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Morality and Value-Attitude Correspondence

Alan M. Hotte, B.A.

**Thesis submitted to the Faculty of Graduate
Studies and Research in Partial Fulfilment of the
Degree of Masters of Arts**

Carleton University

Ottawa, Ontario

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Abstract

This study examined the relation between morality, values and attitudes. Based on the data of 216 Introductory Psychology students, confirmatory factor analyses of Forsyth's (1980) Ethical Perspectives Questionnaire (EPQ) supported the two factor structure of Welfare/Idealism and Relativism. The analysis of the factor structure of Friedman et al.'s (1987) Justice and Care moral orientation scales was not as promising, however, as two thirds of the items were deleted in order to form two distinct Justice and Care factors. Data from 140 students were used to assess the distinction between the process and content of moral reasoning and the impact of morality on value-attitude relations and attitude variability across situations. Regression analyses and multivariate analyses of variance generally supported the distinction between the process of moral reasoning, as assessed by Rest's (1979) measure of principled reasoning, measures of Justice and Care moral orientation, the EPQ, and the content of such reasoning, as determined by participants' values (Rokeach, 1967). Regression analyses also provided some, albeit mixed, support for the moderating impact of morality on both the value-attitude relation and the variability of participants' attitudes across situations. The implications of the findings of this research for current theorizing regarding morality, values and attitudes and future research are discussed.

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Introduction

The discussion of "values" abounds in virtually all areas of social life, including society's legal (e.g., euthanasia), religious (e.g., homosexuality), business (e.g., business ethics), and government institutions (e.g., the recent Spicer Commission), and people's private lives, as exemplified by grassroots environmental movements or the socialization of children. Indeed, Nietzsche considered values to be so fundamental that he "interpreted the dynamic character of history as the continuous creation and annihilation of values. Men create values which stabilize cultures, albeit temporarily, until these values are subsequently replaced by another set which allows the upsurge of a new human culture" (Frondizi, 1963, p. 33, cited in Clawson & Vinson, 1978, p. 397). Similarly, social psychologists, such as Rokeach (1973) and Feather (1975), regard values as central to human behaviour and argue that the consideration of values should span the social sciences and integrate the interests of those who endeavour to understand human behaviour. In view of this, the present thesis examines the empirical evidence regarding the role of values in human attitudes and behaviour and considers the extent to which various factors, in particular moral development, moral orientation, and ethical perspective, moderate the impact of values on social phenomena.

Values

Within both social psychology and philosophy, values

have been considered as the standards or criteria by which people form, justify and evaluate their own actions and the actions of others (Rokeach, 1973; Schwartz, in press). Value research, particularly as exemplified by Rokeach (1973, 1979; Ball-Rokeach, Rokeach & Grube, 1984), has been based on the assumption that a relatively small number of values, held universally to varying degrees, are organized into value hierarchies that, when activated, guide people's attitudes and their overt behaviour. The kind of standard Rokeach considers values to be is one that is "an enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence" (Rokeach, 1973, p. 5). For Rokeach (1973), the hierarchical organization of these beliefs by their relative importance defines a value system. The importance of this approach, and the element that Rokeach (1973) considers distinct, is that the relative importance of values within the value hierarchy can guide the production of behaviour toward different acts. Thus, Rokeach's approach articulates for psychology a philosophical tradition that stems from the nineteenth century philosopher, Scheler. Scheler described values as independent of all acts, immutable and existing in a hierarchical order based on "preferring" or "deferring" one course of action or mode of behaviour to another (Clawson & Vinson, 1978, p. 397).

Values versus other constructs. Values differ from other constructs, such as attitudes and needs, in several ways. First, while values are general and transcend situations and objects, attitudes are specific in that they refer to particular objects, situations, or behaviour. Similarly, while both values and attitudes deal with what is preferable, values involve socially preferred or generally shared beliefs regarding behaviour or end states of existence, whereas attitudes reflect a more "subjective experience involving an evaluation of something or somebody" (Eiser, 1986, p. 13). Moreover, while attitudes are evaluative beliefs reflecting preferences and perceptions of an object's goodness or badness, values involve "prescriptive or proscriptive beliefs" (Rokeach, 1973), that is, beliefs about what one ought to do or what is worth striving for. Finally, values have also been considered to be at the "core" of the self-concept, and as such, are more motivating than attitudes. Feather, for example, states that values more strongly serve the "adjustive, ego-defensive, and knowledge (functions) than does the content of a particular attitude" (Feather, 1975, p. 10). To further distinguish attitudes and values consider the following analogy: If attitude change can be pictured as removing a brick from a wall, value change can be pictured as altering the foundation on which all the bricks in the wall rest (Feather, 1975).

Values can also be distinguished from needs. Values have been described by Rokeach (1973) as the "cognitive representations and transformations" (p. 20) of individual and collective needs. Rokeach also cautioned that, although there is a relationship between values and needs, there is no direct translation of needs into values as needs may or may not stand the test of personal or public scrutiny whereas values, by their nature, meet these criteria.

In sum, then, while values may be related to other constructs such as attitudes, and even cause attitudes, they are conceptually distinct.

The value-attitude-behaviour relation. Consistent with the suggestion that values are fundamental to human behaviour (Feather, 1975; Rokeach, 1973), researchers, using both correlational and experimental methodologies, have documented that people's values are indeed related to their attitudes and behaviour regarding more specific issues. Typically in this type of research, people's values are assessed using the Rokeach (1967) Value Survey. In the Terminal Value Survey, people rank 18 desired end-states of existence (e.g., pleasure, peace, a world of beauty) in order of their importance as guiding principles in their lives, whereas in the Instrumental Value Survey, people rank the personal importance of 18 modes of behaviour (e.g., being obedient, honest). People's value priorities as assessed using these surveys are then related to measures of

their attitudes (e.g., attitudes toward blacks and the poor (Rokeach, 1973)) and behaviour (e.g., joining the NAACP, Ball-Rokeach et al. (1984), Rokeach (1973)).

Tables 1 and 2 list some of the non-experimental, correlational research which has examined the relation between values, attitudes and behaviour. Among these studies, most have employed the Rokeach (1967) Value Survey, which is considered the most widely known and applied instrument in the study of values (Homer & Kahle, 1988) and represents part of Rokeach's innovative contribution to the study of human values (Braithwaite & Scott, 1991). Among the studies in Table 1, alternative value instruments, such as the nine value List of Values (LOV) scale and the Goal and Mode Values Inventory (Braithwaite & Law, 1985) were used by Homer and Kahle (1988) and Heaven (1990), respectively. (For a review of fifteen measures of values, see Braithwaite & Scott, 1991.) This research has used single values or groups of values to predict a wide array of attitudes and behaviour, ranging from attitudes toward conservatism to attitudes toward nutrition and nuclear weapons, and behaviours such as cheating, church attendance and health-related practices. Using structural equation modelling, for example, Homer and Kahle (1988) found that values caused people's nutritional attitudes, and that these attitudes, in turn, affected their natural food shopping behaviour. Thus, Homer and Kahle (1988) provided some empirical support for

the contention that attitudes mediate the relation between values and behaviour, as previously suggested by Feather and Newton (1982).

Perhaps the most compelling evidence for the relationship between values, attitudes and behaviour comes from experimental research where people's value priorities have been manipulated and the effects of changes in values on attitudes and behaviour have been observed. Rokeach (1968, 1973; Ball-Rokeach et al., 1984) developed a method of changing people's values, known as the value self-confrontation procedure. In this procedure, people are given the opportunity to compare their own value rankings on the Rokeach Value Survey with those of relevant, significant others and are provided with information about the relation between the values targeted for change and related attitudes and behaviour. Exposure to this treatment allows people to become aware of any inconsistencies between their values, attitudes and behaviour which promotes a sense of self-dissatisfaction which, in turn, motivates the changes in values, attitudes and behaviour necessary to restore consistency.

The value self-confrontation procedure was first used in 1966 in three experiments at Michigan State University (MSU) (Rokeach, 1968, 1971, 1973). In these experiments, the values 'equality' and 'freedom' were targeted for change because of their relevance to racial and ethnic attitudes

and related behaviours. The experimental group ranked their own terminal values, and were shown how other MSU students ranked their values. The experimenter then pointed out that MSU students, on average, ranked freedom higher than equality. Self-dissatisfaction was induced by stating that "apparently, Michigan State University students value freedom far more highly than they value equality. This suggests that MSU students in general are much more interested in their own freedom than they are in the freedom of other people" (Rokeach, 1973, p. 237). Participants were then asked whether they themselves were sympathetic with civil rights demonstrations, and were informed how holding different valuations of equality and freedom could distinguish between different responses to the civil rights demonstration question in that "those who are against civil rights are really saying that they care a great deal about their own freedom but are indifferent to other people's freedom" and that "those who are for civil rights are perhaps really saying they not only want freedom for themselves, but for other people too" (Rokeach, 1973, p. 238). In sum, experimental participants were given feedback designed to heighten their awareness of any contradictions in their valuation of freedom and equality and related attitudes and behaviour. A control group was not exposed to any information about the target values and simply ranked the terminal values for themselves and the way that they

perceived to be the average ranking of other MSU students. The results of the first experiment indicated that experimentally induced self-dissatisfaction concerning values and attitudes led to changes in values and attitudes which were observed seventeen months after exposure to the treatment. Moreover, relative to control participants, treatment participants subsequently responded more favourably to a mailed solicitation to join the NAACP and more frequently registered in ethnic studies courses (see Tables 3 and 4).

The value self-confrontation procedure was also employed with the general public in a TV broadcast called "The Great American Values Test," conducted in the Seattle area in 1979 (Ball-Rokeach et al., 1984). This thirty minute television program spent half of its air time reviewing how values are assessed and the different value ranks of various demographic groups in the United States. In the second half of the program, two experimental treatments targeted egalitarian and environmental concerns. The egalitarian treatment focused on the fact that people with favourable attitudes toward blacks and women value equality highly and more than freedom. The second treatment was designed to promote environmentalism by drawing attention to the fact that environmentalists value a world of beauty highly, and more than a comfortable life, whereas people who are unconcerned about the environment have the opposite value

priorities.

The treatment participants in this experiment were randomly selected from telephone directories for cities which were exposed to the television program. One demographically equivalent city which was not exposed served as the control group. Measures of values and attitudes were collected six weeks before and after the airing of the program, while attitudinal and behavioural measures were assessed only after the program aired. Participants' values were assessed using Rokeach's (1967) Terminal Value Survey and their attitudes toward blacks, equality for women and the environment were measured. The behavioural measures consisted of solicitations for monetary donations from actual groups promoting the involvement of black children in music, drama and dance, women's intercollegiate athletics, and a political lobby group seeking a mandatory deposit on beverage cans and bottles (Ball-Rokeach et al., 1984, pp. 81-86).

The results of this field experiment indicated that, relative to nonviewers, participants who viewed the entire broadcast increased the importance they ascribed to the values freedom and equality, expressed less racist attitudes and donated more money to local organizations responsible for promoting environmentalism and women (see Table 3 and 4). The treatment did not, however, affect attitudes toward women or ecology, nor donations to an organization promoting

the status of blacks.

While the findings of both correlational and experimental research support the contention that values are causally related to attitudes and behaviour, the strength of the impact of values on attitudes and behaviour suggests that values may not be as fundamental to human behaviour as philosophers (e.g., Nietzsche and Scheler) and some psychologists (e.g., Feather, 1975, 1988; Rokeach, 1973) would lead one to expect. Table 1 shows that, for correlational research, values and attitudes share 1.4 to a maximum of 24.8% of the variance. Similarly, Table 2 shows that the variance shared between values and behaviour ranges from 2.6 to 14.4%. The magnitude of these relations is particularly worrisome in view of the fact that much of the behavioral data are based on participants' self-reports, potentially inflating the size of these relations. Kristiansen (1985), for example, examined the relation between the value health and preventive health behaviour in a single self-report postal survey. But even under such conditions, the value of health and preventive health behaviour only shared 6.9% of the variance.

Experimental research, shown in Tables 3 and 4, has fared worse, with the shared variance ranging from 0 to 4%. For example, although Ball-Rokeach et al. (1984) claim that their televised value self-confrontation procedure changed people's attitudes and behaviour, in reality at most 2% of

the variance in attitudes and behaviour was explained by exposure versus non-exposure to the broadcast. Thus, it appears that the statistical significance of their findings simply stems from their large sample size.

This review suggests that, while values do impact on attitudes and behaviour, typically over 90% of the variability in attitudes and behaviour is determined by factors other than values. Indeed, Grube, Greenstein, Rankin and Kearney's (1977) reanalysis of Rokeach's (1973, pp. 277-279) data, which indicated that the 32 experimental participants (combining experiments 2 and 3) who joined the NAACP increased their valuation of equality from pre- to post-test, while the 10 control participants who joined had not, yielded similar conclusions. Using path analytic techniques, Grube et al. (1977) determined that, while some aspect of the treatment accounted for 4% of the variance in NAACP joining behaviour, less than 1% of the variance was attributable to changes in value priorities. Similarly, Greenstein's (1982) path analytic reanalysis of his earlier 1976 study revealed that changes in the importance of 'mature love' accounted for less than 1% of the variance in post-test evaluations of teacher performance, while somewhat less than 4% of the variance was due to non-value mediated aspects of the treatment. In view of this, one is led to ask why it is that people do not express attitudes and actions that are in accord with their values.

Morality

Blasi (1987) wrote that "a behaviour or practice is considered moral if it is intentional, a response to some sense of obligation, and if the obligation is a response to an ideal, even if the ideal is vaguely understood" (Blasi, 1987, p. 86). Given that values are trans-situational standards or ideals regarding what one ought to do or strive for (Feather, 1975; Rokeach, 1973; Schwartz, in press), theorizing and research regarding moral development and moral orientation may shed light on the value-attitude-behaviour relation.

Moral development. Within psychology, the dominant tradition in the study of morality has been the cognitive developmental approach articulated by Jean Piaget, Lawrence Kohlberg, and currently by James Rest. Piaget (1932, cited in Rest, 1983) set the direction of this approach with his focus on the growth away from a morality where right is determined solely through conformity to the commands of authority, a 'morality of constraint,' to a 'morality of cooperation' where individuals relate to one another in accord with rules that balance their rights and duties. This growth entails the development of relevant cognitive structures capable of bringing a person in balance (or being equilibrated) with their environment. The emergence from the morality of constraint to one of cooperation also marks a changed perception of the nature of social rules, from their

absolute validity in all applications, to a more developed state where intention is also taken into account. These two stages or phases of constraint and cooperation were said to reflect a deep structure applied to all specific moral judgements. What Piaget set in motion when he introduced the concept of moral judgement in psychology, then, was a focus on the development of inner cognitive structures and processes relevant to morality.

Based on the findings of an initial longitudinal study of 72 middle-class boys in Chicago, Kohlberg (1958) expanded Piaget's (1932) stage model to reflect three levels, each with two stages of moral development (Clarke-Stewart et al., 1985, p. 547). According to Kohlberg (1958), children less than nine years of age operate at the "preconventional level" of moral reasoning, where moral action is determined by authority beyond the self while reflecting the general motivation of self-interest. The first stage describes moral behaviour as resulting from a fear of punishment from an all-powerful authority. The second stage of preconventional moral reasoning considers moral action to involve the making of deals in which a fair exchange can take place. These two stages have been characterized respectively as the "might makes right" and the "marketplace morality" phases of moral development (Clarke-Stewart et al., 1985, p. 547).

In Kohlberg's second "conventional" level of moral reasoning, which reflects the level of reasoning used by

most adolescents and adults, moral behaviour is regarded as following rules and social obligations. The third stage, termed "good boy-nice girl," reflects the desire to do the right thing to please others, and a favourable bias toward family (Clarke-Stewart et al., 1985, p. 547). In the fourth stage, characterized as the "law and order" stage, rules become respected for their own sake as a conception of what benefits the majority of people and protects individual rights (Clarke-Stewart et al., 1985, pp. 547-548).

The ultimate level of moral functioning, attained by only 20% of people in their twenties and beyond, is the "post-conventional level" of moral reasoning. At this level, moral behaviour corresponds to personal standards rather than those imposed externally by some authority or social convention (Clarke-Stewart et al., 1985, p. 548). At the fifth stage, termed the "social-contract orientation," laws and conventions are regarded as arbitrary but necessary for the protection of individual rights, and such rights are deemed more important than laws if the laws become destructive (Clarke-Stewart et al., 1985, pp. 548, 550). The sixth, and highest, stage of moral reasoning is said to involve the use of universal ethical principles, including "justice, reciprocity, equality, and respect for human life and rights" (Clarke-Stewart et al., 1985, p. 548). Furthermore, these principles are said to develop purely through individual reflection, and can be found in the

thought of Martin Luther King, Jr., Mahatma Gandhi, and Mother Theresa (Clarke-Stewart et al., 1985, p. 550).

Kohlberg's stage model of moral development has, however, been anything but monolithic as it has gone through an evolutionary process since its original inception in 1958. Indeed, people's scores using the original coding scheme, determined during interviews concerning the resolution of hypothetical moral dilemmas, are only moderately correlated ($r = .39$) with their scores using Kohlberg, Colby, Gibbs and Speicher-Dubin's (1978) more recent coding scheme (Rest, 1983, p. 575). As a further result of this evolution, the sixth stage of moral reasoning, which Kohlberg et al. (1978, cited in Clarke-Stewart et al., 1985, p. 551) described as a largely theoretical stage limited to extraordinary individuals, was removed from the model in 1980 for want of empirical evidence (Kohlberg, 1980, cited in Rest, 1983, p. 575).

Moral development, behaviour, and attitudes. In an extensive review of studies linking moral reasoning or moral stage to moral action, Blasi (1980, p. 37) described a positive "statistical relationship" between level of moral reasoning and behaviour in 16 of 28 studies of delinquency, 20 of 32 studies of specific and/or habitual actions in real life, 22 of 48 studies of honesty, 42 of 64 studies of altruistic behaviour, and 14 of 28 studies of resistance to conformity. Table 5 describes this "statistical

relationship" in the form of effect sizes calculated from information presented in Blasi's (1980) review. The relationship, in terms of variance shared between moral stage and behaviour, is very small as they share less than 1% of the variance. Blasi (1980) did not calculate effect size coefficients, and instead used a 'vote counting' method, noting positive, neutral and negative outcomes of some 200 studies to estimate the direction and strength of the relation between moral reasoning and action. On this basis, Blasi (1980) concluded that there was enough empirical evidence that moral reasoning and behaviour are related, but that the lack of methodological sophistication and the lack of a sound theoretical foundation for exploring these relationships may in fact cast doubt on the "psychological meaning" of this "statistical relationship" (Blasi, 1980, pp. 37, 40). Beyond any concern over methodology, however, the cognitive-developmental model of moral reasoning could not be expected to adequately describe this relation because "the same behaviour can be supported by different moral criteria, and the same moral criteria can lead to different decisions" (Blasi, 1980, p. 9). Given this, one would actually expect no relation between level of moral reasoning and the behaviours displayed in a particular context. Along these lines Kohlberg (1958) found that, in

response to the 'Heinz' dilemma¹, people chose to steal the drug or not regardless of their moral stage (Rest, 1979, p. 161).

In a subsequent review, Rest (1986, p. 135), like Blasi, found a moderately positive relationship between moral development and behaviour. The focus of Rest's review was on research using his own questionnaire measure of moral reasoning, the Defining Issues Test (DIT), as opposed to the Kohlbergian interview methods reviewed by Blasi (1980). The DIT assesses the number of principles people use in their efforts to resolve hypothetical moral dilemmas and the extent to which people's moral reasoning involves the use of "a general guideline or feature of organizing human interactions so as to optimize certain human values" (Rest, 1986, p. 142). The primary measure of the DIT, the 'P-score,' represents the percentage of principled relative to nonprincipled statements people endorse. People with high P-scores recognize the implications that principles have for generalized social relationships and the resolution of moral conflicts. The particular relationship between using universal moral principles, and hence having a high P-score, and behaviour has been characterized by Rest (1979, p. 161) as being non-linear in nature. This is similar to Kohlberg's (1958) original findings and supports Blasi's (1980)

¹ See the Defining Issues Test (DIT) portion of Appendix A, for a description of this classic dilemma.

observation that the cognitive developmental model cannot explain the generally positive relationship observed between measures of moral reasoning and behaviour.

What is lacking in cognitive developmental theory is a clear articulation of the factor(s) and process(es) that relate(s) moral reasoning to moral behaviour. In this regard, Blasi suggested that at present "it is not known how general structures of moral reasoning and general attitudes (i.e., values) interact in the production of behaviour" (Blasi, 1980, pp. 9-10). Thus, while level of moral reasoning in itself may not account for behaviour, the interaction between moral stage and values may. More specifically, it is conceivable that principled people (those with high P-scores) may be more likely to express attitudes and behave in accord with their values, relative to people with low P-scores.

An unpublished study by Getz (1985, reported in Rest, 1986, pp. 142-145) provides evidence for the hypothesis that people's value priorities moderate the relationship between their principled versus unprincipled level of moral reasoning and their attitudes and behaviour. Getz classified participants as high or low P-scorers based on their DIT responses and then examined their responses to a series of items concerning basic principles that most people would agree with (e.g., "freedom of speech should be a basic human right," "people should have freedom of worship and freedom

of belief") and other items reflecting the application of these principles (e.g., "laws should be passed to regulate the activities of religious cults that have come here from Asia"). Analyses of Getz's data revealed that high P-scorers' responses were more consistent across the general and specific human rights items than were the responses of low P-scorers. Given that the items all involved 'human rights,' it seems likely that the same values (e.g., freedom, equality) were relevant guides to participants' responses. Thus, it is conceivable that the consistency displayed by high P-scorers stemmed from the fact that their responses were based on their values, whereas the inconsistency of low P-scorers resulted from the fact that their values did not guide their responses.

Relevant to the suggestion that stage of moral development may moderate the relation between values, attitudes and behaviour is the distinction between 'process' and 'content.' According to Rest (1979, p. 161), the process of moral reasoning is independent of the specific content of a moral decision, and hence moral decisions cannot be reduced to moral judgements. Similarly, as Schlenker and Forsyth (1977) put it, "Kohlberg focuses on the question of why a person holds particular standards (i.e., because he will be punished unless he does, because society says that it is right, or because his conscience says it is right) and not on the nature of the standards themselves" (p. 377).

Thus, people's stage or level of moral reasoning (e.g., high vs. low P-scores) reflects the process by which they arrive at moral decisions (e.g., on the basis of principles to which they ascribe vs. on the basis of obedience to authority). The content of people's moral decisions or behaviour, however, will likely depend on other factors. And among people whose decisions are based on principles, these factors may well involve their value priorities.

