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THE INFLUENCE OF SOCIAL INTERACTION ON AUDITORS' MORAL REASONING

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April 1997
Copy #1

A Thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements of the degree of Ph.D in Administration.

THE INFLUENCE OF SOCIAL INTERACTION ON AUDITORS' MORAL REASONING

ABSTRACT

Although auditors engage in considerable social interaction (Gibbins & Mason, 1988; Solomon, 1987), little is known about how social interaction influences an auditor's moral reasoning process. In order to address this gap, this study used an experiment to examine the effect of social influence on 288 auditors' moral reasoning on realistic moral dilemmas. The results of this study indicate that social interaction influences the moral reasoning of auditors. Auditors' level of prescriptive reasoning appears to increase after engaging in discussion of a realistic moral dilemma, particularly for those which discuss dilemmas with others at high levels of moral development, while auditors' level of deliberative reasoning appears to decrease after engaging in discussion of a realistic moral dilemma. At a practical level, these findings suggest that auditors should be encouraged to prescriptively discuss moral dilemmas with others of high levels of moral development as this tends to result in the use of more principled moral reasoning. In contrast, auditors should avoid deliberative discussion of moral dilemmas, as this tends to result in the use of less principled moral reasoning than would be used in the absence of discussion.

Malgré le fait que le travail des vérificateurs comporte beaucoup d'interactions sociales (Gibbins & Mason, 1988; Solomon, 1987), leur effet sur le jugement moral a été jusqu'à présent peu étudié. Cette étude utilise un design expérimental afin d'évaluer les conséquences des interactions entre vérificateurs sur leur processus de raisonnement menant à une décision morale. 288 vérificateurs ont participé à l'expérience. Les résultats obtenus montrent que l'interaction influence le jugement moral des vérificateurs. Le niveau de jugement prescriptif augmente suite à l'interaction. Par contre, le niveau de jugement délibératif diminue suite à l'interaction. Il ressort de ces résultats que, dans le cadre d'une mission, les vérificateurs devraient discuter de problèmes éthiques d'une manière prescriptive. Par contre, les vérificateurs devraient éviter de discuter de problèmes éthiques d'une manière délibérative car ce mode de résolution mène à des décisions moins fondées sur les principes moraux.

ACKNOWLEDGEMENTS

The thesis and research it documents have greatly benefited from the helpful suggestions and the constructive comments of Dr. J. Hartwick, Dr. M. Magnan, Dr. C. McWatters, Dr. L. Ponemon and Dr. D. Saunders. I am particularly indebted to my thesis supervisor, Dr. J. Hartwick, for his compassion toward the many personal upheavals that I experienced during the writing of my dissertation and for the advice, encouragement and education he provided throughout my doctoral studies.

The conduct of the research has been facilitated by financial resources provided by McGill University, Faculty of Graduate Studies. I also thank Dr. R. Loulou and Dr. M. Yalovsky for their help during my doctoral studies.

A number of organizations, friends and well-wishers also have assisted in making this thesis possible. In particular, I take this opportunity to thank the individuals and organizations that facilitated the obtaining of participants for this study, and the individuals who agreed to participate in the research. I also thank the doctoral student colleagues with whom I shared the doctoral student experience. In particular, I thank Susan Bartholomew who was always available to advise me on the manuscript.

I also thank my children who precious childhoods were shared with a mother pursuing doctoral studies. Last, but not the least, I thank my husband for the faith, support, understanding and encouragement he continues to provide to me.

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1.0 INTRODUCTION

The primary function of external auditors is to attest to the fairness of the financial statements of an enterprise (Gibbins & Mason, 1988; Rulund & Lindblom, 1992). Audited financial statements are used by different users for various purposes. For example, creditors and shareholders may rely upon audited financial statements to obtain an unbiased view of the financial results of an enterprise to guide their investment decisions (Merchant, 1985). Audited financial statements are also important to the management of an enterprise, since the information that they contain is used by owners and/or boards of directors to evaluate, and often to compensate, its efforts (Murphy, 1985; Pavlik, Scott & Tiessen, 1993; Lambert & Larcker, 1987). The divergence between external users' and management's use of financial information results in an inherent conflict over financial statement presentation. Integral to the auditor's role is the resolution of this inherent conflict of preference for financial statement information (Gaa, 1991).

