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I am submitting herewith a dissertation written by Michael Lester Finch entitled "Making Ethical Accounting Decisions: The Effect of Ethical Orientation on the Decision Process." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Business Administration.

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MAKING ETHICAL ACCOUNTING DECISIONS: THE EFFECT OF ETHICAL ORIENTATION ON THE DECISION PROCESS

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Michael Lester Finch

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Dedication

For Melissa,

for everything

Acknowledgments

I have been blessed with truly magnificent people in my life. I owe my faculty and graduate student colleagues an immense debt for having faith in me when my own faith wavered, especially Tim, Cathy, Gary and Susan. I also want to thank my family for their love and support, especially my daughter, Leah, and my brother, Donnie.

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Permission from the Ethics Resource Center, Washington, D.C. to reproduce the scenarios used in this dissertation is gratefully acknowledged.

Abstract

This research examines the role of ethical orientation in making ethical decisions. Two aspects of ethical orientation are measured using Forsyth's (1980) Ethics Position Questionnaire (EPQ): 1) ones preference for following moral rules in ethical situations (relativism) and 2) ones concern that ethical actions must lead to positive consequences for those afffected by the action (idealism). Subjects scoring high/low on the relativism and idealism scales were identified and further classified into ethical orientation categories according to Forsyth's (1980) typology.

Subjects read four scenarios depicting ethical dilemmas in accounting-related contexts. Subjects evaluated the action described in each scenario using items identified as useful indicators of overall ethical judgments and behavioral intention in Flory *et al.* (1992) . The relationship of relativism and idealism to overall ethical judgments and to behavioral intention was examined.

The results indicate that high relativists' overall ethical judgments are influenced by a variety of situational variables while low relativists judgments are influenced only by variables related to broad moral rules. High idealists' and low idealists' judgments were also found to differ. High idealists' mean judgment scores were greater for scenarios that had more severe potential consequences than for scenarios where the potential consequences were less severe. And generally, low idealists' judgment scores were the same for the different scenarios, regardless of the severity of possible consequences. However, neither ethical orientation, nor relativism nor idealism, were found to be strongly related to subjects' behavioral intention. Implications of these finding are discussed and suggestions for further research are presented.

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Chapter One

Introduction

"The results are frightening," declare Bruns and Merchant (1990) when discussing the results of their survey of ethical practices in management accounting. "Furthermore, the liberal definitions revealed in many responses of what is moral or ethical should raise profound questions about the quality of financial information that is used for decision-making purposes by parties both inside and outside a company" (p. 22). Bruns and Merchant specifically note the wide lack of agreement among respondents as to what is or is not ethical.

Philosophers have deliberated for centuries about what constitutes a moral or ethical person. Drawing on this debate, Mintz (1992) defines *ethics* as a system or code of conduct based on moral duties and obligations that indicates how persons should behave in relationships with others. Referring to the ability to distinguish right from wrong and the commitment to do what is right, business ethics is the application of ethical principles in business situations. Though business decisions include many complex considerations, Fritzsche (1991, p. 842) suggests that ethics is a dimension of *all* decisions [emphasis added].

Business ethics continues to be of considerable concern to accountants. For example, the September 1992 issue of *Management Accounting* addressed the issue of a continuing crisis in business ethics. Stanga and Turpen (1991) summarized a list of business news items about management fraud and ethical problems in business. Several national commissions and professional groups have recommended an increased emphasis on integrating ethical instruction into the business and accounting curricula (AAA, 1986;

AICPA, 1988; National Committee on Fraudulent Financial Reporting, 1987). The professed aim of these recommendations is to increase awareness of ethical issues and promote ethical business practices.

Accountants increasingly need to understand ethical behavior from a professional practice standpoint also. The recent report, *Internal Control-Integrated Framework*, by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), includes ethical values and integrity as central components of an internal control model (1992). As accountants attempt to implement and audit internal control systems, understanding how the decision to behave ethically is affected by characteristics of the individual and by the organizational environment becomes increasingly useful.

Noreen (1988) discusses ethical behavior in the context of agency theory. He notes that "at the heart of agency theory...is the assumption that people act unreservedly in their own narrowly defined self-interest with, if necessary, guile and deceit" (p. 359). He tempers this by observing "that while there may be some people who are unreservedly opportunistic, others do constrain their own behavior out of an ethical sensibility or conscience." Noreen finally concludes "an agreement (i.e. an ethical code) to abstain from opportunistic behavior cannot be effectively enforced by external rewards or sanctions; instead, the sanctions for unethical behavior must be internalized" (p. 359).

Even in the presence of a professional code of ethics, accountants disagree about what is ethical. If Noreen (1988) is correct that such a code cannot be enforced effectively, how are accountants to understand and internalize ethical behaviors? Shaub (1988, p. 97) recommends "the profession... undertake a study of the determinants of ethical

behavior...that provides some insight into what causes individuals to *choose* ethical behavior" [emphasis added].

The benefits of such an investigation include gaining insight into accountants' thought processes and recognizing how differences in judgment and behavior among accountants arise and cause problems for the profession. Knowledge from this research may also help identify approaches to positively affect ethical judgment and behavior in the accounting profession. This understanding is a necessary requirement for the legislation of rules and regulations intended to foster ethical behavior. Rules or codes of conduct that stress only one mode of reasoning may do little to affect the behavior of individuals whose reasoning is not consistent with that mode.

Cognitive moral development (CMD) theory describes the reasoning processes individuals use when making moral judgements or when confronted with situations containing moral dilemmas. Kohlberg (1979) proposes that moral judgments are the result of a cognitive process rather than the result of a specific moral trait. A significant body of research supports this theory, and CMD has become the dominant paradigm for studies of moral decision making and ethical behavior. (See Rest (1986) for a comprehensive review of this literature.)

Within this paradigm, Rest (1984, 1986) describes a model of the ethical decision process that includes four separate cognitive functions. In contrast to other proposed models in the business ethics literature, Rest's model allows investigation of the effects of individual decision maker characteristics and decision context characteristics at identifiable points in the decision process. Understanding how individual or contextual characteristics affect different parts of the decision process is important when trying to predict how and

why individuals make ethical decisions. Evidence supporting differential effects at various points in the ethical decision process has implications for the nature and content of organizational and institutional efforts to enhance ethical behavior. Such evidence may also have significant implications for policy makers concerned with rule-making that affects ethical considerations and behavior.

Several instruments have been developed to measure aspects of the moral judgment component of Rest's (1984) model. However, these instruments have had only moderate success as predictors of ethical behavior. Rest (1986, p. 134) suggests that researchers attempt to identify factors that provide a link between ethical judgments and ethical behavior. In this research, accountants' ethical orientation, a predisposition towards systematic ethical judgments, is measured using Forsyth's (1980) Ethics Position Questionnaire (EPQ). This study analyzes the influence of ethical orientation on accountants' ethical judgments and on their subsequent intentions to behave ethically. Using ethical situation scales developed by Reidenbach and Robin (1990) as a link between ethical judgment and behavior, this research examines the ability of the EPQ to explain behavioral intention for a series of accounting-related scenarios.

Chapter Two

Literature Review

Current researchers (see Table 1) in business ethics build models of ethical decision making and behavior using three components: decision maker characteristics, decision context characteristics, and decision process characteristics. These models differ primarily in the number of variables specified in each component and the proposed sequential linkages of the variables. Table 1 lists the variables included in several of the models in the business ethics literature.

Brady and Hatch (1992) criticize current models in the business ethics literature. They contend that these models fail to adequately specify a focused domain of interest. This lack of focus results in few meaningful and interesting research questions. The real purpose of the models, they argue, is to tie previous research together into some coherent whole. They further maintain that these models are unclear about the causal connections between the various proposed moderators of behavior. They note that moderators of behavior exert influence at all points in the process leading to ethical behavior, not just in the "box" labeled "decision process." Researchers should examine these critical linkages, not just group increasing numbers of variables, which Brady and Hatch suggest may not predict behavior any better than one or two simple variables.

This chapter reviews literature relevant to the discussion of the elements of ethical decision making and behavior: (1) decision process characteristics, (2) individual differences in decision makers' characteristics and, (3) decision context characteristics. The chapter concludes with a review of representative accounting and business studies of ethical behavior.

Table 1 Models of ethical decision making

Author(s)	Decision Maker Characteristics	Decision Context Characteristics	Decision Process Characteristics
Ferrell & Gresham (1985)	Knowledge Values Attitudes Intentions	Significant others Opportunity	Not specified
Hunt & Vitell (1986)	Personal experiences Deontological norms Teleological norms	Cultural environment Industry Organizational environment	Linear model • perceive problem • perceive alternatives • perceive consequences • evaluate per teleological & deontological norms • ethical judgment • intention • behavior
Trevino (1986)	CMD stage Ego strength Field dependence Locus of control	Immediate job context Organizational culture Characteristics of work itself	CMD stage using Rest's (1979) DIT
Fritizsche (1991)	Personal values •terminal •instrumental	Organizational climate Organizational goals Stakeholders	Linear model: • decision alternatives • decision dimensions • phased heuristic as part of linear model
Rest (1986)	CMD stage Ego strength Perseverance Implementation skills	None specified	Four Component Model: • evaluate situation • make ethical judgment • form intention • ethical action/behavior
Bommer, Gratto, Gravander, & Tuttle (1987)	Moral level Personal goals Motivation mechanism Position/status Self concept Life experiences Personality Demographics	Work environment Professional environment Personal environment Government/legal environment Social environment	Information acquisition Information processing Cognitive process Perceived rewards Perceived losses

Decision process characteristics

Rest's Four Component Model

Rest (1986) suggests that the ethical decision process is more complex than outlined in the other models. In contrast to the previous simple models of ethical decision making, Rest outlines a four-component model of the cognitive decision process (see Figure 1). The model includes decision process characteristics, decision maker characteristics, and decision context characteristics as elements of the process, but is simplified in that it does not specify sequential linkages between these variables. Rest maintains that a person behaving ethically must have performed at least four psychological functions:

> 1. The person must have been able to interpret the situation in terms of possible actions, the effects those actions would have, and how others would regard those effects on their welfare.
>
> 2. The person must have made a judgment about which action was morally right (or fair, etc.), thus determining what a person should do in that situation.
>
> 3. The person must give priority to moral values above other values such that an intention is formed to do what is morally right.
>
> 4. The person must have sufficient perseverance, ego strength, and implementation skills to be able to follow through on the intention to act morally, to overcome obstacles, and to withstand fatigue and flagging will.

Rest (1986) notes that each element affects all the other elements to some degree or another. (This quality is illustrated in Figure 1 by the two-way directional arrows and the "leaky" boundaries of the decision process components.) Rest's model suggests a more spatial, parallel-processing type of cognitive process.

Examining the first component of Rest's model, Karcher (1992) experimentally investigated auditors' ability to discern ethical issues. She presented scenarios to a group

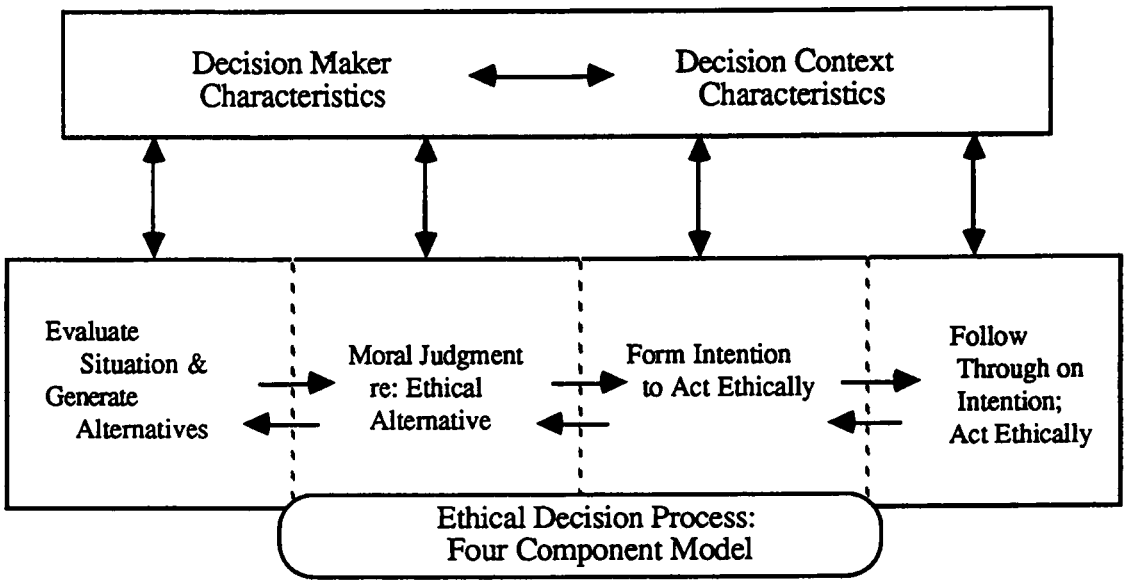


Figure 1. Ethical Decision Process Model

Adapted from Rest, James R., 1986, *Moral Development, Advances in Research and Theory*, New York: Praeger Publishers.

of auditors and manipulated the severity of the consequences. The scenarios contained accounting-related ethical issues (e.g. client tax evasion, auditor independence, and possible plant closing). The auditors' task was to identify the important issues in each scenarios. Karcher found that her subjects were more likely to mention an issue if the consequences of the problem were severe. Interestingly, the scenario dilemmas that violated specific ethics code provisions (e.g. independence) were the only ones described in values-laden terms by the subjects. Respondents did not use ethical terms to describe the tax-evasion and plant relocation dilemmas in the scenarios. Age was a significant variable in predicting whether subjects mentioned ethical issues, but employment position, expertise, prior exposure to similar issues, and education level were not.

Shaub *et al.* (1993) also examined auditors' ability to recognize ethical issues. Auditors read an auditing scenario containing three ethical issues (failing to charge time, using client or firm time for personal business, and subordinating auditor judgment on an accounting issue) and were asked to identify the ethical issues involved. Auditors' ethical sensitivity was related to their ethical orientation[1].

The second component of Rest's (1986) model, ethical or moral judgment, has received the most attention from researchers. This literature is discussed in the next section of this paper. In the context of Rest's model, some ethical trait measures have been found to be related to ethical judgment, but have been disappointing as predictors of behavior (Rest, 1986, p. 176).

Components 3 and 4 of Rest's model present a significant challenge to researchers, primarily because of the problems associated with manipulating and observing subject

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[1] Shaub *et al.* (1993) is discussed further in the next section of this paper, which reviews the literature pertaining to decision maker characteristics and ethical orientation.

behaviors in actual ethical situations. Reidenbach and Robin (1990), Flory *et al.* (1992) and Cohen *et al.* (1993) use behavioral intention as a measure of ethical behavior to circumvent these problems. Fishbein and Ajzen (1975) present a comprehensive analysis of intentions and behaviors and argue that "intentions are viewed as the immediate antecedents of corresponding overt behaviors" (Ch. 8, p. 382). They conclude that most behaviors can be accurately predicted from a measure of the individual's intention to perform the behavior in question. Fishbein and Ajzen describe various "stimulus conditions" (e.g. experimental situation, behavioral and situational variations, individual differences, characteristics of referents) (p. 334) that lead to the formation of intentions, which are also described in Rest's model. Importantly, these stimulus conditions include individual differences and situational (context) characteristics and variations.