This distinction of moral process and content is not, however, universally accepted. Feather (1988, 1990), for example, claims to have documented significant correlations between participants' P-scores on the DIT and their values. Values can be considered a content issue which Feather confounded with process issues. In actuality, Feather (1988) only observed one statistically significant correlation between subjects' rankings of Rokeach's (1967) 18 terminal values and their DIT P-scores. Specifically, subjects who valued 'inner harmony' more, achieved higher P-scores ($r = .24$, $p < .01$). Given the low magnitude of this single correlation and the fact that one would expect to observe one significant correlation among 18 correlations by chance alone at the .05 alpha level, this finding does not justify Feather's conclusion that people at different moral stages have different value priorities. Further, the fact that Feather eliminated 45% of his sample because they violated the internal and external validity scores built into the

DIT, also leads to concerns about the validity of his conclusions. Reinterpreting Feather's data in light of these shortcomings, suggests that his findings are consistent with Rest's (1979) suggestion that moral content and moral process are distinct.

This 'form-content' distinction indicates that moral judgement cannot be explained by traits, attitudes or values (Rest, 1983), and that moral judgement is indeed a process concerned with "determining what course of action would best fulfil a moral ideal, what ought to be done in the situation" (Rest 1979, p. 561, cited in Feather, 1988, p. 244). As such it is not productive to attempt to document the specific value contents associated with different moral stages as Feather (1990, 1988) has done. Rather, it seems more useful to examine the extent to which the use of principled moral reasoning underlies and moderates the relationship between values, attitudes, and behaviour.

Justice and Care moral orientation. Just as there are different stages of moral reasoning, different 'moral orientations' have been considered since the time of Piaget, who discussed both a 'morality of right and duty' and a 'morality of good' (Piaget, 1932, p. 193-194, cited in Ford & Lowery, 1986, p. 777). While Piaget described the 'morality of good' as possessing the affective aspect of cooperation and reciprocity, unfortunately he considered these properties as 'eluding interrogation' and hence

focused his research on the 'morality of right and duty' (Piaget, 1932, p. 195, cited in Ford & Lowery, 1986, p. 777). This work later became the foundation of Kohlberg's (1958) structural developmental model, even though he too recognized an alternative principle of 'utility and benevolence' (Kohlberg, 1971, p. 220, cited in Ford & Lowery, 1986, p. 777). Kohlberg, however, rejected this alternative moral orientation on the grounds that it was incapable of resolving the many conflicts among the competing claims of individuals (Kohlberg, 1971, p. 220, cited in Ford & Lowery, 1986, p. 777).

These preferences on the part of Piaget and Kohlberg reflected an ethical tradition concerned with justice, as articulated by Locke, Kant and Rawls. This focus on justice can be described as holding up the ideal of individual autonomy in that the individual has the right to pursue their own vision of 'good' unencumbered by the requirements of other individuals (Meyers & Kittay, 1987, pp. 4-5). An alternative 'Care' perspective, based upon the neglected tradition in ethics of 'virtue,' as proposed by Aristotle and Hume, has been articulated by Gilligan (1982, 1987, 1988) and her colleagues. This alternative ethical grounding reflects the 'social embeddedness of the human being' such that moral reasoning must consider "the right thing to do, at the right time, in the right place, to the right person, in the right way" (Meyers & Kittay, 1987, p. 8). This Care

perspective promotes sensitivity to context and circumstance and posits the lack of any abstract and individually pursuable 'good' (Meyers & Kittay, 1987, p.8). Gilligan (1982) became aware of this alternative morality of the 'good' or 'utility and benevolence' through her study of the moral decision making strategies of women faced with decisions regarding abortion. In that research, Gilligan documented an alternative to the solution of moral problems solely through a deductive approach where conflicting rights are balanced according to general principles, to the appreciation that moral dilemmas are imbedded in the context of human relationships (Meyers & Kittay, 1987, p. 7). Attention to concepts beyond the ethic of justice has been promoted in the attempt to understand how other variables may be involved in the relationship between moral development and moral behaviour. This consideration has also provided the spearhead for social psychological criticisms of Kohlberg's work in that moral "responsibility and caring appear essential in the judgement-action link" (Kutnick, 1986, pp. 129, 135, 138). It should be noted that Kohlberg did attempt to integrate moral responsibility into his model but left the aspect of caring to the work of others (Kutnick, 1986, p. 143).

This new Care perspective, or voice, which Gilligan has distinguished reflects "concerns of connection and response" as separate from a voice "of equality and reciprocity" (Linn

& Gilligan, 1990a, p. 191). This has launched a wholly different moral ideal, where being responsive to others is seen as distinct from the ideal reasoning of an autonomous moral agent. To consider the two moral orientations in more detail it can be said that "a morality of rights and abstract reason begins with a moral agent who is separate from others, and who independently elects moral principles to obey. In contrast, a morality of responsibility begins with a self who is enmeshed in a network of relations to others, and whose moral deliberation aims to maintain these relations" (Meyers & Kittay, 1987, p. 10).

Various criticisms have been raised against Gilligan's (1982) research. Rest (1986), for example, argued that Gilligan misrepresented the justice concept in that it does in fact encompass the 'reciprocal systems of mutual benefit' and 'cooperative networks among people' (p. 117) and hence does not promote individualism and separateness.² Reconsidering the original voices that Gilligan (1982) was attempting to document, however, suggests that Care and Justice may well be distinct. A Care response to the 'Heinz dilemma,' for example, emphasizes aspects of 'how,' within a particular context, a solution may be achieved while balancing the relationships among the agents involved. A justice response to this dilemma, on the other hand,

² See Appendix B for a discussion of one major contentious issue, namely gender differences in moral orientation.

emphasizes aspects of 'whether or not' an action should occur as determined by rational principles, which one eleven year-old characterized as being "sort of like a math problem with humans" (Gilligan, 1982, cited in Clarke-Stewart et al., 1985, pp. 555-556).

These descriptions of the Care and Justice orientations suggest that moral orientation may well moderate the value-attitude-behaviour relation. To the extent that people who are predominantly Care orientated do indeed attend to context, as Gilligan (1982) suggests, it is conceivable that their attitudes and behaviour will be affected by situational cues and that they will therefore display little consistency between their stable 'situation free' values and their situationally determined attitudes and behaviour. In contrast, if Justice orientated people appeal to 'rational principles' and ignore contextual features, it seems likely that they will behave in accord with their principles and values, regardless of the situation, and hence display value-attitude-behaviour consistency. The present thesis will test these hypotheses by examining the magnitude of the value-attitude relation as a function of participant's Care and Justice orientation.

Before testing these hypotheses, however, one might question whether they make theoretical sense in terms of the process versus content distinction. That is, are moral orientation and values confounded? If so, one would expect

that, just as males and females do not differ in moral orientation (Forsyth et al., 1988; Friedman et al., 1987; Kristiansen & Matheson, 1990), there should be no gender differences in values. Contrary to this, a host of research has documented gender differences in value priorities (Feather, 1975; Furnham, 1987; Kristiansen & Matheson, 1990; Rokeach, 1973). Kristiansen and Matheson (1990), for example, found that females assigned more importance to a world at peace, equality and inner harmony, while males placed more value on a comfortable life, an exciting life, and national security. Kristiansen and Matheson's study also provided direct evidence for the independence of moral orientation and values. Based on a median split of participants' responses to Friedman et al.'s measure of Care and Justice, Kristiansen and Matheson classified people as high or low along each dimension. A two-way Care (high vs. low) by Justice (high vs. low) multivariate analysis of variance (MANOVA) on participants' 18 terminal value scores revealed that each of the main effects (Justice, Pillai's Trace $V = 0.054$, $F(18,253) = 0.80$, ns; Care Pillai's Trace $V = 0.071$, $F(18,253) = 0.071$, ns) and the interaction (Pillai's Trace $V = 0.066$, $F(18,253) = 0.99$, ns) were nonsignificant. As a whole, then, such findings suggest that moral orientation and values are independent, and that moral orientation may therefore be considered as a potential moderator of the value-attitude-behaviour relation.

Finally, unpublished analyses of Kristiansen and Matheson's (1990) data also provide some, albeit indirect, evidence for the notion that people who are Justice orientated are more likely to construe issues in value-laden terms. Kristiansen and Matheson had participants rank Rokeach's (1967) terminal values in terms of their relevance to the consideration of 'whether Canada should allow nuclear arms within her borders.' A two-way Care by Justice MANOVA of the 18 value relevance scores revealed no significant interaction (Pillai's Trace V = 0.055, $F(18,257) = 0.82$, ns) or main effect due to Care (Pillai's Trace V = 0.084, $F(18,257) = 1.31$, ns). The main effect of Justice, however, was significant, (Pillai's Trace V = 0.121, $F(18,257) = 1.97$, $p < .02$). Participants with higher Justice scores regarded the values 'a world at peace,' 'a world of beauty,' and 'freedom' as more relevant to the consideration of this issue than did those with lower Justice scores. Thus, consistent with the present hypothesis that Justice orientated people are more value driven, people with higher Justice scores did indeed perceive the nuclear issue in more value laden terms.

Other moral orientations. In their paper concerning ethical approaches to psychological research, Schlenker and Forsyth (1977) considered three approaches to moral philosophy, namely deontology, teleology and scepticism. The Kantian deontological philosophy states that a moral

principle can only exist as a strict universal truth which cannot allow any exceptions because the consideration of consequences destroys the universality of the moral principle and the priority of rationality and natural law over specific contexts and consequences. The result of this is that the deontologist should "act only on that maxim which you can at the same time will to be a universal law" (Frankena, 1973, p. 30, cited in Schlenker & Forsyth, 1977, p. 371).

For teleology, as conceived by Socrates, Plato, Epicurus and the utilitarians such as Bentham and Mill, the morality of an act is not defined by its consistency with some universal moral rule, but rather by a consideration of the consequences of the act in the form of a cost-benefit analysis. Thus, the test of consequences, which is the failure and destruction of the deontological position, defines for teleologists what is in fact moral. Teleologists do, however, ascribe to a universal cost-benefit process or "transpersonal utility scale" which can be used to compare situations and define universal moral principles (Schlenker & Forsyth, 1977).

Finally, ethical scepticism involves a variety of positions, all of which doubt the possibility that universal moral principles exist (Schlenker & Forsyth, 1977, p. 373). One type of ethical scepticism, 'cultural relativism,' can be considered as being founded by Hume, who was one of the

first to consider not only that there was no ultimate right or wrong, but that these standards were relative to specific cultures. This also indicated that individual or societal approval was predicated on how one 'feels' about a particular action as this presumably reflects cultural conditioning as a source of what is moral (Schlenker & Forsyth, 1977, p. 373). This aspect of moral sentiments was discussed earlier as the alternative rejected by both Piaget and Kohlberg as an unworkable ethical basis for their study of moral judgments.³ A second type of ethical scepticism, 'ethical egoism,' limits the applicability of moral principles solely to one's own behaviour. This perspective requires that one must always act in ways that one 'feels' are correct. Representing this perspective, Gergen (1973) considers the presence of any standard, such as those developed by the American Psychological Association, to be a limitation on the profession and the general pursuit of knowledge because "absolute moral values are absolutely corrupt" (Gergen, 1973, p. 908, cited in Schlenker & Forsyth, 1977). A third form of ethical scepticism stems from Fletcher's (1966) situation ethics. This perspective asserts that, although what is ethical depends on the

³ In relation to the Care orientation it is a mistake for authors, such as Meyers and Kittay (1987), to describe Hume as being ethically equivalent to Care, as this implies that care is part of ethical scepticism and as such rejects the possibility that responsiveness to others could exist as a moral principle.

situation or context, all actions should be guided by one universal principle, namely 'to love God and your neighbour.'

As shown in Table 6, Schlenker and Forsyth (1977) suggested that these three moral philosophies vary along two dimensions, specifically in the extent to which they endorse universal moral absolutism (rule universalism vs. nonuniversalism) and in the extent to which their consideration of both the positive and negative consequences of an action allows them to accept exceptions to moral principles as being moral (pragmatism vs. idealism). Along these dimensions, deontologists are rule universal idealists since they endorse universal moral absolutes and are idealistically intolerant of situational exceptions. Teleologists are rule universal pragmatists because they ascribe to the universal application of a cost-benefit analysis, but allow exceptions. Indeed, to the extent that teleologists allow exceptions, they may be rule nonuniversal pragmatists (Schlenker & Forsyth, 1977). Finally, while all sceptics endorse rule nonuniversal relativism, some idealistically apply their own standards and values, while others, notably situationists (Fletcher, 1966), pragmatically evaluate the morality of each act within its own context.

In a study designed to examine the relation between these moral orientations and perceptions of the ethics of

psychological research, Schlenker and Forsyth had 180 psychology students answer a 50-item questionnaire. The first two factors of a factor analysis of these data represented the idealism-pragmatism and rule universal dimensions, with 14 and 13 items, respectively. Moreover, examining the factors affecting these students evaluations of the morality of various psychological studies (e.g., Milgram's obedience study) revealed that teleologists' judgements were affected by the scientific benefits of research, deontologists were guided by the costs to research participants, and sceptics were affected by both.

Forsyth (1980) subsequently endeavoured to develop and validate a more general Ethical Position Questionnaire (EPQ) to study moral judgements in areas beyond those concerning the ethics of psychological research. Table 7 presents Forsyth's classification of ethical ideologies. Forsyth had 65 Introductory Psychology students rate 55 items reflecting the rule universal and pragmatism dimensions, which he called 'relativism' and 'idealism,' respectively. A factor analysis yielded 16 factors with eigenvalues greater than 1.00. Forsyth therefore sampled items from each factor and, on the basis of their item-total correlations, retained 13 relativism and 14 idealism items. Based on the data from several other samples which completed this 27-item inventory, Forsyth again deleted items with low item-total correlations, resulting in orthogonal 10-item measures of

idealism and relativism which were internally consistent (α 's = .80 and .73, respectively) and stable over a two week period (α s = .67 and .66, respectively).

As evidence for the EPQ's concurrent validity, Forsyth found that the relativism scores of 128 psychology students were negatively correlated with their endorsement of societal regulatory standards on Hogan's (1970, 1973) Survey of Ethical Attitudes scale. As evidence for the EPQ's discriminant validity, Forsyth found that participants' idealism and relativism scales were unrelated to their DIT P-scores, which reflect moral stage or maturity rather than moral orientation.

Finally, to assess the predictive validity of the EPQ, Forsyth examined the relation between people's EPQ scores and their attitudes toward contemporary moral issues, as well as their moral behaviour. An idealism by relativism by gender MANOVA of 115 students' attitudes toward 11 moral issues yielded a significant three-way interaction which was also significant for five of the univariate effects (test-tube babies, mercy killing, marijuana use, homosexuality and abortion). While females' idealism and relativism scores were not related to their attitudes, Forsyth stated that "male absolutists tended to take more extreme positions on each of the issues, particularly in comparison to male situationists. More than respondents within each of the other ethical categories, male absolutists felt that test-

tube creation was immoral, that mercy killing should not be tolerated, and that marijuana use, homosexuality, and abortion were wrong. Situationist males, however, were the most liberal, particularly in regard to euthanasia" (Forsyth, 1980, p. 182). Examining the mean attitude scores for these groups, however, suggests that Forsyth misconstrued these data. For one, because participants used 9-point scales to rate the extent to which they completely agreed (1) or completely disagreed (9) with each issue, it is not clear that these scores reflect "moral condemnation." Further, contrary to what Forsyth claims, male absolutists' attitudes toward marijuana use did not differ from the attitudes expressed by the other types of men. And in regard to the other four attitudes, all groups expressed the same attitudes, with the exception of male absolutists whose attitudes were actually nearer the midpoint of the scale (5), and hence more neutral rather than extreme. Thus, these data do not support the predictive validity of the EPQ. Similarly, Forsyth (1980) and Forsyth and Berger (1982) were unable to document any relation between people's EPQ scores and their overt moral behaviour (i.e., cheating).

At least two explanations may account for the inability of the EPQ to predict people's attitudes and behaviour. First, it seems unlikely that the EPQ could predict attitudes or behaviour without knowledge of the content of people's moral codes or values. In addition, however, it is

possible that the EPQ is not a valid indicator of people's moral philosophies. For example, the factors identified by Forsyth's (1980) factor analysis of the 65 students' responses to 50 items are likely unreliable given the low item-to-subject ratio. Tabachnick and Fidell (1989) suggest that at a minimum there should be five cases for each observed variable, which would have required 250 subjects for a factor analysis of 50 items. Similarly, although Forsyth et al. (1988) claim that this 1980 factor analysis yielded two factors, his 1980 paper claims there were 16. In this regard, it seems likely that relying on eigenvalues greater than one, or following the Kaiser-Guttman rule, rather than the scree test followed by an examination of the residual correlation matrix (as suggested by Tabachnick and Fidell, 1989, pp. 634-636) overestimates the number of factors (Cattell, 1978, p. 62; Tucker, Koopman & Linn cited in Norusis, 1988, p. B-47).

The ethical ideologies articulated by Forsyth (1980) and Schlenker and Forsyth (1977) also appear to be inconsistent. Both categorize deontologists/absolutists as rule universal/low relativism and low idealism. However, while Schlenker and Forsyth classified sceptics who act in accord with their own values as rule nonuniversal/high idealists, Forsyth placed them in the high relativism/low idealism category. Thus, Schlenker and Forsyth (1977) and Forsyth (1980) appear to disagree as to the placement of

subjectivists and situationists.

In addition to the above, the wording of the items used to assess relativism and idealism appear problematic. For example, one relativism item states "No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends on the situation" and another reads "Whether a lie is judged to be moral or immoral depends on the circumstances surrounding the action" (Forsyth, 1980, p. 178). Because both deontologists/absolutists and teleologists/exceptionists are characterized by low relativism scores (see Table 7), both should disagree strongly with these items. Given the descriptions of these moral philosophies, however, one would expect deontologists, who believe in absolute moral codes, to disagree and teleologists, who are utilitarians, to agree.

Similar problems exist regarding the idealism scale. Forsyth (1980, p. 176) wrote "some individuals idealistically assume that desirable consequences can, with the 'right' action, always be attained. Those with a less idealistic orientation, on the other hand, admit that undesirable consequences will often be mixed in with desired ones." Elsewhere, however, Forsyth (1988, p. 244) states that "idealism refers to individuals' concern for the welfare of others. Those who are idealistic in their moral orientation insist that one must always avoid harming others, whereas nonidealists assume that harm will sometimes

be necessary to produce good." In a study designed to test this assertion, Forsyth, Nye and Kelley (1988) had 216 Introductory Psychology students complete the EPQ and a 10-item scale which they developed to measure the extent to which respondents endorsed Gilligan's (1982) ethic of Care (e.g., 'morality means caring for people,' 'morality offers a way of solving conflicts so that no one is hurt'). Analyses revealed that, while participants' Care scores tended to decrease as their EPQ relativism scores increased ($r = -.13$, $p < .05$), their Care scores increased as they became more idealistic ($r = .53$, $p < .01$). In addition, relativism and idealism scores had an interactive effect on Care scores in that deontologists/absolutists (high relativism and high idealism) were more caring than the other groups.

Although these findings are consistent with Forsyth's claim that idealism reflects caring, there are at least two problems which threaten the validity of this conclusion. For one, the correlation between idealism and caring may have occurred simply because the EPQ scale focuses primarily on caring rather than idealism per se. Examining the idealism items, presented in Appendix A, reveals that eight of the ten items refer to the welfare of others (e.g., 'It is never necessary to sacrifice the welfare of others'), while only two items refer to idealism (e.g., 'moral actions are those which closely match ideals of the most "perfect" action').

Thus, it seems that the idealism scale confounds idealism and caring.

In addition to this methodological problem, Forsyth's (1988) finding that Kantian deontologists were the most caring is theoretically illogical. As Schlenker and Forsyth (1977, p. 372) wrote, "In his essay, 'On the supposed right to tell lies from benevolent motives,' Kant (1873/1973b) proposed that 'to be truthful in all declarations is ... a sacred unconditional command of reason, and not to be limited by any expediency' (p. 256)." As Schlenker and Forsyth (1977, p. 372) state, then, "a lie, however benevolent, is intrinsically immoral." Thus, according to the tenets of moral philosophy, it seems unlikely that deontologists would be more caring than, for example, teleologists, who endorse the utilitarian principle of 'the greatest good for the greatest number.'

In sum, it appears that Forsyth's (1980) EPQ lacks both construct and predictive validity. Given the method used to construct the questionnaire, and particularly the finding that as many as 16 factors may underlay EPQ responses, it seems likely that the EPQ may be multidimensional. Indeed, the fact that Forsyth et al.'s (1988) factor analysis of the EPQ yielded a three-factor solution suggests that the structure of the EPQ is unstable. Moreover, although Forsyth et al. stated that the first two factors represented idealism and relativism, they failed to provide any

information regarding the content of the third factor. Nevertheless, it is conceivable that some of these dimensions may discriminate between deontologists, teleologists, subjectivists and situationists, and that future research examining the EPQ's structure is therefore merited. In addition, it seems reasonable to hypothesize that, just as a person's Care versus Justice orientation may moderate the value-attitude-behaviour relation, so too may the extent to which people endorse the various moral philosophies. Specifically, while deontologists and subjectivists may consistently act in accord with the universal or subjective values which they endorse, teleologists and situationists may be less likely to do so owing to the impact of situational, consequential factors.

Conclusions

A review of the relation between values, moral maturity and attitudes and behaviour indicates that, in themselves, both values and level of moral reasoning have little systematic impact on people's attitudes and behaviour. Integrating the two literatures concerning values and morality, however, suggests that moral maturity, as, for example, reflected by Rest's (1979) P-score, may well moderate the value-attitude-behaviour relation. In particular, it seems likely that people who use principled, rather than unprincipled, moral reasoning will be more likely to express attitudes and behaviour in accord with

their values. Similarly, to the extent that moral maturity reflects the process by which people make moral decisions, whereas values determine the content of such decisions, it seems likely that values will moderate the moral stage-attitude-behaviour relation.

A consideration of the moral orientation and moral philosophy literature stimulates parallel hypotheses. For one, it is conceivable that Justice orientated people (Friedman et al., 1987) will exhibit stronger value-attitude-behaviour congruency than Care orientated people (Gilligan, 1982) simply because the Care orientation involves greater attention to contextual factors. Likewise, it is hypothesized that the endorsement of deontological and subjective moral philosophies will be associated with greater value-attitude-behaviour consistency than that associated with the endorsement of teleological or situational philosophies.

