For each subject, a mean score was calculated and this was the measure employed in subsequent analyses. Interjudge reliability was assessed by as second independent rater who scored a random sample of 92 paragraphs (the issue compositions of 16 subjects). Interjudge reliability was found to be $r = .80$.

Moral reasoning. Moral reasoning was assessed by the
combined scoring of the issue composition and the statements of support for, and opposition to, capital punishment. In and of itself, the issue composition was insufficient for the derivation of a characteristic score of moral reasoning, since it does not explicitly address both sides of the issue (the chosen and nonchosen positions). When scored in combination with the support and opposition statements, reasoning on both sides of the issue could be obtained and a sufficient amount of reasoning could be provided for reliable scoring.

The measurement of moral reasoning comes from a system advanced by Lawrence Kohlberg using the Standard Form Scoring Manual. After a decade of revisions, it is now in final form (Colby et al., in press). The scoring of a typical moral judgment interview entails breaking the interview into discrete judgments which are matched to criterion judgments (conceptual counterparts and prototypes found in the scoring manual) and assigned scores on the basis of these matches. For an interview judgment to be scorable, it must provide reasoning which is considered valid by the subject (i.e., not discounted) and which is prescriptive in nature (i.e., what should be done, not what would be done).

Each judgment meeting the criteria described above was assigned a stage score. These scored judgments were then separated—by subject—on the basis of the side of the issue they addressed (judgments supporting capital punishment and judgments opposing capital punishment). This allowed both positions to be expressed in terms of a weighted average score (WAS) and a global stage score (GSS). The WAS is a weighted
average of stage usage and is calculated by multiplying the percent usage of each stage by the number of that stage and summing the products (range is 100 to 500). Thus, two separate WASs were derived for each subject, one expressing the level of reasoning in support of capital punishment (pro) and a second expressing the level of reasoning in opposition to capital punishment (con). The GSS is a more qualitative measure of moral reasoning. GSSs were assigned on the basis of the pattern of percent usage and took the form of pure and mixed stage scores. A pure stage score was assigned if one stage had greater than 25% of the scored responses (i.e., Stages 1, 2, 3, 4, 5). A mixed stage score was assigned if two stages each had greater than 25% of the scored responses (i.e., Stages 1/2, 2/3, 3/4, 4/5). Two separate GSSs were derived for each subject, one expressing the level of reasoning in support of capital punishment (pro) and a second expressing the level of reasoning in opposition to capital punishment (con).

To describe the overall level of moral development, a total weighted average score and a total global stage score were also generated for each subject. These composite scores encompassed all reasoning (both pro and con) but weighted the chosen position more heavily than the nonchosen position. The weights applied in this procedure are 3 for the chosen position, 2 for the nonchosen, and 1 for a guess score (a score assigned when interview judgments do not meet all of the critical indicators). These weights are those recommended by Colby et al. (in press) and reflect the assumption that better reasoning is used to support a chosen position.
Thus, a total of six measures of moral reasoning were derived for each subject: a total GSS and a total WAS (encompassing both pro and con reasoning), a WAS and a GSS for reasoning supporting capital punishment, and a WAS and a GSS for reasoning opposing capital punishment.

It is important to address at this point a variation in procedure concerning the material scored for moral reasoning in this study and the structured interview typically administered in the assessment of moral reasoning. It would be reasonable to suggest that the reasoning statements about capital punishment are actually a subsample of the reasoning statements generated in an interview (comprised of three dilemmas). It is not unlike examining the statements from one dilemma as compared to the statements from an entire interview. Kohlberg and Elfenbein (1981) scored the responses of their subjects on the capital punishment issue separately from the rest of their interviews and found that subjects' stage of reasoning about the death penalty did not differ greatly from their overall stage score. In fact, they reported that in only 10% of the cases did subjects' GSS differ from their stage of reasoning about capital punishment, and the difference was never greater than one stage. This provides support for the utilization of one dilemma or issue in this study.

The scoring of the moral reasoning materials was done blindly (i.e., without knowledge of subjects' scores on the other measures). Interrater reliability was established by a second independent rater who blindly scored the materials of 16 randomly selected subjects. There was 75% agreement in GSS
scoring (i.e., both pure and mixed stages) and reliability on the WASs was $r = .89$. This is consistent with previous research in this area (Colby et al., 1983; Walker, in press).

Attitudes toward capital punishment. Attitudes toward capital punishment were assessed by the Capital Punishment Questionnaire (CPQ). The CPQ was developed by Palys (1981) out of a skepticism regarding "for-or-against" formats of questions typically asked in public opinion polls, which were perceived as a potentially false dichotomy. Two forms of the questionnaire have been developed, each of which has 24 items. The correlation between the two forms is .95. Form A was arbitrarily selected for use in this study.

Scores on the questionnaire involve summing the ratings (after Likert, 1932) and can theoretically range from -72 (extremely anti-capital punishment) through 0 (neutral) to +72 (extremely pro-capital punishment). Initial tests of the CPQ, reported by Palys (1981), generated a range from -66 to +62, with a overall mean of 7.42 and a standard deviation of 32.62.

For each subject, a total score on the CPQ was calculated. Furthermore, to facilitate analyses (e.g., trend analyses, analyses of variance), subjects were formed into groups, such that roughly 20% of the subjects (i.e., groups of 14 or 15) fell into one of five quintiles. (Means for the five groups were -51.4, -24.7, 4.7, 20.6, and 41.8.)
Results

Normative Data

Participants were drawn in equal numbers from three educational levels (introductory and senior undergraduate, and graduate) to generate a range on the various measures. To examine these ranges, four analyses of variance were conducted on the mean complexity scores of the PCT and the issue composition, the total WAS of moral development, and the total score on the CPQ, all for educational level. Except for the last analysis, all were significant and means were in the predicted direction (i.e., graduate greater than senior undergraduate greater than introductory undergraduate).

The ANOVA for mean scores on the PCT for the educational level variable, $F(2, 69) = 18.786$, $p < .0001$, revealed between-group means of 1.49, 1.71, and 2.23 for the introductory, senior, and graduate students, respectively, with a range of 1.0 to 3.5. The ANOVA for mean scores on the issue composition for these three groups was also significant, $F(2, 69) = 3.87$, $p < .03$, with corresponding group means of 1.91, 1.97, and 2.30, and a range of 1.17 to 3.50. These means are theoretically consistent with others reported in the literature. For example, Tetlock (1983a) has reported means of integrative complexity ranging from 1.83 to 2.61 for groups of undergraduates and mean scores in the range of 2.17 to 3.20 for presidents (Tetlock, 1981), supreme court judges, and parliamentarians (Tetlock, 1984).