Decision maker characteristics: Individual differences

Cognitive moral development (CMD) and moral judgment

Kohlberg (1969) theorized that moral judgment results not from a single trait but from a developmental cognitive process. His model emphasizes the reasoning aspect of moral judgment and how this reasoning follows an invariant developmental sequence as a person grows from childhood to adulthood. Rest (1986) and Kohlberg *et al.* (1983) review an extensive body of literature which strongly supports Kohlberg's theory of cognitive moral development. This theory has been the dominant paradigm for studies of ethical judgment and behavior for over twenty years. CMD theory forms the basis for attempts to identify other individual and situational moderators of ethical behavior.

CMD theory describes six stages that comprise three levels of moral thought development. The first two stages, the preconventional level, are characterized by moral

choices based on external sanctions or rewards. The conventional level, stages three and four, is indicated by adherence to group or societal norms and rules. The post-conventional level, stages five and six, is expressed by the choice of internally generated standards and by adherence to higher moral principles than might be embodied in laws or societal norms. A significant body of research has demonstrated the robustness of this theory as it relates to moral *judgment*, across cultures and across time. (See Rest, 1986 for a review of this literature.) Rest (1986, p. 176) notes, however, that CMD has not been particularly successful as a predictor of *behavior*.

Kohlberg measured subjects' CMD stage using the Moral Judgment Interview (MJI), a verbal protocol analysis of responses to ethical scenarios. To facilitate measurement of moral stage reasoning, Rest (1979, 1986) developed the Defining Issues Test (DIT). The DIT is a multiple-choice instrument that presents subjects with six scenarios of ethical situations. For each scenario, subjects rate the importance of twelve considerations that may be useful in making the decision in the scenario. Each consideration corresponds to the use of a specific stage of moral reasoning. The result, known as the P-score, represents the percentage of responses using principled reasoning, either stage 5 or 6 reasoning.

The DIT has been used in a number of accounting studies, often with conflicting results. (See Ponemon (1993) for a brief review of these studies.) Consistent with other business-related studies (e.g. Weber, 1990; Paradice and Dejoie, 1991), accountants' ethical judgments generally indicate conventional level (stage 3 or 4) reasoning, but these judgments are not strongly predictive of behavior (Ponemon, 1990).

Other personality and demographic characteristics

Knouse and Giacalone (1992) describe three categories of behavioral antecedents that may influence ethical decision-making: individual differences in decision-maker characteristics, interpersonal influences, and organizational influences[2]. Their analysis categorizes individual differences as either morals-*related* or morals-*unrelated.* Morals-related differences include propensities toward particular ethical judgments that may be useful as predictors of ethical behavior. Knouse and Giacalone describe morals-unrelated differences as those which do not describe an individual's morality *per se*, but may affect an individual's decision making processes. Included in this category are gender differences, locus of control[3], ego strength and other personality traits.

Research about morals-unrelated differences has focused on demographic variables, notably gender, age and educational level. Rest (1986) concludes that educational level is the most significant correlate with CMD stage. College students were found to operate at the same stage of moral development as did non-students with the same amount of education. Rest (1986, p. 176) also notes a positive correlation between CMD stage and age. Some studies have found age to be significant (e.g. Ruegger and King, 1992) while others have not (e.g. Stanga and Turpen, 1991).

The evidence related to gender is inconclusive. Kohlberg *et al.* (1983) and Rest (1986) claim that there is no significant effect due to gender found for moral stage

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[2] Interpersonal influences and organizational influences are beyond the scope of this discussion. Although potentially significant moderators of behavior, investigation of their influences will remain for future research projects.

[3] Locus of control refers to an individual's perception of how much control he or she exerts over events in life (Trevino and Youngblood, 1990).

development. Several studies (e.g. Stanga and Turpen 1991; Davis and Welton, 1991) found no evidence of a gender effect when they investigated students' judgments about ethical situations. In contrast, Ruegger and King (1992), in a large sample survey of business students, determined that gender was a significant factor in perceptions of business situations.

Ethical Orientation

Forsyth (1980, 1992) describes one measure of individual ethical ideology, the Ethics Position Questionnaire (EPQ). The EPQ assesses personal moral philosophy by using subjects' responses to twenty items to locate the respondents' positions on two scales, relativism and idealism[4]. The relativism scale measures one's acceptance of universal ethical absolutes or rules. A highly relativistic individual rejects moral rules in favor of individual analysis of a situation relative to situation-specific variables or personal attitudes. People who are low on the relativism scale believe that right actions are those that conform to universal moral laws or principles.

The idealism scale measures one's concern for positive consequences and/or the welfare of others. Those high in idealism believe that good consequences are always possible or that harm to others can be avoided. In contrast, those low in idealism assume harm to others is sometimes necessary to produce good. Measured on these two

---

[4] Forsyth (1980) found that the EPQ possesses reasonably strong psychometric properties and measures distinct aspects of individuals' ethical perspectives. He reports that the two scales are virtually uncorrelated (correlation = -.07, ns) with Cronbach's alpha reliability measures of .80 (relativism) and .73 (idealism). Test-retest reliabilities are .67 and .66, respectively. Forsyth found no significant statistical relationship between EPQ scores and CMD measured by the DIT.

dimensions, individuals can be classified into one of four ethical orientation categories: situationist, subjectivist, absolutist, and exceptionist (See Figure 2).[5]

Situationists (high relativism, high idealism) reject universal moral rules in favor of individual analysis of each act in each situation, but still insist that positive consequences be produced for everyone involved. Actions are evaluated in terms of their appropriateness relative to the context or situation. Rejecting attempts to apply any specific set of moral principles to all situations, situationists evaluate as most moral that which produces the most good for the greatest number of people. Subjectivists (high relativism, low idealism) also reject universal moral rules, but are not particularly concerned with producing positive results for anyone but themselves. Actions and moral judgments are considered valid only in reference to their own behavior, values, and self-interest. Subjectivists are primarily concerned with how they will be personally affected by an action. Absolutists (low relativism, high idealism) reject the use of consequences to evaluate the morality of actions in favor of strict adherence to universal moral principles. These principles can be derived through reason and do not allow for exceptions. Exceptionists (low relativism, low idealism) prefer to rely on moral rules as guidelines for action, but pragmatically admit that positive and negative consequences of actions must be considered and balanced. They are willing to allow exceptions to moral rules to avoid extremely negative consequences or to obtain extremely positive consequences.

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[5] Neither Forsyth (1980) nor Forsyth and Berger (1982) reported the criterion used to classify subjects into high and low categories on the EPQ scales. Forsyth and Pope (1984) classified subjects into the high or low groups if they were one standard deviation above or below the mean on the two scales. Forsyth (1985) used one standard deviation above or below the median as the high-low criterion.

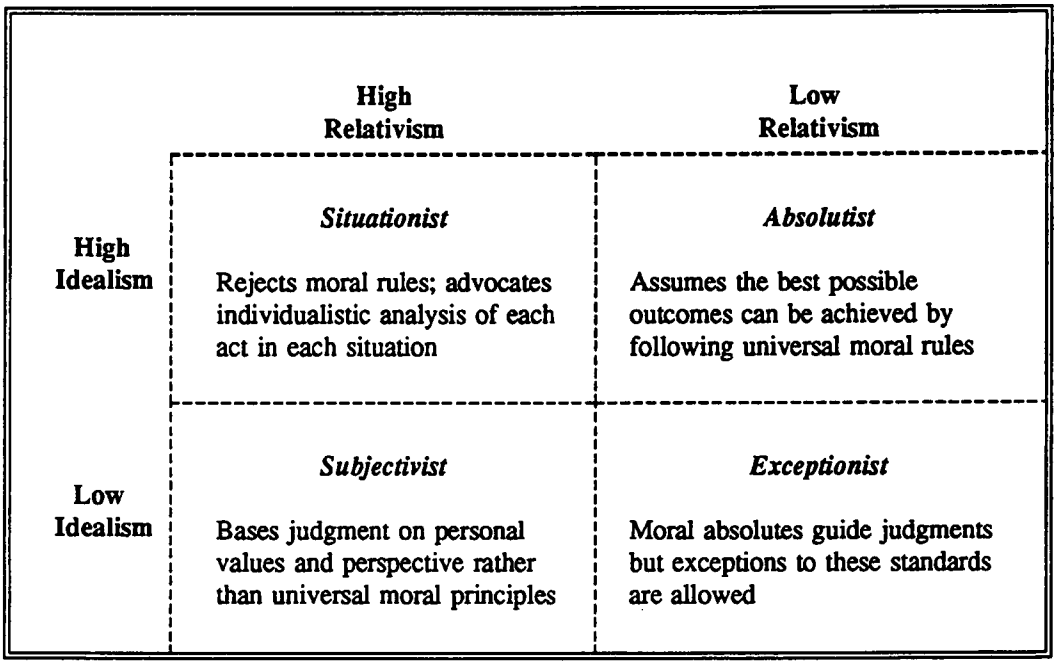


Figure 2. Ethical Orientations

Adapted from Forsyth, Donelson R., 1980, A Taxonomy of Ethical Ideologies, *Journal of Personality and Social Psychology* 39, No. 1: 175-184

Individuals with different ethical orientations have been found to exhibit divergent attitudes and judgments when evaluating contemporary moral issues (Forsyth, 1980), when judging the ethics of psychological research (Forsyth and Pope, 1984), and when measuring guilt reactions after engaging in immoral behavior (Forsyth and Berger, 1982; Forsyth and Nye, 1990.) Forsyth (1980) reported that subjects, classified by ethical orientation, varied widely in their judgments when asked to rate the morality of actors in short descriptions of actions and outcomes. Absolutists were found to be the harshest judges and exceptionists the most forgiving. Subjectivists' and situationists' judgments were strongly influenced by the consequences of the action, with positive consequences being judged less immoral.

Forsyth and Berger (1982) examined the relationship between ethical orientation and cheating behavior. In two laboratory experiments, subjects selected on the basis of their EPQ scores were tempted to cheat on a test. The authors report no statistically significant relationship between ethical orientation and cheating behavior. They conclude, however, that ethical orientation was related to how guilty subjects felt afterwards and how critically they judged their own behavior. Forsyth and Berger offer no explanation for their conclusion that ethical orientation may not be predictive of moral behavior.

Forsyth and Pope (1984) investigated the effect of ethical orientation on judgments of the ethics of selected psychological research studies. Generally conforming to expectations derived from previous studies, individuals were found to differ systematically in their moral judgments. Absolutists again made the harshest judgments, but their judgments were related to concern about psychological harm to subjects. Costs and consequences were important dimensions across ethical ideologies.

Shaub *et al.* (1993) investigated the effect of auditors' ethical orientation, and organizational and professional commitment on ethical sensitivity, which is the ability to discern ethical issues. They measured ethical orientation using Forsyth's (1980) EPQ. Subjects' scale scores were regressed as continuous variables in the study's path analysis.[6] Auditors' ethical orientations were found to be systematically related to ethical sensitivity and to professional and organizational commitment. Relativistic auditors were less ethically sensitive and less committed to the firm than nonrelativistic auditors. Idealism was positively associated with professional commitment, but negatively associated with ethical sensitivity. The authors found no evidence of a relationship between either organizational or professional commitment and ethical sensitivity.

In general, measures of decision maker characteristics related to ethical development or ethical traits appear to be relatively useful when investigating ethical judgments. The relationship to ethical behavior of these characteristics has not been established. Investigation of potential links between ethical development traits and ethical behavior remain a potentially rich area for future research.

Decision context characteristics: Ethical situation scales

Reidenbach and Robin (R&R) (1990) developed a multidimensional scale for evaluating ethical situations. They contend that the complex nature of ethical judgments and behavior necessitates the use of scales that distinguish among the complex dimensions that are present. R&R identified three factors that they suggest capture the basic dimensions of ethical situations, which they label "moral equity," "relativism," and

[6] Prior research has used the EPQ to create a categorical variable, ethical orientation (Forsyth, 1980, 1981; Forsyth and Berger, 1982; Forsyth and Pope, 1984; Forsyth and Nye, 1990).

"contractualism." R&R define the moral equity dimension in terms of considerations of justice or fairness. The relativism dimension[7] is described in terms of adherence to cultural or societal guidelines rather than individual or situation-specific considerations. R&R explain the contractualism dimension in terms of implied obligations arising from the social contract between business and society (1990, p. 646).

The three dimensions are measured by responses on eight scales (R&R, 1990). Figure 3 shows the eight scales grouped according to the dimension which they measure. In an experiment using the eight-scale measure, subjects were presented with three scenarios depicting ethical situations and the behavior chosen by the actor in the scenario. Respondents evaluated the overall ethics of the scenario action on a 7-point scale anchored with "ethical/unethical," and evaluated the action using the eight-scale measure. The subjects indicated the likelihood that they would engage in the same behavior as in the scenario, behavioral intention. R&R found the scale responses to be significant explanators of overall ethical judgments but only moderately strong predictors of behavioral intention. The moral equity dimension was determined to be the most significant, consistent with Kohlberg (1969), Kohlberg *et al.*, (1983) and Rest (1979). R&R note that "other variables or other ethical evaluative criteria...come into play in predicting intention" (p. 648).

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[7] R&R define relativism in a manner inconsistent with other researchers and moral philosophers. R&R base their definition on the contrast between being acceptable or not acceptable according to the moral norms of the culture/society. This can be contrasted with Forsyth's (1980, 1990) construct which contrasts the use of universal moral rules versus situation/culturally specific considerations. R&R's relativism dimension is more appropriately labeled differently, but for ease of discussion is not relabeled in this research. This research relies on Forsyth's (1980, 1992) definition of relativism, which is broader than that used by R&R (1990) and Flory *et al.* (1992).

Moral Equity Dimension

Fair	____:____:____:____:____:____:____	Unfair
Just	____:____:____:____:____:____:____	Unjust
Morally Right	____:____:____:____:____:____:____	Not Morally Right
Acceptable to My Family	____:____:____:____:____:____:____	Unacceptable to My Family

Relativism Dimension

Culturally Acceptable	____:____:____:____:____:____:____	Culturally Unacceptable
Traditionally Acceptable	____:____:____:____:____:____:____	Traditionally Unacceptable

Contractualism Dimension

Violates An Unwrittten Contract	____:____:____:____:____:____:____	Does Not Violate An Unwritten Contract
Violates An Unspoken Promise	____:____:____:____:____:____:____	Does Not Violate An Unspoken Promise

Figure 3. Ethical situation scales grouped by dimension

Adapted from Reidenbach, R. Eric, and Donald P. Robin, 1990, Toward the Development of a Multidimensional Scale for Improving Evaluations of Business Ethics, *Journal of Business Ethics*, 9: 639-653.

In a subsequent study, Flory *et al.* (1992) used the scales developed by R&R (1990) in an accounting context. Four realistic scenarios[8] were part of a survey sent to a sample of Certified Management Accountants. The results of this study are similar to R&R's (1990) results[9]. The multidimensional scales were moderately useful as predictors of subjects' judgments about the scenarios and of subjects' intentions to behave ethically. The authors note the superiority of the multidimensional measure over the unidimensional measure as a predictor of behavioral intention. Consistent with R&R, Flory *et al.* suggest that other significant factors are involved in the perceptions of ethical behavior and in individuals' intentions to behave ethically.