The present thesis endeavours to test these hypotheses by examining the value-attitude relation and the variability of attitudes across situations displayed by people categorized as principled versus unprincipled (Rest, 1979), Justice versus Care orientated (Friedman et al., 1987), and deontological, subjectivist, teleological and situationist (Forsyth, 1980). Before doing so, however, the distinction between the process versus content of moral reasoning will be examined by comparing the value priorities of people who

are principled versus unprincipled, Justice versus Care orientated, and those who endorse the four moral philosophies. Before examining these issues, however, the factor structure of Forsyth's (1980) EPQ and Friedman et al.'s (1987) measure of Care and Justice will be examined.

Method

Participants

In return for course credit or \$5.00, Introductory Psychology students participated in a study concerning "Social Issues." For the evaluation of the structure underlying Forsyth's (1980) EPQ and Friedman et al.'s (1987) Care and Justice scales, 216 students (107 females, 109 males; M age = 20.7 years) completed only these scales. This extended sample was required to meet the guidelines suggested by Tabachnick and Fidell (1989) for an appropriate subject-to-item ratio of at least 5-to-1 in the factor analyses of these scales. With an N of 216, there were subject-to-item ratios of 11-to-1 for the EPQ and 6-to-1 for the Care and Justice scales.

For analyses other than the scale evaluations, a subset of the larger sample (N = 181; 97 females, 84 males; M age = 20.8 years) completed all of the measures (i.e., the value survey, DIT, attitude measures, etc.). Of this sample, data from 22% of the participants was dropped as they failed to meet the reliability criteria of the DIT. These criteria include M -scores which are tabulated on the basis of

endorsements of meaningless, but lofty sounding or pretentious items, such as item seven in the "Heinz and the Drug" dilemma, which stated: "Whether the essence of living is more encompassing than the termination of dying, socially or individually." For the three-dilemma version used in this study, a respondent's raw M-score should not be greater than four for the questionnaire responses to be considered valid (Rest, 1990). A second check of the reliability of the DIT was a consistency check, which compares participants' item ratings with their rankings to identify participants who are responding out of carelessness or misunderstanding. Any inconsistency between what a participant rated as an important consideration and what they ranked as important resulted in the questionnaire being considered unreliable (Rest, 1990). Thus, while the scale evaluations were based on the data of 216 participants, all other analyses were conducted on a sample of 140, consisting of 77 female and 63 male students (M age = 20.7 years).

Predictor and Moderator Variables

The predictor and moderator variables consisted of participants' values, stage of moral development, moral orientation and ethical perspective.

Values. Values were assessed by a modified version of Rokeach's (1967) Terminal Value Survey in which participants ranked 18 values "in order of importance to YOU, as guiding principles in YOUR life" (Rokeach, 1973; see Appendix A).

This survey was modified by adding the values "Human Life (respect for the sanctity of life)" and "Law and Order (maintaining order in society)" and dropping "Mature Love" and "An Exciting Life." In addition, the value of "Salvation (saved, eternal life)" was changed to that of "Religion (your religious beliefs and practices)," so that this item was applicable to non-Christian belief systems. Rokeach (1973) reported that the test-retest reliabilities for the individual terminal values survey ranged from $r = .51$ to $.88$ (median $.65$) over a 3 to 7 week interval. Feather (1975) also found test-retest reliabilities in the range of $r = .40$ to $.87$ (median $.63$) over a 5 week period.

The importance of each of the 18 terminal values was also rated, prior to being ranked, using 10-point scales where "0" indicated that a value was "Not at all Important" and "9" that a value was of "Supreme Importance."

Stage of moral development. To assess moral stage, participants completed the three-dilemma version of Rest's (1979) Defining Issues Test, shown in Appendix A. Respondents rated and ranked the extent to which "stage-prototypical" considerations were important in their attempt to resolve each hypothetical moral dilemma. The DIT assumes that people at different developmental stages consider different issues as important as they contemplate moral dilemmas (Rest, 1983). The DIT presents various dilemmas and has participants use five-point scales to rate the

importance of 12 considerations in determining the decision they made. These specific considerations reflect elements that distinguish the various stages of moral development. One dilemma used, for example, is the 'Heinz' dilemma. A stage two item for this is, "Is Heinz willing risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?" and a stage six item is, "What values are going to be the basis for governing how people act toward each other?" (Rest, 1983, p. 584). After rating the importance of 12 considerations for a dilemma, participants rank ordered the four most important considerations in coming to the decision they made (Rest, 1979). From these ratings and rankings a continuous P-score, ranging from 0 to 95, is derived as the sum of the weighted ranks given to principled items, by weighting the final ranking of the four most important of the 12 rated items by their respective rankings of four for the most important consideration, down to one for the fourth, or least, important consideration. These weighted values are then compared to a reference grid provided by Rest (1990, p. 3.3) to determine their stage level. The weighted values are placed in a scoring grid, where rows represent the dilemmas and columns represent each stage of development. The columns are summed across dilemmas to produce a raw stage score for each stage, which is then divided by the number of dilemmas used divided by ten (e.g., because three stories were used,

each of the raw stage scores was divided by ".30," Rest, 1990). The P-score is then produced by adding together the resultant stage percentages for stages five-a, five-b, and six. Thus, P-scores reflect the "relative importance given to stage five and six items," or post-conventional, principled moral reasoning (Rest, 1983).

The short-form DIT used in the present study consisted of the 'Heinz,' 'Escaped Prisoner' and 'Newspaper' dilemmas. This set of three dilemmas has the highest correlation of any such set between its P-score (P-3) and the P-score obtained from the full six dilemma DIT (P-6). In a sample of 160 people, for example, P-3 scores were correlated with P-6 at $r = .93$ (Rest, 1990). The test-retest reliabilities of P-scores for the three-dilemma version over a period of 2 to 3 months was $r = .77$ (Rest, 1990). This short version of the DIT also appears to be internally consistent with an alpha of .76 for P-scores (Rest, 1990). Finally, the DIT scores are correlated ($r = .70$) with those obtained from Kohlberg's interview technique, although the relationship does fluctuate depending on the sample (Rest, 1983, p. 585, 1979, p. 102).

Moral orientation. The extent which participants endorsed Care and Justice moral orientations to the resolution of moral dilemmas was assessed using Friedman, Robinson and Friedman's (1987) questionnaire (see Appendix A). This questionnaire is based on Rest's (1979) DIT, using

the same instructions, format, and scoring for four dilemmas (Heinz, Doctor, Prisoner and Newspaper). Friedman et al.'s measure departs from the DIT in that only 6 of the 12 issue considerations presented with each dilemma were derived from Kohlberg, Colby, Gibbs and Speicher-Dubin's (1978) scoring manual to represent Justice based moral reasoning (K-scores). The remaining 6 issue considerations presented with each dilemma were developed to assess an ethic of Care (G-scores) based on descriptions provided by Gilligan (1977, 1979, 1982). As a result of piloting, Friedman et al. (1987) reported that an independent sample of participants correctly matched the 12 statements with descriptions of the appropriate moral orientation (i.e., Justice vs. Care) 92% of the time, on average. Friedman et al. (1987) also reported alphas of .78 and .85 for the G- and K-scales, respectively. Given that three of the four dilemmas used in Friedman et al.'s questionnaire were the same as those used in the three-dilemma DIT, only these three dilemmas (i.e., "Heinz and the Drug," "Escaped Prisoner" and the "Newspaper" dilemmas), rather than all four, were presented to participants. The DIT and moral orientation scales were also presented together in the present study.

Ethical perspective. Finally, to assess individual differences in philosophical ethical perspective, respondents completed Forsyth's (1980) 20-item Ethical Position Questionnaire (EPQ) (see Appendix A). The EPQ

measures the two orthogonal dimensions of ethical Relativism and Idealism, described in the introduction, and through median splits creates a 2 X 2 categorization. The resultant categories distinguish situationists as high on both relativism and idealism, subjectivists as high on relativism and low on idealism, absolutists as low on relativism and high on idealism, and exceptionists as those who are low on both dimensions (Forsyth, 1980). Forsyth (1980) reported alphas of .80 and .73 for the Relativism and Idealism scales, respectively, and 2 week test-retest reliabilities of .67 and .66, respectively.

Given the ambiguity of the EPQ's factor structure, reviewed earlier, clarification of the latent dimensions underlying these items was sought by having respondents rate paragraph length descriptions of Idealism and Relativism (see Appendix A), as articulated in moral philosophy (e.g., Angeles, 1981) and psychology (e.g., Forsyth, 1980, 1981, 1985; Forsyth & Berger, 1982; Forsyth & Nye, 1990; Forsyth, Nye, & Kelley, 1988; Singh & Forsyth, 1989).

Criterion Variables

Participants' general attitudes toward abortion, capital punishment and euthanasia were measured by having them use 11-point bipolar scales to rate the extent to which they 'totally disagree' (-5) or 'totally agree' (+5) that 'Women should be free to decide for themselves whether or not to have an abortion, even if this involves taking a

potential human life,' 'Canada should try to maintain law and order in society by giving the death penalty to people found guilty of murder, even if this involves taking people's lives,' and 'Canada should respect people's freedom of choice regarding when they want to die by legalizing euthanasia (mercy killing), even though life is considered sacred.' Note that each of these attitude statements made explicit reference to two conflicting values: Freedom versus Human Life in the case of abortion, Law and Order versus Human Life in the case of capital punishment, and Freedom versus Human Life in the case of euthanasia.

Participants also indicated how confident they were in their attitudinal ratings using scales ranging from 'totally confident' (10) to 'not at all confident' (0). To assess issue importance, respondents used 11-point scales, labelled "Not at All" (0) and "A Great deal" (10) at the poles, to rate how much they had thought about the issue in the past and the extent to which they had been personally affected by each issue.

To determine the extent to which situational parameters affected attitudes, participants' attitudes toward a set of 12 situational variations of each issue were assessed. For example, in regard to abortion, participants rated their attitude toward abortion in a variety of situations, such as when the pregnancy is the result of rape or incest, the woman is an unmarried 14-year-old, and when the woman simply

does not want a baby. Participants completed similar situation-specific attitude measures for the issues of capital punishment and euthanasia (see Appendix A).

Finally, participants completed the measures of the criterion and predictor variables in counter-balanced order, to rule out possible order effects. Similarly, the measures of the predictor and criterion variables were presented in a random order within each set. Upon completion of the study, participants were fully debriefed, both verbally and in writing (see Appendix A).

Results⁴

The data were analyzed in the following sequence. First, factor analyses were conducted to identify the dimensions underlying Forsyth's (1980) Ethical Position Questionnaire (EPQ) and Friedman et al.'s (1987) Justice and Care scales. The descriptive statistics and intercorrelations among the predictor variables (values) and moderator variables (moral reasoning, moral orientation and ethical perspective) were examined next, with the latter analyses testing the tenability of the process-content distinction between morality and values. Finally, hierarchical regression analyses examined the hypothesized moderating impact of moral reasoning, moral orientation and EPQ scores on the value-attitude relation and attitude variability across

⁴ All the analyses presented in this section were conducted taking gender into consideration, and gender failed to moderate any of the observed relations.

situations.

Ethical Position Questionnaire

As the factor structure underlying the EPQ is ambiguous, in that Forsyth (1980) reported 16 factors with an inadequate subject-to-item ratio, and Forsyth, Nye and Kelley (1988) delineated a three factor solution, confirmatory factor analyses were conducted on the EPQ items. Confirmatory factor analysis (CFA) examines covariance matrices to define the relationship between observed variables, namely responses to the 20 EPQ items, and the unobserved or latent variables, here the dimensions of Idealism and Relativism. To analyze the loading of items onto latent factors, the measurement sub-model of Lisrel VI (Jöreskog & Sörböm, 1985; as described by Byrne, 1989) was utilized. In fitting a latent variable model to the set of observations, three matrices were involved; (a) the factor loading matrix (Λ_x), specifying how the observed variables were related to the latent variables, (b) the factor variance-covariance matrix (Φ), with which the latent variables in the model are described as correlated (i.e., Φ is set to be a symmetric matrix) or uncorrelated (i.e., Φ is set as a diagonal matrix), and (c) the error variance-covariance matrix (Θ_ϵ) for the observed variables. The determination of an appropriate model is made by imposing a latent variable model on observed measurements and then assessing the model's appropriateness by examining the

"feasibility of the parameter estimates, adequacy of the measurement model, goodness-of-fit of the overall model, and goodness-of-fit of individual parameters estimates" (Byrne, 1989, p. 87).

In the CFA model of the relationship between the EPQ's 20 observed indicator variables and two uncorrelated latent dimensions of Idealism and Relativism, the first measure of model appropriateness involved examining parameter estimates. These estimates reflect the adequacy of the input matrix, and should not contain "negative variances, correlations > 1.00, and covariance or correlation matrices that are not positive definite," as well as large standard errors (Byrne, 1989, p. 54). The two factor model satisfied these requirements.

The second index of the appropriateness of a two factor model of the EPQ was the "overall adequacy of the measurement model," which did indeed appear adequate with a large total coefficient of determination (0.98), which indicates the model's general reliability. The R^2 s between each item and its target factor were acceptable for the Idealism scale, with several items being greater than .50, as shown in Table 8. Among the Relativism scale items, however, five items had R^2 s below .20 and three items had R^2 s below .10 with their target factor. Indeed, only one item had a R^2 greater than .50. Hence, the model was reliable, but there was a poor relationship between the

second latent factor and the observed variables of the Relativism scale.

The third set of criteria assessing the "goodness-of-fit of the overall model" uses a χ^2 goodness of fit index (GFI), which indicates "the relative amounts of variance and covariance explained by the model" (Byrne, 1989, p. 55), the adjusted goodness of fit index (AGFI), which is the GFI with degrees of freedom accounted for, and finally, the root mean square residual (RMR), which indicates the "average discrepancy between the elements in the sample and the hypothesized covariance matrices" (Byrne, 1989, p. 55). These indices, displayed in Table 8, revealed that the overall two-factor model had a poor fit. Although, the χ^2 was significant, it is sensitive to the large sample size and hence may be inflated. GFI and AGFI, which are not sensitive to sample size and are more robust, produced at best 'middling' results. Similarly, the RMR was greater than the suggested .05 cut-off value (Byrne, 1989, p. 55), and thus indicates an inappropriate fit. Finally, a subjective goodness-of-fit index can be derived from the χ^2/df ratio. For this ratio, values greater than two indicate that the hypothesized model does not fit the data. This criterion produced a χ^2/df ratio of 3.36. Thus, the statistical and subjective goodness-of-fit measures produced at best only moderate support for the two latent variable model of the EPQ.

In sum, there was a poor fit between the observed variables and the two hypothesized latent dimensions of the EPQ, based on the feasibility of parameter estimates, the overall model adequacy, and both statistical and subjective goodness-of-fit indices.

Because the two factor EPQ model was a poor fit, the goodness-of-fit of the individual model parameters (i.e., items) were examined as a statistical approach to identifying the source(s) of the overall misfit of the two factor model (Byrne, 1989, p. 56-57, 92). The first index which was considered were t -values. These consist of the parameter estimate divided by its standard error. T -values indicate whether or not a parameter is statistically different from zero, using the criterion of being greater than two as an indication of importance of the parameter within the hypothesized model (Byrne, 1989, p. 56). The t -values for items 19 and 20 were, respectively, 1.19 and 1.60. Being less than two indicates that these items are not essential to the hypothesized model.

A second index identifying individual source(s) of misfit are standardized residuals. These provide an estimation "of the number of standard deviations the observed residuals are from the zero residuals that would exist if the model were a perfectly fitting one" (Byrne, 1989, p. 57). Standardized residuals indicate misspecification of an element by having values greater than

two (Byrne, 1989, p. 57). For the two uncorrelated latent variable model, tested above, there were 11 standardized residuals greater than two, with the largest being 11.48 between items 19 and 20. The presence of this number of standardized residuals greater than 2, when plotted in the Q-plot of standardized residuals, also indicates some departure from the diagonal, and thus the presence of misspecification in the hypothesized model.

Finally, a third index identifying individual source(s) of misfit are the modification indices (MIs) of the factor loading matrix (Λ_x). These gauge the degree to which items represent non-target latent variables as well as the designated target latent variable. Modification indices are statistically defined as the expected drop in χ^2 if a particular parameter was freely estimated (Byrne, 1989, p. 57). Byrne (1989, p. 92) suggests that MI values greater than five represent significant cross loading between the items designated as belonging to one latent variable with another, correlated latent variable in the hypothesized model. The MIs for the uncorrelated two latent factor model of the EPQ did not have values greater than five for the first latent variable, but had values of 4.66, 9.22, 4.90 and 4.67 for items 12, 16, 19 and 20, respectively. As these items belong to the second latent variable, it appears that the second latent factor is complex, rather than unidimensional.

In sum, this examination of the individual model parameters indicates that the second latent dimension, Relativism, is complex and the source of difficulty when the 20 items of the EPQ are considered to represent two uncorrelated latent variables, as purported by Forsyth (1980).⁵

As the two uncorrelated latent variable model of the EPQ failed to represent the data, exploratory factor analyses were conducted to re-evaluate the number of factors (Tabachnick & Fidell, 1989). This involved specifying the number of factors and examining the residual correlation matrix and scree test (Cattell, 1978) to determine if an adequate number of factors had been extracted. Tabachnick and Fidell (1989, p. 636) suggest that the presence of several small to moderate residual correlations (i.e., .05 to .10) or a few large residuals (i.e., greater than .10) may indicate the presence of another factor. These suggestions make interpretive sense for exploratory factor analysis as the scree test will tend to provide a solution where a "...minimum number of factors ..(are).. accounting for a maximum amount of variance" (Gorsuch, 1983, p. 167). Thus, the magnitude of the residual correlations provides

⁵ Although confirmatory factor analysis leads one to reject the hypothesized two factor model, there remained the option of exploratory post-hoc model fitting within Lisrel. This was rejected given that it would inflate the experiment-wise error due to Lisrel's use of covariance analysis (Byrne, 1989, p. 66).

information as to whether additional factors merit consideration.

In addition to residual correlations and the scree test, Maximum Likelihood Factor Analysis was conducted and a χ^2 test was used to determine the "adequacy of the hypothesized factors to reproduce all the data" (Gorsuch, 1983, p. 131). Gorsuch cautions that Maximum Likelihood Factoring and the χ^2 test, when used with a large sample size, will consider significant "even minute trivial factors" (pp. 127-129). Thus, taken together, these three approaches should not only determine how many factors underlie the EPQ, but also the amount of "noise" in the data in that the amount of random error will be reflected by the discrepancy between these approaches.

In a series of factor analyses specifying a range of factors from 2 to 7, using maximum likelihood extraction followed by varimax rotation, there was a substantial reduction of the number of residual correlations greater than .10 when a three factor model was specified. The actual number of residual correlations greater than .10 for the two factor solution was 21 and for the three factor solution this number was reduced to 15. Similarly, the percentage of significant residual correlations ($p < .05$) was reduced from 40% with the two factor model to 30% with the three factor model. Nevertheless, the 15 residual correlations having magnitudes greater than .10 is cause for some concern as

this indicates clearly that other, albeit less important, factors may be present, or that there is a great deal of variance that is not accounted for by the construct dimensions. Graphs of the magnitude of residual correlations versus the number of factors specified, and the number of significant residuals against the number of factors specified, indicate that the three factor model is the most satisfactory solution (see Figures 1 and 2). In addition, however, a possible maximum of 7 factors was indicated. The scree test suggested a three factor solution. The factor loadings for this solution appear in Table 9. Because an oblique rotation of these three factors revealed a mean inter-factor correlation of only $r = .20$, an orthogonal solution was deemed appropriate for these data.

Further exploratory factor analysis was conducted using Maximum likelihood extraction as a means of "estimating the population correlation matrix under the assumption that the variables came from ... (a) ... designated number of factors" (Gorsuch, 1983, p. 128). Following Tabachnick and Fidell's (1989) guidelines for determining the number of factors, a series of factor solutions from two to seven factors was specified for maximum likelihood extraction. For each solution, a χ^2 statistic tested the residuals after the specified number of factors had been extracted (Gorsuch, 1983, p. 153). A non-significant χ^2 test indicates that an adequate number of factors are present to capture the data.

As illustrated in Table 10, this criterion requires seven factors to exhaust the residuals (i.e., $\chi^2 (71) = 88.21, p = .08$). Gorsuch (1983, p. 154), however, has described this criterion as representing "an upper bound to the number of factors that could legitimately be extracted from any matrix." In addition, a χ^2/df ratio criterion has also been considered as an estimate of how appropriate it is to add further factors, representing a "lower bound" for the number of factors that can be legitimately extracted. As previously noted, Byrne (1989, p. 55) has suggested that a χ^2/df ratio of greater than two indicates that a model has been inadequately represented, although she reports that ratios of less than three and less than five have been suggested by other researchers. Thus, from Table 10, the three factor solution, with a χ^2/df ratio of 2.09, appears appropriate. Table 11 presents the factor loadings for this three factor maximum likelihood extraction. The three factors of the EPQ found in the present research accounted for 16.8, 11.9 and 10.6% of the variance in EPQ responses, which is similar to Forsyth et al.'s (1988) recent finding that three factors underlie the EPQ.

The differences between the loadings of the 20 EPQ variables in Tables 9 and 11, namely that item 10 no longer loads on factor one and items 12 and 18 are no longer complex in the latter table, stem from differences between principal components analysis (PCA, Table 9) and maximum

likelihood factor analysis (FA, Table 11). These two extraction techniques differ in that PCA represents an "empirical summary," exactly reproducing the observed correlation matrix based on shared, unique and error variances, whereas FA involves a "theoretical solution uncontaminated by unique and error variability," which only approximates the observed correlation matrix (Tabachnick & Fidell, 1989, p. 623-627). The observed similarity between these solutions, however, reflects the overall stability of the three factor solution (Tabachnick & Fidell, 1989, p. 623). Because the goal of the present study was the theoretical clarification of the EPQ, the loadings from the maximum likelihood factor analysis were given primary consideration. Before doing so, however, the three latent variable solution involving all items was re-analyzed in a confirmatory factor analysis using Lisrel.

When an uncorrelated three latent variable solution was tested with Lisrel VI (Jöreskog & Sörböm, 1985), there was a substantial improvement in fit over the two factor solution. Items 19 and 20 made up the third latent variable, and each had large squared multiple correlations in relation to this latent dimension, as shown in Table 12. Items 10 and 11 did not predict any more variance in the three latent variable model than they did in the two latent variable model (compare Tables 12 and 8). Comparing the coefficients of determination and the various goodness-of-fit criteria

obtained for this three factor solution, displayed in Table 12, with those obtained for the two factor solution, presented in Table 8, revealed that, while the total coefficients of determination did not differ, the GFI indices were slightly better in the three variable model than the 'middling' values associated with the two variable model. The subjective goodness-of-fit measure for the three factor solution also produced a χ^2/df ratio of 2.20, much closer to the less-than-two guideline. Finally, while the non-subjective goodness-of-fit index for the three factor solution, RMR, was improved, it still exceeded the .05 guideline. Taken together, these findings suggest that the three latent variable model fits the observed data better than the two latent variable model.