Examining total WASs for educational group yielded similarly significant results, $F(2, 69) = 14.99$, $p < .001$, with
means of 323.79, 342.50, and 379.96, and a range of 263 to 440 (or, expressed in GSSs, Stage 2/3 to 4/5). As mentioned above, the ANOVA of total scores on the CPQ for educational groups was not significant, $p = .19$. This, however, is not surprising since there is no theoretical reason to expect differences on this attitude measure as a function of educational level.

A point worthy of mention at this time is that these differences across educational levels for some of the variables may be seen to represent a necessary "confound" in some of the relationships under investigation. However, the primary objective in the selection of subjects on the basis of educational level was to generate ranges in performance. Having accomplished this and because educational level was not of theoretical interest, educational level was excluded from subsequent analyses, consistent with previous research (e.g., Walker et al., in press).

**Conceptual and Integrative Complexity**

Hypothesis I addressed the relationship between conceptual complexity and integrative complexity. It is assumed that since these two measures are assessing somewhat similar, yet different, dimensions of the decision-making environment (i.e., general as opposed to specific decision-making processes) a moderately strong relationship will be found between them. As a test of this relationship, a Pearson product-moment correlation was calculated between the mean scores on the PCT and the issue composition yielding, as expected, a significant moderate coefficient of .33, $p < .002$.

This relationship can be illustrated through an examination
of the relative levels of complexity on both measures. A median split of the scores on the PCT and the issue composition is summarized in Table 1. Although further analyses might be somewhat redundant, it is interesting to note that a contingency analysis also revealed a significant pattern, $\chi^2(1, N = 72) = 4.50, p < .03$, indicating that 63.8% of the subjects were classified as either low or high on both measures.

The above analyses demonstrate the similar nature of the two measures; it is equally important, however, to examine the dimension(s) on which they differ. The contingency analysis clearly displays the relationship between the PCT and the issue composition in its analysis of relative levels; however, it obscures any picture of their absolute differences. To address this issue, a 2(Sex) x 2(Complexity measures: PCT/issue composition) ANOVA was conducted with repeated measures on the last factor, with mean complexity scores as the dependent variable. An issue to be addressed here is whether or not it is appropriate to use the complexity scores from the two measures to represent the two levels of the dependent variable in this analysis. Although a moderate relationship between the two measures was described above, indicating some differences, they are clearly measures of the same variable. Their scoring procedures are identical (i.e., a structural analysis of written materials of sufficient length) and both assess the same processes (i.e., the structure underlying thought). This suggests that it is defensible to compare the scores yielded by these two measures; that is, to examine these measures as two levels of a single factor. The resultant ANOVA summary table is
Table 1

Median Split of Scores on the PCT and Issue Composition

<table>
<thead>
<tr>
<th>PCT</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>High</td>
<td>13</td>
<td>23</td>
</tr>
</tbody>
</table>
presented in Table 2.

The only significant effect revealed by this analysis was for the complexity factor, $F(1, 70) = 11.231, p < .001$. The mean score on the issue composition was significantly higher than that on the PCT (2.06 vs. 1.81). Although this difference of .25 is significant, it is not sizable, given that it represents only one-half of a scorably interval on the complexity scale. This finding suggests that both measures may be assessing the same processes, but one is allowing for a greater expression.

**Complexity and Attitudes toward Capital Punishment**

Hypothesis II addressed the relationship between attitudes toward capital punishment and complexity (as a generic term including both conceptual and integrative complexity). Specifically, a curvilinear relationship was hypothesized between the scores on the Capital Punishment Questionnaire and the mean scores on the measures of complexity. To test this, a 2(Sex) x 5(CPQ quintile groups) x 2(Complexity measures: PCT/issue composition) ANOVA was calculated with repeated measures on the last factor, and with mean complexity scores as the dependent variable. The resultant ANOVA summary table is presented as Table 3.

Sex was not significant either as a main effect or in interaction with other factors. Significant main effects were revealed for the other two factors, qualified by an interaction between them, $F(4, 62) = 11.917, p < .001$. To isolate the locus of this interaction, a test of simple main effects of CPQ groups was performed on both measures of complexity. Results of the
Table 2
Summary of the Analysis of Variance for the Mean Complexity Scores

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1</td>
<td>0.154</td>
<td>0.387</td>
</tr>
<tr>
<td>Error (between)</td>
<td>70</td>
<td>0.397</td>
<td></td>
</tr>
<tr>
<td>Complexity measures</td>
<td>1</td>
<td>2.253</td>
<td>11.231*</td>
</tr>
<tr>
<td>Sex x Complexity measures</td>
<td>1</td>
<td>0.009</td>
<td>0.045</td>
</tr>
<tr>
<td>Error (within)</td>
<td>70</td>
<td>0.201</td>
<td></td>
</tr>
</tbody>
</table>

*p < .001.
Table 3
Summary of the Analysis of Variance for the Mean Complexity Scores, Including Simple Effects and Trend Analysis

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1</td>
<td>0.134</td>
<td>0.363</td>
</tr>
<tr>
<td>CPQ groups</td>
<td>4</td>
<td>1.010</td>
<td>2.745*</td>
</tr>
<tr>
<td>Sex x CPQ groups</td>
<td>4</td>
<td>0.209</td>
<td>0.567</td>
</tr>
<tr>
<td>Error (between)</td>
<td>62</td>
<td>0.368</td>
<td></td>
</tr>
<tr>
<td>Complexity measures</td>
<td>1</td>
<td>1.483</td>
<td>11.767**</td>
</tr>
<tr>
<td>Sex x Complexity measures</td>
<td>1</td>
<td>0.119</td>
<td>0.941</td>
</tr>
<tr>
<td>CPQ groups x Complexity measures</td>
<td>4</td>
<td>1.502</td>
<td>11.917**</td>
</tr>
</tbody>
</table>

Simple main effects

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPQ groups for PCT</td>
<td>4</td>
<td>0.331</td>
<td>1.217</td>
</tr>
<tr>
<td>Error (within)</td>
<td>67</td>
<td>0.272</td>
<td></td>
</tr>
<tr>
<td>CPQ groups for issue composition</td>
<td>4</td>
<td>2.106</td>
<td>10.060**</td>
</tr>
</tbody>
</table>