In a review critical of Flory *et al.* (1992), Jones and Ponemon (1993) contend that Flory *et al.* fail to consider well-established psychological theory in their scale development, specifically CMD and the DIT. Flory *et al.* (1993) respond that the focus of their scale development was to capture the situation-specific elements of ethical dilemmas, not to measure individual ethical capacity.

Jones and Ponemon (1993) also question the reported validity measures of the scales, based on three arguments: 1) that the subjects were not randomly sampled and therefore are not representative of the population of accounting professionals; 2) the cases used are too well known and too clearly depict situations with ethical conflict, which will result in similar responses from all subjects; and 3) the action depicted in the cases

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[8] The scenarios were developed collaboratively by the Institute of Management Accountants and the Ethics Resource Center in Washington, D.C. and produced on videotape. The scenarios used in Flory et al. (1992) were written versions abstracted from the videotape. The scenarios are reproduced in Appendix 2.

[9] The multidimensional measure's adjusted R^2s for the judgments of ethics in the scenarios ranged from .59 to .76. The adjusted R^2s for the behavioral intention variable ranged from .45 to .76.

produces a contrast effect[10] with the IMA code of conduct. The authors argue that the contrast effect forces convergence of responses on the end of the scales, reducing measurement error and inflating the reported measures of validity and reliability. Flory *et al.* (1993) respond that their objective was scale development and that systematic sampling was undertaken to reduce within-group variance in order to enhance this objective. Comparison with other groups of accounting professionals, therefore, remains an open empirical question. With regard to the second and third objections, Flory *et al.* (1993) provide additional parameter information about their data, with ranges of responses from 1 to 7, and standard deviations of responses from 1.1 to 1.7 for all scenarios. They contend that the existence of a contrast effect is purely speculative and not relevant until that empirical question is addressed. They also point to the predictive superiority of their measure as evidence of the usefulness of this line of inquiry.

Cohen *et al.* (1993) replicated the R&R (1990) study with a sample of accounting academics and concluded that, in general, the scale is robust across samples and contexts. They also found moderate evidence of an additional fourth dimension of ethical decision making, which they label "utilitarian." This additional dimension does not add much in predictive power, evidenced by reported R^2s not much different from those reported by R&R (1990) and Flory *et al.* (1992). They also reported some evidence of a social desirability or halo effect, as subjects responded that they would behave more ethically than their peers. This is consistent with earlier research. (See Tyson (1990) for a review of this literature.)

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[10] Contrast effect refers to the tendency of raters to see others' traits and actions the opposite of their own (Kidder, 1981, p. 206 as reported in Jones and Ponemon, 1993). This means that individuals will rate more unfavorably an action that they would reject if they were the actor, and rate more favorably an action in which they would be likely to engage.

In general, the measures of decision situation dimensions developed by R&R (1990) provide a reasonably effective way to examine some judgment and behavior differences in business and accounting ethics research.

Accounting and business studies of ethics

Trevino and Youngblood (1990) experimentally investigated the influence of CMD level and locus of control on the ethical decision process using MBA students as subjects. Trevino and Youngblood also included manipulations for management's responses to prior ethical decisions. Subjects' evaluations of management's probable support of ethical behavior were used to measure outcome expectancies. Using path analysis, CMD stage and locus of control were found to be moderately significant direct influences on ethical decisions. The management reward condition was found to influence ethical behavior, although the influence was indirect through outcome expectancies. Outcome expectancy was significantly correlated with ethical decisions. The authors conclude that additional research is needed on people's *a priori* beliefs and how they can be influenced, and also on how outcome expectancies influence behavior.

Tyson (1990) compared business students' perceptions of their own ethical standards to their perceptions of the ethical standards held by most managers or supervisors. The student subjects indicated they believed they were more ethical than those currently in business, consistent with literature briefly reviewed by Tyson. Tyson also reviews other literature which indicates practicing managers respond more ethically than students to the same sets of ethics-related behaviors. He suggests that new managers may have unrealistic perceptions of consequences of behaviors, inflating perceived payoffs for unethical behavior and underestimating the returns of behaving ethically.

Using Kohlberg's theory of CMD (1969, 1984) and a measure similar to Kohlberg *et al.* (1983), Weber (1990) investigated the effects of CMD, organizational size and type of ethical issue on managers' moral reasoning. Consistent with Rest's (1986) review of related literature, Weber found managers typically reasoned at CMD stage 3 or 4 (conventional level). Managers employed by medium-to-large organizations tended to reason at a lower stage than managers who worked for small firms or were self-employed, although the differences were not statistically significant. Weber found that managers' responses varied depending on the situation and the type of issue involved. He suggests additional research into how people perceive ethical dilemmas.

Chonko and Hunt (1985) and Finn *et al.* (1988) examine the nature and extent of ethical problems confronting marketing managers and CPAs, respectively. Both surveys catalogued the most frequently reported ethical issues and practitioners' assessments of the adequacy of existing codes of ethics vis-a-vis these issues. In both studies, professionals responded that opportunities exist for unethical behavior, but that few individuals actually behave unethically. Respondents also indicated they did not believe unethical behavior leads to success, and that successful CPAs and marketing managers did not engage in the unethical behaviors investigated in the studies. Both studies also concluded that current codes of ethics generally addressed the issues about which the respondents were most concerned. Chonko and Hunt (1985) report that females report more ethical problems than did their male counterparts, particularly regarding sex discrimination issues.

Some accounting and business researchers have attempted to catalogue the ethical issues facing business professionals (e.g. Chonko and Hunt, 1985, Finn *et al.*, 1986). Others have studied correlations between ethical judgment and various demographic,

morals-unrelated variables (e.g. Betz *et al.*, 1989; Shepard and Hartenian, 1990). And still others have investigated perceptions related to specific ethics code provisions (e.g. auditor independence) (Firth, 1980; Pany and Reckers, 1980). These studies have not succeeded in improving our understanding of how ethical decisions are made or how ethical behavior can be promoted.

Chapter Three

Development of Hypotheses

The previous chapter suggests several opportunities for accounting-related contributions to the field of business ethics. Many studies have attempted to establish correlative relationships between individual trait variables and various ethical determinations of accountants (e.g. Ruegger and King, 1992; Davis and Welton, 1991; Akaah, 1989). However, very little research can be found which systematically investigates the cognitive processes of accountants when making ethical decisions. These cognitive processes include judgments about ethical situations and the formation of intentions of whether or not to behave ethically. This dissertation investigates one possible moderator of accountants' ethical decision process and behavior, ethical orientation. Identification of moderators of ethical behavior has implications for the nature and design of educational programs designed to enhance ethical behavior. Knowledge of how individual ethical orientation affects the decision to behave ethically may also be helpful in the design of ethical codes and internal control procedures.

This chapter first describes the model that provides the context for this study's hypotheses. Next is a discussion of those hypotheses which examine the relationship between relativism and idealism and accountants' ethical judgments. Finally, this chapter presents hypotheses about the usefulness of ethical orientation as a predictor of behavioral intention when used in conjunction with ethical judgments.

Model of ethical decision making

This study uses Rest's (1986) four-component model of ethical decision making (see Figure 1). The model includes decision process characteristics, decision maker

characteristics, and decision context characteristics as elements of the ethical decision process, but does not specify sequential causal linkages between these variables. Because Rest's model suggests empirically testable interfaces between components of the ethical behavior decision process, the four-component model is an improvement over previously advanced models in the business ethics literature. Rest's model also implies a more parallel type of cognitive process, rather than sequential. Rest notes that each element affects all the other elements. He proposes that characteristics of the decision maker (or context or process) may influence any or all of the components of the ethical decision process. This research measures one decision maker characteristic, ethical orientation, and assesses the strength of this characteristic's influence at different points in the ethical behavior decision process.

This research first examines the effect of the ethical orientation dimensions on component 2 of Rest's (1986) model, ethical judgment. Forsyth's typology (see Figure 2) suggests that individuals differentiated by their relativistic and idealistic characteristics should exhibit differing judgments about ethical situations. Separately, each of the two dimensions, idealism and relativism, provide opportunities to test and better understand how people respond to ethical situations.

High and low relativists: Between-group comparisons

According to Forsyth's (1980) typology, highly relativistic individuals reject moral rules in favor of individual analyses of situations relative to situation-specific variables or personal attitudes. People who are low on the relativism scale believe that right actions are those that conform to universal moral laws or principles. Highly relativistic individuals take many situational factors into consideration when making ethical judgments.

Conversely, individuals low in relativism focus on fewer situational considerations and instead make their judgments based on moral principles.

In this study subjects were presented with four ethical decision scenarios. High relativists, according to Forsyth's (1980) typology, attend to more situational variables than do low relativists. As situations change, the possible variables involved in ethical judgment and behavior change as well. High relativists, then, might be expected to focus on different factors than low relativists when making ethical judgments, and these factors might change for high relativists depending on the particular ethical situation.

This change in situational focus for high relativists might manifest itself as systematic differences in their judgments on the three R&R (1990) situational dimension scales (see Figure 3). The individual scales which comprise the moral equity dimension score correspond to items often associated with moral principles and universal concepts of justice. The individual scales which comprise the relativism dimension score relate to the roles that tradition and culture play in ethical judgments. Cultural or traditional acceptability can vary greatly from scenario to scenario, depending on the specific issues involved. The third dimension identified by R&R (1990) pertains to the notions of implied obligations and duties inherent in ethical situations. This third dimension is also situation specific.

The moral equity dimension represents cues to which we would expect low relativists to respond in every situation, given their preference for moral rules. High relativists would not necessarily respond to these factors all the time. In contrast, high relativists, who are sensitive to situational distinctions, would be expected to pay attention

to different situational factors for different scenarios. The following research hypotheses is proposed:

> H1: For low relativists', judgment on the moral equity dimension is a more significant factor in explaining overall ethical judgments than are judgments on the relativism and contractualism dimensions. For high relativists, the significance of the situational dimensions will vary across scenarios.

High and low idealists: Between-group comparisons

The idealism dimension of Forsyth's (1980) ethical orientation typology offers another distinction between the ideological groups that can be used to examine differences in ethical judgments. Forsyth's discussion suggests that high idealists will judge as ethical those behaviors which produce positive consequences for those affected by the action. Low idealists are willing to accept some negative consequences as tradeoffs for other positive consequences, balancing the positives and negatives when making judgments. Forsyth (1985) further discusses the effect of severity of consequences on the judgments of high and low idealists. He argues that possible extreme consequences will affect judgments of high idealists more than judgments of low idealists, but that less severe consequences will have little or no effect on the judgments of either group.

The scenarios used in this research can be distinguished based on possible consequences, and may provide a vehicle with which to test this effect. According to Flory *et al.*'s (1992) discussion of scenario differences, scenarios A and B (see Appendix 2) have the most severe possible outcomes. Scenario A presents a severe possible consequence for the scenario actor, which we would expect to influence high idealists to make more extreme judgments. Scenario B involves an accountant in relation to the external public. In this scenario, possible consequences affect the public, not the actor directly. This scenario was

judged most unethical in Flory *et al.* (1992). Scenarios C and D involve adherence to company policies about obtaining approval for capital expenditures and granting credit to new customers. In Flory *et al.* (1992), scenarios C and D were judged least unethical and were considered least likely to lead to severe consequences. Based on Forsyth's (1980) discussion, high idealists' overall judgments are expected to be different across scenarios in response to possible consequence differences, while low idealists' judgments would not be expected to exhibit these variations. The research hypothesis is:

> H2: High idealists' measures of overall ethical judgment for scenarios A and B will be greater than their measures of overall ethical judgment for scenarios C and D. Low idealists' measures of overall ethical judgment for scenarios A and B will be the same as their measures of overall ethical judgment for scenarios C and D.

Ethical orientation and behavioral intention

The previous hypotheses test the influence of relativism and idealism, the elements of ethical orientation (Forsyth, 1980), on ethical judgment, component 2 of Rest's (1986) model. Rest asserts that decision maker characteristics affect the ethical decision process throughout all four components of the model, but may not influence each component to the same degree because of other factors' interference. An interesting question is whether ethical orientation influences behavioral intention, component 3 of Rest's model.

Knouse and Giacalone (1992), in their discussion of morals-related individual differences, assert that "measures of ethical ideology or conventional morality, both of which measure proclivities toward particular ethical judgment...may be used as...predictor(s) of unethical or deviant behavior within an organizational setting" (p.370-1). Forsyth's (1980) typology is one measure of ethical ideology that has been shown to be related to ethical judgments.

The previous discussion of the DIT and EPQ indicate that while these trait measures are useful for predicting ethical judgments, neither instrument is particularly useful for directly predicting behavior. Flory *et al.* (1992) demonstrate that the behavioral intention component of Rest's (1986) model is related to differences in judgment on the R&R (1990) situational dimension scales. Thus, the R&R scales may provide a link between the trait measures and behavioral intention. If so, including a measure of ethical orientation, as measured by Forsyth's (1980) EPQ, in a decision process model may better explain how ethical judgments affect behavioral intentions. An answer to this question would increase our understanding of whether judgment differences arising from divergent ethical orientations influence intentions to behave ethically. The next research hypothesis addresses whether ethical orientation affects the behavioral intention component of Rest's model:

H3: Ethical orientation is a significant determinant of behavioral intention.

Support for this hypothesis would indicate that efforts to predict and influence ethical behavior must consider factors which vary according to the ethical orientation of those at whom the efforts are directed. Codes of ethics may require multiple methods of implementation and control in order to be effective with all individuals.

Chapter Four

Experimental Design and Research Methods

This chapter discusses the research subjects, the experimental task, the experimental instruments, and the statistical analysis and hypothesis tests.

Subjects

Two groups of subjects were used in this project[11]. The first group was comprised of masters of accounting students from two large state universities. The second group was made up of undergraduates enrolled in the principles of managerial accounting course at one of the same universities.[12] Students are suitable surrogates for practicing accountants in behavioral accounting research when the focus of the research is on the subjects' decision processes rather than on subjects' attitudes (Ashton and Kramer, 1980). While some evidence exists that indicates this is not always the case (see Hughes and Gibson, 1991 for a review of this literature), other researchers (e.g. Dobbins *et al.*, 1988; Greenberg, 1987) contend that, even in many of these same studies, students are reasonable surrogates when the research task does not rely on technical judgment or domain-specific knowledge. In the proposed study, the cognitive processes being examined are general in nature and lend themselves to the use of student subjects. Additionally, the scenarios used in the proposed study depict generic business dilemmas in which technical accounting judgment is not required, lending further support to the use of student subjects.

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[11] This experiment was conducted in full compliance with the human subjects regulations (45 CFR 46) of the U.S. Department of Health and Human Services. This compliance was certified by the University of Tennessee Committee on Research Compliance (CRP# 4167A).

[12] Complete details about these subject groups and universities is presented in Chapter Five.

Gordon *et al.* (1986, 1987) suggest improving the generalizability of student-based research by using subjects "with demographic and interest profiles similar to the non-students to whom researchers wish to generalize" (p. 203). The use of masters of accounting students in the proposed study is consistent with this suggestion when generalizing to practicing accounting professionals. In this study, the extent of possible limits to external generalizability was assessed by comparing subjects' responses on the EPQ and scenario judgment scales with the accountants' responses in Shaub *et al.* (1993) and Flory *et al.* (1992).