Society requires that auditors resolve this conflict to the benefit of the external users of financial statements (Beaver & Demski, 1974; Gaa, 1993; May & Sundem, 1976). For example, the Institute of Chartered Accountants of Ontario's (ICAO) rules of professional conduct (1973) explicitly acknowledges auditors' primary duty to the public:

> The rules of professional conduct, as a whole, flow from the special obligations embraced by chartered accountants. The reliance of the public, generally, and the business community, in particular, on sound and fair financial reporting and competent advice on business affairs . . . imposes these special obligations on the profession. They also establish, firmly, its social usefulness (forward, ICAO Rules, 1973).

The role of moral watchdog requires that auditors must adhere to a rigorous moral standard (Gaa, 1991). The stringency of this moral standard is characterized by the requirement of Professional Codes of Conduct that an auditor must maintain *independence* "in appearance and in fact" (e.g., AICPA, 1992; CGA, 1990)[1]. *Independence* is a frame of mind that obliges auditors to carry out their professional role and exercise professional judgment without consideration of their self-interest. The relevance of the principle of independence for role of auditor is described by Carey (1946, p.7):

> Independence . . . is partly synonymous with honesty, integrity, courage, character. It *means*, in simplest terms, that the certified public accountant will tell the truth as he sees it, and will permit no influence, financial or sentimental, to turn him from that course.

Legal rulings also require that auditors' priority be the protection of the interests of the external users of financial statements. For instance, the Continental Vending (US versus Simon, 1969) ruling requires auditors to develop and apply appropriate reporting practices, even where standardized practices have yet to be developed (AICPA, 1979). Thus, the Continental Vending decision obliges auditors to protect the interests of external users in their exercise of professional judgment, even if this involves going beyond existing laws and codified standards (Anderson, 1977).

Historically, auditors' moral obligation to the external users of financial statements has been enforced through the severity of penalties attached to moral transgressions by the courts. Besides financial penalties, disciplinary measures for the errant auditor may include loss of his

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[1] The term "independence" is synonymous to the term "objectivity" used in some jurisdictions (e.g., the Ontario Institute of Chartered Accountants replaced the term "independence" with the term "objectivity" in 1973) (Neu & Saleem, 1994).

or her professional designation and his or her licence to practice as an auditor. Furthermore, public knowledge of an auditor's failure to comply with professional requirements results in loss of reputation for the auditor, loss of reputation for his or her audit firm and for the entire professional community of auditors (Noreen, 1988). This, in turn, may result in loss of revenue for the deviant auditor's firm and potentially may threaten the collective privileges and rights granted to auditors by the state (Richardson, 1989).

Although the frequency in which auditors violate moral standards is unknown, recent legal rulings and disciplinary actions taken by public accounting institutes indicate that moral transgressions by auditors may be increasing in occurrence (Fried & Schiff, 1981; Palmrose, 1988). Thus, it appears that traditional methods of enforcement appear to be *inadequate* to ensure that auditors *always* adhere to a high moral standard in their professional role. Recently, accounting-ethics researchers have considered alternative approaches to ensuring auditors maintain a high moral standard by examining the moral aspect of auditors' professional judgment. Accordingly, this study is based upon the body of accounting-ethics research in the tradition of the cognitive-developmentalists that endeavours to understand how auditors' cognitive conception of morality is determined. The results of this study may be useful to those attempting to understand the factors that influence the moral reasoning process that precipitates auditors' professional judgment.

1.1 THE MORAL ASPECT OF AUDITORS' PROFESSIONAL JUDGMENT

Support for the inherent moral dimension to auditors' professional judgment has been provided by accounting researchers utilizing two different theoretical perspectives: 1)

contracting theory (DeAngelo, 1981; Watts & Zimmerman, 1983, 1986), and 2) cognitive-developmental theory (Gaa & Ponemon, 1994). Each is reviewed briefly below.