A note of caution needs to be added before there can be any wholehearted endorsement of the three variable model as the Lisrel program issued a warning that the Θ matrix for the third variable may not be positively identified. This model is also difficult to specify within the Lisrel analysis as the third factor (items 19 and 20) was correlated with the first factor (items 1 through 9), $r = -.16$, $p < .05$, and the second factor $r = .20$, $p < .01$. The first and second factors, however, were orthogonal, $r = .03$, ns. When correlated latent factors were specified, however, the Lisrel analysis produced a less acceptable model, with a χ^2/df ratio of 2.23 and a negative squared correlation for

item 11, indicating that relative to the oblique solution, the orthogonal specification better captured the three latent factor model.

To name the revised EPQ factors described above, the first factor was represented by items one to nine, all of which involved the welfare of others. Contrary to Forsyth (1980), item 10 did not load on this or any other factor. Item 10 described moral actions as "those which closely match ideals of the most 'perfect' action." Thus, the first factor documented here is consistent with Forsyth's (1988) later description of the first factor as involving the welfare and caring for others, while being inconsistent with Forsyth's (1980) original description of the factor as reflecting Idealism, encompassing ethical pragmatism versus the tolerance of the potentially mixed results of well-intended moral actions. Given this, the original Idealism factor of the EPQ is more appropriately named a Welfare factor. An item analysis of participants' responses to these items produced an alpha of .85.

The second factor was represented by items 12 through 18. Item 11 in the original scale failed to load on any factor. These items clearly represent Relativism, as they bring into conflict the extent which people believe that morality is based on universal moral rules as opposed to subjective moral codes. Consistent with this, these items were homogeneous as indicated by an alpha of .76.

While the third factor was represented only by items 19 and 20, these items had very high loadings of .90 and .83, respectively. Aside from the problematic nature of interpreting a two item factor, several more substantive issues need to be considered in relation to the interpretation of this third factor. First, unlike the other items in the EPQ, these two items deal with the consideration of a particular behaviour, that of lying, rather than any broader aspect of ethical perspective. Secondly, these items are a source of conceptual conflict in Forsyth's (1980) typology. For example, being low relativists, both absolutists and exceptionists, described in Table 7, should strongly disagree with items 19 and 20. Nevertheless, Forsyth claims that exceptionists will be pragmatically open to the relativistic exceptions described by items 19 and 20. This conflict, and the fact that these items refer to a particular action, led to the deletion of the third factor.

Convergent and divergent validity of the revised EPQ. The convergent and divergent validity of the revised EPQ scales, Welfare and Relativism, were examined by correlating respondents' EPQ scores with the descriptive "marker" measures of Idealism and Relativism.

Scores on the relativism marker variable had a mean of 4.09 ($SD = 2.63$) along a scale where 0 reflected a "Totally Relative" position and 10 a "Totally Universal" position.

Thus, participants endorsed Relativism over Universalism. Evidence that the Relativism scale did assess this construct was reflected in the correlations of the marker variable with the revised EPQ factors: it was not correlated with Welfare scores, $r = .10$, ns, but was correlated with Relativism, $r = -.29$, $p < .01$. This indicates that more agreement on the EPQ Relativism scale was indeed associated with an emphasis on the relative nature of what is morally good or correct.

The idealism marker variable, designed to assess the extent to which participants believed that the morality of an action was inherent in the act versus its consequences, consisted of participants' scores on an 11-point-scale where 0 emphasized "behaviour" and 10 emphasized "consequences." The extended sample displayed a tendency toward emphasizing consequences ($M = 6.28$, $SD = 2.42$). Evidence in support of the Idealism scale as described by Forsyth (1980) was reflected in the moderate relationship, $r = -.22$, $p < .01$, between Welfare scores and the idealism marker variable, with more agreement with Welfare items being associated with a moderate emphasis on the nature of the action. The idealism marker variable was also not related to the EPQ's Relativism scale, $r = .05$, ns, which provides supporting evidence for the orthogonal nature of Welfare/Idealism and Relativism.

In sum, this evaluation of the EPQ and marker variables

revealed that EPQ Relativism scores were moderately related to relativism as assessed by the marker variable, and Welfare scores were moderately related to the belief that the morality of behaviour is determined on the basis of the nature of behaviour rather than consequences.

Care and Justice Scales

In Friedman et al.'s (1987) Care and Justice scales, participants are presented with four moral dilemmas and asked to rate the extent to which 12 considerations, involving six Justice and six Care concerns, affected their resolution of each dilemma. In the present study, participants responded to these dilemmas which produced a 18 item Care scale and a 18 item Justice scale. Although there is no published factor analysis for any form of the scale, to ensure that Care and Justice remained well defined as latent variables for this reduced scale, a Lisrel CFA was conducted. The findings of this analysis indicated that the hypothesized two latent variable model, in both correlated and uncorrelated forms, did not have adequate input matrices: The Lisrel program generated warnings that the factor variance-covariance matrix (Φ) was not "positive definite," and thus these models could not be tested.

As the hypothesized two latent variable model could not be examined, exploratory factor analysis was performed, using Tabachnick and Fidell's (1989, p. 636) guidelines. This analysis failed to produce a coherent factor solution,

as the magnitude of the residual correlations and percentage of significant residuals, depicted in Figures 3 and 4, declined in a near linear fashion as additional factors were specified. An examination of the χ^2/df ratios for each additional factor, shown in Table 13, indicated that maximally nine factors would be required to describe the data. Thus, adding more factors failed to improve interpretation from a statistical perspective, and certainly failed to add clarification of the assessment of Care and Justice moral orientations.

The scree test, however, as an index of the minimal number of factors required, indicated that a two factor solution was possible. As the Friedman et al. (1987) inventory is the only known multi-item questionnaire designed to measure Care and Justice, the factor loadings of a two-factor solution were examined with the aim of clarifying the factor structure. Ten of the 36 items did not load on either factor, four of 36 items cross-loaded with the opposite moral orientation, and one complex item loaded on both moral orientations (see Table 14). When these problematic items were deleted from the two factor solution, the first factor became an exclusive Care dimension and the second factor an exclusively Justice dimension. It should be noted that these refinements resulted in the deletion of eight of 12 items from the "Escaped Prisoner" dilemma, four of 12 items from the "Heinz and the Drug" dilemma and one of

12 items for the "Newspaper" dilemma.

The revised 11-item Care scale had an alpha of .69 and a mean inter-item correlation of .17, while the revised 10-item Justice scale had an alpha of .67 and a mean inter-item correlation of .17. These revised measures were also, albeit weakly, correlated, $r = .18$, $p < .01$.

A confirmatory factor analysis supported this correlated two latent variable model of Care and Justice, as described above. All parameter estimates were positive, no correlations were greater than one, and all matrices had a positive definite status and the standard errors ranged from .000 to .164, which together indicated that the input matrix was adequate. The model's general reliability, however, was not high, with a total coefficient of determination of .456, and R^2 's between each item and its target factor all being below .40, as shown in Table 15. Aside from this, the relative amounts of variance and covariance explained by the model was fairly high with GFI = .852 and AGFI = .819, and the average discrepancy between the sample elements and the hypothesized covariance matrices, or RMR, being .086, providing evidence that the model had a moderately good fit. The subjective goodness-of-fit index, or χ^2/df ratio, also indicated a reasonable fit with a value of 1.94. T-values indicated that the model might be improved by the deletion of the eighth Justice item in the Heinz dilemma, as this item was not essential to the model with a t-value of .000.

Thus, the CFA provides some support that the revised Care and Justice scales represented the two latent dimensions of Care and Justice.

Convergent and divergent validity of the revised care and justice scales. Given that Friedman et al. (1987) derived their Justice items from Kohlberg et al. (1978), the convergent validity of the revised Justice scale was examined by regressing participants' DIT P-scores onto their Justice and Care scores. This analysis revealed that, as expected, revised Justice scores ($\beta = .462, p < .001$) predicted P-scores ($R^2 = .202, F(1,135) = 37.38, p < .001$), while Care scores did not ($\beta = -.122, ns, sr^2 = .015, F(1,135) = 2.58, ns$). Simple correlations revealed a relationship between Justice and P-scores, $r = .41, p < .001$, but not between Care and P-scores, $r = -.12, ns$. The Care and Justice scale scores were also intercorrelated, $r = .23, p < .01$, contrary to the claims of Friedman et al. (1987).

In sum, although Care and Justice are not orthogonal, these scales appear to represent two latent dimensions of Care and Justice, where Justice predicts P-scores, and Care does not, suggesting that these scales do indeed assess two distinct moral orientations.

Descriptive Statistics and Intercorrelations of Predictor and Moderator Variables

Values. To permit parametric analyses, participants'

rankings of Rokeach's (1967) Terminal Values were transformed into Z scores corresponding to a division of the area under the normal curve into 18 equal areas (Feather, 1975; Kristiansen, 1985), and a constant of 2.0 was added. With this transformation, value ranks could range from 0.04 to 3.96, with higher scores indicating that a value was more important. This method was based on the assumption that the values given middle ranks are more difficult to rank than those at the extremes (Hays, 1967, pp. 35-39). Evidence supporting this assumption has been provided by Hollen (1967, cited in Feather, 1975, p. 24) who found that the least and most important values changed much less upon test-retest, relative to the values assigned middle ranks.

Participants' mean transformed value ranks are reported, in order of importance, in Table 16. Looking at the second and third columns of Table 16 reveals that participants' rankings and ratings corresponded in all but two instances: The value Freedom was ranked sixth in importance but given the third highest rating, and the value Inner Harmony was ranked ninth but assigned the 13th largest rating. To assess the magnitude of these discrepancies, Spearman's ρ was calculated. This revealed that rankings and ratings of Freedom ($\rho = .45$, $p < .001$) and Inner Harmony ($\rho = .62$, $p < .001$) were moderately correlated. A canonical correlation of .91 also indicated that ratings and transformed value were very similar, as noted in other

research (e.g., Feather, 1975, p. 33).

The value ratings had a grand mean of 6.85 and a standard deviation of 1.05 on a scale where "0" indicated that a value was "Not at all important" and "9" indicated that a value was of "Supreme importance." Thus, on average, participants described their values as being moderately to supremely important and hence these participants did regard values as important guiding principles in their lives. This finding also supports the contention that rating values limits discrimination among values to the top portion of the rating scale (Feather, 1975, p. 37). The rating procedure has also been criticized as being more susceptible to response sets and may not engage any evaluation of a participant's own value priorities (Feather, 1975, p. 37). Given that the ranking procedure forced respondents to discriminate among their value priorities (i.e., by not allowing ties) and the assumption that "it is not the absolute presence or absence of a value that is of interest but their relative ordering" (Rokeach, 1973, p. 27), the transformed value rankings were the focus of the present research.

Moral orientation. Mean scores for the revised Justice and Care scales were 2.59 ($SD = .61$) and 1.55 ($SD = .60$), respectively, along six point scales ranging from "No" (0) importance to "Great" (5) importance in resolving a dilemma. This difference in Justice and Care means reflected

the greater endorsement of Justice over Care concerns, $t(139) = 16.36, p < .001$, although both of these means are in the low to moderate range when compared to the rating scale.

Moral stage. The mean P-score assessing post conventional reasoning was 34.46 ($SD = 14.12$), lying between the P-scores reported by Rest (1987, 1990) as norms for senior high school ($M = 31.03, SD = 13.90$) and college students ($M = 43.19, SD = 14.32$).

Ethical perspective. Participants' mean scores on the two revised EPQ dimensions were 6.25 ($SD = 1.36$) for Idealism and 6.22 ($SD = 1.32$) for Relativism. On scales where "1" indicated complete disagreement and "9" reflected complete agreement, the mean responses for Idealism and Relativism were only marginally better than "6" or "Slight Agreement."

Intercorrelations. Finally, the intercorrelations among the predictor and moderator variables, displayed in Table 17, showed that P-scores were correlated with Justice scores, $r = .41, p < .01$. As noted earlier Care and Justice were intercorrelated ($r = .23, p < .01$), contrary to the claim of orthogonality made by Friedman et al. (1987). Finally, Idealism and Relativism were orthogonal, $r = -.03, ns$, as claimed by Forsyth (1980), and these scales were independent of all other scales.

Content versus process distinction. To examine the

relationship between the content of values and the process of moral reasoning, moral orientation and ethical perspective, P-scores, revised Care and Justice scores and the revised EPQ scores were correlated with participants' value ranks, as displayed in Table 18.

P-scores were moderately correlated with four values: Participants who displayed more principled moral reasoning valued Inner Harmony ($r = .23$, $p < .01$) and Equality ($r = .28$, $p < .01$) more and A Comfortable Life ($r = -.34$, $p < .01$) and Pleasure ($r = -.21$, $p < .01$) less. In a stepwise regression of P-scores onto values, the value of A Comfortable Life was a negative predictor of P-scores, $\beta = -.317$, $t = -3.84$, $p < .001$, $sr^2 = .100$, followed by Equality, which was the sole positive predictor of P-scores, $\beta = .197$, $t = 2.33$, $p < .05$, $sr^2 = .036$, and finally, the value of Peace as a negative predictor, $\beta = -.180$, $t = -2.07$, $p < .05$, $sr^2 = .028$. Given that the value of Peace was not correlated with P-scores, $r = -.01$, ns, but was moderately correlated with the importance attributed to A Comfortable Life, $r = -.32$, $p < .001$, and Equality, $r = .30$, $p < .001$, its inclusion in the equation appears to have been due to its ability to suppress error variance. In view of this, values and P-scores, shared 13.6% of the variance, suggesting that the process of moral reasoning is more different from, rather than similar to, the content of such reasoning.

For moral orientation, using a median split of the Care ($MDN = 1.54$) and Justice ($MDN = 2.60$) scores, a two-by-two multivariate analysis of variance (MANOVA) revealed no interactive effect of Care and Justice on values, Pillais Trace V = .137, $F(18,115) = 1.01$, ns. The main effects of Care, Pillais Trace V = .087, $F(18,115) = .61$, ns, and Justice, Pillais Trace V = .148, $F(18,115) = 1.11$, ns, were also nonsignificant. Thus, moral orientation was independent of value priorities.

Using median splits on the Welfare ($MDN = 6.44$) and Relativism ($MDN = 6.29$) scores, a two-by-two MANOVA revealed no interactive effect of Relativism and Welfare on values, Pillais Trace V = .109, $F(18,115) = .782$, ns, as well as no significant main effects of Idealism, Pillais Trace V = .157, $F(18,115) = 1.19$, ns, or Relativism, Pillais Trace V = .075, $F(18,115) = .52$, ns.

Together, these results generally support the process-content distinction: Values were largely independent of P-scores, moral orientation and ethical perspective.

Descriptive Statistics and Intercorrelations for Criterion Variables

The criterion variables consisted of participants' attitudes toward abortion, euthanasia, capital punishment, attitude confidence, thought about the issue, personal involvement and attitude variance. The final criterion variable, attitude variance, was derived from the difference

between participants' "general attitude" toward an issue and their attitudes toward the situational variations for each issue. Specifically, this criterion variable was produced such that the squared difference between general attitudes and their specific application was summed across the specific situations and divided by the number of situations (i.e., 12).

Participants' attitudes toward abortion, euthanasia, and capital punishment were assessed along an 11-point scale labelled "Totally disagree" (-5) and "Totally Agree" (+5) at the poles. For all analyses, these scores were transformed so that they ranged from zero to ten, with larger scores reflecting more favourable attitudes. Similar transformations were conducted for the scales assessing attitudinal confidence, amount of thought about the issue, and personal involvement with the issue.

Participants expressed most agreement with euthanasia ($M = 8.34$, $SD = 2.11$), followed by abortion ($M = 7.45$, $SD = 3.38$) and capital punishment ($M = 4.75$, $SD = 3.95$). This ordering was also statistically significant, Pillais Trace V = .944, $F(3,137) = 775.41$, $p < .001$, with participants being in more agreement with euthanasia than abortion, $F(1,139) = 12.13$, $p < .01$, and in more agreement with abortion than capital punishment, $F(1,139) = 42.51$, $p < .001$.

A single measure of issue or attitude salience was derived from the mean ratings of attitude confidence, the

amount of thought invested in the issue, and how much personal experience they had with each issue. These scales were internally consistent, as indicated by mean inter-item correlations of .32, .35, and .36, and alphas of .52, .58, and .61, for abortion, euthanasia, and capital punishment, respectively. A MANOVA revealed that these three issues were differentially salient, Pillais Trace V = .950, $F(3,137) = 859.31$, $p < .001$. Simple contrasts showed that abortion ($M = 7.00$, $SD = 1.88$) was more salient than both euthanasia ($M = 6.01$, $SD = 1.88$), $F(1,139) = 50.65$, $p < .001$, and capital punishment ($M = 5.74$, $SD = 1.87$), $F(1,139) = 50.65$, $p < .001$, and that capital punishment and euthanasia were equally salient, $F(1,139) = 2.69$, ns.

The amount of attitude variance between the 12 situational attitude items and the general attitude item was the greatest for abortion ($M = 16.51$, $SD = 10.41$) followed by euthanasia ($M = 9.69$, $SD = 8.54$) and capital punishment ($M = 8.47$, $SD = 11.62$), Pillais Trace V = .780, $F(3,134) = 158.10$, $p < .001$. Simple contrasts indicated that there was more attitude variance regarding abortion than euthanasia, $F(1,136) = 41.15$, $p < .001$, but no difference in the level of attitude variance between euthanasia and capital punishment, $F(1,136) = 1.15$, ns. Helmert contrasts also indicated that there was more attitude variance for abortion than for the other two issues combined, $F(1,136) = 54.30$, $p < .001$.

In sum, participants agreed most with euthanasia, followed by abortion but opposed capital punishment. Relative to euthanasia and capital punishment, abortion was the most salient issue and the issue associated with the most situational attitude variability.

Moderators of the Value-Attitude Relation

Hierarchical regression analyses were used to test the hypothesis that moral reasoning (P-scores), moral orientation (Care and Justice) and ethical perspective (Welfare and Relativism) moderate the value-attitude relation. The significance of R^2 -change at each step was assessed relative to the unexplained variability following the third step.⁶

A priori values. In these analyses, the two values likely to be brought into conflict by an issue were entered on the first step (e.g., Freedom vs. Human Life, for abortion), followed by the moderating variable(s) on the next step, and the interaction terms between values and the moderating variables(s) on the third step (Cohen & Cohen, 1983).

When participants' general attitudes toward abortion

⁶ By entering values on the first step any redundancy between values, morality and their interaction was attributed to values. Similarly, any redundancy between morality and the value by morality interaction was attributed to morality. The test of the value by morality interaction terms were based on the unique variance explained, independent of main effects. This approach was adopted in the interests of parsimony in that it gave precedence to the main effects over the interaction terms.

were regressed onto their valuation of Freedom and Human Life, DIT P-scores, and the two value by P-score interaction terms, neither interaction term was significant, as shown in Table 19. Similar hierarchical regression analyses, displayed in Tables 20 and 21, revealed that participants' Justice and Care scores, and their Welfare and Relativism EPQ scores, did not moderate the relation between participants' attitudes toward abortion and their value priorities.

The moderator variables of P-scores, Care and Justice, and Welfare also failed to significantly improve prediction as main effects in these analyses, accounting for, on average, less than 2% of the variance in participants' attitudes toward abortion (see Tables 19 to 21). The sole exception to this was a marginal tendency for higher Relativism scores to be associated with more pro-abortion attitudes (see Table 21). The conflicting values of Human Life and Freedom also accounted for less than 2% of the variance in participants' attitudes to abortion.

The regression analyses of participants' general attitudes toward euthanasia, shown in Tables 22 to 24, also revealed that participants' DIT P-scores, Justice and Care scores, and their Welfare and Relativism EPQ scores, did not moderate the relation between participants' attitudes toward euthanasia and their value priorities. Similarly, all but one of the main effects of these moderator variables failed

to make a significant contribution to the prediction of attitudes toward euthanasia. The exception was, again, the finding that higher ethical Relativism scores were associated with more liberal attitudes (see Table 24). Participants' valuation of Human Life and Freedom, however, consistently accounted for 4.8% of the variance in their attitudes toward euthanasia.

For the series of hierarchical regression analyses of participants' general attitudes toward capital punishment, presented in Tables 25 to 27, only one significant effect emerged: Participants' P-scores accounted for 4.1% of the variance in their attitudes toward capital punishment (see Table 25). There were no other significant main effects for the remaining moderator variables, and the moderator variables did not interact with values to predict attitudes. The values of Human Life and Law and Order also failed to predict participants' attitudes toward capital punishment.

In summary, and like previous research, the values presumed to be brought into conflict by each issue accounted for little attitudinal variance (R^2 s ranged from .006 to .048). In view of this, it is perhaps not surprising that none of the hypothesized variables moderated the value-attitude relation.

Empirically determined values. Because the values which were presumed to be aroused by an issue failed to account for participants' attitudes, stepwise or statistical

regression analyses were conducted to identify the values which the participants themselves brought into conflict for each issue. Based on these analyses, the most important positive and negative predicting values were selected, provided that they were uncorrelated with one another, thus maximizing the unique variance for the conflicting values (Tabachnick & Fidell, 1989). The final criterion for identifying conflicting values, and one crucial with this form of regression, is that the values had to make interpretive sense in relation to the attitude being predicted.

When participants' attitudes toward abortion were regressed onto their values, the value of Religion was the strongest predictor ($\beta = -.350$, $t = -4.33$, $p < .001$, $sr^2 = .122$), followed by Equality ($\beta = .251$, $t = 3.20$, $p < .01$, $sr^2 = .063$) and Law and Order ($\beta = -.158$, $t = -2.04$, $p < .05$, $sr^2 = .025$), $R^2 = .210$, $F(3,132) = 11.70$, $p < .001$ (see Table 28). Thus, using the above criteria, the best pair of conflicting values for predicting attitudes toward abortion were Religion and Equality.

When participants' attitudes toward euthanasia were regressed on values, Religion was the only significant predictor, accounting for 11.9% of the variance, $F(1,137) = 18.06$, $p < .001$. To establish a conflicting value pair, the values not included in the regression equation were examined for the amount of attitudinal variance each value accounted

for. This resulted in the selection of the values of Freedom ($\beta = .053$, $t = .58$, $sr^2 = .002$), Human Life ($\beta = -.132$, $t = -1.63$, $sr^2 = .017$), and Law and Order ($\beta = .122$, $t = 1.53$, $sr^2 = .015$), which have been included as part of Table 28. From this group, Law and Order was selected as the positive predictor, due to its correlation with attitudes toward euthanasia and because it was uncorrelated with the value Religion (see Table 28). When participants' attitudes toward euthanasia were regressed onto these values, Religion and Law and Order jointly explained 13.4% of the variance, $F(2,133) = 10.29$, $p < .001$.