Experimental task

The experimental task consisted of the following:

1. Completing the Ethics Position Questionnaire (Forsyth, 1980, 1992) (see Appendix 3).

2. Reading each of four scenarios (see Appendix 3) and for each:
   - indicating judgment of the scenario action on a 7-point Likert-type scale anchored by "ethical-unethical".
   - indicating behavioral intention for each scenario (the likelihood of behaving the same as the actor in the scenario), on a 7-point Likert-type scale anchored by "highly probable-highly improbable."
   - indicating judgment of the scenario action on R&R's (1990) eight scales.

3. Completing a post-test manipulation check and answering demographic questions.

Experimental instruments

The experimental instrument (see Appendix 3) consisted of a cover letter, the EPQ in Part 1, the four ethical scenarios with response scales in Part 2, and in Part 3, the manipulation check and demographic questions.

Ethics Position Questionnaire

In Part 1 of the research questionnaire, subjects completed Forsyth's (1980, 1992) EPQ to measure their ethical orientations. The EPQ consists of twenty statements to which respondents indicate their agreement on a 9-point scale (See Appendix 3). Ten statements pertain to the idealism dimension and ten statements pertain to the relativism dimension. Scores for each dimension were calculated by taking the arithmetic mean of the responses for that dimension. Subjects whose relativism or idealism scores were in the upper (lower) quartile on each scale were classified high (low) on that dimension[13]. This method of classification on the relativism and idealism dimensions of ethical orientation allows a 2X2 classification of subjects into the four categories outlined by Forsyth (1980, 1992): situationists, subjectivists, absolutists, and exceptionists (see Figure 2). Four versions of the EPQ were developed with the order of items randomly presented.

Scenario response scales

In Part 2 of the research questionnaire, subjects were presented with the scenarios used in Flory *et al.* (1992). These scenarios depict realistic accounting-related decisions that include an ethical dilemma (See Appendix 2). A particular advantage of these scenarios is that they were not developed originally for research purposes, and so may have reduced risk of bias toward any particular research finding. Use of these scenarios also

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[13] Previous research (Forsyth, 1980; Forsyth and Pope, 1984; Forsyth and Berger, 1982) offers no explanation for using one standard deviation above and below the mean/median as the cutoff criterion for classification into groups. In this research, one standard deviation above and below the mean did not result in cell sizes sufficient for statistical purposes. Two alternative methods of grouping the extremes were investigated (upper and lower quartiles, and one-half of a standard deviation above and below the mean). Upper and lower quartiles and one-half of a standard deviation above and below the mean both provided sufficiently large cell sizes for statistical purposes. Cell sizes using the upper and lower quartiles led to more nearly equal cell sizes than did one-half of a standard deviation. Only the results for upper and lower quartile scores are reported.

enhances the comparability of the results with prior research (e.g. Flory *et al.*, 1992). To compensate for a possible threat to validity from monomethod bias (bias resulting from using a single method to collect data) (Cook and Campbell, 1979), this research included both positive and negative behaviors in the scenario descriptions. This contrasts with the Flory *et al.* (1992) study, which presented only negative behaviors, and addresses one of Jones and Ponemon's (1993) methodological concerns.

Four different versions of Part 2 of the research questionnaire were constructed. Presentation order of the scenarios was randomized between versions to control for order effects in the testing instrument. Each version contained two scenarios depicting positive actions and two depicting negative actions. The positive/negative scenario action alternatives are presented in Appendix 2. Whether the action was positive or negative was determined randomly with the constraint that two positive and two negative actions be presented on each version of the instrument. Four different versions of the response scales were also developed.[14] Presentation order of the response scales was randomly determined. Additionally, the positive-negative ends of the response scales were randomly arranged. These scales were randomly assigned to the scenarios in each of the four versions of the instrument.

Manipulation check and demographic information

Two 7-point items were included to test for the effectiveness of the scenario manipulation (see Appendix 3). These items asked "How realistic were the scenarios used

[14] For each scenario, nine additional response scales unrelated to the hypotheses being tested in the current research were included in the research questionnaire. These scales were suggested by Cohen *et al.*, (1993) and are included in the research instrument in Appendix 4. The additional scales were randomly interspersed with the scales in the current research when constructing the questionnaire.

in this study?" and "How typical of the kinds of decisions that accountants make are the decisions depicted in the scenarios?" If responses are random, the expected response mean would be the scale midpoint, 4. A one-tailed test of difference provides a conservative test of the manipulation's effectiveness. Response means significantly higher than the midpoint of the scale indicate a successful experimental manipulation.

Additional demographic information was collected for all subjects, including age, gender, years of full-time work experience, religious affiliation, academic grades and test scores (see Appendix 3). Correlations between this demographic data and the dependent variables were used to identify possible covariates for inclusion in the data analysis.

Pretest

A pretest was conducted with a convenience sample of upper-level accounting students to ascertain completion time and determine if the scenarios were understandable. Pretest results indicated that completion time averaged 20 minutes (range 13-28 minutes). In response to concerns voiced by two respondents after the pretest, the scenario action was revised for one of the scenarios to make the scenario decision clearer and the ethical issue more explicit.

Statistical analysis

All hypothesis tests were made at the .05 significance level, although statistical p-values are reported for all tests. All statistical analyses were made using the JMP statistical program for the Apple MacIntosh available from the SAS Institute. One particular feature of JMP important to this research effort is the capability of JMP to

perform power calculations for statistical tests. (Statistical power is discussed later in this chapter.)

Use of analysis of variance model

An analysis of variance (ANOVA) model was used to generate test statistics for the hypothesis tests in this research. An analysis of variance model is appropriate when the independent variable is qualitative and when comparing more than two groups (Neter *et al.*, 1985). ANOVA assumes that group responses are independent, distributed normally and have equal variances, although ANOVA is relatively robust to departures from these assumptions (Huck *et al.*, 1974). For all tests of hypotheses, the ANOVA assumptions of normality and equal variances were tested. Levene's test for homogeneity of variance (which measures absolute value of the distance from the mean) was used to test the equal variance assumption. In those instances when the ANOVA assumptions were violated, a Welch ANOVA was used to test equality of means. The Welch statistic is based on the normal ANOVA F-test, with the means weighted by the reciprocal of the variances of the group means (Welch, 1951 reported in SAS, 1989).

Statistical power

Statistical power refers to the ability of an hypothesis test to lead to acceptance of the alternative hypothesis (reject the null) given that the alternative hypothesis is true. Power is a function of the α significance level, the size of the effect being tested, and the sample size. Statistical power is the complement of the probability of a type II error, the risk of accepting a false alternative hypothesis. Statistical tests that result in nonrejection of the null hypothesis may be problematic if the statistical power is low. With low statistical

power, one would not expect to find an effect even if it exists, and therefore, would not reject the null hypothesis. Increasing the size of the sample can increase the statistical power in these instances (Cohen, 1977). The negative consequence of increasing sample size is that models with little explanatory power (i.e. low R^2) may indicate statistically significant results when the results are actually of little interest.

In this research, power analyses were done for all hypothesis tests and the results are reported in the text. In those instances where the statistical power was low, a determination of the sample size necessary to achieve a reasonable level of power was made and was evaluated in the context of the explanatory power of the tested model.

Statistical models for hypothesis tests

High and low relativists: Comparisons of responses on situational dimension scales

For H1, the following ANOVA model was used for each of the high and low relativism groups to test for the significance of the situational dimensions in models of overall ethical judgments:

$$OVERALL_i = \mu + \beta_1 MorEqDim_i + \beta_2 RelDim_i + \beta_3 ContrDim_i + \varepsilon$$

where $OVERALL_i$ = judgment on 7-point overall ethics scale for scenario i
μ = model intercept
$MorEqDim_i$ = score on the moral equity dimension for scenario i
$RelDim_i$ = score on the relativism dimension for scenario i
$ContrDim_i$ = score on the contractualism dimension for scenario i
ε = residual error term

High and low idealists: Between-scenario comparisons of overall ethical judgments

H2 compares high and low idealists' mean overall judgment scores between scenarios. This hypothesis examines scenario differences as a source of variation in

subjects' responses. If the scenario variable is deemed to be a significant source of variation, it then becomes useful to examine the contrasts between the scenario responses to determine which scenarios responses are different from the others . The following random block ANOVA model was used for each idealism classification to test for the significance of scenario as an explanatory variable:

$$OVERALL_i = \mu + \beta_1 SUBJECT + \beta_2 SCENARIO_i + \varepsilon$$

where $OVERALL_i$ = judgment on 7-point overall ethics scale for scenario i, and
SUBJECT = specific subject effect, the blocking variable
SCENARIO = the within-subject scenario effect

Use of a random block design, using subject as the blocking variable, isolates some of the experimental error in the subject variable sum of squares and allows a more precise test of the within-subject scenario effect (Neter *et al.* 1985, p. 478). The subject variable is not of intrinsic interest in this dissertation. Its inclusion in the model is to reduce experimental error only.

For each idealism classification, simultaneous pairwise contrasts between mean scenario responses were made to test the specific predictions of H2. H2 predicts that for high idealists scenario A and B overall ethics judgments will be greater than those for scenarios C and D, but that they will be the same for low idealists. This requires tests of the following scenario contrasts for each idealism group: A-C, A-D, B-C and B-D.

The effect of ethical orientation on behavioral intention

To test H3, an ANOVA model of behavioral intention with judgment on the situation dimension scales but without ethical orientation category is compared to an ANOVA model which includes ethical orientation category as an independent variable:

$$BEHINT_i = \mu + \beta_1 MorEqDim_i + \beta_2 RelDim_i + \beta_3 ContrDim_i + \varepsilon \quad \text{and}$$

$$BEHINT_i = \mu + \beta_1 MorEqDim_i + \beta_2 RelDim_i + \beta_3 ContrDim_i + \beta_4 EPQCat_k + \varepsilon$$

where $BEHINT_i$ = score on 7-point behavioral intention scale for scenario i
$MorEqDim_i$ = score on the moral equity dimension for scenario i
$RelDim_i$ = score on the relativism dimension for scenario i
$ContrDim_i$ = score on the contractualism dimension for scenario i, and
$EPQCat_k$ = ethical orientation category k = situationist, subjectivist, absolutist, exceptionist

An increase in the models' R^2s with the inclusion of ethical orientation category provides evidence that ethical orientation category is useful in explaining and predicting behavioral intention.

Chapter Five

Results of Data Analysis

This chapter describes the administration of the experiment, reports descriptive data about the research subjects and their response distributions, and presents the results of the hypothesis tests.

Administration of the experiment

The research questionnaires were administered during regularly scheduled class times to master of accounting students at the University of Tennessee-Knoxville (n=51) and Iowa State University (n=32), and to undergraduate students enrolled in principles of managerial accounting at the University of Tennessee-Knoxville (n=114). Of the 197 instruments that were administered, 194 were usable. Three questionnaires were eliminated because of incomplete responses. Other than instructions to fill out the questionnaires completely, subjects received no guidance regarding the instrument or the meaning of specific items in the instrument. Approximately thirty minutes were reserved during the regular class period for completion of the questionnaire, although subjects were informed that there was no time limit for completion of the instrument. Thirty minutes was deemed adequate based on the pretest results, which indicated a mean time for completion of twenty minutes. The four different versions of the research instruments were distributed randomly to subjects.

Description of subjects and response distributions

Demographic information

Summary demographic information about the research sample is presented in Tables 2 and 3. Eighty-three graduate students and 111 undergraduates were in the final combined sample. Of the 191 usable gender responses, 79 (41.4%) were female and 112 (58.6%) were male (with 3 no response). The average age (standard deviation) in the combined sample was 22.68 (4.73) years. In Table 3, except for the work experience variable, the graduate and undergraduate subject groups differed significantly in their responses for each variable, with p-values < .0001 for all variables. These differences are discussed further in the covariate subsection of this chapter.

The mean (standard deviation) response on the relativism scale of the EPQ was 5.3067 (1.3107). The mean (standard deviation) idealism score was 5.9686 (1.1657). The response distributions were approximately normal for both variables. Relativism and idealism scores were virtually uncorrelated at .0638. Table 4 provides information on the scores subdivided by student group (graduate/undergraduate). The upper and lower quartiles of responses were used to classify subjects into the high and low categories for relativism and idealism[15]. Fifty subjects were classified as high relativists and 53 classified as low relativists (see Table 5). Fifty subjects were classified high idealists and 54 as low idealists. Subjects who were classified high or low on both dimensions were urther classified into ethical orientation categories (Forsyth, 1980). Twenty subjects were

[15] Upper and lower quartiles were used because they allowed for the most variation between groups while still providing sufficient sample sizes in the ethical orientation category cells for statistical purposes. Use of one standard deviation above and below the mean responses, as in previous research (Forsyth, 1980, 1981), would have required a total sample in excess of 600 subjects which was deemed prohibitive.

Table 2 Summary of school, subject group and gender of the research sample

School/student status	n	*Gender*		
		Female	**Male**	**No response**
Iowa State graduate	32	13	19	0
Tennessee graduate	51	18	33	0
Total graduate	83	31	52	0
Tennessee undergraduate	111	48	60	3
Combined total	194	79	112	3
Combined percent		40.7	57.7	1.5

Table 3 Summary of demographic subject information

	Combined group		Graduate		Undergraduate	
	Mean	**StdDev**	**Mean**	**StdDev**	**Mean**	**StdDev**
Age (years)	22.68	4.73	24.81	5.18	21.43	2.68
College education (years)	3.92	1.48	4.95	1.16	3.14	1.19
Work experience (years)	1.88	3.51	2.12	4.35	1.71	2.73
Overall GPA	3.12	.47	3.37	.36	2.93	.46
Accounting GPA	3.03	.67	3.34	.39	2.72	.74
ACT score	24.03	3.69	25.53	3.61	23.07	3.44
GMAT score			548.43	64.68	n/a	n/a

Table 4 Summary of relativism and idealism scores by subject group

		Relativism		*Idealism*	
	n	**Mean**	**StdDev**	**Mean**	**StdDev**
Graduate	83	4.9241	1.4024	5.7349	1.2326
Undergraduate	111	5.5928	1.1641	6.1432	1.0860
Combined group	194	5.3067	1.3107	5.9686	1.1657

Table 5 Classification of subjects into high and low relativism and high and low idealism categories: upper and lower quartiles

	RELATIVISM		*IDEALISM*	
Category	**Score**	**n**	**Score**	**n**
High	≥ 6.3	50	≥ 6.825	50
Low	≤ 4.5	53	≤ 5.275	54
Unclassified	between 4.5 and 6.3	91	between 5.275 and 6.825	90
Total		194		194

classified as situationists, 11 as subjectivists, 12 as absolutists, and 14 as exceptionists (see Table 6).

Possible covariates

The correlation matrix (Appendix 1) for the demographic variables and the response variables was examined to identify possible covariates for inclusion in the ANOVA models for this research. The demographic variables did not exhibit any systematic correlation with any of the response variables.