Trend analysis

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear function</td>
<td>1</td>
<td>0.019</td>
<td>0.089</td>
</tr>
<tr>
<td>Deviation from linear</td>
<td>3</td>
<td>2.802</td>
<td>13.387**</td>
</tr>
<tr>
<td>Quadratic function</td>
<td>1</td>
<td>6.920</td>
<td>33.057**</td>
</tr>
<tr>
<td>Deviation from quadratic</td>
<td>2</td>
<td>0.723</td>
<td>3.456*</td>
</tr>
</tbody>
</table>

(cont'd)
Table 3 (cont'd)

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cubic function</td>
<td>1</td>
<td>0.611</td>
<td>2.921</td>
</tr>
<tr>
<td>Deviation from cubic</td>
<td>1</td>
<td>0.805</td>
<td>3.847</td>
</tr>
<tr>
<td>Error (within)</td>
<td>67</td>
<td>0.209</td>
<td></td>
</tr>
<tr>
<td>Sex x CPQ groups x Complexity measures</td>
<td>4</td>
<td>0.137</td>
<td>1.090</td>
</tr>
<tr>
<td>Error (within)</td>
<td>62</td>
<td>0.126</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .001.
test on the PCT were not significant, indicating that the hypothesis was not supported for this measure of complexity. Results of the test on the issue composition were highly significant however, $F(4, 67) = 10.06$, $p < .0001$. Further examination of this effect was performed by way of a trend analysis as a means of exploring the relationship between this measure of complexity and scores on the attitude questionnaire. Trend analyses examine various functions (linear, quadratic, cubic, quartic) which best describe the relationship between variables. In this case, the quadratic function accounted for the greatest proportion of variance, $F(1, 67) = 33.057$, $p < .0001$, fitting what can best be described as a curvilinear pattern, with $\eta = .61$. Figure 1 displays this relationship. Residual variance was insufficient to provide significant $F$-ratios for any other function.

Figure 1 clearly illustrates the curvilinear nature of the relationship between the issue composition as a measure of integrative complexity and the capital punishment questionnaire. More extreme scores in either direction on the CPQ correspond to more simplistic organization or structure of thought about capital punishment, whereas more moderate scores are characterized by a greater complexity of presentation of ideas.

Conceptual Complexity and Moral Reasoning

Hypothesis III addressed the relationship between conceptual complexity and moral reasoning. The expectation was that there would be a positive association between mean scores on the PCT and the total WAS. The PCT was the measure used in this case since it is the one typically assumed to represent
Figure 1. Mean complexity scores on the issue composition as a function of attitude toward capital punishment.
Attitude Toward Capital Punishment (CPQ Groups)
characteristic levels of complexity. Moreover, the total WAS of moral reasoning is a composite of scored responses from the issue composition as well as from the statements both supporting and opposing capital punishment. It would therefore be unjustified—both conceptually and statistically—to include the measure of integrative complexity (as assessed from the issue composition) in this analysis.

The relationship between conceptual complexity and moral reasoning was examined by a series of analyses. First, a Pearson product-moment correlation was calculated between mean scores on the PCT and the overall measure of moral reasoning (the total WAS). This yielded, as expected, a significant coefficient of $+.43$, $p < .001$, indicating correspondence between these two measures.

This correspondence was further examined by conducting a median split on the PCT variable, then a $2(Sex) \times 2(Complexity: high/low)$ ANOVA, with the total WAS as the dependent variable. The resultant ANOVA summary table is presented in Table 4.

There were no main effects nor interaction with sex, so it was excluded from subsequent analyses. A main effect was found, however, for complexity, $F(1, 68) = 11.439$, $p < .001$. The total WAS for high complexity subjects was 364.94 and the total WAS for low complexity subjects was 332.56, a difference roughly equivalent to one-third of a stage.

The essence of the above two results are perhaps most graphically depicted in Table 5 which presents a median split on both the PCT and total WAS. A contingency analysis revealed a significant pattern, $\chi^2(1, N = 72) = 6.72$, $p < .01$, indicating
Table 4

Summary of the Analysis of Variance for Total Weighted Average Scores

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1</td>
<td>744.851</td>
<td>0.463</td>
</tr>
<tr>
<td>Complexity</td>
<td>1</td>
<td>18410.684</td>
<td>11.439*</td>
</tr>
<tr>
<td>Sex x Complexity</td>
<td>1</td>
<td>518.949</td>
<td>0.322</td>
</tr>
<tr>
<td>Error (between)</td>
<td>68</td>
<td>1609.456</td>
<td></td>
</tr>
</tbody>
</table>

*p < .001.
Table 5

**Median Split of Scores on the PCT and Moral Reasoning**

<table>
<thead>
<tr>
<th>Moral Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCT</strong></td>
</tr>
<tr>
<td>Low</td>
</tr>
<tr>
<td>High</td>
</tr>
</tbody>
</table>
that two-thirds of the subjects were classified as either low or high on both measures. All these analyses clearly support the relationship between these two hierarchical theories.

Moral Reasoning (Pro versus Con) and Attitude towards Capital Punishment

The final two hypotheses both addressed issues in moral reasoning and are therefore probably best examined together. Hypothesis IV predicted a positive, linear relationship between attitudes toward capital punishment (as derived from the issue composition and the CPQ) and moral reasoning, with increasing opposition with higher level reasoning. Hypothesis V was included to examine differences in the reasoning of subjects in their support of, versus opposition to, capital punishment—as a function of their chosen and nonchosen position—with the expectation that higher reasoning would be associated with the chosen position.

To examine these hypotheses, a between-within design ANOVA was conducted with three independent variables: complexity (median split on the PCT), subjects' attitude toward capital punishment (pro/con), and position on the issue of capital punishment (pro/con). The median split on the PCT was included as a factor to examine any possible interactions. (Incidentally, by chance, there were equal numbers of subjects with pro and con attitudes toward capital punishment.) The dependent variable in this analysis was the WAS for both pro and con positions on the issue. The design, then, was a 2(Complexity: high/low) x 2(Subjects' attitude: pro/con) x 2(Position: pro/con) ANOVA with repeated measures on the last
factor. The resultant ANOVA summary table is presented in Table 6.