Only the value of A Sense of Accomplishment made a significant contribution to the equation predicting participants' attitudes toward capital punishment, $R^2 = .032$, $F(1,134) = 4.41$, $p < .05$. As this value did not make interpretive sense, the predictive power of the values not in the equation were examined. This resulted in the selection of values listed in Table 28, namely, A World at Peace ($\beta = -.163$, $t = -1.93$, $sr^2 = .026$, $p < .06$), Family Security ($\beta = .081$, $t = 0.92$, $sr^2 = .006$), and Wisdom ($\beta = -.149$, $t = -1.74$, $sr^2 = .021$). From this group, the values of A world at Peace and Family Security best satisfied the criteria for selection. When regressed onto attitudes toward capital punishment, these values jointly accounted for 3.1% of the variance in attitudes, although not significantly, $F(2,135) = 2.19$, ns.

Hierarchical regression analyses assessing the moderating effect of moral development, moral orientation and ethical perspective on the value-attitude relation were next conducted using these empirically derived conflicting value pairs, rather than the a priori determined value pairs.

When participants' general attitudes toward abortion were regressed onto their valuation of Religion and Equality, DIT P-scores, and the two value by P-score interaction terms, neither interaction term was significant, as shown in Table 29. Similar hierarchical regression analyses, displayed in Tables 30 and 31, revealed that participants' Justice and Care scores, and their Welfare and Relativism EPQ scores, did not moderate the relation between participants' attitudes toward abortion and their values, even with the empirically determined value pair. The moderator variables P-scores, Care and Justice and Welfare and Relativism also failed to significantly improve prediction in these analyses: On average, they explained less than 2% of the variance in participants' attitudes toward abortion (see Tables 29 to 31).

The regression of participants' general attitudes toward euthanasia onto the values of Religion and Law and Order, DIT P-scores, and the value by P-score interactions, did reveal a significant value by P-score interaction, $F(2,128) = 5.31, p < .001$, shown in Table 32. To identify

the nature of this interaction, simple effects analyses were conducted by splitting participants' P-scores at the median of 33.30, forming groups of high ($n = 63$) and low ($n = 77$) P-scorers. Participants' attitudes toward euthanasia were then regressed onto their valuation of Religion and Law and Order, separately for each group. These analyses revealed that, among low P-scorers, values explained 12.3% of the variance in attitudes toward euthanasia, $F(1,128) = 9.87$, $p < .01$. For high P-scorers, in contrast, values explained twice as much attitudinal variance, namely 25.3%, $F(1,128) = 20.36$, $p < .001$. This difference suggests that, as hypothesized, the use of universal moral principles moderated the impact of values on attitudes towards euthanasia, with the greater use of principled reasoning increasing the involvement that values have with attitudes.

The regression of participants' attitudes toward euthanasia also revealed an interaction between the value of Religio.. and Care moral orientation, shown in Table 33. When this two-way interaction was allowed to enter the equation before the other two-way interactions, it explained 2.6% of attitudinal variance, $F(1,127) = 4.04$, $p < .05$. Using a median split on Care scores ($MDN = 1.54$), simple effects analyses examined the relation between the value of Religion and attitudes, separately for high ($n = 63$) and low ($n = 67$) Care groups. For those high in Care, the value Religion explained 5.8% of the attitudinal variance, $\beta = -.242$,

$F(1,127) = 9.24, p < .01$. For those low in Care, the value Religion explained 11.9% of the attitudinal variance, $\beta = -.345, F(1,127) = 18.80, p < .001$.

Finally, although both moral reasoning and Care orientation moderated the relation between values and attitudes toward euthanasia, ethical perspective did not. Similarly, none of the main effects associated with moral reasoning, moral orientation, or ethical perspective were significant (see Tables 32 to 34).

When participants' general attitudes toward capital punishment were regressed onto the empirically determined values of Peace and Family Security, DIT P-scores, and the value by P-score interaction terms, neither interaction term was significant, as shown in Table 35. Similarly, the hierarchical regression analyses displayed in Tables 36 and 37 revealed that participants' Justice and Care scores, and Welfare and Relativism EPQ scores did not moderate the relation between their attitudes toward capital punishment and their values. Among the moderator variables, however, there was a significant main effect for P-scores, which accounted for 3.1% of the variance in attitudes (see Table 35). There were no other significant main effects for the remaining moderator variables (see Table 36 and 37). Finally, the values Peace and Family Security were unrelated to attitudes across all of the hierarchical analyses. Thus, for capital punishment, a satisfactory conflicting value

pair could not be determined, either a priori or empirically, thereby reducing the likelihood of moderating effects.

In sum, the findings regarding the moderating role of morality were mixed: Participants' P-scores and Care scores, moderated the relation between their values and attitudes toward euthanasia. P-scores and Care scores did not, however, moderate the relation between values and attitudes toward either abortion or capital punishment. While the lack of support for the hypothesized moderating role of morality may be due to the absence of predicting values in the case of capital punishment, the lack of moderation on the abortion issue requires explanation. Thus, the role of attitudinal variance and attitude salience were examined.

The potential heterogeneity of variance in participants' attitudes toward each issue was tested to see whether the lack of moderation on the abortion issue may have stemmed from less variance in participants' attitudes toward abortion. A test of the heterogeneity of nonindependent variances (Howell, 1982, p. 142) revealed that there was in fact more variance in participants' attitudes toward abortion ($SD^2 = 11.42$) than in their attitudes toward euthanasia ($SD^2 = 4.47$), $t(138) = 6.50$, $p < .001$. Attitudes toward capital punishment ($SD^2 = 15.63$), however, were more variable than attitudes toward both abortion, $t(138) = 1.60$, $p < .06$, and euthanasia, $t(138) =$

7.84, $p < .001$. Thus, the failure of P- and Care scores to moderate the relation between values and attitudes toward abortion was not due to a lack of attitudinal variance.

Given that euthanasia was the issue least salient to participants, whereas abortion was most salient, hierarchical regression analyses examined whether participants' issue or attitudinal salience scores moderated the impact of P-scores, and the other moderator variables, on the value-attitude relationship. That is, for example, whether the three-way value x P-score x attitudinal salience interaction terms were significant. To do so, participants' general attitudes toward each issue were regressed onto values, moderator variable(s) and attitude salience, entered on the first step, followed by the two-way interactions on the second step, and the three-way interactions on the third step. This approach was used for each of the three issues and for each moderator variable (P-scores, Justice, Care, Welfare and Relativism scores). As this series of analyses yielded no significant three-way interactions, issue salience failed to account for the observed differences in the moderating impact of morality on the value-attitude relation across attitude issues.

Morality and Attitudinal Variance

Correlational and hierarchical regression analyses were used to test the hypothesis that participants with lower P-scores or higher Care scores and ethical Idealism scores

would display more variance in their attitudes across the 12 situations.

Correlation analyses revealed a correlation between participants' P-scores and the situational variability of their attitudes toward abortion of $r = -.22$, $p < .05$, while the correlations for euthanasia and capital punishment were $r = -.13$ and $r = -.12$. Thus, as expected, participants with high P-scores displayed less variability in their attitudes toward abortion.

Hierarchical regression analyses examined the extent to which participants' Justice and Care scores, and the interaction of these scores, accounted for attitudinal variability. The only significant effect in these analyses was the finding that participants with higher Care scores displayed more variability in their attitudes toward capital punishment, $\beta = .242$, $sr^2 = .056$, $F(1,133) = 3.94$, $p < .05$.

Finally, the hierarchical regression analyses which examined the effect of ethical perspective on attitudinal variance yielded two effects. Participants with higher Welfare scores displayed more variability in their attitudes toward abortion across situations, $\beta = .197$, $sr^2 = .047$, $F(1,133) = 3.30$, $p < .05$ and marginally more variability in their attitudes toward euthanasia, $\beta = .155$, $sr^2 = .032$, $F(1,133) = 2.23$, ns.

In sum, these analyses yielded mixed findings, with different indices of morality being related to the

variability of different attitudes. While P- and Welfare scores predicted variability in attitudes toward abortion, only Welfare scores predicted variability in attitudes toward euthanasia and only Care scores predicted attitudinal variability in the case of capital punishment. All of these relations, however, were in the hypothesized direction.

Discussion

This thesis examined essentially three issues: the factor structure of Forsyth's (1980) Ethical Position Questionnaire (EPQ) and Friedman et al.'s (1987) measures of Care and Justice moral orientation; the distinction between the process versus content of moral reasoning; and the impact of morality on the value-attitude relationship and attitude variability across situations. The findings regarding each of these issues will be discussed in turn.

Ethical Position Questionnaire

The factor structure underlying the EPQ was examined in view of the fact that the number of underlying factors was ambiguous, with Forsyth reporting 2, 3 and 16 factors based on analyses with low item-to-subject ratios (Forsyth, 1980; Forsyth et al., 1988). Moreover, as discussed in the introduction, it was not clear that the content of the Relativism and Idealism/Welfare items actually assessed these constructs. And, not surprisingly, Forsyth's research found that EPQ scores were unable to predict attitudes toward morally relevant issues (e.g., abortion and mercy-

killing), and Forsyth (1980) and Forsyth and Berger (1982) found that EPQ scores were unrelated to overt moral behaviour (i.e., cheating).

A confirmatory factor analysis of the EPQ using Lisrel revealed that the hypothesized two factor model of the EPQ did not fit the observed interrelations among the items. Exploratory factor analysis suggested that a three factor solution would best account for the data, and this suggestion was confirmed in a second confirmatory factor analysis. Given that only two items loaded on the third factor and that both of these items referred to the specific behaviour of lying, rather than a general ethical perspective, this third factor was not considered further. The first factor, labelled Welfare in the present study, included all but one of Forsyth's (1980) Idealism items. The second factor, labelled Relativism, included all of Forsyth's Relativism items with the exception of the two items pertaining to lying and one additional item. On the whole, then, these findings lend some support to the dimensions of Idealism/Welfare and Relativism.

The likelihood that the Idealism/Welfare and Relativism scales do indeed assess the intended constructs, as opposed to random error, also received some support in the present study. For example, participants' Welfare and Relativism scale scores were correlated with the appropriate, paragraph long, marker variables designed to evaluate these ethical

perspectives. Similarly, participants with higher Idealism/Welfare scores displayed more situational variability in their attitudes toward both abortion and euthanasia. It is unlikely that these relations would have attained significance if the items in the Idealism/Welfare scale were not homogeneous. Moreover, these findings suggest that, in comparison to the original EPQ which has failed to predict attitudes, the revised EPQ may be better able to account for attitudes.

Unlike Forsyth et al. (1988), who documented a relation between Idealism/Welfare and their measure of Care moral orientation scores, the relation between Idealism/Welfare and Care in the present study was clearly non-significant. Given that the present Idealism/Welfare scale did not differ from Forsyth's original Idealism scale it is unlikely that the present changes to the scale can account for this discrepancy. Rather, it is conceivable that Forsyth et al. (1988) documented this relation simply because the 10 items in their Care scale, which they themselves constructed, were virtually identical to Forsyth's (1980) Idealism items, thereby inflating the correlation. The present study, using a different DIT style measure of Care, suggests that Idealism/Welfare and Care are independent constructs. This interpretation makes sense given that the Idealism/Welfare items stress the desirability of not harming others as a moral "end" in itself, rather than stressing the actual

interconnection with others, central to the Care moral orientation. In other words, the independence between Welfare and Care is such that the concern over the welfare of another person is merely a symptom of Care, and is not at the centre of its functioning.

Further research examining ethical perspectives as part of describing the psychology of moral processes should, however, be more rigorous in the construction of ethical typologies. For example, distinguishing between such encompassing perspectives as deontology and teleology on the basis of a single dimension, namely Idealism, and scepticism from other ethical perspectives solely on the basis of cultural relativism, may obscure the other ways such perspectives differ. Indeed, Kohlberg himself displayed a lack of ethical sophistication in that he exclusively focused on Justice, believing that it covered everything of importance in morality (Crittenden, 1990). This, of course, contradicts Rawl's original sense of justice as being "... 'no mere moral conception but a true sentiment of the heart enlightened by reason'" (Pritchard, 1991, p. 103). Clearly, distinctions other than the rational autonomous pursuit of justice are involved in the resolution of moral dilemmas. Thus, it appears that psychologists would be well advised to become more familiar with the tenets of ethical philosophy before attempting to construct measures of such ethical perspectives.

Justice and Care

Given that the factor structure underlying Friedman et al.'s (1987) Justice and Care scales had never been examined, the present study sought to do so. As the hypothesized two latent variable model could not be tested owing to inadequate input matrices, exploratory factor analyses were performed. These analyses, followed by a Confirmatory Factor Analysis, indicated that, consistent with Friedman et al. (1987), two correlated latent variables underlay these items. Of the original 18 Care and 18 Justice items, however, only 11 Care and 10 Justice items loaded on the appropriate factor. Thus, the changes to Friedman et al.'s (1987) original scales were substantial. The content of the items loading on these factors, however, suggests that they did indeed relate to Care and Justice moral orientation. The Care items clearly assessed a sense of interconnection with others in relation to the dilemmas. For example, the three items with the largest loadings were: "Is the principal likely to lose his job if he allows Fred to continue publishing the newspaper?," "Would it be selfish of Mrs. Jones to place greater importance on her peace of mind than on Mr. Thompson's well being?," and "Whether Mrs. Jones as a former neighbour has an obligation to exercise care for Mr. Thompson." The second factor was a clear Justice dimension, concerning the autonomous expression of principles and rights. The top three loading items were:

"Whether or not there is a higher moral principle at stake," "Whether the value of life and the equality of human rights are prior to law," and "Whether students have a right to independent views apart from their parents."

The validity of these measures of Care and Justice is also suggested by the predictive ability of these scales. For example, participants with higher Care scores displayed more variability in their attitudes toward capital punishment and Care scores moderated the relation between the value of Religion and attitudes toward euthanasia.

Finally, contrary to Friedman et al. (1987), the present study noted a moderate positive correlation between participants' Justice and Care moral orientation scores. This discrepancy may stem from the fact that different items were used by Friedman et al. (1987) and the present study. This finding is, however, consistent with more recent elaborations of Gilligan's (1982, 1988) theory which suggest that Care and Justice exist throughout the life-span of both men and women (Lyons, 1988).

In further research, an evaluation of the convergent and discriminant validity of the range of Care measures currently available (e.g., Ford & Lowery, 1986; Friedman et al., 1987; Gilligan, 1982; Pratt & Royer, 1982; and Rogers, 1987, should be conducted given that in this study two-thirds of the Care items were discarded. A possible suggestion for the direction of this research would be to

compare the questionnaire measures with the interview techniques as a means of establishing construct validity.

Process-Content Distinction

The process-content distinction stresses the conceptual separateness of such moral processes as principled moral reasoning from the contents of moral decisions, such as values. The suggestion, made by Blasi (1980) and Smith (1991), as well as Kohlberg (cited in Schlenker & Forsyth, 1977; and Rest, 1979), that moral reasoning and values should have an interactive effect on attitudes and behaviour, also implies that the process of moral reasoning is distinct from the value laden content of such reasoning. Thus far, only one study has examined this issue. Feather (1988, 1990) reported that of Rokeach's 18 values, the value of Inner Harmony was correlated with DIT P-scores. In the present study, values explained 13.6% of the variance in DIT P-scores, indicating that moral reasoning and moral content were more different than they were similar.

Some moral philosophers claim that the distinction between Justice and Care moral orientations essentially involves different value priorities. Addelson (1979, p. 235), for example, claims that:

The main body of tradition in ethics has occupied itself with the notions of obligation, moral principle, justification of acts under principle, justification of principle by argument. When moral change was considered at all, it was seen as change to bring our activities into conformity with our principles, as change to dispel injustice, as change to alleviate suffering...But moral reform is not the only type of

moral change. There is also moral revolution. Moral revolution has not to do with making our principles consistent, not to do with greater application of what we now conceive as justice. That is the task of moral reform, because its aim is the preservation of values. But the aim of moral revolution is the creation of values.

Indeed, Gilligan (1982) herself speaks of the "values of care and responsiveness to others" (Houston, 1988, p. 180). Contrary to this, the present findings indicated that Justice and Care moral orientations were independent of value priorities. In view of this, it is conceivable that 'moral revolution' will come about, not by a change in values, but by a change in perspective, by ground becoming figure in Gilligan's (1982) terms.

The above findings, together with the finding that values were independent of participants' EPQ scores, suggests that the process of moral reasoning is indeed distinct from the content of such reasoning. Finally, the fact that Care moral orientation and principled reasoning moderated the relation between participants' values and their attitudes toward euthanasia, also provides support for this distinction.

Morality, Values and Attitudes

As stated above, several researchers (e.g., Blasi, 1980; Kohlberg, cited in Schlenker & Forsyth, 1977; Smith, 1991) have speculated that, while moral reasoning and values in themselves may not account for morally relevant attitudes and behaviours, moral reasoning and values may have an

interactive impact on such attitudes and behaviour. The results of the hierarchical regressions of attitudes onto values and the various measures of morality (i.e., P-scores, Justice and Care, and Welfare and Relativism scores) lend some support to this speculation. For example, of the nine regression analyses, the main effects of the various morality indices were significant in three of the analyses: Participants' P-scores were negatively correlated with their attitudes toward capital punishment, and participants' EPQ Relativism scores were positively correlated with their attitudes toward both abortion and euthanasia. Consistent with Blasi's (1980) review of the morality literature, however, each of these relations was weak, sharing approximately three to four percent of the variance.

The relations between participants' values and their attitudes toward each of the three issues were also weak. In the case of capital punishment, for example, the values thought to be brought into conflict by this issue failed to make a significant contribution to the equation predicting their attitudes. Similarly, the a priori conflicting values accounted for approximately 1% of the variance in participants' attitudes toward abortion and 4.8% of the variance in participants' attitudes toward euthanasia. While the relationship between participants' attitudes and values was improved when the conflicting values were identified on a post hoc empirical basis, explaining approximately 3% of

the variance in attitudes toward capital punishment, 13% of the variance in attitudes toward euthanasia and 17% of the variance in attitudes toward abortion, the magnitude of these relations must be qualified by the post hoc nature of these analyses. Thus, consistent with the review of the value literature presented in the introduction, it appears that values in themselves have a small to at best moderate impact on people's attitudes.

The suggestion that the relation between values and attitudes is moderated by morality received some support in these regression analyses. Specifically, the relation between the value of Religion and attitudes toward euthanasia was twice as strong among participants with high P- (25.3%) rather than low P- (12.3%) scores. Similarly, and as hypothesized, the relation between the value of Religion and attitudes toward euthanasia was twice as strong among participants with low Care scores (11.9%) in comparison with those with high Care scores (5.8%). Thus, principled moral reasoning and Care moral orientation did indeed moderate the relation between values and attitudes toward euthanasia. That the moderating role of morality was not observed in the case of capital punishment may, as stated earlier, simply be a result of the fact that there was not a value-attitude relation to moderate. Why morality did not moderate the relation between values and attitudes toward abortion, however, remains an open question. In view of this, the

present findings provide suggestive, rather than conclusive, evidence for the moderating impact of morality on the value-attitude relation.

To the extent that Care orientated people attend more to contextual information relative to Justice orientated people, it was hypothesized that participants with low P- and Justice scores and those with high Care score would display more variability in their attitudes across different situations. It was also hypothesized that participants with lower Idealism/Welfare scores, who pragmatically believe that the morality of an action is contingent upon its consequences, would display more attitudinal variability across situations. Of the nine analyses which examined these hypotheses, three significant effects were obtained. While participants' P-scores and Justice orientation scores were unrelated to the variability in their attitudes across situations, higher Care scores were associated with more variability in attitudes toward capital punishment and higher Welfare/Idealism scores were associated with more variability in attitudes toward both abortion and euthanasia. While these findings are consistent with the hypotheses, it should be noted that these significant effects were weak, explaining between 3 and 6% of the variance in the measure of attitudinal variability across situations.

In summary, although the effects of morality on the

value-attitude relation and cross-situational attitude variability were weak, the present findings provided suggestive evidence for the impact of morality on values and attitudes as all of the effects were in the hypothesized direction. It is therefore conceivable that future research, using conceptually more accurate and more reliable measures of morality, values and attitudes, may document stronger effects. As stated earlier, an approach more informed by a comprehensive understanding of ethical philosophy should be used in the construction of measures reflecting ethical perspectives. Similarly, further empirical and theoretical efforts are required to establish the validity of measures of Care and Justice moral orientations. Finally, the measurement of values should be assessed v a more reliable means, such as with Schwartz's (in press) value scale which provides multiple indicators of values, rather than the single assessment of each value as provided by Rokeach's (1967) value survey. The Schwartz value survey also has the advantage of identifying value conflicts on an a priori basis, as groups of conflicting values have been already determined.

The attitudinal measures in the present study also merit comment. For one, the use of multiple item measures of attitudes, rather than the single-item measures used here, might provide more comprehensive, reliable measures, and thereby enhance the magnitude of value-attitude

correlations.

Second, it is conceivable that the method used to manipulate the situational parameters surrounding an attitude issue lacked impact. Lyons (1988) describes the ethic of Care as being concerned with maintaining relationships and being responsive to others, as well as promoting the welfare of others and preventing their harm. Given this focus on connection with others, the provision of more contextual and individuating information in the situation-specific attitude measures may draw out people's predisposition toward an ethic of Care and thereby increase the observed effect of Care on cross-situational attitude variability.

Two final issues merit comment. First, like the majority of other research concerning morality, the present study neglected to go beyond morality, values and attitudes to overt behaviour. As the utility of such research rests on its contribution to our understanding of moral behaviour, hypotheses such as those in the present study should be extended to behaviour. Last, further investigations of morality throughout the life cycle, involving participants from all ages, will also broaden the impact that future research might have into discerning the dynamic that morality has in the daily functioning of people's lives.