According to contracting-theory, the value of an auditor's service depends on society's assessment of the auditor's technical competence and his or her independence from the client (e.g., DeAngelo, 1981; Watts & Zimmerman, 1983, 1986). Technical competence is defined as the technical mastery of the rules, policies and standards required to enable an auditor to discover breaches in a client's reporting system. Independence is defined by contracting theorists as an auditor's moral fortitude to "withstand client pressures to disclose selectively in the event a breach is discovered" (DeAngelo, 1981, p.115). This line of reasoning implies that in addition to technical ability, an auditor's moral fortitude is necessary and integral to the exercise of professional judgment.

Accounting research adopting a cognitive-developmental perspective also has provided support for the view that an auditor's ability to exercise professional judgment is associated with his or her moral competence (e.g., Armstrong, 1984; Bernardi, 1991; Gaa & Ponemon, 1994; Ponemon, 1993; Ponemon & Gabhart, 1990, 1993). The cognitive-developmental perspective assumes that one's conception of morality progresses through developmental stages (Kohlberg, 1958, 1969b; Rest, 1986, 1994). In addition, it assumes the existence of an association between an individual's level of moral development and his or her moral choices (Kohlberg, 1958, 1965, 1969a, 1979; Rothman, 1971, 1976; Turiel & Rothman, 1972). As applied to understanding the professional judgment of auditors, this perspective suggests that an auditor's professional judgment contains a moral component that reflects his or her level of moral reasoning (Gaa & Ponemon, 1994; Ponemon & Gabhart, 1994). However, much remains

to be learned about the moral reasoning of auditors and factors which effect the moral aspect of auditors' professional judgment.

Arrington & Francis (1993) and Francis (1990, 1994) argue that an auditor's professional judgment is fundamentally interpretative and, as a result, there exists considerable latitude for social influence. Furthermore, auditors engage in a substantial amount of consultation and discussion during the formulation of professional judgment (Anderson, 1977; Gibbins & Mason, 1988; Mautz & Sharaf, 1961; Pincus, 1990; Solomon, 1987). For example, in the Gibbins & Mason's (1988) survey of 70 professional accountants, only two accountants (sole practitioners) indicated that they generally made professional judgments without consulting others. Twelve respondents indicated that they consulted one or two others. The majority of respondents (40) indicated that they generally interacted with between three-to-five other individuals when making professional judgments. In addition, sixteen indicated that they consulted more than five other individuals. The interpretative nature of professional judgment, combined with the high degree of discussion and consultation in which auditors engage, suggests that an examination of the influence of social interaction on the moral aspect of auditors' professional judgment is important. Accordingly, this study investigates how social interaction, as sustained by the distinctive characteristics of public accounting firms, influences the moral reasoning of auditors.

1.2 SOCIAL INTERACTION AND PROFESSIONAL JUDGMENT

> Moral action usually takes place in a social or group context, and that context usually has a profound influence on the moral decision making of individuals. Individual moral decisions in real life are almost always made in the context of group norms or group decision-making processes (Higgins, Power & Kohlberg, 1984, p.175).

While empirical findings indicate that auditors' professional judgments typically involve social interaction, the question remains as to the *nature* of the influence of social interaction on auditors' professional responsibility (Solomon, 1987). Codes of professional conduct generally insist that an individual auditor's responsibility is *not diluted* by social interaction. For example, the ICAO (Institute of Chartered Accountants of Ontario) states that "[I]t thus becomes a cardinal position of a member of the profession that he will not subordinate his professional judgment to the will of others." (1973, p.5.06). Furthermore, rulings made by the Securities Exchange Commission (SEC) in the United States have indicated that in addition to including individual judgments for which professional accountants are primarily responsible, professional misconduct includes situations where auditors have knowledge of judgments and actions of others (including actions of superiors). As these examples suggest, the moral (and legal) responsibility for the consequences of professional judgment rests with the individual auditor. Therefore, an auditor's professional judgment is ultimately **an individual decision** regardless of the extent of discussion, deliberation, or consultation to which a particular judgment is subject.