A main effect for complexity was revealed, as discussed in the previous section, with no interactions between this and any other factor, so the resultant pattern is true for both high and low complexity subjects. The main effect for position was highly significant, but qualified by an interaction between position and attitude, $F(1, 68) = 4.716, p < .05$. Recall that Hypothesis V predicted higher moral reasoning on the chosen position (either pro or con) than on the nonchosen position. However, the means, as presented in Table 7, indicate higher moral reasoning on the con position for both "pro" and "con" attitude subjects. Analyses of the simple main effects of position for both "pro" and "con" attitude subjects were significant, $F_s(1, 35) = 6.228, p < .02$, and $27.021, p < .001$, respectively. Thus, subjects, when justifying opposition to capital punishment, evidence higher moral reasoning than when they support it. This seems especially true for the "con" attitude subjects. That is, subjects do not always use higher moral reasoning to support their own position; in this case at least, they use higher moral reasoning to justify opposition to capital punishment (regardless of the chosen position), contrary to Hypothesis V and implications drawn from Kohlberg's scoring system.

In addressing the cognitive-developmental assumption of structured whole, the GSSs derived from pro and con reasoning were examined. Recall that GSSs take the form of pure and mixed stage scores, providing a 9-point scale (i.e., Stages 1, 1/2, 2,
Table 6

Summary of the Analysis of Variance for Pro and Con Weighted Average Scores, Including Simple Main Effects

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity</td>
<td>1</td>
<td>28785.543</td>
<td>9.301**</td>
</tr>
<tr>
<td>Attitude</td>
<td>1</td>
<td>7015.551</td>
<td>2.267</td>
</tr>
<tr>
<td>Complexity x Attitude</td>
<td>1</td>
<td>6453.328</td>
<td>2.085</td>
</tr>
<tr>
<td>Error (between)</td>
<td>68</td>
<td>3094.823</td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>1</td>
<td>34121.098</td>
<td>29.096***</td>
</tr>
<tr>
<td>Complexity x Position</td>
<td>1</td>
<td>845.555</td>
<td>0.721</td>
</tr>
<tr>
<td>Attitude x Position</td>
<td>1</td>
<td>5529.996</td>
<td>4.716*</td>
</tr>
</tbody>
</table>

Simple main effects

Position for pro attitude            | 1  | 6347.250 | 6.228*  |
Error (within)                       | 35 | 1019.200 |         |

Position for con attitude            | 1  | 36137.250| 27.021***|
Error (within)                       | 35 | 1337.400 |         |

Complexity x Attitude x Position     | 1  | 1906.666 | 1.626   |
Error (within)                       | 68 | 1172.706 |         |

*p < .05.   **p < .01.   ***p < .001.
Table 7

Mean Weighted Average Scores for Pro and Con Positions as a Function of Attitude toward Capital Punishment

<table>
<thead>
<tr>
<th>Attitude toward Capital Punishment</th>
<th>Position</th>
<th>Pro</th>
<th>Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro</td>
<td>328.4</td>
<td>332.6</td>
<td>330.5</td>
</tr>
<tr>
<td>Con</td>
<td>347.2</td>
<td>377.4</td>
<td>362.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>337.8</td>
<td>355.0</td>
<td></td>
</tr>
</tbody>
</table>
2/3, 3, 3/4, 4, 4/5, 5). On this scale, 76.4% of the subjects used either the same or an adjacent stage in their reasoning of support of, and opposition to, capital punishment. Surprisingly, 23.6% of the subjects evidenced differences of one stage or greater in their reasoning on the two sides of this issue. That is, almost one-quarter of the total subject population supplied reasoning in apparent violation of the structured whole assumption. The requirements of this assumption, however, have never formally been presented. It is rather loosely assumed that individuals have cognitive structures which are consistent across issues—subjects should be evidencing the same stage in their analysis of both positions. In this study, almost 25% of the subjects supplied reasoning on these two positions with at least a full stage discrepancy.

The above analysis examined the relationship between attitude and moral reasoning with attitude as a dichotomous variable (pro/con). An alternate approach would be to assess this relationship utilizing a continuous measure of the attitude variable (such as the CPQ). As would be expected, the CPQ and the dichotomous measure of attitude were highly related—the coefficient yielded by a point-biserial correlational analysis was +.78, p < .001.

To test the relationship between the CPQ and moral reasoning, a Pearson product-moment correlation was calculated between total CPQ scores and total WASs, yielding a significant correlation of -.38, p < .001. Thus, greater opposition to capital punishment corresponds to higher levels of moral
reasoning.

This finding is illustrated in Table 8 which displays the percentage of males and females at each moral stage who oppose capital punishment. Also presented in this table are the findings of Kohlberg and Elfenbein (1981) who had an exclusively male sample. A similar pattern is evidenced for both male and female subjects (i.e., greater opposition with higher stage), but females appear to be more opposed to capital punishment. This difference was examined by conducting an ANOVA of the total CPQ scores with sex as the independent variable. A significant effect was obtained, $F(1, 70) = 4.354, p < .05$, with females showing greater opposition to capital punishment than males (means = -10.19 vs. 6.08, respectively).
Table 8

Percentage of Subjects at each Moral Stage Who Oppose Capital Punishment

<table>
<thead>
<tr>
<th>Moral Stage</th>
<th>Males</th>
<th>Females</th>
<th>Kohlberg &amp; Elfenbein (1981) - Males only</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 1/2</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>2/3</td>
<td>0</td>
<td>33.3</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>37.5</td>
<td>60.0</td>
<td>20</td>
</tr>
<tr>
<td>3/4</td>
<td>29.4</td>
<td>52.4</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>40.0</td>
<td>100.0</td>
<td>36</td>
</tr>
<tr>
<td>4/5</td>
<td>100.0</td>
<td>100.0</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
</tbody>
</table>

Note. A dash indicates that no subjects were found at that stage.
Discussion

The previous section presented the results of this study. In particular, a significant, moderate correlation was found between the comparable measures of conceptual and integrative complexity. Integrative complexity was found to relate in a curvilinear way to an attitude measure of capital punishment; no significant relationship was found between the attitude measure and conceptual complexity. Conceptual complexity and moral reasoning evidenced a moderately strong relationship. Moral reasoning and attitudes toward capital punishment were found to relate linearly, with opponents of capital punishment substantiating their position with higher levels of reasoning than proponents. Moreover, regardless of chosen position, subjects used higher levels of moral reasoning to oppose capital punishment than they did to support it. This present section more fully discusses the implications of these findings.

Conceptual and Integrative Complexity

The Paragraph Completion Test is a frequently used and well-validated measure of an individual's level of conceptual complexity. It has been shown to be a useful instrument, particularly in personality research examining characteristics and styles of thought in relation to other structural and dispositional variables (Schroder et al., 1967). A productive offshoot of this measure is found in integrative complexity—the assessment of the structural complexity of thought from written and verbal materials and the subsequent stimulus of innovative research in human decision making as a function of environmental and situational variables. Such an approach represents a real
advance in the social psychological study of human behavior outside the confines of the laboratory. It also has sociological, political and historical relevance in its analysis of socially significant events.