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Table 1

Correlational Research Examining the Value-Attitude Relation

<u>Researcher</u>	<u>Value(s)</u>	<u>Attitude object</u>	<u>Effect size</u>
Furnham (1987)	Terminal: Equality, self-respect, inner harmony, national security, mature love	Protestant work ethic	$R^2 = .160$
	Instrumental: Obedient, clean, responsible, ambitious	Protestant work ethic	$R^2 = .096$
	Terminal: Exciting life, true friendship, equality, inner harmony, world of beauty	Work ethic	$R^2 = .130$
Heaven (1990)	Instrumental: Forgiving, ambitious, broadminded, independent, clean, self-controlled	Work ethic	$R^2 = .180$
	National strength and order	Right wing economic beliefs	$R^2 = .130$
	International harmony and equality	Left wing economic beliefs	$R^2 = .231$

Table 1 (Continued)

Correlational Research Examining the Value-Attitude Relation

<u>Researcher</u>	<u>Value(s)</u>	<u>Attitude object</u>	<u>Effect size</u>
Homer & Kahle (1988)	9 LOV Values	Nutrition, based on four indices	$r^2_c = .085$
Kristiansen & Matheson (1990)	Peace, National Security	Nuclear weapons	$R^2 = .103$
Kristiansen & Zanna (1988)	Comfortable Life Salvation	Nuclear weapons Abortion	$R^2 = .123$ $R^2 = .248$
Penner (1971)	Equality	Perceived value similarity Perceived behaviour similarity	$r^2 = .082$ $r^2 = .086$
Rokeach (1973)	Equality Equality	Blacks Poor people	$r^2 = .160$ $r^2 = .053$
Sherrid & Beech (1976)	Equality	Tolerance for nonconformists	$r^2 = .014$

Note: r^2_c = canonical correlation.

Rokeach Value Survey used, unless otherwise indicated.

Table 2

Correlational Research Examining the Value-Behaviour Relation

<u>Researcher</u>	<u>Value(s)</u>	<u>Behaviour</u>	<u>Effect size</u>
Homant & Rokeach (1970)	Honesty	Classroom cheating (high motivation condition)	$r^2 = .070$
Homer & Kahle (1988)	9 LOV Values	Frequency of natural food shopping Money spent on natural foods	$r^2_c = .048$ $r^2_c = .039$
Kristiansen (1985)	Health	Preventive health behaviour Direct risk behaviour	$r^2 = .069$ $r^2 = .144$
Kristiansen (1986)	Health An Exciting Life	Direct risk behaviour Direct risk behaviour	$r^2 = .026$ $r^2 = .102$
Penner (1971)	Equality	White-black eye contact	$r^2 = .123$
Rokeach (1969)	Salvation	Church attendance	$r^2 = .116$
Shotland & Berger (1970)	Honesty Salvation	Return pencil Return pencil	$\phi^2 = .053$ $\phi^2 = .106$
Sikula (1970)	Social Recog- nition	Roommate incompatibility	$r^2 = .090$

Note: r^2_c = canonical correlation.

Table 3

Experimental Research Examining the Effect of Values on Attitudes

<u>Researcher</u>	<u>Value(s)</u>	<u>Attitude object</u>	<u>Effect size</u>
Ball-Rokeach et al. (1984)	Equality, Freedom A World of Beauty	Blacks Women Ecology	$\chi^2 = .002$
			ns
			ns
Rokeach (1973)	Freedom,	Blacks - 3 months post-test	Expt. 1 : ns
			2 : ns
			3 : ns
		Blacks - 15 months post-test	Expt. 2 : ns
			3 : ns
		American presence in Vietnam 3 weeks post-test	Expt. 1 : ns
			2 : ns
			3 : ns
		American presence in Vietnam 3 months post-test	Expt. 1 : ns
			2 : ns
			3 : ns
		American presence in Vietnam 15 months post-test	Expt. 2 : ns
			3 : ns
	Equality, Freedom	Preference for ethnic studies 5 months post-test	$\phi^2 = .000$

Table 4

Experimental Research Examining the Effect of Values on Behaviour

<u>Researcher</u>	<u>Value(s)</u>	<u>Behaviour</u>	<u>Effect size</u>
Ball-Rokeach ^a et al. (1984)	Freedom, Equality	Positive response to solicitation from black group	ns
		Money donated to black group	ns
	A World of Beauty	Positive response to solicitation from women's group	$\phi^2 = .013$
		Money donated to women's group	$r^2 = .006$
		Positive response to solicitation from environmental group	$\phi^2 = .008$
Rokeach (1973)	Freedom, Equality	Money donated to environmental group	ns
		Responded to mailed solicitation from NAACP :	
		3 to 5 months post-test	Expt. 2 : $\phi^2 = .014$ 3 : $\phi^2 = .031$
	Freedom, Equality	15 to 17 months post-test	Expt. 2 : $\phi^2 = .014$ 3 : $\phi^2 = .000$
		Enrolment in ethnic studies courses 21 months post-test	$\phi^2 = .039$

^a : Based on comparison of uninterrupted experimental viewers and control city nonviewers.

Table 5

Effect sizes of the relation between moral stage and behaviour in studies reviewed by Blasi (1980)

<u>Behaviour</u>	<u>Average Effect Size (r^2)**</u>
Delinquency	.004
Real Life Behaviours*	.002
Honesty	.000
Altruism	.002
Resistance to Conformity	.000

Note: (*) Blasi (1980) categorized specific behaviour or habitual actions in this category.

(**) Effect size calculation procedures adopted from Rosenthal (1984) and Rosenthal and Rosnow (1991).

Table 6

Schlenker and Forsyth's (1977) Classification of Moral Philosophies

Rule universalism		
	<u>Nonuniversal</u>	<u>Universal</u>
Idealistic	<p>Some sceptics: idealistically hold their own personal standards which they do not apply to everyone.</p>	<p>Deontologists: Universal principles exist and followed without exception. Consequences of an act are irrelevant.</p>
Pragmatic	<p>Most sceptics: Consequences pragmatically guide moral judgements. The evaluation of consequences is individualistic or relative, not absolute.</p>	<p>Teleologists: Universal principles exist, based on a cost-benefit analysis, but exceptions are possible. Some may be pragmatic, rule nonuniversal. Consequences are important.</p>

Table 7

Forsyth's (1980) Taxonomy of Ethical Ideologies

Relativism	
Idealism	
High	Low
<p>Situationists: Rejects moral rules; advocates individualistic analysis of each act in each situation; relativistic.</p>	<p>Absolutist: Assumes that the best possible outcome can always be achieved by following universal moral rules.</p>
<p>Subjectivists: Appraisals based on personal values and perspective rather than universal moral principles; relativistic</p>	<p>Exceptionists: Moral absolutes guide judgements but pragmatically open to exceptions to these standards; utilitarian.</p>
Low	

Table 8

EPO Confirmatory Factor Analysis with Two Latent Variables

<u>Item</u>	<u>Idealism latent factor R^2</u>	<u>Relativism latent factor R^2</u>
1	.41	.05
2	.54	.16
3	.57	.54
4	.47	.37
5	.57	.50
6	.41	.26
7	.16	.25
8	.14	.14
9	.44	.01
10	.07	.02

Total Coefficient of Determination = 0.98

Goodness-of-fit indices for the overall model:

χ^2 (170) = 571.46, $p < .001$ $\chi^2/\text{df ratio} = 3.36$

Goodness of fit index (GFI) = 0.803

Adjusted goodness of fit index (AGFI) = 0.757

Root mean square residual (RMR) = 0.098

Table 9**EPO Factor Loadings with Three Factors Specified, using
Principal Components Extraction with Varimax Rotation**

	<u>Item</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
	1	.69	.02	-.07
	2	.75	.03	-.04
	3	.78	-.04	-.13
	4	.70	.13	-.09
	5	.78	.09	-.01
	6	.68	-.08	-.02
	7	.43	-.02	-.17
	8	.46	.04	.10
	9	.71	.03	-.15
	10	.35	-.14	.05
N	11	-.12	.28	.19
C	12	-.15	.45	.33
	13	-.02	.79	-.10
	14	.04	.70	-.13
	15	.00	.78	.04
	16	.22	.59	-.02
	17	.03	.60	.10
C	18	-.04	.47	.32
	19	-.06	.02	.90
	20	-.06	.06	.90

Note: **N** = No loading using .30 loading criteria.

C = Complex loading using .30 loading criteria.

Table 10

Exploratory Maximum Likelihood Factor Analysis of the EPO

Number of factors	χ^2	df	p	χ^2/df ratio
2	470.53	151	0.00	3.12
3 **	278.19	133	0.00	2.09
4	206.18	116	0.00	1.78
5	164.33	100	0.00	1.64
6	125.11	85	0.00	1.47
7 *	88.21	71	0.08	1.24

Note: * = Number of factors suggested by χ^2 criterion (upper bound).
 ** = Number of factors suggested by χ^2/df criterion (lower bound).

Table 11**EPO Factor Loadings with Three Factors Using Maximum Likelihood Extraction with Varimax Rotation**

<u>Item</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
1	.63	.01	-.09
2	.72	.01	-.06
3	.75	-.05	-.10
4	.68	.10	-.08
5	.76	.08	.00
6	.62	-.07	-.01
7	.39	-.01	-.07
8	.38	.05	.03
9	.66	.01	-.09
N 10	.27	-.10	.00
N 11	-.10	.23	.13
12	-.13	.40	.19
13	-.01	.74	-.12
14	.06	.61	-.08
15	.00	.75	.03
16	.20	.50	-.01
17	.02	.49	.05
18	-.04	.39	.19
19	-.08	.07	.90
20	-.09	.13	.83

Note: N = No loading using .30 loading criteria.

Table 12

EPO Confirmatory Factor Analysis with Three Latent Variables

<u>First latent factor</u>		<u>Second latent factor</u>		<u>Third latent factor</u>	
<u>Item</u>	<u>R²</u>	<u>Item</u>	<u>R²</u>	<u>Item</u>	<u>R²</u>
1	.42	11	.06	19	.81
2	.54	12	.13	20	.71
3	.56	13	.55		
4	.47	14	.36		
5	.56	15	.55		
6	.38	16	.27		
7	.15	17	.26		
8	.14	18	.15		
9	.44				
10	.07				

Total Coefficient of Determination = 0.98

Goodness-of-fit indices for the overall model:

χ^2 (170) = 373.26, p < .001

χ^2/df ratio = 2.20

Goodness of fit index (GFI) = 0.853

Adjusted goodness of fit index (AGFI) = 0.818

Root mean square residual (RMR) = 0.089

Table 13

Maximum Likelihood Exploratory Factor Analysis of Care and Justice Scales

<u>Number of factors specified</u>	<u>χ^2</u>	<u>df</u>	<u>p</u>	<u>$\chi^2/\text{df ratio}$</u>
1	1076.20	594	.000	1.81
2	910.76	559	.000	1.63
3	780.32	525	.000	1.49
4	683.25	492	.000	1.39
5	598.34	460	.000	1.30
6	532.56	429	.000	1.24
7	471.73	399	.007	1.18
8	416.15	370	.049	1.12
9 *	369.53	342	.147	1.08

* Upper bound for the number of factors suggested by the χ^2/df ratio.

Table 14

Exploratory Factor Analysis of Care and Justice with Two factors specified

Dilemma	Item #	Scale	Factor 1 (Care)	Factor 2 (Justice)	Condition
Newspaper	7	Care	.55	.09	
Prisoner	9	Care	.54	.11	
Prisoner	2	Justice	.46	.28	Cross Loading
Prisoner	6	Care	.43	-.15	
Newspaper	8	Care	.42	-.08	
Prisoner	4	Care	.42	-.15	
Newspaper	4	Care	.42	.24	
Newspaper	1	Care	.40	.20	
Prisoner	1	Justice	.39	.38	Complex
Newspaper	12	Care	.38	.14	
Prisoner	12	Justice	.34	.21	Cross Loading
Prisoner	8	Care	.34	.07	
Newspaper	5	Care	.32	.24	
Heinz	3	Care	.31	-.10	
Heinz	10	Care	.26	.13	No Loading
Prisoner	11	Care	.19	.02	No Loading
Heinz	1	Care	.19	.10	No Loading
Newspaper	10	Justice	-.02	.59	
Heinz	7	Justice	.04	.52	
Newspaper	11	Justice	-.04	.49	
Heinz	2	Justice	.18	.40	
Newspaper	2	Justice	-.15	.39	
Newspaper	9	Justice	-.09	.37	
Heinz	12	Justice	.06	.37	
Heinz	8	Justice	.28	.37	
Newspaper	6	Justice	.02	.36	
Heinz	4	Justice	.24	.33	
Heinz	6	Care	.23	.31	Cross Loading
Heinz	11	Care	.22	.30	Cross Loading
Newspaper	3	Justice	.08	.29	No Loading
Prisoner	5	Care	.28	.29	No Loading
Heinz	5	Justice	.22	.27	No Loading
Prisoner	7	Justice	.24	.27	No Loading
Prisoner	10	Justice	.19	.24	No Loading
Prisoner	3	Justice	.19	.24	No Loading
Heinz	9	Care	.17	.18	No Loading

Table 15

Confirmatory Factor Analysis of Care and Justice with Two Correlated Latent Variables

<u>Factor One (Care)</u>				<u>Factor Two (Justice)</u>			
<u>Item #</u>	<u>Dilemma</u>	<u>Orientation</u>	<u>R²</u>	<u>Item #</u>	<u>Dilemma</u>	<u>Orientation</u>	<u>R²</u>
7	Newspaper	Care	.385	10	Newspaper	Justice	.383
9	Prisoner	Care	.307	7	Heinz	Justice	.192
6	Prisoner	Care	.102	11	Newspaper	Justice	.283
8	Newspaper	Care	.192	2	Heinz	Justice	.110
4	Prisoner	Care	.145	2	Newspaper	Justice	.172
4	Newspaper	Care	.179	9	Newspaper	Justice	.260
1	Newspaper	Care	.155	12	Heinz	Justice	.126
12	Newspaper	Care	.136	8	Heinz	Justice	.000
8	Prisoner	Care	.122	6	Newspaper	Justice	.117
5	Newspaper	Care	.163	4	Heinz	Justice	.105
3	Heinz	Care	.070				

Total Coefficient of Determination = 0.456	
<u>Goodness-of-fit indices for the overall model:</u>	
χ^2 (189) = 365.74, $p < .001$	χ^2/df ratio = 1.94
Goodness of fit index (GFI) = 0.852	
Adjusted goodness of fit index (AGFI) = 0.819	
Root mean square residual (RMR) = 0.086	

Table 16

Mean Transformed Value Ranks and Ratings

Rank	Transformed		Rating	Value
	Rank	Value		
1	2.87	Happiness	8.04	
2	2.63	True Friendship	7.98	
3	2.60	Self Respect	7.76	
4	2.45	Family Security	7.50	
5	2.44	A Comfortable Life	7.22	
6	2.41	Freedom	7.83	
7	2.21	A Sense of Accomplishment	7.22	
8	2.12	Pleasure	7.12	
9	2.11	Inner Harmony	6.84	
10	2.10	Equality	7.26	
11	2.01	Human Life	7.19	
12	1.98	Wisdom	7.16	
13	1.94	A World at Peace	6.57	
14	1.53	Law and Order	6.32	
15	1.41	Social Recognition	5.93	
16	1.37	A World of Beauty	5.86	
17	1.12	National Security	5.77	
18	0.88	Religion	3.74	

Table 17

Correlations Among Predictor and Moderator Variables

	P-score	Care	Justice	Idealism
Care	-.12			
Justice	.41**	.23**		
Welfare	-.04	.14	.14	
Relativism	-.08	.07	.10	-.03

* $p < .05$. ** $p < .01$.

Table 18

Correlations between Values and Moral Stage, Moral Orientation and EthicalPerspective

<u>Values</u>	<u>P-score</u>	<u>Moral Orientation</u>		<u>Ethical Perspective</u>	
		<u>Care</u>	<u>Justice</u>	<u>Welfare</u>	<u>Relativism</u>
1. Happiness	-.13	-.02	-.02	-.05	-.03
2. True Friendship	.01	-.02	-.12	.04	.13
3. Self-Respect	-.02	.02	-.01	.01	.00
4. Family Security	-.08	.00	-.20*	.00	.06
5. A Comfortable Life	-.34**	.01	-.13	-.08	.08
6. Freedom	.09	.02	.03	.00	.11
7. Sense of Accomplishment	-.06	.00	-.05	-.28	.01
8. Pleasure	-.21*	-.15	-.20*	-.22**	.11
9. Inner Harmony	.23**	-.05	.09	.13	-.07
10. Equality	.28**	-.03	.19*	.14	.09
11. Human Life	.07	-.06	.25**	.16	-.12
12. Wisdom	.10	.18*	.21*	-.12	-.12
13. A World at Peace	.01	.07	.03	.23**	-.04
14. Law and Order	-.11	-.01	.08	.01	-.02
15. Social Recognition	.00	-.14	-.09	-.07	-.02
16. A World of Beauty	.16	.07	.04	-.17	.06
17. National Security	-.15	.01	-.05	.06	-.15
18. Religion	.06	.00	.01	.14	-.14

* $p < .05$.** $p < .01$, Two-tailed.

Table 19

Hierarchical Regression of Attitudes toward Abortion onto A
Priori Values and Moral Reasoning (P-scores)

Step	Predictor	<i>B</i>	<i>t</i>	R2 Change	df	F
1	Human Life Freedom	-.061 .096	-.70 1.11	.007	2	0.49
2	P-score	.143	1.66	.020	1	2.75
3	Human Life x P-score Freedom x P-score	-.140 .613	-.36 1.46	.016	2	1.12
Residual				.007	130	

Table 20

Hierarchical Regression of Attitudes toward Abortion onto A
Priori Values and Moral Orientation (Care and Justice)

<u>Step</u>	<u>Predictor</u>	<u>β</u>	<u>t</u>	<u>R² Change</u>	<u>df</u>	<u>F</u>
1	Human Life	-.061	-.70	.011	2	0.76
	Freedom	.096	1.11			
2	Care	.065	.74	.022	1	1.47
	Justice	.120	1.36			
3	Human Life x Care	.195	.55	.012	4	0.42
	Freedom x Care	-.337	-.76			
	Human Life x Justice	-.044	-.08			
	Freedom x Justice	.526	.99			
Residual				.007	129	

Table 21

Hierarchical Regression of Attitudes toward Abortion onto A
Priori Values and Ethical Perspective (Welfare and Relativism)

Step	Predictor	<i>B</i>	<i>t</i>	<i>R</i> ² Change	df	<i>F</i>
1	Human Life	-.061	-.70	.011	2	0.76
	Freedom	.096	1.11			
2	Welfare	.004	.04	.028	2	1.93
	Relativism	.170	1.97†			
3	Human Life x Welfare	-.125	-.24	.020	4	0.67
	Freedom x Welfare	.786	1.51			
	Human Life x Relativism	.071	.16			
	Freedom x Relativism	-.363	-.65			
Residual				.007	129	

† *p* < .06.

Table 22

Hierarchical Regression of Attitudes toward Euthanasia onto A
Priori Values and Moral Reasoning (P-scores)

Step	Predictor	B	t	R ² Change	df	F
1	Human Life Freedom	-.170 .169	-2.00* 1.98*	.048	2	3.36*
2	P-score	.017	.20	.000	1	0.04
3	Human Life x P-score Freedom x P-score	-.287 .466	-.73 1.12	.013	2	0.88
Residual				.007	130	

* $p < .05$.

Table 23

Hierarchical Regression of Attitudes toward Euthanasia onto A
Priori Values and Moral Orientation (Care and Justice)

Step	Predictor	<i>B</i>	<i>t</i>	<i>R</i> ² Change	df	<i>F</i>
1	Human Life	-.170	-2.00*	.048	2	3.44*
	Freedom	.169	1.98*			
2	Care	.079	.92	.012	2	0.86
	Justice	.061	.70			
3	Human Life x Care	-.453	-1.31	.036	4	1.28
	Freedom x Care	-.651	-1.52			
	Human Life x Justice	.811	1.57			
	Freedom x Justice	.500	.94			
Residual				.007	128	

* $p < .05$.

Table 24

Hierarchical Regression of Attitudes toward Euthanasia onto A
Priori Values and Ethical Perspective (Welfare and Relativism)

Step	Predictor	<i>B</i>	<i>t</i>	<i>R</i> ² Change	df	<i>F</i>
1	Human Life	-.170	-2.00*	.048	2	3.54*
	Freedom	.169	1.98*			
2	Welfare	-.144	-1.67	.028	2	2.06
	Relativism	.146	1.72*			
3	Human Life x Welfare	.288	.57	.044	4	1.63
	Freedom x Welfare	.310	.61			
	Human Life x Relativism	.636	1.52			
	Freedom x Relativism	-.988	-1.83†			
Residual				.007	129	

* $p < .05$. † $p < .07$.

Table 25

**Hierarchical Regression of Attitudes toward Capital Punishment
onto A Priori Values and Moral Reasoning (P-scores)**

Step	Predictor	B	t	R² Change	df	F
1	Human Life	.070	.80	.006	2	0.39
	Law & Order	.023	.27			
2	P-score	-.204	-2.38*	.041	1	5.62*
3	Human Life x P-score	-.457	-1.15	.010	2	0.40
	Law & Order x P-score	-.024	-.08			
Residual				.007	129	

*** p < .05.**

Table 26

Hierarchical Regression of Attitudes toward Capital Punishment
onto A Priori Values and Moral Orientation (Care and Justice)

Step	Predictor	<i>B</i>	<i>t</i>	R ² Change	df	F
1	Human Life	.077	.89	.006	2	0.42
	Law & Order	.014	.17			
2	Care	.032	.36	.017	2	1.13
	Justice	-.135	-1.51			
3	Human Life x Care	-.356	-1.03	.020	4	0.68
	Law & Order x Care	-.347	-1.13			
	Human Life x Justice	-.369	-.70			
	Law & Order x Justice	.057	.13			
Residual				.008	128	

Table 27

Hierarchical Regression of Attitudes toward Capital Punishment
onto A Priori Values and Ethical Perspective (Welfare and
Relativism)

<u>Step</u>	<u>Predictor</u>	<u>B</u>	<u>t</u>	<u>R² Change</u>	<u>df</u>	<u>F</u>
1	Human Life	.077	.89	.006	2	0.83
	Law & Order	.014	.17			
2	Welfare	.051	.58	.005	2	0.33
	Relativism	.051	.59			
3	Human Life x Welfare	.381	.68	.018	4	0.60
	Law & Order x Welfare	.408	.89			
	Human Life x Relativism	.477	1.04			
	Law & Order x Relativism	-.261	-.47			
Residual				.008	128	

Table 28

Stepwise Regression of General Attitudes onto Values

Abortion						
Variables	(DV)	Religion	Equality	Law	Beta	t sr ²
Religion	-.35**				-.350	-4.33 .122**
Equality	.24**	.04			.251	3.20 .063**
Law & Order	-.15**	-.05	-.04		-.158	-2.04 .025**
Means	7.42	.88	2.09	1.53		
SDs	3.40	.96	.71	.72		
Euthanasia						
Variables	(DV)	Religion	Freedom	Life	Law	Beta t sr ²
Religion	-.34**					
Freedom	.14†	-.15*				-.345 -4.25 .119**
Human-Life	-.16*	.07	.16*			
Law & Order	.14†	-.05	.20**	.08		
Means	8.32	.88	2.41	2.00	1.53	
SDs	2.13	.96	.69	.69	.72	
Capital Punishment						
Variables	(DV)	Accom.	Peace	Security	Wisdom	Beta t sr ²
Accomplishment	-.18**					
A World at Peace	-.14†	-.13				-.178 -2.10 .032*
Family Security	.16*	-.16*	-.12			
Wisdom	-.15*	.15*	-.16*	-.10		
Means	4.71	2.20	1.93	2.46	1.95	
SDs	3.95	.89	.93	.91	.87	

* p < .05. ** p < .01. † p < .06.