The demographic variables in Table 3 were further examined for their appropriateness as covariates. Each variable was included in the models of overall judgments and behavioral intention. The variables were introduced first as a group in the model that included the three situational dimension scores. The demographic variables did not achieve statistical significance in any of the scenario models. Similar results were also found when the demographic variables were introduced into the models singly and in various combinations. The demographic variables were deemed to be insignificant for purposes of understanding the ethical decision process in this research and were excluded from further analyses.

Since the two groups of subjects (graduate students and undergraduates) displayed statistically significant differences on the variables presented in Table 3, tests were conducted to determine if group membership influenced subjects' responses for any of the scenarios. When included in the model of overall ethical judgments as a covariate, the ANOVA test indicated that subject group is not significant in the model. The same result was found for models of behavioral intention. Another series of t-tests compared graduate to undergraduate overall and behavioral intention responses for each scenario for both high

Table 6 Classification of subjects into ethical orientation categories

Ethical orientation	n	Relativism category	Idealism category
Situationist	20	High	High
Subjectivist	11	High	Low
Absolutist	12	Low	High
Exceptionist	14	Low	Low
Total	57		

relativists and low relativists. Only one of the comparisons was statistically significant (low relativists, scenario B) with a two-tailed t-test statistic of 2.4078 (p-value < 0.0197). For all other comparisons the t-tests indicate no difference between group responses. These tests do not provide convincing evidence for including subject group as a covariate in any further analyses.

Manipulation checks

Two 7-point scale items were included in the research instrument to test the strength of the manipulation: "How realistic were the scenarios used in the study?" and "How typical of the types of decisions that accountants make are the decisions depicted in the scenario?" The mean (standard deviation) response on the realistic scale was 5.93 (.94) and on the typical scale was 5.62 (.90) The one-sided t-test statistic for the realistic scale was 28.555 (p-value < .0001) and for the typical scale was 24.746 (p-value < .0001). Both items were significantly greater than the scale midpoint, suggesting a successful experimental manipulation.

Comparison of responses with earlier research

The mean overall ethics judgment score for scenario A was 5.71; for scenario B: 5.46; for scenario C: 5.17; and for scenario D: 4.92. This contrasts with Flory *et al.* (1992) where the scenario B action was judged most unethical. Other than the ordering of scenarios A and B, the ordering and magnitude of the overall ethical judgment responses of the sample in this research are similar to those in Flory *et al.* (1992). In Flory *et al.*, the mean overall responses ranged from 4.8 to 6.1.

For each scenario, Appendix 1 contains a correlation matrix that includes relativism and idealism scores and categories and the scenario response variables. The pattern of correlations is generally consistent with the Flory *et al.* (1992) analysis wherein they developed the situation dimensions used in the present study.

Statistical comparisons of relativism and idealism scores between this research and Schaub *et al.* (1993) are not possible because in Schaub *et al.* relativism and idealism were measured on 7-point scales. However, some general comparisons are possible. In the present research, the mean relativism response is 5.31, compared to 3.75 in Schaub *et al.* In Schaub *et al.* (1993), the mean is slightly below the midpoint of the scale, while in this research the mean is slightly above the midpoint of the 9-point scale. The idealism score in Schaub *et al.* (1993) is slightly above the scale midpoint (4.42) as is the mean score in the present research (5.97).

Interestingly, the responses of the graduate portion of the present sample follow a pattern very similar to Schaub *et al.*'s (1993) accountant sample. The graduate mean responses are 4.92 for relativism (slightly below the midpoint) and 5.73 for idealism (slightly above the scale midpoint). This similarity of response pattern lends support to the argument that some students may be reasonable surrogates for practitioners in accounting ethics research.

Results of hypothesis tests

Relativism's effect on overall ethical judgments

H1 examines which situational dimensions are significant for high relativists compared to those for low relativists when making overall ethical judgments. For each scenario, a separate model was tested for each relativism group and the whole-model

ANOVA test results are displayed in Table 7. Table 7 also presents the test results for the significance of the situational dimension variables in the models. The research hypothesisis that for low relativists, the moral equity dimension should be a more significant variable when making overall ethics judgments than the relativism and contractualism dimensions, while for high relativists different dimensions will be significant for different scenarios.

The ANOVA test results support H1. For each scenario, the moral equity dimension is the most significant variable in the low relativists' model. For high relativists, the contractualism dimension is the most significant for scenario A, while the moral equity dimension is significant for scenarios C and D. For scenario B for the high relativists, none of the three dimensions in the model approaches significance. And, except for scenario B for the high relativists, the statistical power of the model tests is uniformly high, in excess of .98.

Interestingly, for scenario B, the model fit for both relativism groups drops dramatically, evidenced by the low R^2s, although the change is most severe for the high relativists. Apparently, some situational characteristic(s) not captured by the situational dimensions is operating for this scenario, to which the high relativists responded very strongly. It could be conjectured that this characteristic has something to do with the external reporting issue in the scenario. Investigation of exactly what caused the difference in response is warranted, but is beyond the scope of the data collected in this study.

Idealism's effect on overall ethical judgments

Tests of H2 investigate whether subjects respond differently when faced with different scenarios. These tests examine scenario differences as a source of within-subject variation for high and low idealists. Table 8 presents the ANOVA results for tests of the

Table 7 ANOVA test for comparison between high and low relativists of the situational dimensions' significance in models of overall ethical judgments for different scenarios

Scenario A

High Relativists

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	33.8279	11.2760	8.5183	0.0001
Error	46	60.8921	1.3237		
Total	49	94.7200			
				R^2 .3571	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	1.7602	1.3297	0.2548
Rel Dim	1	1	3.5562	2.6864	0.1080
Contr Dim	1	1	5.5946	4.2264	0.0455

Low Relativists

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	82.6441	27.5480	56.0736	0.0000
Error	49	24.0729	0.4913		
Total	52	106.7170			
				R^2 .7744	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	18.5022	37.6610	0.0000
Rel Dim	1	1	0.1580	0.3216	0.5732
Contr Dim	1	1	3.5318	7.1890	0.0100

Table 7 (continued)

Scenario B

High Relativists
Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	4.2561	1.4187	0.5603	0.6440
Error	45	113.9479	2.5322		
Total	48	118.2041			
				R^2 .0360	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	1.2621	0.4984	0.4838
Rel Dim	1	1	0.0450	0.0178	0.8946
Contr Dim	1	1	0.3925	0.1550	0.6957

Low Relativists
Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	50.8167	16.9389	15.3989	0.0000
Error	49	53.9003	1.1000		
Total	52	104.7170			
				R^2. 4853	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	22.1594	20.1448	0.0000
Rel Dim	1	1	0.2656	0.2414	0.6254
Contr Dim	1	1	0.1887	0.1715	0.6806

Table 7 (continued)

Scenario C

High Relativists

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	65.6951	21.8984	11.5160	0.0000
Error	45	85.5702	1.9016		
Total	48	151.2653			
				R^2 .4343	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	19.1946	10.0941	0.0027
Rel Dim	1	1	0.3204	0.1685	0.6834
Contr Dim	1	1	3.5844	1.8550	0.1766

Low Relativists

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	80.9668	26.9889	20.8803	0.0000
Error	49	63.3351	1.2926		
Total	52	144.30119			
				R^2 .5611	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	21.6782	16.7716	0.0002
Rel Dim	1	1	1.4771	1.1428	0.2903
Contr Dim	1	1	0.3689	0.2854	0.5956

Table 7 (continued)

Scenario D

High Relativists

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	71.5683	23.8561	25.8623	0.0000
Error	46	42.4317	0.9224		
Total	49	114.0000			
				R^2 .6278	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	23.8969	25.9065	0.0000
Rel Dim	1	1	0.2837	0.3075	0.5819
Contr Dim	1	1	0.3167	0.3433	0.5608

Low Relativists

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	79.9804	26.6601	37.3234	0.0000
Error	49	35.0007	0.7143		
Total	52	114.9811			
				R^2 .6956	

Effect test of situation variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	17.9663	25.1522	0.0000
Rel Dim	1	1	1.0793	1.5110	0.2249
Contr Dim	1	1	0.0581	0.0814	0.7767

Table 8 Analysis of variance of high and low idealists' overall ethical judgments for different scenarios

High idealists
Whole model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	52	214.5000	4.1250	1.7531	0.0048
Error	147	345.8950	2.3530		
Total	199	560.3950			
				R^2 .3828	

Test of Model Effects

Source	DF Num	DF Den	SS	MS	F Ratio	Prob>F
SCENARIO	3	147	43.855	14.6183	6.2126	0.0005
Subject	49	147	170.645	3.4826	1.4800	0.0386

Low idealists
Whole model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	56	169.8519	3.0331	1.4433	0.0404
Error	159	334.1435	2.1015		
Total	215	503.9954			
				R^2 .3370	

Test of Model Effects

Source	DF Num	DF Den	SS	MS	F Ratio	Prob>F
SCENARIO	3	159	18.6065	6.2022	2.9513	0.0344
Subject	53	159	151.2450	2.8537	1.3579	0.0762

significance of the scenario variable for each of the idealism groups. For high idealists, the whole model is significant at .0048 and the scenario variable is significant at .0005. For low idealists, the whole model is significant at .0404, and scenario is significant at .0344. These results indicate that scenario differences are more important considerations for high idealists than for low idealists when making overall judgments in ethical situations. Power calculations for these tests are in excess of .97. This high power indicates that the tests are discriminatory enough to detect differences in responses 97 percent of the time.

Because the scenario variable is significant for both groups, contrasts between scenario responses are examined to see if the differences conform to any pattern. The between-scenario contrasts of overall ethical judgments specified in H2 for each idealism group are presented in Table 9. For high idealists, all four of the specified contrasts (A-C, A-D, B-C, and B-D)[16] are in the predicted direction[17] and are statistically significant. For low idealists, none of the scenario judgment differences are significant except for the scenario A-D contrast. The low idealists' mean overall judgment response is greater for scenario A than for scenario D, contrary to the expected relationship. The power of the statistical tests for the low idealists' contrasts was .69, while for the high idealists it was .96.

The ANOVA test results for H2 are mixed. The high idealists' responses were consistent with the argument that high idealists will respond more extremely to scenarios with more severe possible consequences. And, except for the scenario A-D contrast, the

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[16] The two other possible scenario contrasts, A-B (severe consequences) and C-D (mild consequences) were also tested. Neither contrast was statistically significant.

[17] A positive value in the difference column of Table 12 indicates that the mean response for the first scenario listed is greater than for the second scenario in the contrast. A negative value would indicate that the second scenario's mean response was greater.

Table 9 Tests of between-scenario differences in overall ethical judgments for high and low idealism groups

High idealists

Contrast	Difference	p-value
A-C	.920	.0032
A-D	1.040	.0009
B-C	.820	.0084
B-D	.940	.0026

Low idealists

Contrast	Difference	p-value
A-C	.537	.056
A-D	.815	.004
B-C	.129	.643
B-D	.407	.146

low idealists' responses were consistent with the contention that low idealists will respond similarly to the different scenarios and the different possible consequences of the scenario actions.

Ethical orientation's effect on behavioral intention models

H3 tests whether including ethical orientation in a model with the R&R (1990) situation dimension measures increases the ability of that model to predict behavioral intention. The results of the ANOVA tests are presented in Table 10. The top part of the table shows the tests results for models without ethical orientation and the bottom part contains the test results for models that include the ethical orientation variable. The ethical orientation variable is not significant for any of the scenario models of behavioral intention. Averaging the results of Table 10 indicates that the average R^2 of the model without the ethical orientation measure is .2559, while including the ethical orientation measure increases this R^2 to .2840, an increase of .0281. An increase in R^2 was evident for each scenario, but the magnitude was very small. Because the increase in explanatory power of these models was so small, the EPQ appears to not be very useful when studying ethical behavioral intention.

Thus, despite the intuitive appeal of the ethical orientation variable, there is no evidence from the present research that ethical orientation has any significant effect on behavioral intention[18]. Some factor(s) not included in the model seems to be interfering in the decision process as behavioral intention is being formed. Statistical power for the

[18] Virtually identical results were obtained using relativism and idealism categories in the model, and using relativism and idealism scores.

Table 10 ANOVA test for the ethical orientation variable's significance in models of behavioral intention for different scenarios

Scenario A

Without ethical orientation

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	36.6927	12.2309	4.4354	0.0074
Error	53	146.1494	2.7575		
Total	56	182.8421			
				R^2 .2007	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	7.3247	2.6562	0.1091
Rel Dim	1	1	1.1529	4.4181	0.5207
Contr Dim	1	1	0.4623	0.1677	0.6839

Including ethical orientation

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	6	37.8937	6.3156	2.1786	0.0606
Error	50	144.9484	2.8990		
Total	56	182.8421			
				R^2 .2072	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	5.2089	1.7968	0.1862
Rel Dim	1	1	0.6902	0.2381	0.6277
Contr Dim	1	1	0.8377	0.2890	0.5933
EPQCat	3	3	1.2010	0.1381	0.9368

Table 10 (continued)

Scenario B

Without ethical orientation

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	28.9680	9.6560	4.3520	0.0082
Error	53	117.5934	2.2087		
Total	56	146.5614			
				R^2 .1977	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	2.9132	1.3130	0.2570
Rel Dim	1	1	12.0947	5.4511	0.0234
Contr Dim	1	1	2.7874	1.2563	0.2674

Including ethical orientation

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	6	35.4011	5.9002	2.6539	0.0259
Error	50	111.1602	2.2232		
Total	56	146.5614			
				R^2 .2415	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	4.0422	1.8182	0.1836
Rel Dim	1	1	9.4171	4.2358	0.0448
Contr Dim	1	1	1.3357	0.6008	0.4419
EPQCat	3	3	6.4332	0.9645	0.4168

Table 10 (continued)

Scenario C

Without ethical orientation

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	84.5469	28.1823	9.2433	0.0001
Error	53	161.5935	3.0489		
Total	56	246.1404			
				R^2 .3435	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	20.0218	6.5668	0.0133
Rel Dim	1	1	6.0882	1.9968	0.1635
Contr Dim	1	1	1.2911	0.4235	0.5180

Including ethical orientation

Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	6	95.5219	15.9203	5.2850	0.0003
Error	50	150.6184	3.0124		
Total	56	246.1404			
				R^2 .3881	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	19.2878	6.4029	0.0146
Rel Dim	1	1	6.2707	2.0817	0.1553
Contr Dim	1	1	0.6054	0.2010	0.6559
EPQCat	3	3	10.9750	1.2144	0.3142

Table 10 (continued)

Scenario D

Including ethical orientation
Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	3	51.1241	17.0414	6.9271	0.0005
Error	53	130.3846	2.4601		
Total	56	181.5088			
				R^2 .2817	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	13.5733	5.5174	0.0226
Rel Dim	1	1	1.5741	0.6399	0.4273
Contr Dim	1	1	0.1424	0.0579	0.8108

Including ethical orientation
Whole-model test

Source	DF	SS	MS	F Ratio	Prob>F
Model	6	54.2870	9.0478	3.5559	0.0052
Error	50	127.2218	2.5444		
Total	56	181.5088			
				R^2 .2991	

Effect test of model variables

Source	DF	N parameters	SS	F Ratio	Prob>F
MorEq Dim	1	1	13.9797	5.4942	0.0231
Rel Dim	1	1	1.7839	0.7011	0.4064
Contr Dim	1	1	0.2422	0.0952	0.7589
EPQCat	3	3	0.3.1628	0.4143	0.7434

tests of these models ranged from .84 to .99 for models without ethical orientation, and from .72 to .98 for models that included the ethical orientation variable. These power calculations impart confidence in the results of the hypothesis tests, indicating that, if an effect is operating, the tests are powerful enough to detect it.