The basic premise of both of these measures is that in any written or verbal material on decision-making issues of sufficient length, individuals are providing manifestations of the structure underlying thought. Even though the thoughts may originate from a wide variety of sources (e.g., politicians, authors, students) and the structure may be sensitive to forces in the environment (e.g., stress) the basic premise remains unaltered. This is the conceptual base on which both theories are grounded.

Less obvious in the literature, however, is some form of empirical base or support demonstrating that the PCT and measures of integrative complexity are sufficiently correspondent. This is not surprising given the "inaccessibility" of subjects in studies of integrative complexity (i.e., historical and/or public figures) for the purpose of completing the PCT. This is the rationale for the inclusion of the issue composition task in this study: the examination of the relationship between conceptual and integrative complexity within subjects by the measures of the PCT and the composition on capital punishment.

The moderate correlation found ($r = .33$) adequately defines an area in which these two information processing measures overlap. What they share is the way in which both assess or characterize the structural underpinnings of thought—
degree(s) of differentiation and integration. This is their conceptual and empirical interdependence or base. Clearly, however, this correlation is less than maximal suggesting that these two measures are also accessing separate properties (i.e., areas in which there is no overlap). This difference became apparent in the analysis which indicated that scores on the issue composition were significantly higher than those on the PCT.

These higher scores of the issue composition may be a function of the characteristics of the task. That is, in completing the PCT, individuals are presented with six sentence stems, each of which is to be completed in an imposed time limit of 2 minutes. The issue composition, on the other hand, involves the presentation of a topic which individuals are asked to discuss, without the same rigid time restrictions. This leads to an interesting empirical question: Do the constraints of the PCT artificially limit the level of complexity in which individuals respond? Perhaps this could be addressed by removing the constraints (i.e., time, number of topics, completion versus discussion) and having individuals respond to the stems as topics of discussion (and hence equivalent to the issue composition) as opposed to sentence beginnings. Conversely, perhaps the presentation of "capital punishment" as a paragraph stem would render it equivalent to the other stems comprising the PCT. Higher scores on the former and lower scores on the latter would support the PCT constraint hypothesis.

Such an interpretation focuses exclusively on the finding
that the issue composition elicited higher scores than the PCT. Certainly, this is the major difference, but it may well extend beyond this. That is, if the score of every individual was consistently higher on the issue composition than on the PCT, the correlation between these two measures would be higher as well (as it represents the variation of relative levels). Such was not the case. The moderate correlation suggests that the issue composition may be more than just a better elaborated PCT stem; there may be qualitative differences as well for even when corrected for attenuation, the correlation still retains a moderate value ($r = .42$). That is, the issue composition was on a topic of considerable controversy, and one that may be said to be more personally meaningful. The PCT strives to tap issues relevant to a more generalized realm of decision making, a realm typically comprised of more mundane and less controversial considerations. To this extent, the PCT may be seen to draw more spontaneous responses; the measure of integrative complexity may be seen to draw more deliberated responses. Perhaps herein lies a difference in quality.

The PCT and the measure of integrative complexity are siblings from a common parentage. They share the same genetic inheritance, but differ in their appearance, orientation and intensity.

**Complexity and Attitudes toward Capital Punishment**

Schroder et al. (1967) have proposed a distinction between structurally simple and structurally complex attitudes. They suggested that simple attitudes are based on a narrow range of highly salient information and are consequently expected to be
more categorical and extreme. Complex attitudes, on the other hand, are supposedly based on a broader range of relevant information (encompassing both consonant and dissonant arguments) resulting in a less categorical and less extreme (i.e., more moderate) attitude.

Linville and colleagues (Linville, 1982, in press; Linville & Jones, 1980) have provided empirical support for this theoretical proposition using a trait sorting technique with favorability and unfavorability ratings toward a specific target object. They found extreme evaluations (both pro and con) related to more simplistic structures whereas less extreme evaluations related to more complex structures. Tetlock (1984) has also reported a curvilinear pattern in the complexity of discourse of parliamentarians as a function of their political ideologies.

A similar curvilinear pattern was found in this study wherein more extreme (pro and con) attitudes toward capital punishment (as determined by the CPQ) were associated with lower levels of complexity (as determined by the issue composition) whereas more moderate attitudes were associated with increasing levels of complexity. This substantiates the claim by Schroder et al. and elaborates on the work of Linville and others in at least two important ways: (a) Integrative complexity was employed in this study (the assessment of conceptual structure as a function of differentiation and integration), as opposed to the trait-sorting technique employed by Linville who assessed complexity as a function of discrimination and differentiation, the latter being subsumed in the preliminary processes of the
former. (b) Even with this alternate measure, the "complexity-extremity" effect, as Linville calls it, was supported in the important and controversial attitudinal realm of capital punishment. Moreover, this relationship clearly demonstrates the content-free nature of the measure of complexity in the absence of any unidirectional effect or bias.

Clearly, these results are also consistent with those reported by Tetlock (1984). Recall that Tetlock found extreme socialists and conservatives to display similar low levels of integrative complexity and significantly lower levels than moderate socialists and conservatives on current policy issues and policy-making processes. Tetlock (1984) accounted for these findings with a value pluralism interpretation. It is assumed that advocates of ideologies in which freedom and equality are both highly valued (i.e., moderate socialism) are under greater pressure to consider such values in more integratively complex terms than are advocates of ideologies that place greater weight on only one value (i.e., freedom for conservatives).

The principles of such an interpretation might well apply in accounting for the findings of this study. That is, perhaps it could be said that embedded in the issue of capital punishment are the two values of life and law. Following through with this assumption, it would seem reasonable to suggest that extreme positions on this issue embrace one of these two values, whereas a more moderate position would encompass both. That is, extreme opponents of capital punishment might value law (and perhaps to the exclusion of life considerations) whereas extreme proponents might value life. A
more moderate position might embrace these two values equally and thus prevail upon such advocates to consider this issue in more complex terms. This remains speculation and subject to empirical validation, but such a model parsimoniously provides a perspective in which these results may be interpreted.