While codes of conduct and legal requirements demand that the responsibility for professional judgment remain with individual auditors, they *do not suggest* that the moral decision making process of auditors is <u>not</u> influenced by social interaction. Studies that

examine the *technical aspects* of auditors' professional judgment indicate that social interaction does not alter significantly the professional judgment of auditors (e.g., Abdel-khalik, Snowball & Wragge, 1983; Reckers & Schultz, 1982; Schultz & Reckers, 1981; Solomon, 1982). Nonetheless, accounting-ethics researchers have found that the *moral component* of auditors' professional judgment may be sensitive to social influence (Ponemon, 1992; Ponemon & Gabhart, 1990, 1993). Furthermore, studies, not specific to the accounting context, also indicate that *social interaction influences the moral decision processes of individuals* (Dukerich, Nichols, Elm & Vollrath, 1990; Kohlberg & Candee, 1984; Kohlberg, Scharf & Hickey, 1972; Scharf, 1973). Key findings from this literature reveal that: 1) an individual's moral reasoning is modified after discussion (Dukerich et al., 1990; Saltzstein, Diamond & Belenky, 1972); 2) modifications to an individual's moral reasoning resulting from social interaction may be related to the difference in the level of moral reasoning between an individual and those with whom he or she interacts (Dukerich et al., 1990; Kohlberg & Candee, 1984); and 3) the influence of social interaction on real life dilemmas using deliberative reasoning may be different from the influence of social interaction on hypothetical dilemmas using prescriptive reasoning (Kohlberg & Candee, 1984; Kohlberg et al., 1972; Scharf, 1973).

Unfortunately, the applicability of these findings to the audit context is limited by attributes of the sample, the types of moral dilemmas, and the characteristics of the social interaction used in these studies. For example, subjects in these studies were either students or prisoners in a penal institution. In addition, the nature of realistic moral dilemmas used in these studies, while appropriate for students or prisoners, is not relevant to the audit context. For instance, these studies generally considered the influence of social interaction on the

prescriptive resolution of moral dilemmas, with little consideration of how social interaction may influence the deliberative resolution of moral dilemmas, as is likely to occur in an applied context such as an audit. Furthermore, distinctive characteristics of social interaction found in public accounting firms were not addressed in these particular studies. Thus, an understanding of the influence of social interaction on the moral reasoning of auditors in conditions characteristic of audit firms is yet to be obtained.

1.3 METHODOLOGICAL OVERVIEW

This study draws attention to the importance of social context on the moral reasoning and professional judgments of auditors, and provides insight into the influence of social context on the moral aspect of auditors' professional judgment. To this end, an experiment that examined the influence of social interaction on the moral decision process of auditors has been conducted. This experiment attempted to emulate the actual conditions under which moral judgments in public accounting firms are made. In particular, groups were formed so that the range of moral contexts found in audit firms could be examined. Furthermore, realistic auditing dilemmas and practising auditors were used in the experiment. The research approach adopted in this experiment differs from previous studies of moral decision making in two respects. First, an instrument was developed with which to measure the levels of **prescriptive** and **deliberative** reasoning applied by auditors to resolve realistic audit dilemmas. Second, the experiment focused on the influence of social interaction on auditors' prescriptive and deliberative reasoning.

1.4 ORGANIZATION OF THE DISSERTATION

The objective of this research is to obtain a better understanding of the moral decisions of auditors in their professional capacity. The research is based upon the assumption that there is unique characteristics associated with the context of audit firms that render a specific investigation of the moral judgment of auditors both necessary and worthwhile. However, it is also assumed that the *moral decision process* underlying the moral choices made by auditors is by no means atypical. Thus, insights into the moral judgments of auditors are obtained through an examination of the generic literature on the moral decision-making process, presented in Chapter Two. Chapter Three uses the theoretical framework presented in Chapter Two as a basis for understanding the moral reasoning process of auditors as applied in their professional capacity, and to help in the identification of critical attributes of the moral contexts of audit firms that may influence the moral reasoning process of auditors.