Conclusion

The results of the hypothesis tests are clear. First, high relativists consider different situational factors than do low relativists, when making overall ethical judgments about possible actions in business situations. The moral equity dimension of ethical situations is the most important variable in low relativists' models of overall judgments, while the most important variable is different for each of the high relativists' models.

Second, high idealists seem to be more influenced by the severity of possible consequences of actions in business situations than are low idealists. In every instance, high idealists' responses to scenarios with severe possible consequences were greater than their responses to scenarios with milder potential consequences. And except for one instance, low idealists' responses were about the same for each scenario, indicating that consequence severity was not a major factor in determining low idealists' responses.

The previous conclusions indicate that the EPQ relativism and idealism measures provide useful information about ethical situation judgments. However, based on the results of the present research, neither relativism nor idealism makes a difference when people are deciding upon an actual behavior in these business situations. The behavioral traits individuals bring to ethical dilemmas, as measured by the EPQ in the present research, do not appear to influence the ethical behavior of those individuals.

Additional analyses

Several additional tests were made with the data from this research. First, simple models of overall ethical judgment and behavioral intention were constructed and tested, using idealism and relativism scores and categories as the independent variables. The primary purpose of these tests was to compare high and low relativists' (idealists') responses on the overall judgment and behavioral intention scales. No difference was found between the overall judgments or the behavioral intention responses of the relativism (idealism) groups, for any of the scenarios.

Second, tests were made to examine the ability of the relativism and idealism categories[19] to directly predict overall judgments and behavioral intention. The R^2s for these models were very low, less than .03. This indicates that neither the relativism category variable nor the idealism category variable is useful for predicting either overall judgments or behavioral intention. This is consistent with the results of H3, reported above.

Another simple model for the whole sample (n=194) was tested to examine the effect of scenario action on subjects' overall judgment responses. Scenario action refers to whether a positive or negative action was presented in the scenarios. For scenarios A and D, the positive action was judged more ethical than the negative action was considered unethical. These differences were significant at .0004 and .0000, respectively. For scenario C, the pattern was reversed, the negative action was judged more unethical than the positive

[19] The same tests were performed using EPQ relativism and idealism scores instead of relativism and idealism categories. The results were nearly identical to those from the tests using relativism and idealism categories.

action was judged ethical (p-value = .0000). For scenario B, however, both actions were judged equally ethical/unethical.

A possible explanation for the differences in responses is that for the positive actions, subjects were surprised by the scenario action and therefore rated it higher. Because participants may not have thought the negative action was unusual, they rated it less severely[20]. For scenario C, an ethical consideration other than that being manipulated in the study may have taken precedence for respondents, perhaps that of loyalty to one's friends. If this is the case for scenario C, what was considered the positive action *a priori*, became the negative action in the experimental situation, and then the pattern is the same as scenarios A and D. For scenario B, this explanation does not hold, and other possible explanations are not readily available. When behavioral intention was the response variable, these differences in responses followed the same pattern but were not statistically significant, except for scenario C.

[20] There is evidence in the belief revision auditing literature that such a surprise effect may exist (e.g. Ashton and Ashton, 1988; Einhorn and Hogarth, 1985).

Chapter Six

Discussion and Recommendations

The purpose of this dissertation was to investigate the ability of ethical orientation to contribute to our understanding of the ethical decision process. Specifically, it examined the influence of the relativism and idealism dimensions of ethical orientation on overall ethical judgments about business and accounting scenarios. Then, this study examined the effect of ethical orientation on the subsequent intention to behave ethically. This chapter discusses the implications and contributions of the present research. Then, a summary of possible research limitations is presented followed by suggestions for further research.

Implications of the present research

This study has implications for educational efforts aimed at promoting ethical behavior and for professional accounting practice. Strong evidence is presented that those with differing relativistic predispositions use different information when making ethical judgments. Much of the current ethical instruction in accounting courses consists of reviewing the rules contained in the Professional Code of Ethics. While this type of instruction may be effective with low relativists, who tend to be rule-based thinkers, it may not work as well with high relativists, who tend to use a variety of factors when making ethical judgements. Educators must recognize these differences in decision style and discover ways to challenge all students in developing moral judgment skills. The same argument applies to the efforts of accounting firms as they attempt to aid the development of ethical reasoning skills through educational efforts.

Ponemon and Glazer (1990) and Ponemon (1992) argue that auditing firms inhibit the development of moral reasoning by socializing their members into rule-based ways of

thinking. It may be that high relativists (non-rule-based thinkers) self-select out of the firm or profession because of incompatibility. If this is the case, it might appear that the firm is inducing rule-based thinking by its members when, in actuality, management is creating an environment that is open only to rule-based thinkers. (If highly relativistic thinkers self-select out of the profession while still in school the situation is more complex.) If firms want to develop the ethical reasoning skills of their members, exposure to both rule-based and non-rule-based thinkers is in order. Firms need greater awareness of the underlying predispositions towards relativism of their members and consciously develop a milieu in which all kinds of moral thinkers can flourish. The EPQ provides a vehicle to identify firm members' relativism and idealism orientations. This information can provide a focal point for educational efforts and consciousness-raising about ethical issues, and ethical decision-making and behavior.

Evidence is also presented in this study which indicates that individuals' ethical judgments depend on the severity of the consequences of ethical actions. Ways need to be found to expand the awareness of and discussion about the consequences of actions and how perceptions of consequences are formed, especially where the ethical issues are obscure or the consequences are not apparent or determinable.

Contributions of the present research

The present research contributes to the accounting and business ethics literature in several ways. While it is unlikely that any single study will get anyone to agree as to what is or is not ethical, the present study suggests opportunities for increasing useful dialogue about ethics in accounting and business contexts. The study's results indicate that those with differing relativistic orientations look at different aspects of situations when making

ethical judgments. And those with differing idealistic tendencies are affected differently by action consequences. The relativism and idealism dimensions provide a conceptual framework for discussing ethical behavior that can be used by individuals holding differing ethical views. The two dimensions are useful as a framework for organizational efforts that aim to increase understanding of why individuals behave as they do.

The present research represents an integration and synthesis of several disparate lines of inquiry. It extends the work of Forsyth (1980, 1992) by incorporating his typology of ethical orientations into a framework for analyzing accounting-related ethical issues, despite the failure of this typology to directly predict behavioral intention. It also extends the work of Reidenbach and Robin (1990) and Flory *et al.* (1992) by including their situational dimensions in an expanded decision model. The present research investigated behavioral characteristics that influence judgments on the multidimensional scale Flory *et al.* (1992, 1993) propose using in accounting ethics contexts.

The model of ethical decision making and behavior used in this research is a significant advance over earlier models. This model acknowledges the inappropriateness of specifying sequential causal linkages between moderators of the process (Brady and Hatch, 1992) by displaying the spatial, distributed nature of the process. The model includes multiple cognitive processes leading to ethical behavior (Rest, 1979) rather than some unspecified decision process. The present research tests theoretical links between specific individual characteristics and the ethical decision process, specifically where the influence of these characteristics is likely to be greatest. The results of the study indicate support for Rest's model. Consistent with the model, individual trait characteristics influenced respondents' judgments in component 2 of the model, as hypothesized. The results also

indicate that some other characteristic of either the decision maker or situation acted in the decision process when behavioral intention was being formed. A foundation for inquiries into other decision maker process-related variables and decision context-related variables (e.g. the domains suggested by Bommer *et al.*, 1987) is established by this research.

Limitations of the current study

Like all research, the present research is subject to possible limitations. These include those usually associated with the use of students as subjects. As discussed earlier, before results can be generalized to other groups of interest, the comparability of the student group with those other groups must be assessed. The distributions of the graduate student EPQ responses are very similar to those of the accountants that were subjects in earlier research (Schaub *et al.*, 1993). This similarity of responses provides some evidence that master of accounting students may be appropriate surrogates for accounting practitioners in business ethics research. However, the combined sample group's responses distributions were different than the earlier research's accountants' responses. This dissimilarity suggests that generalizations from the combined sample to accounting practitioners is inappropriate.

The EPQ is also subject to certain limitations. Although it provides a parsimonious measure of respondents' relativistic and idealistic orientations it does not measure the specific rules observed by low relativists. Nor does it measure the specific perceptions about consequences that influence high and low idealists. Because the EPQ measurement of idealism and relativism is so broad in nature, important information about these characteristics may not be captured.

The use of scenarios in any research necessarily limits the external validity of the results, because there is no assurance that subjects' reported behavior will correspond with actual behavior outside of the experimental situation. In this research, subjects' responses to the situation were limited to agreement with that of the scenario actor, and did not allow for other alternative responses. This further limits generalizability. Also, in scenario-based research, variables other than those intended to be measured may influence subjects' responses. This effect may be operating in scenario C in this research.

Another possible limitation is the threat to internal validity from the use of written instruments for data collection. Care was taken to minimize artificial effects that may arise by using paper and pencil testing instruments, including monomethod bias and testing effects. Testing effects were alleviated by varying the order of presentation of scenarios and response scales between subjects. Additionally, ensuring subjects' involvement in the experimental condition is always a concern in this type of experiment. Clear, explicit instructions were given and the time necessary to complete the instrument was minimized. And, by allowing subjects to complete the instruments unobserved, their responses are more likely to be candid, thereby reducing the likelihood of demand effects.

Suggestions for future research

Several opportunities for further research are suggested by the results of this study. A study similar to the present research where participants generate behavioral responses to the scenarios rather than evaluate someone else's action would provide additional insight into component 3 of Rest's (1986) model, behavioral intention.

It would be useful to identify and investigate variables that affect the ethical decision process at the juncture when behavioral intention is being formed. One such

possible variable is risk preference, which has been demonstrated to affect financial decision making (Kahneman and Tversky, 1979, 1984). Kahneman and Tversky assert that risk preference exerts influence after judgments have been made and decision alternatives have been evaluated, when the intention to behave ethically (or not) is being formed. This relationship corresponds to components 2 and 3 of Rest's (1986) model.

Given that high and low idealists respond differently as consequence severity changes across scenarios, it would be interesting to examine perceptions about consequences of ethical decisions. Jones (1991) suggests four consequence-related constructs which may affect ethical decision-making in organizations: magnitude of consequences, temporal immediacy (how long it takes for consequences to happen), probability of effect (the probability that the act will cause the harm predicted), and concentration of effect (how many people are affected). Tests related to these issues would help clarify the interaction between the decision-maker and decision-context variables in Rest's (1986) model.

Additional research should be undertaken to examine the effect of scenario presentation and the scenario action on subjects' responses. In the present study, whether the scenario action was positive or negative made a difference in the subjects' responses. The belief revision literature (e.g. Ashton and Ashton, 1988; Einhorn and Hogarth, 1985) may provide a foundation for this line of research. From a methodological standpoint, the results of the present study indicate that ethics researchers who use scenarios in their research must be concerned with the actions presented to participants, and results need to be evaluated in light of this consideration. Previous research results in the ethics area may be subject to a bias from this effect.

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Appendices

Appendix 1
Correlation matrices

Notes to correlation matrices

For each scenario *i*, where *i* = A, B, C or D

IDEAL	= idealism score on EPQ
REL	= relativism score on EPQ
OVRALL*i*	= overall ethics judgment score for scenario *i*
BEHINT*i*	= behavioral intention score for scenario *i*
Fair*i*	= response score on Fair/Unfair scale for scenario *i*
Just*i*	= response score on Just/Unjust scale for scenario *i*
Right*i*	= response score on Right/Not Right scale for scenario *i*
AccFam*i*	= response score on Acceptable/Unacceptable to My Family scale for scenario *i*
TradAcc*i*	= response score on Traditionally Acceptable/Unacceptable scale for scenario *i*
CultAcc*i*	= response score on Culturally Acceptable/Unacceptable scale for scenario *i*
UnwrContr*i*	= response score on Violates/Does not Violate an Unwritten Contract scale for scenario *i*
UnspProm*i*	= response score on Violates/Does not Violate an Unspoken Promise scale for scenario *i*
MorEqDim*i*	= Moral Equity dimension score for scenario *i*
RelDim*i*	= Relativism dimension score for scenario *i*
ContrDim*i*	= Contractualism dimension score for scenario *i*
Gender	= gender: female or male
Age	= age in years
Religion	= religious affiliation
EducYrs	= years of college education
WorkYrs	= years of full-time work experience
Intern	= accounting internship: yes or no
OvrGPA	= overall grade point average
AccGPA	= grade point average in accounting courses
ACT	= ACT score
GMAT	= GMAT score
IDEALCat	= idealism category: high or low
RELCat	= relativism category: high or low

Correlation matrix of demographic and response variables

	IDEAL	REL	OVR ALLA	BEH INTA	OVR ALLB	BEH INTB	OVR ALLC	BEH INTC	OVR ALLD	BEH INTD	Gender
IDEAL											
REL	0.064										
OVRALLA	0.053	0.053									
BEHINTA	0.046	-0.096	0.374								
OVRALLB	0.076	-0.183	0.135	0.110							
BEHINTB	0.053	0.168	0.091	0.303	0.411						
OVRALLC	-0.082	-0.129	0.101	0.061	0.166	0.210					
BEHINTC	-0.142	-0.049	0.049	0.062	0.100	0.159	0.588				
OVRALLD	-0.044	-0.102	0.052	0.058	0.144	0.155	0.130	-0.032			
BEHINTD	-0.012	-0.126	0.123	0.150	0.114	0.196	0.050	-0.040	0.352		
Gender	-0.087	0.017	0.068	-0.120	-0.111	-0.161	-0.067	-0.095	-0.106	0.045	
Age	-0.042	0.371	-0.360	-0.103	-0.071	0.035	-0.422	-0.245	-0.133	0.012	0.181
Religion	-0.009	0.300	0.054	-0.052	0.036	-0.065	-0.087	-0.128	0.101	0.047	0.404
EducYrs	-0.048	0.405	-0.187	0.269	0.018	0.195	-0.122	0.058	-0.071	-0.031	0.089
WorkYrs	-0.121	0.261	-0.412	-0.168	-0.045	0.065	-0.342	-0.161	-0.077	0.074	0.124
Intern	-0.086	0.133	0.029	0.055	0.066	0.050	-0.221	-0.006	0.028	0.055	0.194
OvrGPA	-0.010	-0.366	0.184	0.281	0.171	0.124	-0.012	0.183	0.219	0.110	-0.278
AccGPA	-0.168	-0.215	0.328	0.270	0.231	0.016	-0.099	0.024	0.223	0.197	-0.139
ACT	-0.103	-0.219	0.138	-0.182	0.024	-0.134	-0.165	-0.134	0.014	0.014	0.368
GMAT	-0.193	-0.218	0.069	-0.145	0.079	-0.181	-0.133	-0.046	-0.174	-0.077	0.370
IDEALCat	0.843	0.035	0.115	0.114	-0.057	0.025	-0.065	-0.134	-0.021	-0.017	-0.224
RELCat	0.012	0.844	-0.032	-0.034	-0.195	-0.168	-0.098	-0.027	-0.117	-0.106	-0.092