Table 29

Hierarchical Regression of Attitudes toward Abortion onto
Empirically Derived Values and Moral Reasoning (P-scores)

<u>Step</u>	<u>Predictor</u>	<u>B</u>	<u>t</u>	<u>R² Change</u>	<u>df</u>	<u>F</u>
1	Religion Equality	-.335 .254	-4.22** 3.19**	.169	2	13.30**
2	P-score	.097	1.18	.009	1	1.36
3	Religion x P-score Equality x P-score	.026 .196	.11 .51	.002	2	0.14
Residual				.006	129	

** p < .001.

Table 30

Hierarchical Regression of Attitudes toward Abortion onto
Empirically Derived Values and Moral Orientation (Care and
Justice)

<u>Step</u>	<u>Predictor</u>	<u>B</u>	<u>t</u>	<u>R² Change</u>	<u>df</u>	<u>F</u>
1	Religion Equality	-.356 .254	-4.57** 3.25**	.184	2	15.44**
2	Care Justice	.117 .075	1.45 .92	.023	2	1.94
3	Religion x Care Equality x Care Religion x Justice Equality x Justice	.248 -.421 .237 .943	.98 -1.21 .73 1.73†	.028	4	1.19
Residual				.006	127	

† $p < .09$. ** $p < .001$.

Table 31

Hierarchical Regression of Attitudes toward Abortion onto
Empirically Derived Values and Ethical Perspective (Welfare and
Relativism)

Step	Predictor	B	t	R ² Change	df	F
1	Religion	-.357	-4.57**	.184	2	14.89**
	Equality	.254	3.25**			
2	Welfare	.012	.15	.015	2	1.22
	Relativism	.124	1.57			
3	Religion x Welfare	.090	.21	.008	4	0.34
	Equality x Welfare	.083	.18			
	Religion x Relativism	.376	1.13			
	Equality x Relativism	-.088	-.18			
Residual				.006	128	

** p < .001.

Table 32

Hierarchical Regression of Attitudes toward Euthanasia onto
Empirically Derived Values and Moral Reasoning (P-scores)

<u>Step</u>	<u>Predictor</u>	<u>B</u>	<u>t</u>	<u>R² Change</u>	<u>df</u>	<u>F</u>
1	Religion	-.342	-4.21**	.136	2	10.96**
	Law & Order	.129	1.58			
2	P-score	.034	.42	.001	1	0.18
3	Religion x P-score	-.670	-2.71*	.066	2	5.31**
	Law & Order x P-score	-.600	-2.23*			
Residual				.006	128	

* $p < .05$. ** $p < .001$.

Table 33

Hierarchical Regression of Attitudes toward Euthanasia onto
Empirically Derived Values and Moral Orientation (Care and
Justice)

Step	Predictor	B	t	R ² Change	df	F
1	Religion	-.339	-4.19**	.134	2	10.59**
	Law & Order	.123	1.53			
2	Care	.095	1.15	.018	2	1.44
	Justice	.079	.95			
3	Religion x Care	.517	1.98*	.045	4	1.77
	Law & Order x Care	.185	.66			
	Religion x Justice	-.138	-.42			
	Law & Order x Justice	-.705	-1.70†			
Residual				.006	127	

† p < .10. * p < .05. ** p < .001.

Table 34

Hierarchical Regression of Attitudes toward Euthanasia onto
Empirically Derived Values and Ethical Perspective (Welfare and
Relativism)

Step	Predictor	β	t	R ² Change	df	F
1	Religion	-.339	-4.19**	.134	2	10.91**
	Law & Order	.123	1.53			
2	Welfare	.021	.26	.036	2	2.93
	Relativism	.190	2.37*			
3	Religion x Welfare	-.370	-.86	.050	2	0.06
	Law & Order x Welfare	-.054	-.13			
	Religion x Relativism	.824	2.53*			
	Law & Order x Relativism	-.341	-.74			
Residual				.006	127	

* $p < .05$. ** $p < .001$.

Table 35

Hierarchical Regression of Attitudes toward Capital Punishment
onto Empirically Derived Values and Moral Reasoning (P-score)

<u>Step</u>	<u>Predictor</u>	<u>B</u>	<u>t</u>	<u>R² Change</u>	<u>df</u>	<u>F</u>
1	Peace	-.097	-1.13	.029	2	2.05
	Family Security	.128	1.49			
2	P-score	-.176	-2.08*	.031	1	4.33
3	Peace x P-score	.360	1.21	.012	2	0.83
	Family Sec. x P-score	.119	.42			
Residual				.007	130	

* $p < .05$.

Table 36

Hierarchical Regression of Attitudes toward Capital Punishment
onto Empirically Derived Values and Moral Orientation (Care and
Justice)

<u>Step</u>	<u>Predictor</u>	<u>β</u>	<u>t</u>	<u>R² Change</u>	<u>df</u>	<u>F</u>
1	Peace	-.094	-1.10	.031	2	2.20
	Family Security	.139	1.63			
2	Care	.035	.40	.009	2	1.23
	Justice	-.095	-1.09			
3	Peace x Care	-.298	-.95	.041	4	1.45
	Family Sec. x Care	.478	1.42			
	Peace x Justice	.676	1.56			
	Family Sec. x Justice	-.435	-1.06			
Residual				.007	129	

Table 37

Hierarchical Regression of Attitudes toward Capital Punishment
onto Empirically Derived Values and Ethical Perspective (Welfare
and Relativism)

Step	Predictor	β	t	R ² Change	df	F
1	Peace	-.094	-1.10	.031	2	2.14
	Family Security	.139	1.63			
2	Welfare	.077	.88	.006	2	0.41
	Relativism	.021	.24			
3	Peace x Welfare	.339	.71	.019	2	0.64
	Family Sec. x Welfare	.462	.98			
	Peace x Relativism	.543	1.02			
	Family Sec. x Welfare	.333	.58			
Residual				.007	129

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Text complete; pagination error, p. 146 should be 149. .

Figure 1
EPQ Residuals: # with Magnitude > .10

Figure 2
EPQ Residuals: Percent $p < .05$

Note: Maximum Likelihood Extraction used

Figure 3
Care and Justice Residuals:
with Magnitude > .10

Figure 4
Care and Justice Residuals:
Percent $p < .05$

Note: Maximum Likelihood Extraction Used

Appendix A

Questionnaire and Debriefing

(CONSENT FORM)

SOCIAL ISSUES STUDY

In an effort to better understand how people think about social issues, this study will ask about your opinions and beliefs regarding abortion, capital punishment and euthanasia. For this research to be valid, it is important that you answer each question thoughtfully and as honestly as possible.

Before beginning, you should realize that your participation in this study is entirely voluntary, you may decline to answer any question and you may withdraw from the study at any time.

Once you have read this information, please complete the questions below and then wait for further instructions. Please note that this page will subsequently be separated from the rest of the questionnaire, so your answers will be completely anonymous. Under no circumstances will your identity be associated with your answers.

Thank you for your assistance.

SEX: Male / Female (circle)

AGE: _____ years

NAME (print): _____

Signature: _____

(To indicate that you have read and agreed to the above.)

(ROKEACH VALUE SURVEY, (1973): RANKING)

VALUE RANKING SURVEY

Below are 18 'values' or 'goals' listed in alphabetical order. Your task is to rank them in order of their importance to YOU, as guiding principles in YOUR life. Study the list and pick out the value that is most important to you. write a '1' beside that value. Then pick out the value which is second most important to you and write a '2' beside it. Then do the same for the remaining 16 values. The value which is least important to you should be ranked '18'. (No ties please). You should end up using all ranks from '1' to '18', one number beside each value. Work slowly and think carefully. The end result should show how you really feel.

- _____ A COMFORTABLE LIFE (a prosperous life)
- _____ A SENSE OF ACCOMPLISHMENT (lasting contribution)
- _____ A WORLD AT PEACE (free of war and conflict,
- _____ A WORLD OF BEAUTY (beauty of nature and the arts)
- _____ EQUALITY (equal opportunity for all)
- _____ FAMILY SECURITY (taking care of loved ones)
- _____ FREEDOM (independence, free choice for all)
- _____ HAPPINESS (contentedness)
- _____ HUMAN LIFE (sacredness of life)
- _____ INNER HARMONY (freedom from inner conflict)
- _____ LAW AND ORDER (maintaining order in society)
- _____ NATIONAL SECURITY (protection from attack)
- _____ PLEASURE (an enjoyable, leisurely life)
- _____ RELIGION (your religious beliefs and practices)
- _____ SELF-RESPECT (self-esteem)
- _____ SOCIAL RECOGNITION (respect, admiration)
- _____ TRUE FRIENDSHIP (close companionship)
- _____ WISDOM (a mature understanding of life)

(ROKEACH VALUE SURVEY, (1973): RATING)

VALUE RATING SURVEY

Below are 18 'values' or 'goals' listed in alphabetical order. Your task is to RATE them in order of their importance to YOU, as guiding principles in YOUR life. Study the scale below, where '0' indicates that a value is 'NOT AT ALL IMPORTANT' as a guiding principle in your life, '5' is 'MODERATELY IMPORTANT' and '9' indicates that the value is of 'SUPREME IMPORTANCE' as a guiding principle in your life. Place a number beside each value in the space provided. Work slowly and think carefully. The end result should show how you really feel.

0	1	2	3	4	5	6	7	8	9
NOT					MODERATELY				SUPREME
AT ALL					IMPORTANT				IMPORTANCE
IMPORTANT									

- _____ A COMFORTABLE LIFE (a prosperous life)
- _____ A SENSE OF ACCOMPLISHMENT (lasting contribution)
- _____ A WORLD AT PEACE (free of war and conflict)
- _____ A WORLD OF BEAUTY (beauty of nature and the arts)
- _____ EQUALITY (equal opportunity for all)
- _____ FAMILY SECURITY (taking care of loved ones)
- _____ FREEDOM (independence, free choice for all)
- _____ HAPPINESS (contentedness)
- _____ HUMAN LIFE (sacredness of life)
- _____ INNER HARMONY (freedom from inner conflict)
- _____ LAW AND ORDER (maintaining order in society)
- _____ NATIONAL SECURITY (protection from attack)
- _____ PLEASURE (an enjoyable, leisurely life)
- _____ RELIGION (your religious beliefs and practices)
- _____ SELF-RESPECT (self-esteem)
- _____ SOCIAL RECOGNITION (respect, admiration,
- _____ TRUE FRIENDSHIP (close companionship)
- _____ WISDOM (a mature understanding of life)

(DIT (REST, 1979) AND CARE AND JUSTICE SCALES (FRIEDMAN ET AL., 1987))

OPINIONS ABOUT SOCIAL PROBLEMS

The purpose of this questionnaire is to help us understand how people think about social problems. Different people have different opinions about questions of right and wrong. Unlike math problems that have right answers, there are no "right" answers to such social problems. We would like you to tell us what you think about several problem stories.

To give you an idea of what we want you to do, we have an example. Although this example is not really a social problem, it will illustrate our instructions. After you read the story, the first thing you will be asked is to indicate what you recommend that the person should do. If you tend to favour one action or another (even if you are not completely sure), you can select the "can't decide" choice.

After you make your decision, read all of the items which follow. Think of the issue that each item is raising. If that issue was important in making your decision, one way or another, then put a tick in the "great importance" box. If the issue was not important or doesn't make sense to you, tick the "no importance" box. If the issue was relevant to your decision, but not critical, mark "much importance," "some importance," or "little importance" depending on how important that issue was in your opinion. You may mark several items as of "great importance" (or any other level of importance); there is no fixed number of items that must be marked at any one level.

Finally, after you have made your marks along the left hand side of each of the items, you will be asked to choose the item that was the most important consideration out of all the items. Pick from among the items provided even if you think that none of the items are of "great importance." Of the items presented pick one as the most important (relative to the others), then the second most important, third, and fourth most important. Write your answers at the bottom of the page.

In order to illustrate how we would like you to answer, consider the example story on the next page.

FRANK AND THE CAR

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family's only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank Jones realizes that there are a lot of questions to consider. For instance, should he buy a larger used car or a smaller new car for about the same amount of money? Other questions occur to him.

What do you think Frank should do? (Check One)

_____ buy new car _____ can't decide _____ buy used car

IMPORTANCE:

Great Much Some Little No

				✓	1. Whether the car dealer was in the same block as where Frank lives.
✓					2. Would a used car be more economical in a long run than a new car.
		✓			3. Whether the colour was green, Frank's favourite colour.
				✓	4. Whether the cubic inch displacement was at least 200.
✓					5. Would a large, roomy car be better than a compact car.
				✓	6. Whether the front connibiles were differential.

From the list above, select the four most important:

Most important 5

Second most important 2

Third most important 3

Fourth most important 1

Note that in this example, the first item was considered irrelevant; the second item was considered as a critical issue in making a decision; the third item was considered of only moderate importance; the fourth item was not clear to the person responding, so it was marked "no"; the fifth item was also of critical importance; and the sixth item didn't make any sense, so it was marked "no".

Note that the most important item comes from one of the items marked on the far left hand side. In deciding between item #2 and #5, a person should reread these items, then put one of them as the most important, and the other item as second, etc..

Once you are sure you understand these instructions turn to the next page for the first story. Put up your hand to ask for help if you are unsure about anything.

Finally, for each of the three stories, we will be asking you to complete two sets of questions, Form A and Form B. Form A and B contain different issues which may have been important in your decisions. Do not move on to Form B until you have completed Form A.

HEINZ AND THE DRUG

In Europe a woman was near death from a special kind of cancer. There was one drug that doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid \$200 for the radium and charged \$2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about \$1,000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife. Should Heinz steal the drug? (Check One)

_____ Should Steal _____ Can't Decide _____ Should not steal

(DIT)

Form A: Heinz and the Drug

IMPORTANCE:

Great Much Some Little No

					1. Whether a community's Laws are going to be upheld?
					2. Isn't it only natural for a loving husband to care so much for his wife that he'd steal?
					3. Is Heinz willing to risk getting shot as a burglar or going to jail for a chance that stealing the drug might help?
					4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.
					5. Whether Heinz is stealing for himself or doing this solely to help someone else.
					6. Whether the druggist's rights to his invention have to be respected.
					7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.
					8. What values are going to be the basis for governing how people act towards each other.
					9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
					10. Whether the law in this case is getting in the way of the most basic claim of any member of society.
					11. Whether the druggist deserves to be robbed for being so greedy and cruel.
					12. Would stealing in such a case bring about more total good for the whole society or not?

From the list above, select the four most important issues:

Most important _____

Second most important _____

Third most important _____

Fourth most important _____

(CARE AND JUSTICE)

Form B: Heinz and the Drug

IMPORTANCE:

HOW IMPORTANT WAS EACH OF THE FOLLOWING BE IN MAKING YOUR DECISION.

Great	Much	Some	Little	No	
					A. Is Heinz likely to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help.
					B. Whether the druggist, in exercising his individual rights, infringes on the rights of others.
					C. How old are Heinz and his wife, and do they have children who could help them raise money.
					D. Whether Heinz has a right to make a decision based on his own system of values.
					E. Whether there is a moral code to which all individuals should adhere.
					F. Does Heinz have a responsibility to care for his wife.
					G. Whether the value of life and the equality of human rights are prior to law.
					H. What values are going to be the consistent basis for governing how people act toward each other.
					I. Heinz's willingness to substitute himself for his wife and bear the brunt of society's laws.
					J. Is this likely to weaken or strengthen the relationship between Heinz and his wife.
					K. Which outcome will cause the least hurt to all the people involved.
					L. The relative weights of life and property.

FROM THE LIST OF QUESTIONS ABOVE SELECT THE MOST IMPORTANT ISSUES:

Most important _____

Third most important _____

Second most important _____

Fourth most important _____

ESCAPE \ PRISONER

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

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

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

(DIT)

Form A: Escaped Prisoner

IMPORTANCE:

Great Much Some Little No

					1. Hasn't Mr Thompson been good enough for such a long time to prove he isn't a bad person?
					2. Everytime someone escapes punishment for a crime doesn't that just encourage more crime?
					3. Wouldn't we be better off without prisons and the oppression of our legal systems?
					4. Has Mr. Thompson really paid his dept to society?
					5. Would society be failing what Mr. Thompson should fairly expect?
					6. What benefits would prisons be apart from society, especially for a charitable man?
					7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?
					8. Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off?
					9. Was Mrs. Jones a good friend to Mr. Thompson?
					10. Wouldn't it be a citizen's duty to report an escaped criminal regardless of the circumstances?
					11. How would the will of the people and the public good be best served?
					12. Would going to prison do any good for Mr. Thompson or protect anybody?

From the list above, select the four most important issues:

Most important_____

Second most important_____

Third most important_____

Fourth most important_____

(CARE AND JUSTICE)

Form B: Escaped Prisoner

IMPORTANCE:

HOW IMPORTANT WAS EACH OF THE FOLLOWING BE IN MAKING YOUR DECISION.

Great	Much	Some	Little	No	
					A. Whether or not human dignity is served by the law.
					B. Whether liberty is the most fundamental value.
					C. Is there a universal moral principle at stake.
					D. Were Mr. Thompson and Mrs. Jones good friends.
					E. Is returning to prison going to undermine Mr. Thompson's rehabilitation.
					F. Whether Mrs. Jones as a former neighbor has an obligation to exercise care for Mr. Thompson.
					G. Whether or not society's responsibility to carry out its punishments is consistent with a rational moral principle.
					H. Who will suffer the most if Mrs. Jones turns in Mr. Thompson.
					I. Would it be selfish of Mrs. Jones to place greater importance on her peace of mind than on Mr. Thompson's well being.
					J. Would Mr. Thompson's going to prison protect anyone's rights.
					K. What sort of person was Mr. Thompson and what crime did he commit.
					L. Does Mrs. Jones have a right to decide on the basis of her own values.

FROM THE LIST OF QUESTIONS ABOVE SELECT THE FOUR MOST IMPORTANT ISSUES

Most important _____

Third most important _____

Second most important _____

Fourth most important _____

NEWSPAPER

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

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

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

☐ Should stop it ☐ Can't decide ☐ Should not stop it

(DIT)

Form A: Newspaper

IMPORTANCE:

Great Much Some Little No

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

From the list above, select the four most important issues:

Most important _____

Second most important _____

Third most important _____

Fourth most important _____

(CARE AND JUSTICE)

Form B: Newspaper

IMPORTANCE:

HOW IMPORTANT WAS EACH OF THE FOLLOWING BE IN MAKING YOUR DECISION

Great	Much	Some	Little	No	
					A. Which decision will cause the least hurt to the people involved.
					B. Does the principle of freedom of speech outweigh the opinion of the majority of parents.
					C. Whether Fred was in any way violating the rights of others in publishing the newspaper.
					D. Is the principal obliged to exercise care for the well being of students.
					E. Is the principal willing to sacrifice his position with the parents in order to allow Fred to print the newspaper.
					F. If the Principal stopped the newspaper would he be preventing full discussion of important ideas.
					G. Is the Principal likely to lose his job if he allows Fred to continue publishing the newspaper.
					H. Would discontinuing publication ruin the rapport between Fred and the principal.
					I. Whether individual rights are more important than the school rules.
					J. Whether or not there is a higher moral principle at stake.
					K. Whether students have a right to independent views apart from their parents.
					L. What sort of person is Fred, and does he have the best interests of the school at heart in publishing the newspaper.

FROM THE LIST OF QUESTIONS ABOVE SELECT THE FOUR MOST IMPORTANT ISSUES

Most important _____

Third most important _____

Second most important _____

Fourth most important _____

(FORSYTH'S (1980) ETHICAL POSITION QUESTIONNAIRE)

INSTRUCTIONS: You will find a series of general statements listed below. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree with such matters of opinion

Please read each statement carefully. Then indicate the extent to which you agree or disagree by placing in front of the statement the number corresponding to your feelings, where:

1 = Completely disagree	4 = Slightly disagree	7 = Moderately agree
2 = Largely disagree	5 = Neither agree nor disagree	8 = Largely agree
3 = Moderately disagree	6 = Slightly agree	9 = Completely agree

- _____ 1. A person should make certain that their actions never intentionally harm another even to a small degree.
- _____ 2. Risks to another should never be tolerated, irrespective of how small the risks might be.
- _____ 3. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
- _____ 4. One should never psychologically or physically harm another person.
- _____ 5. One should not perform an action which might in any way threaten the dignity and welfare of another individual.
- _____ 6. If an action could harm an innocent other, then it should not be done.
- _____ 7. Deciding whether or not to perform an act by balancing the positive consequences of an act against the negative consequences of the act is immoral.
- _____ 8. The dignity and welfare of people should be the most important concern in any society.
- _____ 9. It is never necessary to sacrifice the welfare of others.
- _____ 10. Moral actions are those which closely match ideals of the most "perfect" action.

1 = Completely disagree	4 = Slightly disagree	7 = Moderately agree
2 = Largely disagree	5 = Neither agree nor disagree	8 = Largely agree
3 = Moderately disagree	6 = Slightly agree	9 = Completely agree

- _____ 11. There are no ethical principles that are so important that they should be a part of any code of ethics.
- _____ 12. What is ethical varies from one situation and society to another.
- _____ 13. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.
- _____ 14. Different types of moralities cannot be compared as to "rightness."
- _____ 15. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
- _____ 16. Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgements of others.
- _____ 17. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.
- _____ 18. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.
- _____ 19. No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.
- _____ 20. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.

(RELATIVISM AND IDEALISM MARKER VARIABLES)

INSTRUCTIONS: You will find two questions listed below that will ask you about your general perspective on social issues. Please read each question carefully, and spend a few minutes on each one.

1. Some people believe that moral principles regarding what is morally "good" and "correct" are universal in that the same moral principles or codes must be used to judge the behaviour of all people, in all cultures, at all times. Other people believe that what is morally good or correct is relative in that moral principles or codes can only be defined by the particular culture or particular person. For example, "when in Rome do as the Romans do." To what extent do you, personally, believe that morality is "universal" or "relative" ?

Totally Relative	0	1	2	3	4	5	6	7	8	9	10	Totally Universal
---------------------	---	---	---	---	---	---	---	---	---	---	----	----------------------

2. Some people believe that the morality or goodness of a behaviour is determined by the nature of behaviour itself. For example, some people believe that "honesty is always the best policy," regardless of its consequences. Other people believe that the morality or goodness of a behaviour is determined by the consequences of the behaviour. For example, "honesty may not always be the best policy, it depends on the consequences." To what extent do you, personally, believe that morality is defined by the nature of the behaviour or by the consequences of the behaviour?