Next, to develop an understanding of how social interaction influences the moral decision process of individuals, Chapter Four reviews the conformity research on social influence as examined by social-psychological researchers. From this review, hypotheses of how social interaction influences the moral reasoning process of auditors are developed.

Chapter Five describes the procedures used to develop the instruments required to measure the moral reasoning of auditors in the experiment. It also shows the validity and reliability of the instruments.

Chapter Six describes the experimental design and the sample used to test the hypotheses.

Chapter Seven presents the results of the experiment.

Chapter Eight presents the contributions, limitations and possible extensions of this research study.

Chapter Nine is the bibliography.

2.0 AN OVERVIEW OF THE COGNITIVE-DEVELOPMENTAL PERSPECTIVE

In Chapter One it was argued that an auditor's morality is integral to his or her professional judgment. This argument is consistent with the definition of professional judgment advanced by Gibbins & Mason (1988, p.5):

> "Professional judgment" is judgment exercised with due care, objectivity and integrity within the framework provided by applicable professional standard, by experienced and knowledgable people.

According to Gibbins & Mason's definition, the exercise of professional judgment requires both technical and moral expertise (Gaa & Ponemon, 1994). Gibbins & Mason's reference to "experienced and knowledgeable people" alludes to the technical aspect of professional judgment and their reference to "due care, objectivity and integrity" alludes to the moral aspect of professional judgment. It follows that an understanding of the moral aspect of auditors' decision making is essential to understanding the professional judgment of auditors (Gaa & Ponemon, 1994).

Significant inroads by accounting-ethics researchers have been made through the application of cognitive-developmental theory and methods into understanding the moral aspect of auditors' professional judgment (e.g., Armstrong, 1984; Bernardi, 1994; Gaa & Ponemon, 1994; Lampe & Finn, 1992; Ponemon, 1988, 1990, 1992a, 1992b; Ponemon & Gabhart, 1990, 1993; Shaub, 1993). This literature is examined in the next chapter. To develop an appreciation for the theory and methods adopted by accounting-ethics researchers, this chapter examines the cognitive-developmental approach to moral decision making in three phases. First, a theoretical and methodological overview of the cognitive-developmental approach is presented. Second, Rest's (1983, 1994) model of moral action is introduced. Third, the

interactionist perspective to individuals' moral decision making is examined briefly (Trevino, 1986).

2.1 THE COGNITIVE-DEVELOPMENTAL PERSPECTIVE

This section presents a general overview of the cognitive-developmental perspective on moral judgment. First, the theoretical background to the cognitive-developmental perspective is introduced. Second, the instruments most commonly employed to measure individuals' levels of moral development are identified. Third, the empirical support for cognitive-developmental theory is reviewed. Fourth, the criticisms and shortcomings of this theoretical perspective are examined.

2.1.1 BACKGROUND TO THE COGNITIVE-DEVELOPMENTAL PERSPECTIVE

Psychological research into moral decision making began in the late 1920s when Hartshorne & May (1928) performed a series of studies of (im)moral behavior. These studies examined the relationship between 10,000 children's propensity to cheat and a variety of personality variables. The results of these studies failed to identify a systematic relationship between a child's personality and his or her (im)moral behavior.

The inability of early psychological researchers to predict individuals' moral decision choices contributed to the dominance of cognitive-developmental research in the domain of moral decision making. According to the cognitive-developmentalists, morality is based upon one's conception of justice as defined by one's cognitive capability (Kohlberg, 1958, 1979, 1984; Rest. 1983, 1986, 1994). Cognitive-developmentalists, generally, have concentrated on

the study of the *development of cognitive reasoning structures* that precipitate a moral decision choice. This emphasis reflects the research interests of Piaget (1932, 1965) and Kohlberg (1958, 1979), the two individuals regarded as most responsible for the establishment of this research paradigm. Piaget suggested that an individual's definition of morality was related to his or her social development and respect for the rules. He proposed that an individual's definition of morality evolves from being externally, heteronomously prescribed to residing within oneself. Kohlberg provided an empirical approach to measure moral development and empirical support for Piaget's supposition.