	Age	Relig	Educ Yrs	Work Yrs	Intern	Ovr GPA	Acc GPA	ACT	GMAT	IDEAL Cat	REL Cat
IDEAL											
REL											
OVRALLA											
BEHINTA											
OVRALLB											
BEHINTB											
OVRALLC											
BEHINTC											
OVRALLD											
BEHINTD											
Gender											
Age											
Religion	0.339										
EducYrs	0.570	0.214									
WorkYrs	0.917	0.315	0.307								
Intern	0.030	0.131	0.251	-0.108							
OvrGPA	-0.405	-0.194	-0.141	-0.442	-0.024						
AccGPA	-0.170	-0.057	-0.141	-0.191	0.006	0.751					
ACT	0.063	0.141	-0.257	0.177	0.048	-0.032	-0.012				
GMAT	0.317	0.280	-0.092	0.399	0.003	-0.083	0.021	0.785			
IDEALCat	-0.139	-0.012	0.024	-0.229	-0.021	-0.109	-0.244	-0.204	-0.300		
RELCat	0.366	0.315	0.519	0.219	0.093	0.319	-0.107	-0.368	-0.301	-0.023	

Scenario A

	IDEAL	REL	OVR ALL	BEH INT	Fair	Just	Right	Acc Fam	Trad Acc	Cult Acc	Unwr Contr	Unsp Prom	MorEq Dim	Rel Dim	Contr Dim	IDEAL Cat	REL Cat
IDEAL																	
REL	0.064																
OVRALLA	0.053	-0.053															
BEHINTA	0.046	-0.096	0.374														
FairA	0.027	-0.128	0.531	0.349													
JustA	0.080	-0.083	0.511	0.317	0.714												
RightA	0.107	-0.182	0.601	0.237	0.702	0.637											
AccFamA	0.218	-0.151	0.358	0.299	0.429	0.518	0.477										
TradAccA	0.093	-0.049	0.262	0.284	0.182	0.275	0.122	0.412									
CultAccA	0.133	0.034	0.413	0.202	0.262	0.249	0.318	0.340	0.450								
UnwrContA	0.028	-0.001	0.426	0.187	0.525	0.554	0.504	0.393	0.229	0.289							
UnspPromA	0.074	-0.096	0.445	0.358	0.566	0.649	0.477	0.434	0.227	0.187	0.651						
MorEqDimA	0.134	-0.165	0.602	0.364	0.854	0.862	0.846	0.747	0.305	0.356	0.596	0.641					
RelDimA	0.132	-0.010	0.394	0.287	0.259	0.309	0.255	0.423	0.860	0.842	0.303	0.244	0.387				
ContrDimA	0.057	-0.055	0.480	0.303	0.601	0.664	0.539	0.456	0.251	0.260	0.902	0.915	0.681	0.300			
IDEALCat	0.842	0.035	0.115	0.114	0.056	0.079	0.155	0.200	0.059	0.155	0.017	0.029	0.151	0.124	0.025		
RELCat	0.012	0.844	-0.032	-0.034	-0.123	-0.101	-0.157	-0.104	0.056	0.030	- 0.017	-0.134	-0.146	-0.016	-0.085	-0.023	

Scenario correlation matrices (cont.)

Scenario B

	IDEAL	REL	OVR ALL	BEH INT	Fair	Just	Right	Acc Fam	Trad Acc	Cult Acc	Unwr Cont	Unsp Prom	MorEq Dim	Rel Dim	Contr Dim	IDEAL Cat	REL Cat
IDEAL																	
REL	0.064																
OVRALLB	0.077	-0.184															
BEHINTB	0.055	-0.172	0.411														
FairB	0.091	-0.114	0.479	0.428													
JustB	0.082	-0.208	0.493	0.447	0.742												
RightB	0.071	-0.181	0.554	0.305	0.684	0.641											
AccFamB	-0.001	-0.188	0.399	0.450	0.416	0.418	0.373										
TradAccB	0.095	-0.109	0.224	0.270	0.202	0.204	0.206	0.338									
CultAccB	0.006	-0.062	0.111	0.238	0.128	0.110	0.046	0.270	0.458								
UnwrContB	0.038	-0.196	0.478	0.256	0.501	0.466	0.577	0.304	0.259	0.005							
UnspPromB	0.035	-0.162	0.331	0.284	0.493	0.476	0.507	0.172	0.179	-0.061	0.685						
MorEqDimB	0.071	-0.213	0.593	0.503	0.872	0.856	0.829	0.691	0.295	0.173	0.568	0.504					
RelDimB	0.061	-0.101	0.198	0.298	0.194	0.185	0.150	0.357	0.863	0.845	0.159	0.073	0.276				
ContrDimB	0.040	-0.195	0.437	0.294	0.541	0.513	0.589	0.256	0.237	-0.032	0.910	0.925	0.582	0.125			
IDEALCat	0.843	0.035	0.057	0.026	0.070	0.065	0.062	0.006	0.084	-0.043	0.011	-0.013	0.062	0.026	-0.002		
RELCat	0.012	0.844	-0.195	-0.168	-0.132	-0.200	-0.194	-0.157	-0.068	-0.024	-0.222	-0.114	-0.210	-0.055	-0.181	-0.023	

Scenario correlation matrices (cont.)

Scenario C

	IDEAL	REL	OVR ALL	BEH INT	Fair	Just	Right	Acc Fam	Trad Acc	Cult Acc	Unwr Cont	Unsp Prom	MorEq Dim	Rel Dim	Contr Dim	IDEAL Cat	REL Cat
IDEAL																	
REL	0.064																
OVRALLC	-0.082	-0.129															
BEHINTC	-0.142	-0.049	0.588														
FairC	-0.072	-0.135	0.590	0.518													
JustC	-0.052	-0.119	0.647	0.520	0.724												
RightC	0.040	-0.042	0.580	0.501	0.683	0.732											
AccFamC	0.011	-0.134	0.605	0.528	0.700	0.709	0.783										
TradAccC	-0.038	0.000	0.372	0.330	0.413	0.415	0.399	0.387									
CultAccC	0.049	-0.093	0.254	0.266	0.344	0.216	0.192	0.363	0.522								
UnwrContC	-0.040	-0.075	0.542	0.470	0.682	0.619	0.701	0.607	0.352	0.182							
UnspPromC	-0.111	-0.132	0.464	0.391	0.555	0.479	0.601	0.524	0.232	0.160	0.714						
MorEqDimC	-0.019	-0.121	0.680	0.581	0.868	0.888	0.901	0.901	0.453	0.314	0.732	0.607					
RelDimC	0.005	-0.052	0.360	0.342	0.435	0.364	0.341	0.430	0.878	0.866	0.308	0.225	0.441				
ContrDimC	-0.082	-0.113	0.543	0.464	0.667	0.591	0.702	0.610	0.315	0.184	0.923	0.929	0.722	0.287			
IDEALCat	0.843	0.035	-0.065	-0.134	-0.069	-0.038	0.046	0.003	0.021	0.010	0.000	-0.074	-0.015	-0.007	-0.041		
RELCat	0.012	0.844	-0.098	-0.026	-0.113	-0.097	-0.003	-0.089	-0.039	-0.136	-0.072	-0.109	-0.084	-0.099	-0.099	-0.023	

Scenario correlation matrices (cont.)

Scenario D

	IDEAL	REL	OVR ALL	BEH INT	Fair	Just	Right	Acc Fam	Trad Acc	Cult Acc	Unwr Cont	Unsp Prom	MorEq Dim	Rel Dim	Contr Dim	IDEAL Cat	REL Cat
IDEAL																	
REL	0.064																
OVRALLD	-0.044	-0.102															
BEHINTD	-0.012	-0.126	0.352														
FairD	-0.012	-0.028	0.761	0.325													
JustD	-0.030	-0.092	0.757	0.365	0.689												
RightD	0.020	-0.108	0.770	0.271	0.723	0.737											
AccFamD	-0.003	-0.077	0.634	0.329	0.671	0.648	0.692										
TradAccD	-0.015	0.022	0.471	0.254	0.504	0.540	0.443	0.460									
CultAccD	-0.047	0.014	0.613	0.268	0.585	0.618	0.530	0.575	0.638								
UnwrContD	0.008	-0.028	0.531	0.272	0.594	0.472	0.564	0.437	0.295	0.376							
UnspPromD	0.113	-0.020	0.514	0.312	0.593	0.482	0.555	0.530	0.310	0.352	0.657						
MorEqDimD	-0.007	-0.088	0.829	0.368	0.871	0.873	0.894	0.870	0.554	0.658	0.584	0.614					
RelDimD	-0.035	0.020	0.601	0.289	0.603	0.641	0.539	0.574	0.899	0.911	0.372	0.366	0.671				
ContrDimD	0.068	-0.026	0.574	0.321	0.652	0.524	0.615	0.532	0.333	0.400	0.906	0.915	0.659	0.406			
IDEALCat	0.843	0.035	0.021	0.017	0.052	0.002	0.068	0.051	-0.011	-0.013	-0.032	0.139	0.049	-0.013	0.061		
RELCat	0.012	0.844	-0.117	-0.106	0.009	-0.074	-0.097	-0.049	0.053	0.057	-0.004	0.001	-0.061	0.061	-0.002	-0.023	

Appendix 2

Ethical situation scenarios with alternative scenario actions

Scenario A

Tom Waterman is a young management accountant at a large, diversified company. After some experience in accounting at headquarters, he has been transferred to one of the company's recently acquired divisions, run by its previous owner and president, Howard Heller. Howard has been retained as vice-president of this new division, and Tom is his accountant. With a marketing background and a practice of calling his own shots, Howard seems to play by a different set of rules than those to which Tom is accustomed. So far it is working, as earnings are up and sales projections are high.

The main area of concern to Tom is Howard's expense reports. Howard's boss, the division president, approves the expense reports without review, and expects Tom to check the details and work out any discrepancies with Howard. After a series of large and questionable expense reports, Tom challenges Howard directly about charges to the company for typing that Howard's wife did at home. Although company policy prohibits such charges, Howard's boss again signed off on the expense. Tom feels uncomfortable with this and tells Howard that he is considering taking the matter to the Board Audit Committee for review. Howard reacts sharply, reminding Tom that "the Board will back me anyway" and that Tom's position in the company would be in jeopardy.

Positive action statement

ACTION: Tom decides to report the expense charge to the Audit Committee. Please evaluate this action of Tom Waterman.

Negative action statement

ACTION: Tom decides not to report the expense charge to the Audit Committee. Please evaluate this action of Tom Waterman.

Scenario B

Anne Devereaux, company controller, is told by the chief financial officer, Seth Johnson, that in an executive committee meeting the CEO told them that the company "has to meet its earnings forecast, is in need of working capital, and that's final." Unfortunately, Anne does not see how additional working capital can be raised, even through increased borrowing, since income is well below the forecast sent to the bank. Seth suggests that Anne review bad debt expense for possible reduction and holding sales open longer at the end of the month. He also brushes off the management letter request from the outside auditors to write down the spare parts inventory to reflect its "true value."

At home on the weekend, Anne discusses the situation with her husband, Larry, a senior manager of another company in town. "They're asking me to manipulate the books," she says. "On the one hand," she complains, "I'm supposed to be the conscience of the company and on the other, I'm supposed to be absolutely loyal." Larry tells her that companies do this all the time, and when business picks up again she'll be covered. He reminds her how important her salary is to help maintain their comfortable lifestyle, and that she shouldn't do anything drastic that might cause her to lose her job.

Positive action statement

ACTION: Anne decides not to go along with the suggestions proposed by her boss. Please evaluate this action of Anne Devereaux.

Negative action statement

ACTION: Anne decides to go along with the suggestions proposed by her boss. Please evaluate this action of Anne Devereaux.

Scenario C

Drew Isler, the plant's chief accountant, is having a friendly conversation with Leo Sullivan, operations manager and old college buddy, and Fred LaPlante, the sales manager. Leo tells Drew that the plant needs a new computer system to increase operating efficiency. Fred interjects that with the increased efficiency and decreased late deliveries their plant will be the top plant next year.

However, Leo wants to bypass the company policy which requires that items greater than $5,000 receive prior Board approval and be capitalized. Leo would prefer to generate purchase orders for each component part of the system, each being under the $5,000 limit, and thereby avoid the approval "hassle." Drew knows this is clearly wrong from a company and an accounting standpoint, and he says so. Nevertheless, he eventually says that he will go along.

Six months later, the new computer system has not lived up to its expectations. Drew indicates to Fred that he is really worried about the problems with the computer, and that the auditors will disclose how the purchase was handled in the upcoming visit. Fred acknowledges the situation by saying that production and sales are down and his sales representatives are also upset. Leo wants to correct the problems by upgrading the system (and increasing the expenses), and urges Drew to "hang in there."

Positive action statement

> *ACTION*: Despite feeling reasonably certain that the system will fail without the upgrade, Drew refuses to "expense" the additional cost and insists that the Board approve the expenditure. Please evaluate this action of Drew Isler.

Negative action statement

> *ACTION*: Feeling certain that the system will fail without the upgrade, Drew agrees to "expense" the additional cost rather than get Board approval for the expenditure. Please evaluate this action of Drew Isler.

Scenario D

Paul Tate is the assistant controller at Stern Electronics, a medium-sized manufacturer of electrical equipment. Paul is in his late fifties and plans to retire soon. His daughter has been accepted into medical school, and financial concerns are weighing heavily on his mind. Paul's boss is out of the office recuperating from health problems, and in his absence Paul is making all decisions for the department.

Paul receives a phone call from an old friend requesting a sizable amount of equipment on credit for his new business. Paul is sympathetic but cognizant of the risk of extending credit to a new company, especially under Stern's strict credit policy for such transactions. When Paul mentions this conversation to Warren, the general manager, he is immediately interested. Warren notes that the company needs an additional $250,000 in sales to meet the quarterly budget and, thus, ensure bonuses for management, including Paul.

Positive action statement

ACTION: Paul decides not to make the sale to his friend's new business. Please evaluate this action of Paul Tate.

Negative action statement

ACTION: Paul decides to make the sale to his friend's new business. Please evaluate this action of Paul Tate.

Appendix 3

Research Questionnaire

RESEARCH QUESTIONNAIRE

Thank you for agreeing to participate in this research study.

The purpose of this study is to examine peoples' opinions about behavior in various business situations. In Part 1 of the survey you will be asked to complete an opinion questionnaire. Part 2 consists of several brief scenarios for which you will be asked to indicate your judgment about the action in the scenario. Part 3 concerns statistical background information. The test period will last approximately twenty minutes, although there is no time limit for completing the questionnaire.

We are interested in your candid responses to the questionnaire items, so please answer all items as completely and honestly as possible. There is no way to identify specific individuals from the questionnaire itself, so you may feel comfortable that your responses will be kept confidential. If you are interested in receiving a copy of the results of this study, a separate sheet is included that should be completed and turned in separately from your questionnaire.

If you have any questions about this research, either now or later, please contact:

Michael L. Finch
Department of Accounting and Business Law
637 Stokely Management Center
University of Tennessee
Knoxville, TN 37996

or call (615) 974-2551.