Totally Depends on the Behaviour itself	0	1	2	3	4	5	6	7	8	9	10	Totally Depends on the Consequences
---	---	---	---	---	---	---	---	---	---	---	----	-------------------------------------

(GENERAL ATTITUDE MEASURE: ABORTION)

Social Issues Questions

To what extent do you disagree or agree that women should be free to decide for themselves whether or not to have an abortion, even if this involves taking a potential human life?

Totally Disagree	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Totally Agree
---------------------	----	----	----	----	----	---	----	----	----	----	----	------------------

How confident are you in this judgement?

Not at all Confident	0	1	2	3	4	5	6	7	8	9	Totally Confident
-------------------------	---	---	---	---	---	---	---	---	---	---	----------------------

How much have you thought about this issue in the past?

Not at All	0	1	2	3	4	5	6	7	8	9	10	A Great Deal
------------	---	---	---	---	---	---	---	---	---	---	----	--------------

To what extent has this issue affected you personally?

Not at All	0	1	2	3	4	5	6	7	8	9	10 A Great Deal
------------	---	---	---	---	---	---	---	---	---	---	-----------------

(CAPITAL PUNISHMENT: GENERAL ATTITUDE MEASURE)

Social Issues Questions

To what extent do you disagree or agree that Canada should try to maintain law and order in society by giving the death penalty to people found guilty of murder, even if this involves taking people's lives?

Totally	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Totally
Disagree												Agree

How confident are you in this judgement?

Not at all	0	1	2	3	4	5	6	7	8	9	10	Totally
Confident												Confident

How much have you thought about this issue in the past?

Not at All	0	1	2	3	4	5	6	7	8	9	10	A Great Deal
------------	---	---	---	---	---	---	---	---	---	---	----	--------------

To what extent has this issue affected you personally?

Not at All	0	1	2	3	4	5	6	7	8	9	10	A Great Deal
------------	---	---	---	---	---	---	---	---	---	---	----	--------------

(EUTHANASIA: GENERAL ATTITUDE MEASURE)

Social Issues Questions

To what extent do you disagree or agree that Canada should respect people's freedom of choice regarding when they want to die by legalizing euthanasia (mercy killing), even though life is considered sacred?

Totally	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Totally
Disagree												Agree

How confident are you in this judgement?

Not at all	0	1	2	3	4	5	6	7	8	9	10	Totally
Confident												Confident

How much have you thought about this issue in the past?

Not at All	0	1	2	3	4	5	6	7	8	9	10	A Great Deal
------------	---	---	---	---	---	---	---	---	---	---	----	--------------

To what extent has this issue affected you personally?

Not at All	0	1	2	3	4	5	6	7	8	9	10	A Great Deal
------------	---	---	---	---	---	---	---	---	---	---	----	--------------

(ABORTION: SITUATIONAL ATTITUDE MEASURES)

To what extent do you, personally, believe that abortion is acceptable or unacceptable in each of the following circumstances?

- 1. When the pregnancy is the result of rape or incest.**

Abortion Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Abortion Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--------------------------------------

2. When the woman's life and health are definitely endangered by the pregnancy.

Abortion Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Abortion Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--------------------------------------

3. When the woman simply does not want a baby because parenthood would conflict with her lifestyle.

Abortion -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 Abortion
Completely Completely
Unacceptable Acceptable

4. When the woman wants an abortion but the father disapproves and is willing to assume all responsibility for the child.

Abortion Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Abortion Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--------------------------------------

5. When the woman fears that she will be unable to cope with the child, and is unwilling to put the child up for adoption.

Abortion -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 Abortion
Completely Completely
Unacceptable Acceptable

6. When the woman has learned that the child is not of the desired sex.

Abortion -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 Abortion
Completely Completely
Unacceptable Acceptable

7. When the woman has had several abortions and basically uses abortion as a means of birth control.

Abortion Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Abortion Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--------------------------------------

9. When it is extremely likely that there is a substantial risk that the child will be born with severe disabilities (e.g., severe retardation and physical disabilities).

10. A 47-year-old mother of four has just learned that she has conceived as a result of birth control failure and feels that she cannot afford nor cope with another baby at this stage of her life.

11. When the woman has AIDS and it is likely that the baby will also develop AIDS.

12. The use of fertility drugs in order to conceive has resulted in five fertilized embryos, and only by aborting two of the embryos is it likely that any will survive.

Abortion Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Abortion Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--------------------------------------

(EUTHANASIA: SITUATIONAL ATTITUDE MEASURES)

To what extent do you, personally, believe that euthanasia (mercy killing) is acceptable or unacceptable in each of the following circumstances?

1. When a person who is dying of cancer requests euthanasia because their pain is extremely severe and uncontrollable with drugs.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

2. When a person who is dying of cancer requests euthanasia even though their pain is totally controllable with drugs.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

3. When a 20-year-old person has entered a vegetative state as a result of a car accident.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

4. When a 75-year-old person has entered a vegetative state as a result of a stroke.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

5. When a person has entered a vegetative state as a result of a suicide attempt.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
------------------------------------	----	----	----	----	----	---	----	----	----	----	----	----------------------------------

6. When a person HAS indicated in a "living will" that if they were to enter a vegetative state they did NOT want to be maintained on life support, but their family disagrees.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
------------------------------------	----	----	----	----	----	---	----	----	----	----	----	----------------------------------

7. When a person HAS indicated in a "living will" that if they were to enter a vegetative state they did NOT want to be maintained on life support, and the family agrees.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
------------------------------------	----	----	----	----	----	---	----	----	----	----	----	----------------------------------

8. When a person has entered a vegetative state with NO prior indications of their wishes, and the family wants to terminate life support.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

9. When a person has entered a vegetative state with NO prior indications of their wishes, and the family wants to maintain life support.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

10. When a mentally competent person dying from cancer has put their affairs in order and wishes to refuse treatment so that they may die.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

11. When a mentally competent person dying from cancer has put their affairs in order and asks their physician for a syringe with a lethal dose of morphine so they can inject themselves and die.

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

12. When a mentally competent person dying from cancer has put their affairs in order and asks their physician to administer a lethal dose of morphine

Euthanasia Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Euthanasia Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

(CAPITAL PUNISHMENT: SITUATIONAL ATTITUDE MEASURES)

To what extent do you, personally, believe that capital punishment (the death penalty for murder) is acceptable or unacceptable in each of the following circumstances?

1. When the murder was definitely planned, deliberate and intentional.

Capital Punishment Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Capital Punishment Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

2. When a police or correctional officer was murdered.

Capital Punishment Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Capital Punishment Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

3. When a defenceless person, such as a child, was murdered.

Capital Punishment Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Capital Punishment Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

4. When the murder was committed by someone who was definitely insane at the time of the murder.

Capital Punishment Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Capital Punishment Completely Acceptable
--	----	----	----	----	----	---	----	----	----	----	----	--

5. When the murder involved intentionally killing a group of people.

Capital Punishment Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Capital Punishment Completely Acceptable
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6. When the murderer is mentally retarded.

Capital Punishment Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Capital Punishment Completely Acceptable
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7. When the murderer was a victim of a harsh childhood environment, including physical abuse, sexual abuse, and racial discrimination.

Capital Punishment Completely Unacceptable	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	Capital Punishment Completely Acceptable
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DEBRIEFING:

The SOCIAL ISSUES study you have just completed has been designed to examine the role that MORALITY has in the relationship between people's VALUES and their ATTITUDES.

VALUES have been found in previous research to have little impact on people's attitudes and behaviour (Ball-Rokeach et al., 1984) and similarly, MORAL DEVELOPMENT has also been found to be weakly related to behaviour (Blasi, 1980).

The basis of this study was to integrate the value and moral development literatures, in an attempt to explain why it is that people don't act according to values which guide their lives, and secondly, why it is that those capable of a high level of moral behaviour often fail to live up to this capacity.

An important consideration linking the VALUE and MORAL DEVELOPMENT literatures, is the use of UNIVERSAL PRINCIPLES in solving moral dilemmas. These principles are those that rational, equal and impartial people would choose to govern the cooperative interactions among people in society. The use of universal principles is a departure from making moral decisions on the basis of immediate consequences, tradition or friendship ties.

In the Heinz dilemma the comparison of universal principles, such as the value of property rights and the value of life, would then lead to a decision about what to do based on this comparison.

Specifically, what has been hypothesized in this study is that those capable of using universal principles in solving moral dilemmas will indeed tend to have ATTITUDES which reflect their important VALUES, while those not using universal principles are likely to have ATTITUDES which don't reflect their VALUES.

If you would like to make any further inquiries into this area of Social Psychology the following references may be of interest:

Blasi, A. (1980). Bridging moral cognition and moral action:

A critical review of the literature. Psychological Bulletin,
88, 1-45.

Rest, J. (1979). Development in judging moral issues.

Minneapolis: University of Minnesota.

Rokeach, M. (1973). The nature of human values.

New York: Free Press.

Finally, if you would like to discuss this study in more detail, please contact Alan Hotte, at 788-2600 ext. 2679 or Dr. Connie Kristiansen at 788-2600 ext. 2674. If you have any concerns about the way you were treated in this study, please contact Dr. Chris herdman, Chair of the Psychology Department Ethics Committee, at 788-2600 ext. 2689, or Dr. Bill Jones, Chair of the Department of Psychology, at 788-2600, ext. 2648.

Appendix B

Gender Differences

Previous research has found that, among the predictor and moderator variables, men and women have different value priorities (e.g., Feather, 1975; Furnham, 1987; Kristiansen & Matheson, 1990; Rokeach, 1973). For example, Kristiansen and Matheson (1990) found that females assigned more importance to the values A World of Peace, Equality, and Inner Harmony, while males placed more value on A Comfortable Life, An Exciting Life, and National Security.

For moral development, gender bias has been a contentious issue, largely as a result of Gilligan's (1982) claim that Kohlberg's system is sexist, being based on, and biased toward, male responses (Clarke-Stewart, Friedman & Koch, 1985, p. 554). Certainly Gilligan's (1982) criticism of Kohlberg's theoretical development as androcentric cannot be denied, as his original work was conducted on 84 males in a longitudinal study lasting 20 years (Hyde, 1985, p. 72).

Gilligan's (1982) second criticism was that the Kohlberg stage structure typically evaluated "characteristically feminine concerns for welfare, caring, and responsibility" as a lower form of moral development beneath the more elite and typically more "masculine values such as rationality, individuality, abstraction, detachment and impersonality" (Walker, 1984, p. 677). Evidence that Kohlberg's scoring system discriminates against females has, however, been lacking as Snarey, Reimer, and Kohlberg (1985), Gibbs and Widamon (1982), and Nissan and Kohlberg

(1982) (all cited in Rest, 1986, p. 112) found no gender differences in stage of moral development. Similarly, a meta-analysis of 56 studies involving 6000 participants indicated that gender differences in DIT P-scores are trivial, accounting for less than one half of one percent of the variance (Rest, 1986, pp. 111-113).

What has not been examined in these reviews (e.g., Rest, 1986) is the most recent elaboration of Gilligan's theory which considers Care and Justice to exist throughout the life span of both men and women (Lyons, 1988). Evidence both for the lack of gender differences in Care and Justice moral orientation, and the equal adoption of these moral orientations by both men and women, has been provided by Friedman, Robinson and Friedman (1987). Using a rating procedure similar to the DIT, Friedman et al. developed items reflecting a Justice moral orientation (based on Kohlberg, Colby, Gibbs and Speicher-Dubin's, 1978, scoring manual) and an alternative set of items reflecting an ethic of Care, as defined by Gilligan (1977, 1979, 1982). It was found that male and female college students did not differ in their endorsement of these items. Moreover, participants' masculinity and femininity scores, as assessed by Spence and Helmreich's (1978) Personal Attributes Questionnaire, were unrelated to moral orientation scores. Similarly, unpublished analyses of Kristiansen and Matheson's (1990) data revealed no gender differences in Psychology students'

Justice ($t(273) = -0.58$, ns) or Care ($t(273) = -1.21$, ns) scores, as assessed using Friedman et al.'s scales. Finally, within the context of a larger study, Forsyth, Nye and Kelley (1988) developed a ten-item measure of Care orientation based on Gilligan's (1982) writings. Like Friedman et al. (1987) and Kristiansen and Matheson (1990), Forsyth et al. found that male and female Introductory Psychology students did not differ in the extent to which they adopted an ethic of caring. These findings suggest that what Gilligan (1982) has reintroduced to the study of moral development is not contained within gender or gender-typed personality attributes, but instead reflects a much broader aspect of moral orientation.

Finally, for the ethical perspective scale which measured the dimensions of Idealism, renamed Welfare in this research, and Relativism, Forsyth (1980) and Forsyth, Nye and Kelley (1988) both reported that there were no gender differences on the Welfare (Idealism) and Relativism dimensions of the EPQ.

This appendix examines gender differences to see whether the above relationships held for this sample, and, more importantly, to evaluate the possibility that some aspect of gender may provide an alternative 'third variable' explanation for any observed relations between values, moral stage, moral orientation, ethical perspective and attitudes.

Results and Discussion

Values

In a multivariate analysis of variance (MANOVA) of the values of the 63 female and 77 male participants, there was no significant effect of gender across the 18 transformed value ranks, Pillais Trace $V = .184$, $F(18,117) = 1.46$, ns. When the univariate tests of the transformed ranked values were examined, however, there were clear gender differences in the valuation of Equality, $F(1,134) = 10.14$, $p < .01$, and Social Recognition, $F(1,134) = 5.60$, $p < .05$: females valued Equality ($M = 2.26$, $SD = .64$) more than did males ($M = 1.88$, $SD = .74$), and males valued Social Recognition ($M = 1.60$, $SD = .82$) more than did females ($M = 1.27$, $SD = .80$). Participants' ratings of these same 18 values, however, did reveal an overall gender difference in value priorities, Pillais Trace $V = .248$, $F(18,120) = 2.20$, $p < .001$. The univariate analyses indicated that women rated Peace ($M = 7.12$, $SD = 1.85$) as a more important guiding principle than did men ($M = 5.90$, $SD = 1.88$), $F(1,137) = 14.62$, $p < .001$. Women also rated Equality ($M = 7.70$, $SD = 1.39$) as more important than did men ($M = 6.73$, $SD = 1.79$), $F(1,137) = 12.89$, $p < .001$.

While these findings are consistent with those of prior research, the inconsistency of the gender differences observed between the rankings and ratings of values was unexpected given the large canonical correlation between value ranks and ratings in the total sample, $r_c = .91$, and

Resolution test chart showing patterns of vertical and horizontal lines with numerical labels: 1.0, 1.1, 1.25, 1.4, 1.6, 1.8, 2.0, 2.2, 2.5, 2.8, 3.2, 3.6, 4.0, 4.5, 5.0, 5.6, 6.3, 7.1, 8.0.

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

for men, $r_c = .98$ and for women, $r_c = .95$, as well as the similarity of results between ranking and rating noted in previous studies (e.g., Feather, 1975). In view of this inconsistency, the essential difference between these techniques, namely, the presence and importance of ties in the value ratings, was examined. The object here was to examine whether gender differences in the use of ties provided an alternative explanation for gender differences in value priorities. To do so, the number of values given the same importance rating was calculated for those values where gender differences in importance ratings were observed (i.e., Equality and Peace). Analyzing the number of ties revealed that there was no gender difference for Equality $t(137) = .18$, ns, but that women had more ties ($M = 3.64$, $SD = 2.99$) than did men ($M = 2.66$, $SD = 2.03$) for Peace $t(137) = 2.21$, $p < .05$. These findings may explain why, of the values rated differently by men and women, only Equality achieved univariate significance for both the rated and ranked values. This also implies that the gender difference in the value Peace may simply be the result of allowing ties in the value rating procedure.

In sum, gender differences in value priorities were found at least for Equality, and further research should examine the role of ties in observed gender differences in value priorities. It should be noted, however, that the lack of gender differences in value ranks may also be due to

modifications made to Rokeach's (1967) Terminal Value Survey. In the present study, the values of Human Life and Law and Order were added, and the values of An Exciting Life and Mature Love were dropped. The value Salvation was translated to Religion to make this value applicable to non-Christian belief systems. Both of the values dropped from the original value survey have been sources of gender differences in value rankings (Kristiansen & Matheson, 1990), and hence, their deletion may have reduced the observed gender differences.

Morality and Ethical Perspective

Consistent with the data reported by Rest (1979, 1986), there was no gender difference in P-scores, Pillais Trace V = .027, $F(2,135) = 1.85$, ns. There also were no gender differences on the revised Care and Justice scales, Pillais Trace V = .021, $F(2,137) = 1.51$, ns, in support of the claim of Friedman et al. (1987) that males and females do not differ in their endorsement of these moral orientations. There were, however, gender differences on the revised EPQ scales, Pillais Trace V = .124, $F(2,137) = 9.65$, with a significant univariate finding for Welfare, $F(1,138) = 16.71$, $p < .001$, but not Relativism, $F(1,138) = 2.02$, ns. For Welfare, females ($M = 6.65$, $SD = 1.19$) were more concerned with the welfare of others than were males ($M = 5.76$, $SD = 1.39$). This finding is inconsistent with Forsyth (1980) and Forsyth et al. (1988), where no gender

differences for the original scales were observed. Note, however, that this gender difference was not simply due to the revision of the Idealism/ Welfare scale in that there was also a gender difference, whereby women had greater Idealism scores ($M = 6.50$, $SD = 1.17$) than did men ($M = 5.68$, $SD = 1.31$), in the unrevised Idealism scale, $F(1,138) = 15.05$, $p < .001$.

The correlations among these predictor and moderator variables are given separately for males and females in Table B1. For both men and women, the revised Justice scale was moderately correlated with P-scores. Although there appear to be some inconsistencies in the gender correlation matrices, these inconsistencies were more apparent than real when Fisher's Z-test for independent correlations was applied (Howell, 1982, p. 197). The correlations between Care and Justice for males and females, for example, did not differ, $z = 1.24$, ns. Similarly, there were no gender differences in the correlations between Care and Welfare, $z = 0.58$, ns, and P-scores and Justice scores, $z = 1.76$. The only significant gender difference was in the correlation between Care and Relativism scores, $z = 1.97$, $p < .05$, which were positively correlated for men, but not women.

Attitudinal Variables

Gender differences were observed in attitudes toward abortion, $F(1,138) = 6.67$, $p < .05$, and capital punishment, $F(1,138) = 6.06$, $p < .05$, but not euthanasia, $F(1,138) =$

.03, ns.

For abortion, females expressed more favourable attitudes ($M = 8.10$, $SD = 2.97$) than did males ($M = 6.65$, $SD = 3.69$), although both groups generally agreed with abortion. For the issue of capital punishment, females ($M = 5.48$, $SD = 3.76$) again expressed more positive attitudes than did males ($M = 3.86$, $SD = 4.03$). In this case, males opposed capital punishment while females tended to endorse capital punishment.

For issue salience, which was the measure derived from participants' attitudinal confidence, thought and experience for each issue, gender differences were not observed in regard to euthanasia, $F(1,138) = .28$, ns, and capital punishment, $F(1,138) = .52$, ns. The issue of abortion, however, was more salient to females ($M = 7.36$, $SD = 1.75$) than to males ($M = 6.56$, $SD = 1.96$), $F(1,138) = 6.64$, $p < .05$.

When participants' attitudes toward the 12 situational variations for each issue were examined, there were no gender differences in participants' attitudes toward the euthanasia situations, Pillais Trace V = .095, $F(12,126) = 1.11$, ns, or capital punishment situations, Pillais Trace V = .119, $F(12,126) = 1.41$, ns. Again, however, there were gender differences in participants' attitudes toward the 12 abortion situations, Pillais Trace V = .204, $F(12,125) = 2.66$, $p < .01$. Examining the univariate effects revealed two

significant findings concerning situations "When the woman has learned that the child is not of the desired sex," $F(1,136) = 5.72, p < .05$, and "When the woman has had several abortions and basically uses abortion as a means of birth control," $F(1,136) = 11.86, p < .01$. In both instances, males were less opposed to abortion, with means of 1.90 ($SD = 3.12$) and 2.49 ($SD = 3.52$), respectively, while females were more opposed to abortion, with means of .86 ($SD = 1.98$) and .82 ($SD = 2.14$), respectively.

For the index of attitudinal variance, or the variance between participants' general attitudes and their situational attitudes for each issue, a gender difference was observed in regard to abortion, $F(1,135) = 6.16, p < .05$, but not euthanasia, $F(1,135) = .14, ns$, or capital punishment, $F(1,135) = .79, ns$. For abortion, females ($M = 18.46, SD = 9.82$) displayed more variability between their general attitude and situationally determined choices than did males ($M = 14.09, SD = 10.71$).

In sum, gender differences in general attitudes, attitudes toward specific situations, attitude variance and issue salience were not observed in regard to euthanasia and capital punishment, with one exception: females expressed more favourable attitudes toward capital punishment, generally, than did males. Gender differences did occur, however, for all of these indices regarding abortion: relative to males, females expressed more positive attitudes

toward abortion in general, responded less favourably to two situational variations, displayed more attitude variability across situations, and regarded the issue as more salient. Further, an analysis of covariance, where issue salience for abortion was a nonsignificant covariate ($\beta = -.667$, $t = -1.41$, ns), revealed that females ($M = 18.63$, $SD = 9.87$) had more attitude variance between their general and specific situational attitudes than did males ($M = 14.09$, $SD = 10.71$), ($F(1,135) = 8.02$, $p < .01$). Thus, the finding that relative to males, females expressed more variability between their general and situationally specific attitudes toward abortion cannot be explained by the fact that this issue was more salient to females.

Conclusion

In conclusion, gender differences in the main predictor variables of this study, namely values, were minimal. And while there were gender differences in some of the attitudinal criterion variables, particularly in regard to abortion, the fact that there were no gender differences in values suggests that gender cannot provide an alternative explanation for any observed relations between values and the attitudinal measures.

Table B1

Correlations among Predictor and Moderator Variable for Males and Females

Males (n=63)

	<u>Care</u>	<u>Justice</u>	<u>P-score</u>	<u>Welfare</u>
Care				
Justice	.12			
P-score	-.17	.54**		
Welfare	.15	.24	.12	
Relativism	.33*	.14	-.06	.05

Females (n=77)

	<u>Care</u>	<u>Justice</u>	<u>P-score</u>	<u>Welfare</u>
Care				
Justice	.32**			
P-score	-.08	.29**		
Welfare	.25*	.10	-.19	
Relativism	-.16	.07	-.08	-.17

* $p < .01$. ** $p < .01$, Two-tailed.

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