It is interesting to note that support for the hypothesized relationship between complexity and attitudes toward capital punishment was generated through the issue composition (integrative complexity) and not through the PCT (conceptual complexity). This perhaps stems from the differences between these two measures as previously discussed. The PCT is seen as a more global or general assessment of an individual's characteristic level of conceptual complexity. The issue composition, on the other hand, is more of a specific measure of the way in which an individual processes information relevant to a particular domain, and, in this case, one that is especially controversial. That is, because of this controversial nature of capital punishment, it has had great exposure and visibility in the form of debates, speeches, and articles in the popular press. Moreover, part of what makes it controversial is that it is an issue that calls into play an individual's moral, philosophical, and religious ideology which lies at the core of strongly held convictions and beliefs and which perhaps predisposes one to particular orientations—an idea not unlike that proposed by Harvey et al. (1961). These two factors in combination, the high exposure of an issue with its moral, philosophical and/or religious component, may work to produce effects to which the more mundane PCT is insensitive. It is
perhaps reasonable to assume that capital punishment lies on a different plane of relevance than do stems such as "when I don't know what to do" or "confusion" that form the PCT.

Tetlock's (1984) value pluralism model is also relevant here. It could be proposed that the values inherent in the issue of capital punishment (and the ways in which these values are brought into play) differ in some substantial way from the value(s) encompassed in the stems of the PCT. That is, perhaps each of the PCT stems has only a single value attached to it, in contrast to the two values of the issue composition. Such a difference would manifest itself in the relative scores of each of these measures, for if the concurrent consideration of two values predisposes an individual to consider an issue in more complex terms, the consideration of only a single issue might necessarily precipitate more simplistic thought. This is perhaps the qualitative difference between the PCT and the issue composition and the reason for the differential results in relation to the capital punishment questionnaire.

Conceptual Complexity and Moral Reasoning

Kohlberg (1981) has described his theory of moral reasoning as being a cumulative hierarchy of cognitive complexity in that each successive stage is a more differentiated and better integrated structure. These terms also represent the integral processes upon which Schroder et al. have elaborated their formulation of conceptual complexity. Differentiation characterizes the lower range of the simplicity-complexity continuum and represents the necessary condition for integration, which is characteristic of the upper range. Both
Theories focus on the cognitive structures that underlie thought, with the structures becoming increasingly complex as one attains subsequent stages or levels along the continuum.

Conceptually, at least, these stages seem to address themselves to similar processes. This is demonstrated by the moderate correlation reported earlier ($r = .43$), where increasing stages of moral reasoning correspond to increasing levels of conceptual complexity. The subsequent analyses reported similarly displayed such a relationship.

This is consistent with the results reported by Sullivan et al. (1970); what differs is the strength of the relationship or the magnitude of the correlation. Sullivan et al. presented an overall coefficient of .62 between moral development and conceptual level. This difference may be attributable to several factors. First, Sullivan et al. employed an older method of scoring for both the PCT and moral reasoning development. The PCT was scored according to the 1964 manual of Hunt and Halverson in which responses were assigned scores of 0 to 4 representing stages of the now abandoned developmental orientation or model. The moral reasoning protocols were scored according to Kolhberg's (1958) procedure which has subsequently undergone substantial revision resulting in a reclassification of many of the stage-typed responses. For example, much of what was formerly classified as Stages 4 or 5 is presently classified as Stage 3. This study employed the better validated, most recent systems of coding for both conceptual complexity and moral reasoning. Second, subjects in the Sullivan et al. study were drawn from three age levels: 12, 14, and 17 years.
Subjects in this study were drawn from three educational levels with ages ranging from 17 to 45 years resulting in a less restrictive sample with a greater range in ages. Third, this present study assessed moral reasoning on the basis of a composition and statements on the single issue of capital punishment. The rationale for such an approach comes from the work of Kohlberg and Elfenbein (1981) and Gibbs and Widaman (1982) and has been discussed earlier. Suffice it to say that it represents a departure from the method employed by Sullivan et al. which contained nine hypothetical conflict stories and corresponding sets of probing questions.

Given that both moral reasoning and conceptual complexity assess the structural complexity of thought, it is interesting to note that there is less than perfect correspondence between them. That is, they are not synonymous measures. The differences that exist may, in part, be due to the inadequacies and variabilility in the methods of measurement. For example, different methods are used in the derivation of item scores increasing measurement error (paragraph completions versus answers relevant to particular dilemma issues and questions) just as different methods are employed in the calculation of overall scores increasing the potential for information loss (mean scores versus weighted average scores). Nevertheless, the fact that a relationship does exist between conceptual complexity and moral reasoning can be seen as supporting Kohlberg's rather controversial claim of hierarchy. There appears to be a structural hierarchy in that each succeeding stage is both better differentiated and integrated. This
finding is congruent with the findings of other more direct studies (e.g., Moran & Joniak, 1979; Rest, 1973; Walker et al., in press). The controversy, however, does not really come from the hierarchy claim. It stems from a claim of content hierarchy—the notion that some advanced stage is more "moral" than that preceding it.

It should be mentioned, however, that the correlation procedure, although useful in examining the relatedness of constructs, fails to provide specific information about how constructs are related. Perhaps it could be said that reasoning about moral issues represents a subset of the total reasoning or decision-making environment. To the extent that conceptual complexity attempts to examine decision-making processes operative in the total environment, perhaps it could also be said that moral reasoning is a part of this greater whole. In such an interpretation, the relationship between moral reasoning and conceptual complexity may be analogous to a part-whole correlation, describing domain specific ways of assessing some more general, yet internally consistent, characteristic.

Moral Reasoning (Pro versus Con) and Attitude towards Capital Punishment

Kohlberg has provided an extensive manual (Colby et al., in press) for the coding of reasoning about selected moral issues, of which capital punishment is one. This manual is primarily based on the responses from his longitudinal sample, from which he has been able to generate moral reasons at all stages for both sides of all issues. These stages are based on the structure, and not the content, of an individual's moral
reasoning. Content refers to one's attitudes or beliefs or judgments and behavioral choices, whereas structure or form refers to the reasoning that underlies and justifies this content. Content is irrelevant in determining stage of development. In fact, opposing positions regarding moral issues can be defended at each stage of moral development. Thus, form and content are conceptually independent. However, the approach would be of little theoretical or social significance if there were no empirical relationship between form and content. The development of higher levels of moral reasoning would hardly be of much consequence unless it could be argued that it produces judgments and behaviors that could be considered more moral. Thus, an aim of this study was to examine the relationship between attitudes toward capital punishment and level of moral reasoning: between the form and content of moral reasoning.