Kohlberg (1958, 1979) identified three levels of moral reasoning capability with two stages at each level. These six stages represent different ways in which individuals envision what **ought** to be done to resolve a moral dilemma. Figure 2.1 summarizes Kohlberg's six stages of moral reasoning.

FIGURE 2.1: Kohlberg's six stages of moral reasoning			
LEVEL	**STAGE**	**PRIORITIES**	**MORAL ORIENTATION**
Pre-conventional (focus on self)	1	avoid harm	punishment and obedience
	2	self-interest	instrumental exchange
Conventional (focus on others)	3	expectations of others	interpersonal concordance
	4	duties/rights	law and order
Post-conventional (focus on principles)	5	non-relative obligations first	social contract
	6	self-chosen principles	universally applied code of rational ideal

For **pre-conventional** subjects, the moral acceptability of alternative actions is defined by the rewards and punishments attached to various outcome choices. Thus, external authority defines morality for pre-conventional subjects. For **conventional** subjects, moral acceptability of alternative actions is based upon an interpretation of the group norm. The social group, thus, defines morality. **Post-conventional or principled** moral reasoning is influenced by complex notions of universal fairness regardless of legal, social or material implications for self. Morality therefore is defined according to an internal sense of responsibility or justice.

Four characteristics can be used to characterize the **cognitive-developmental approach** to moral decision making (Ponemon & Gabhart, 1993). The approach is **cognitive**, as it acknowledges that reasoning is integral to moral decision choice. It is **structural,** as it focuses on the cognitive structures which delineate the various levels of moral reasoning. It is

developmental, as it traditionally has focused on the acquisition of the cognitive structures over time. Finally, it is **sequential** in that development may progress only in one direction. The cognitive-developmental approach to moral judgment has frequently been summarized by the metaphor of a **staircase**: moral development advances like steps on a staircase, development progresses by going up the staircase, one step at a time and always in the same order (Rest, 1994).

2.1.2 MEASUREMENT OF MORAL DEVELOPMENT

Given that moral cognition, as defined by level of moral development, is integral to an individual's moral decision making, it follows that the measurement of moral development is critical to the predictability of moral decision choice (Rest, 1983). Typically, the measurement of moral development has involved the assessment of an individual's prescriptive resolution of hypothetical moral dilemmas such as the classic Heinz dilemma. The Heinz dilemma asks an individual whether "Heinz" should steal a drug to save his wife from cancer when he can obtain the drug no other way (Schlaefli, Rest & Thoma, 1985). The choices available for Heinz represent a moral dilemma since, no matter what he chooses, he will be guilty of breaking one of the rules of society.

Two alternative methods have been used to assess subjects' responses. The first method involves a content analysis of the prescriptive reasoning employed to resolve the dilemmas. The most recent coding, Standard Issue Scoring (SIS), has been developed by Colby & Kohlberg (1987) to measure the level of moral reasoning which individuals use to resolve these dilemmas. The second method, the Defining Issues Test (DIT), developed by Rest (1979),

involved the use of a multiple choice instrument. Each method is discussed in turn.

Standard Issue Scoring of protocols. SIS involves the analysis of a subject's verbal or written response to a hypothetical moral dilemma. Either three or six hypothetical moral dilemmas are presented to a subject. The subject's responses to each dilemma are content analyzed for its "stage" orientation, using a standardized scoring technique developed and validated by Colby & Kohlberg (1987). This "stage" orientation refers to which of Kohlberg's six cognitive stages best describes the highest level of moral reasoning demonstrated by a subject in his or her resolution of the dilemma. SIS scores the resolution of each dilemma by the subject through its matching of the subject's responses to nonarbitrary criteria catalogued in a scoring manual. A global stage-score is obtained based upon the average of the subject's scores across all dilemmas included in the instrument. This score then is used to determine the subject's level of moral development.