Your participation in this study is voluntary, and you may refuse to participate. You may withdraw at any time during the testing without penalty.

Part 1

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 or disagree 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 the 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.

_____11. There are no ethical principles that are so important that they should be 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 judgments 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.

Part 2

Please read the following scenario and the *ACTION* statement that describes the decision of the actor in the scenario. Rate this decision on each of the following scales by marking an 'X' in the space which most closely corresponds to your judgment about the decision.

Scenario A

Anne Devereaux, company controller, is told by the chief financial officer, Seth Johnson, that in an executive committee meeting the CEO told them that the company "has to meet its earnings forecast, is in need of working capital, and that's final." Unfortunately, Anne does not see how additional working capital can be raised, even through increased borrowing, since income is well below the forecast sent to the bank. Seth suggests that Anne review bad debt expense for possible reduction and holding sales open longer at the end of the month. He also brushes off the management letter request from the outside auditors to write down the spare parts inventory to reflect its "true value."

At home on the weekend, Anne discusses the situation with her husband, Larry, a senior manager of another company in town. "They're asking me to manipulate the books," she says. "On the one hand," she complains, "I'm supposed to be the conscience of the company and on the other, I'm supposed to be absolutely loyal." Larry tells her that companies do this all the time, and when business picks up again she'll be covered. He reminds her how important her salary is to help maintain their comfortable lifestyle, and that she shouldn't do anything drastic that might cause her to lose her job.

ACTION: Anne decides to go along with the suggestions proposed by her boss. Please evaluate this action of Anne Devereaux.

Overall, how would you rate the scenario action?

Ethical _____:_____:_____:_____:_____:_____:_____ Unethical

If you were responsible for making the decision described in the scenario, what is the probability that you would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

If your peers or colleagues were responsible for making the decision described in the scenario, what is the probability that they would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

This scenario is continued on the next page.

Please rate the scenario action using the following scales.

Not Self Sacrificing	_____:_____:_____:_____:_____:_____:_____	Self Sacrificing
Minimizes Benefits while Maximizes Harm	_____:_____:_____:_____:_____:_____:_____	Maximizes Benefits while Minimizes Harm
Culturally Acceptable	_____:_____:_____:_____:_____:_____:_____	Culturally Unacceptable
Produces the Greatest Utility	_____:_____:_____:_____:_____:_____:_____	Produces the Least Utility
Not Personally Satisfying	_____:_____:_____:_____:_____:_____:_____	Personally Satisfying
Morally Right	_____:_____:_____:_____:_____:_____:_____	Not Morally Right
Individually Unacceptable	_____:_____:_____:_____:_____:_____:_____	Individually Acceptable
Fair	_____:_____:_____:_____:_____:_____:_____	Unfair
Unjust	_____:_____:_____:_____:_____:_____:_____	Just
Violates an Unspoken Promise	_____:_____:_____:_____:_____:_____:_____	Does Not Violate an Unspoken Promise
Leads to the Least Good for the Greatest Number	_____:_____:_____:_____:_____:_____:_____	Leads to the Greatest Good for the Greatest Number
Acceptable to My Family	_____:_____:_____:_____:_____:_____:_____	Unacceptable to Family
Traditionally Unacceptable	_____:_____:_____:_____:_____:_____:_____	Traditionally Acceptable
Obligated to Act This Way	_____:_____:_____:_____:_____:_____:_____	Not Obligated to Act This Way
Violates an Unwritten Contract	_____:_____:_____:_____:_____:_____:_____	Does Not Violate an Unwritten Contract
Self Promoting	_____:_____:_____:_____:_____:_____:_____	Not Self Promoting

GO ON TO THE NEXT PAGE, PLEASE.

Please read the following scenario and the *ACTION* statement that describes the decision of the actor in the scenario. Rate this decision on <u>each</u> of the following scales by marking an 'X' in the space which most closely corresponds to your judgment about the decision.

Scenario B

Tom Waterman is a young management accountant at a large, diversified company. After some experience in accounting at headquarters, he has been transferred to one of the company's recently acquired divisions, run by its previous owner and president, Howard Heller. Howard has been retained as vice-president of this new division, and Tom is his accountant. With a marketing background and a practice of calling his own shots, Howard seems to play by a different set of rules than those to which Tom is accustomed. So far it is working, as earnings are up and sales projections are high.

The main area of concern to Tom is Howard's expense reports. Howard's boss, the division president, approves the expense reports without review, and expects Tom to check the details and work out any discrepancies with Howard. After a series of large and questionable expense reports, Tom challenges Howard directly about charges to the company for typing that Howard's wife did at home. Although company policy prohibits such charges, Howard's boss again signed off on the expense. Tom feels uncomfortable with this and tells Howard that he is considering taking the matter to the Board Audit Committee for review. Howard reacts sharply, reminding Tom that "the Board will back me anyway" and that Tom's position in the company would be in jeopardy.

ACTION: Tom decides to report the expense charge to the Audit Committee. Please evaluate this action of Tom Waterman.

Overall, how would you rate the scenario action?

Unethical _____:_____:_____:_____:_____:_____:_____ Ethical

If you were responsible for making the decision described in the scenario, what is the probability that you would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

If your peers or colleagues were responsible for making the decision described in the scenario, what is the probability that they would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

This scenario is continued on the next page.

Please rate the action in the scenario using the following scales.

Just	_____:_____:_____:_____:_____:_____:_____	Unjust
Unacceptable to My Family	_____:_____:_____:_____:_____:_____:_____	Acceptable to to My Family
Not Morally Right	_____:_____:_____:_____:_____:_____:_____	Morally Right
Individually Acceptable	_____:_____:_____:_____:_____:_____:_____	Individually Unacceptable
Personally Satisfying	_____:_____:_____:_____:_____:_____:_____	Not Personally Satisfying
Maximizes Benefits while Minimizes Harm	_____:_____:_____:_____:_____:_____:_____	Minimizes Benefits while Maximizes Harm
Not Obligated to Act This Way	_____:_____:_____:_____:_____:_____:_____	Obligated to Act This Way
Leads to the Least Good for the Greatest Number	_____:_____:_____:_____:_____:_____:_____	Leads to the Greatest Good for the Greatest Number
Violates an Unspoken Promise	_____:_____:_____:_____:_____:_____:_____	Does Not Violate an Unspoken Promise
Not Self Promoting	_____:_____:_____:_____:_____:_____:_____	Self Promoting
Does Not Violate an Unwritten Contract	_____:_____:_____:_____:_____:_____:_____	Violates an Unwritten Contract
Fair	_____:_____:_____:_____:_____:_____:_____	Unfair
Culturally Unacceptable	_____:_____:_____:_____:_____:_____:_____	Culturally Acceptable
Self Sacrificing	_____:_____:_____:_____:_____:_____:_____	Not Self Sacrificing
Produces the Least Utility	_____:_____:_____:_____:_____:_____:_____	Produces the Greatest Utility
Traditionally Acceptable	_____:_____:_____:_____:_____:_____:_____	Traditionally Unacceptable

GO ON TO THE NEXT PAGE, PLEASE.

Please read the following scenario and the *ACTION* statement that describes the decision of the actor in the scenario. Rate this decision on <u>each</u> of the following scales by marking an 'X' in the space which most closely corresponds to your judgment about the decision.

Scenario C

Paul Tate is the assistant controller at Stern Electronics, a medium-sized manufacturer of electrical equipment. Paul is in his late fifties and plans to retire soon. His daughter has been accepted into medical school, and financial concerns are weighing heavily on his mind. Paul's boss is out of the office recuperating from health problems, and in his absence Paul is making all decisions for the department.

Paul receives a phone call from an old friend requesting a sizable amount of equipment on credit for his new business. Paul is sympathetic but cognizant of the risk of extending credit to a new company, especially under Stern's strict credit policy for such transactions. When Paul mentions this conversation to Warren, the general manager, he is immediately interested. Warren notes that the company needs an additional $250,000 in sales to meet the quarterly budget and, thus, ensure bonuses for management, including Paul.

ACTION: Paul decides to make the sale to his friend's new business.
Please evaluate this action of Paul Tate.

Overall, how would you rate the scenario action?

Ethical _____:_____:_____:_____:_____:_____:_____ Unethical

If you were responsible for making the decision described in the scenario, what is the probability that you would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

If your peers or colleagues were responsible for making the decision described in the scenario, what is the probability that they would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

This scenario is continued on the next page.

Please rate the action in the scenario on the following scales.

Acceptable to My Family	_____:_____:_____:_____:_____:_____:_____	Unacceptable to My Family
Culturally Acceptable	_____:_____:_____:_____:_____:_____:_____	Culturally Unacceptable
Traditionally Unacceptable	_____:_____:_____:_____:_____:_____:_____	Traditionally Acceptable
Self Sacrificing	_____:_____:_____:_____:_____:_____:_____	Not Self Sacrificing
Not Personally Satisfying	_____:_____:_____:_____:_____:_____:_____	Personally Satisfying
Produces the Greatest Utility	_____:_____:_____:_____:_____:_____:_____	Produces the Least Utility
Obligated to Act This Way	_____:_____:_____:_____:_____:_____:_____	Not Obligated to Act This Way
Unjust	_____:_____:_____:_____:_____:_____:_____	Just
Morally Right	_____:_____:_____:_____:_____:_____:_____	Not Morally Right
Does Not Violate an Unspoken Promise	_____:_____:_____:_____:_____:_____:_____	Violates an Unspoken Promise
Individually Unacceptable	_____:_____:_____:_____:_____:_____:_____	Individually Acceptable
Unfair	_____:_____:_____:_____:_____:_____:_____	Fair
Violates an Unwritten Contract	_____:_____:_____:_____:_____:_____:_____	Does Not Violate an Unwritten Contract
Self Promoting	_____:_____:_____:_____:_____:_____:_____	Not Self Promoting
Minimizes Benefits while Maximizes Harm	_____:_____:_____:_____:_____:_____:_____	Maximizes Benefits while Minimizes Harm
Leads to the Greatest Good for the Greatest Number	_____:_____:_____:_____:_____:_____:_____	Leads to the Least Good for the Greatest Number

GO ON TO THE NEXT PAGE, PLEASE.

Please read the following scenario and the *ACTION* statement that describes the decision of the actor in the scenario. Rate this decision on <u>each</u> of the following scales by marking an 'X' in the space which most closely corresponds to your judgment about the decision.

Scenario D

Drew Isler, the plant's chief accountant, is having a friendly conversation with Leo Sullivan, operations manager and old college buddy, and Fred LaPlante, the sales manager. Leo tells Drew that the plant needs a new computer system to increase operating efficiency. Fred interjects that with the increased efficiency and decreased late deliveries their plant will be the top plant next year.

However, Leo wants to bypass the company policy which requires that items greater than $5,000 receive prior Board approval and be capitalized. Leo would prefer to generate purchase orders for each component part of the system, each being under the $5,000 limit, and thereby avoid the approval "hassle." Drew knows this is clearly wrong from a company and an accounting standpoint, and he says so. Nevertheless, he eventually says that he will go along.

Six months later, the new computer system has not lived up to its expectations. Drew indicates to Fred that he is really worried about the problems with the computer, and that the auditors will disclose how the purchase was handled in the upcoming visit. Fred acknowledges the situation by saying that production and sales are down and his sales representatives are also upset. Leo wants to correct the problems by upgrading the system (and increasing the expenses), and urges Drew to "hang in there."

ACTION: Despite feeling reasonably certain that the system will fail without the upgrade, Drew refuses to "expense" the additional cost and insists that the Board approve the expenditure. Please evaluate this action of Drew Isler.

Overall, how would you rate the scenario action?

Unethical _____:_____:_____:_____:_____:_____:_____ Ethical

If you were responsible for making the decision described in the scenario, what is the probability that you would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

If your peers or colleagues were responsible for making the decision described in the scenario, what is the probability that they would make the same decision?

Highly Probable _____:_____:_____:_____:_____:_____:_____ Highly Improbable

This scenario is continued on the next page.

Please rate the action in the scenario using the following scales.

Traditionally Unacceptable	_____:_____:_____:_____:_____:_____:_____	Traditionally Acceptable
Not Self Sacrificing	_____:_____:_____:_____:_____:_____:_____	Self Sacrificing
Maximizes Benefits while Minimizes Harm	_____:_____:_____:_____:_____:_____:_____	Minimizes Benefits while Maximizes Harm
Leads to the Least Good for the Greatest Number	_____:_____:_____:_____:_____:_____:_____	Leads to the Greatest Good for the Greatest Number
Acceptable to My Family	_____:_____:_____:_____:_____:_____:_____	Unacceptable to to My Family
Culturally Acceptable	_____:_____:_____:_____:_____:_____:_____	Culturally Unacceptable
Produces the Least Utility	_____:_____:_____:_____:_____:_____:_____	Produces the Greatest Utility
Not Obligated to Act This Way	_____:_____:_____:_____:_____:_____:_____	Obligated to Act This Way
Just	_____:_____:_____:_____:_____:_____:_____	Unjust
Personally Satisfying	_____:_____:_____:_____:_____:_____:_____	Not Personally Satisfying
Not Morally Right	_____:_____:_____:_____:_____:_____:_____	Morally Right
Violates an Unspoken Promise	_____:_____:_____:_____:_____:_____:_____	Does Not Violate an Unspoken Promise
Individually Acceptable	_____:_____:_____:_____:_____:_____:_____	Individually Unacceptable
Unfair	_____:_____:_____:_____:_____:_____:_____	Fair
Violates an Unwritten Contract	_____:_____:_____:_____:_____:_____:_____	Does Not Violate an Unwritten Contract
Not Self Promoting	_____:_____:_____:_____:_____:_____:_____	Self Promoting

GO ON TO THE NEXT PAGE, PLEASE.

Part 3

How realistic were the scenarios used in this study?

Very Realistic _____:_____:_____:_____:_____:_____:_____ Not Very Realistic

How typical of the kinds of decisions that accountants make are the decisions depicted in the scenarios?

Very Typical _____:_____:_____:_____:_____:_____:_____ Not Very Typical

The following information is required for statistical purposes. Please answer all questions completely.

Gender: _____ Female _____ Male

Age: _____

Religious affiliation: _____

Years of college education: _____

Years of full-time work experience: _____

Have you had an accounting internship? Yes_____ No_____

Undergraduate GPA: (Approximate) Overall _____

Accounting _____

Test scores: (Approximate) SAT/ACT _____

GMAT _____

Vita

Michael Lester Finch was born in Baltimore, Maryland on June 24, 1951. He attended Holy Trinity Catholic Elementary School in Racine, Wisconsin. He attended St. Catherine's Catholic High School for one year and graduated from J.I. Case High School in Racine, Wisconsin in June, 1969. The following September he entered Lehigh University in Bethlehem, Pennsylvania and in May, 1973 received the degree of Bachelor of Arts in Government. In August, 1986 he returned to school at Baylor University in Waco, Texas and in August, 1988 received a Master of Business Administration degree. In August, 1989 he entered The University of Tennessee, Knoxville, and in August, 1994 received a Doctor of Philosophy degree in Business Administration. Mr. Finch is a Certified Public Accountant, licensed in Texas.