Kohlberg and Elfenbein (1981) examined this relationship in a study with 30 males and found that at Stage 3 and below, almost all subjects argued that capital punishment is right under certain circumstances; at Stage 4, subjects were divided; and at Stage 5, subjects rejected the use of capital punishment. The results of the present study, as reported earlier, demonstrate a similar pattern while extending upon the work of Kohlberg and Elfenbein (1981). Specifically, Kohlberg and Elfenbein (1981) used an exclusively male sample (with the questionable procedure of repeated observations on single subjects such that 105 data points were presented for 30 individuals), a now outdated moral stage scoring system, and an assessment of attitudes regarding capital punishment by only a
single question. This study included both men and women in the sample, used the most recent scoring manual (incorporating the substantial revisions to stage definitions), and assessed attitudes toward capital punishment by both a dichotomous (i.e., single question) and continuous (i.e., CPQ) measure. The correlation between the CPQ and moral reasoning is consistent with that reported by DeWolfe and Jackson (1984) and substantiates the previous finding indicating increasing opposition to capital punishment with higher levels of moral reasoning.

Thus, there is a relationship between the form and the content of moral reasoning, at least in the realm of capital punishment. Such a finding is congruent with those of other studies which indicate that higher stages of moral reasoning are typically associated with liberal attitudes (Candee, 1976; Emler, 1983; Fishkin, Keniston, & MacKinnon, 1973; Haan, Smith, & Block, 1968). This relationship may be interpreted in several ways. For example, perhaps it could be said that within student populations (the subjects in all of the cited studies associating moral reasoning with liberal attitudes) there is an overrepresentation of the liberal ideology. This has a certain intuitive appeal until one pits this finding against the curvilinear relationship reported earlier relating integrative complexity to capital punishment. Clearly, this latter relationship is void of any liberal bias.

Perhaps the relationship between attitudes about capital punishment and moral reasoning is representative of the nature of the issue of capital punishment itself. That is, the two
sides of the capital punishment issue may be imbalanced; not all alternative points of view are equally defensible, or even equally well known. DeWolfe and Jackson (1984) suggest that many of the familiar arguments thrown into the controversy in support of capital punishment are at lower stages (i.e., "an eye for an eye") in contrast to the upper level, more societal and responsibility oriented arguments of opposition. Perhaps, too, this is representative of a liberal ideological bias in Kohlberg's theory with its focus on individual rights (Sullivan, 1977). This is a more difficult position to defend, but one that cannot be discounted given the present findings.

A related issue, within the realm of moral reasoning, was also addressed by this study: Do subjects use a different level of moral reasoning to substantiate their own, versus an opposing, position on capital punishment? Within the present scoring system, the way in which weights are applied to the chosen and nonchosen positions implies that, in some way, reasoning on the chosen side is more advanced, better formulated, and more representative of subjects' reasoning than is reasoning on the nonchosen side. (The weights are 3 and 2, respectively). This strays somewhat from the cognitive-developmental notion that a stage represents a structured whole with the implication that individuals will be consistent and use the same level of moral reasoning, regardless of the content and context.

The analysis reported earlier examined the level of moral reasoning used by subjects to both support and oppose capital punishment as a function of their attitude on this issue, and
yielded interesting results. First, related to the previous discussion, subjects who oppose capital punishment use higher levels of moral reasoning overall than do those who support it. Equally interesting, however, is that regardless of subjects' attitude toward capital punishment, they use higher moral reasoning in opposition to it, than in support of it; a difference of about one-third stage. Thus, in contradiction to implications drawn from Kohlberg's system, subjects do not always use higher moral reasoning to substantiate their own position; they use higher moral reasoning when opposing capital punishment, regardless of their chosen position.

This raises questions regarding procedures for weighting scores in determining overall level of moral reasoning. This comment, though, must be somewhat qualified to the extent that the measure of moral reasoning employed in this analysis differs from that typically used by Kohlberg in ways already described. The important similarity is that both sides of the issue are addressed and measured. It would be a worthwhile venture to investigate the relationship between reasoning on both the chosen and the nonchosen positions on standard interview protocols and other issues (e.g., abortion) to see if these differences are maintained and/or validate the weighting procedure.

This also raises questions regarding the cognitive-developmental assumption of structured wholeness of stages inherent in Kohlberg's stage model. Although the difference of about one-third stage is not in itself sufficiently damaging, differences of up to two stages were noted and over 23% of the
subjects evidenced differences in reasoning of at least one stage. The same arguments presented before are valid here. That is, perhaps the moral domain of capital punishment is imbalanced where opposing arguments are more accessible, more compelling and at higher stages. An extension of this line of thought is that the higher staged opponents of capital punishment are more visible and verbal, supplying reasons that are reproducible but not necessarily understood by lower stage subjects whose reasoning might be best represented in their arguments of support. Additionally, this discrepancy might point to a liberal value bias in Kohlberg's theory and model.

Conclusion

This thesis has addressed several interrelated issues in psychology. Within the realm of conceptual complexity, it has been demonstrated that the PCT and measures of integrative complexity are comparable—but not equivalent—assessments of the cognitive structures an individual engages in the processing of information. They both adequately expose the complementary processes of differentiation and integration (as proposed by Schroder and others), but differ in the extent to which these processes are exposed as a function of dispositional and situational factors. It is suggested that these are the operative factors accounting for the differential results of the PCT and the issue composition on the capital punishment questionnaire. The former yielded no interpretable relationship; the latter yielded a significant, curvilinear pattern (consistent with previous research and theoretical positions) with extreme attitudes relating to conceptual
simplicity and more moderate attitudes relating to increasing complexity. Just as Suedfeld and others have demonstrated that endogenous and extraneous stress can influence an individual's level of complexity, it is proposed that issue salience and personal conviction can function in a similar capacity.

The relationship between conceptual complexity and moral reasoning was also examined, yielding, as expected, a moderately high correlation. It is suggested that this result is perhaps best interpreted by considering conceptual complexity as a superordinate classification system of information processing within which considerations in the moral domain are embedded.

One particular aspect of this moral domain examined in this study was capital punishment. Consistent with previous research, it was found that opposition increases with stage of moral reasoning. Moreover, subjects, when justifying opposition to capital punishment, evidenced higher moral reasoning than when they supported it, regardless of chosen position on the issue. This latter finding calls into question Kohlberg's procedure for weighting scores in determining overall level of moral reasoning, as well as the cognitive-developmental assumption of structured whole. Furthermore, the findings taken together provide the basis for some interesting questions regarding the nature of morality in general and the nature of morality as defined by Kohlberg.