SIS was developed to reduce the subjectivity of previous coding schemes which had led to unacceptable levels of reliability and validity (Kurtines & Grief, 1974). SIS has demonstrated high levels of reliability and validity (Colby and Kohlberg, 1987). The *test-retest* correlations of SIS across time intervals ranging from 3 to 6 weeks, are between 70 and 80 percent for complete agreement based upon a nine category scoring of responses[2], and are approximately 60 percent for complete agreement based upon a thirteen category scoring of responses. *Inter-rater* reliability is approximately 82% for complete agreement based upon the thirteen-category scoring of response. *Internal consistency,* as measured by Cronbach's alpha,

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2 Nine categories included ½, 1, 2, 2/3, 3, 3/4, 4, 4/5, 5; Thirteen categories included ½, 1, 2/1, 2, 2/3, 3/2, 3, 3/4, 4/3, 4, 4/5, 5/4, 5.

averages .94.

The Defining Issues Test. The DIT, developed by Rest (1979), ranks an individual's preference for identified response alternatives, called "items for consideration," to hypothetical moral dilemmas. Often these are the same dilemmas used in SIS. The DIT assumes an association exists between an individual's developmental level and the importance that he or she attaches to different factors critical to the resolution of a moral dilemma. The "items for consideration" included in the DIT are carefully selected to reflect the factors conceived by particular stages of moral reasoning. Before ranking preferences for particular "items for consideration," subjects are required to indicate, on a five-point scale, the importance of each preselected **item** for making a decision about what ought to be done to resolve a moral dilemma. When a subject thinks that a particular **item** is important in deciding how to resolve the dilemma, the subject is instructed to rate that item as having *high importance*. If the "item for consideration" has some relevance, but is not critical to the decision, then the subject is instructed to rate that item as having *some importance*. "Items for consideration" that do not make sense or are irrelevant to the decision choice are rated as of *no importance*. After rating each identified **item** on the five-point scale, subjects are asked for a ranking of the four most important and four least important items for the resolution of a particular moral dilemma. An internal validity check for random responses is made by verifying that the item rankings correspond to the item assessments made on the five-point scale.

Different measures can be obtained from the DIT based upon different ways of combining the scored responses. The most widely used measure is the P (for principled) score. The P score is determined from the ranking that the subject assigns to *principled items of*

consideration (i.e., Stage 5 and Stage 6 items) in his or her resolution of a moral dilemma. Calculation of a subject's P score is a straightforward task. The four "items of consideration" which a subject ranks as most important are assigned a specific number of points (4 points for first rank, 3 points for second rank, 2 points for third rank and 1 point for fourth rank). The P score is computed by adding the points allocated to stage 5 and 6 items for all dilemmas, and then converting a subject's total points to a percentage of total possible points (Rest, 1979, 1983).

Davison & Robbins (1978) report that, based on the six-story DIT, the reliability of the P score is generally in the upper seventies and eighties for both test-retest reliability (with one-to-three week time intervals) and internal consistency (measured by Cronbach's alpha). For P scores derived from the three-story DIT, reliability is about 10 points lower than that obtained on the six-story DIT. Finally, research shows that the DIT is not subject to testing (e.g., learning) effects in experiments where subjects are retested on the same instrument within a one-to-three week period (Bloom, 1977; Geis, 1977; McGeorge, 1975).

A brief comparison of the two measures. Both the DIT and SIS are measures of an individual's general cognitive-development in the moral domain. To ensure that general moral capability or competence is being measured, the following techniques are used by each instrument: 1) hypothetical dilemmas are used to reduce self-serving bias and the possibility of contamination from context effects; 2) resolution of moral dilemmas is requested in the third-person to reduce a self-serving bias; 3) prescriptive reasoning is used to elicit the highest level of moral reasoning possible; and 4) scores are averaged across several dilemmas to minimize context effects associated with a particular moral dilemma.