This thesis is by no means the definitive work about the issues in, and the relationships between, conceptual/integrative complexity, moral reasoning, and attitudes toward capital punishment. It does, however, address some basic dimensions of
these separate, yet related theories, and generate some provocative questions.
References


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Footnote

'More specifically, since a moderate relationship is what was hypothesized, it is appropriate to determine that this is, in fact, what was achieved. "Moderate" is defined here as accounting for less than 50% of the variance, but still significant. Testing for this entailed the comparison of the obtained correlation with one accounting for 50% or more of the variance (i.e., a "strong" relationship). A coefficient of .71 was used in this comparison. Employing the Fisher Z-transformation, the resultant normally-distributed Z value was \(-4.14, p < .001\). Thus, the correlation between conceptual and integrative complexity can be said to be moderate as it is significantly greater than a null relationship, but significantly less than one considered to be strong.
Appendix A

Test Materials
This study assesses the way in which people describe their perceptions of, or feelings toward, specific social issues. You will be asked to perform various tasks throughout this booklet: write a couple sentences in response to a word or phrase, write several paragraphs, complete a questionnaire. The aim of this study is to examine the relationship among these tasks.

Please respond to all of the sections as completely as you can; however, you are free to refuse to respond to any of the sections or to answer any of the questions. If you complete this booklet, it will be assumed that your consent to participate in this study has been given. Refusal to participate or withdrawal at any time will not influence your class standing in any way. This booklet should take about one hour to complete. Please complete the sections in the order in which they appear, without looking forward through the booklet.

All information that you provide will be kept completely confidential. Thank you for your participation.

Please complete the following:
- Sex: M  F
- Age (in years): _____
- Number of years of post-secondary study: _____
Section I

On each of the following pages, please complete the sentence which is begun for you and then write at least one more sentence on the topic. After that, you may—if you wish—write two or three more sentences if time permits. PLEASE, DO NOT TURN THE PAGE UNTIL ASKED TO DO SO.
When I am criticized ...
Rules ...
When I don't know what to do ...
Confusion ...
Policemen ...
When a friend acts differently towards me ...
Section II

The execution of criminals for committing serious crimes or offences, has been, and remains, a controversial topic and its appropriateness has been intensely debated for many years in many countries. The aim of this study is to examine and document the variety of opinions that exist in relation to this topic of capital punishment. Towards such an end, you are requested to write a brief composition (i.e. five to ten paragraphs) discussing the issue of capital punishment as you perceive it. Please present your opinion and attitude towards capital punishment and include discussion of any factors that you consider relevant. Because this topic is a matter of opinion, there are no right or wrong answers.

Please begin writing now. Please use the remainder of this page and as much of the following two pages [two blank pages followed] as you require to write this composition. You should take about 20 minutes to complete this task.
Section III

The previous section was concerned with a general discussion of your opinion and attitude towards capital punishment. This section is more specifically concerned with only one side of this issue; that is, you are requested to provide as many reasons as you can think of to support the use of capital punishment. Please explain your reasons fully (especially why you think these reasons are important). Please take about 10 minutes to complete this section using the remainder of this page and the following page [one blank page followed].
Section IV

Now adopt the other side of this issue; that is, please provide as many reasons as you can think of to oppose the use of capital punishment. Once again, please explain your reasons fully (especially why you think these reasons are important). Please take about 10 minutes to complete this section using the remainder of this page and the following page [one blank page followed].
Section V

Listed below are a number of statements of opinion regarding capital punishment. Please read each statement and then indicate the extent to which you agree or disagree with that statement by circling one of the numbers from -3 to +3 to the left of the statement, according to the following scale:

-3 = strongly disagree
-2 = moderately disagree
-1 = slightly disagree
00 = neutral, or no opinion
+1 = slightly agree
+2 = moderately agree
+3 = strongly agree

Because the statements are matters of opinion, there are no right or wrong answers. You will probably find that you agree with some statements and disagree with others.

-3 -2 -1 00 +1 +2 +3 I feel that capital punishment has no use in society.
-3 -2 -1 00 +1 +2 +3 Each serious offence must be dealt with individually to decide whether capital punishment should be used.
-3 -2 -1 00 +1 +2 +3 People who agree with capital punishment are sadistic.
-3 -2 -1 00 +1 +2 +3 Capital punishment puts the control of who shall live and die in the hands of imperfect humans.
-3 -2 -1 00 +1 +2 +3 Capital punishment protects society.
-3 -2 -1 00 +1 +2 +3 The "common good" requires that dangerous and violent persons be destroyed.
-3 -2 -1 00 +1 +2 +3 Capital punishment is the same as murdering a person.
-3 -2 -1 00 +1 +2 +3 Capital punishment is useful in some societies but not in others.
-3 -2 -1 00 +1 +2 +3 Whether capital punishment is enforced should depend on the circumstances of the individual case.
-3 = strongly disagree  
-2 = moderately disagree  
-1 = slightly disagree  
00 = neutral, or no opinion  
+1 = slightly agree  
+2 = moderately agree  
+3 = strongly agree  

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-3 -2 -1 00 +1 +2 +3 Capital punishment is an unjust method of dealing with convicted felons.

-3 -2 -1 00 +1 +2 +3 Capital punishment has no place in a civilized society.

-3 -2 -1 00 +1 +2 +3 Capital punishment is necessary to clear out the scum of society.

-3 -2 -1 00 +1 +2 +3 Capital punishment isn't pleasant, but neither are the people who would be receiving it.

-3 -2 -1 00 +1 +2 +3 Capital punishment is a fair and just way of dealing with society's worst offenders.

-3 -2 -1 00 +1 +2 +3 If we allow capital punishment, some innocent people will inevitably be killed.

-3 -2 -1 00 +1 +2 +3 Capital punishment eliminates the possibility of rehabilitation and treatment, which should be the aims of sentencing.

-3 -2 -1 00 +1 +2 +3 The killing of another person is basically wrong and should never be done, even by the state.

-3 -2 -1 00 +1 +2 +3 Capital punishment for any reason is barbaric.

-3 -2 -1 00 +1 +2 +3 Murderers and rapists deserve to be executed.

-3 -2 -1 00 +1 +2 +3 Capital punishment should not be used under any circumstances.

-3 -2 -1 00 +1 +2 +3 Murderers should be murdered.

-3 -2 -1 00 +1 +2 +3 Capital punishment is a necessary evil.

-3 -2 -1 00 +1 +2 +3 An eye for an eye; people who kill others should be killed.