However, the two instruments examine related, but different, cognitive structures. According to Rest, Turiel & Kohlberg (1969) and Kohlberg (1969c), an individual's capacity to intuitively comprehend, appreciate and assimilate higher stages of moral thought is a characteristic distinguishable from his or her level of production (Kohlberg, 1969c). An individual's capacity to produce moral reasoning is generally at a lower level than his or her capacity to assimilate, comprehend and recognize moral thought (Schlaefli et al., 1985). The DIT uses a multiple-choice test to measure an individual's preference for items related to particular levels of moral thought (Rest, 1994). In contrast, SIS examines the verbalizations made by an individual to measure his or her capability to produce prescriptive solutions to moral dilemmas. **Thus, the DIT examines an individual's general ability to comprehend and assimilate moral reasoning by relying upon a recognition task, while SIS measures an individual's typical level of moral production by using a production task.** Depending upon the research question and the type of moral reasoning being studied, the approach taken by a particular instrument may be more appropriate (Rest, 1979).

2.1.3 EMPIRICAL SUPPORT FOR COGNITIVE-DEVELOPMENTAL THEORY

> Nothing is more crucial to a developmental theory than to demonstrate that people do change over time in the direction postulated by the theory (Rest, Deemer, Barnett, Spickelmier & Volker, 1986, p.28).

Empirical research in the cognitive-developmental tradition has concentrated on examining the developmental and sequential aspects of an individual's moral development. Both cross-sectional and longitudinal research approaches have been used to examine the empirical

validity of cognitive-developmental theory. Most of the empirical findings are based upon cross-sectional examinations of age-trends (e.g., Kohlberg, 1958, Rest, Davison & Robbins, 1978) which assess whether older, and presumably more advanced, subjects demonstrate more advanced levels of moral development. These studies generally compare the moral development of students of different education levels; therefore, the separate influence of age and education on the moral development of subjects' is obscured. Two meta-analyses of age-trend studies (Rest, 1979; Thoma, 1984) containing approximately 10,000 subjects, indicate that age/education strongly influences an individual's level of moral development (Rest, 1986). Findings from the cross-sectional studies have been reinforced by results of longitudinal studies and have been replicated in different countries and across many different age groups (e.g., Colby, Kohlberg, Gibbs, & Liebermann, 1983; Nisan & Kohlberg, 1982; Snarey, 1985; Thoma, 1984). As Rest, Thoma, Moon & Getz (1986) conclude, **the evidence in support of the existence of a general developmental trend in moral cognitive capability is overwhelming**.

2.1.4 CRITICISMS OF THE MORAL DEVELOPMENTAL PERSPECTIVE

Two major concerns with the cognitive-developmental approach have been documented. The first concern is the validity of Kohlberg's (1979) assumption of transformational stages. The second concern is the universality of the approach. Both are examined in detail in this section. In addition, other concerns with the cognitive-developmental approach will be briefly examined.

Transformation. Kohlberg's (1958) original model of moral development included the concept of six invariant "transformational stages" (Rest et al., 1986). The concept of

transformation suggests that old cognitive structures are replaced or transformed into new cognitive structures as an individual's moral reasoning develops. The notion of transformational stages implies that once an individual has progressed from a lower to a higher level of moral development, the lower, less developed cognitive structures are no longer available for use. This, in turn, would suggest that an individual's level of moral reasoning is invariant at any given point in time and cannot be lower than has previously been demonstrated. Questioning of the original conceptualization of invariant transformational stages has been prompted by, (1) the empirical evidence of *regression* in an individual's level of moral development over time (e.g., Higgins et al., 1984; Kohlberg & Kramer, 1969; Kohlberg et al., 1972), and (2) the use of different levels of moral reasoning by the same individual in the same time frame (Kurtines & Gerwitz, 1984; Kurtines & Grief, 1974).

As a theoretical alternative to the concept of invariant transformational stages, Rest (1983) suggests that cognitive structures are additive. Additive cognitive structures mean that more developed cognitive structures are added to existing structures, as individuals progress to higher levels of moral development. Thus, at any given point in time, an individual has access to a range of cognitive structures. ***Level of moral development*** describes the highest level of moral reasoning of which an individual is capable. Thus, acceptance of the concept of additive cognitive structures acknowledges a distinction between the individual's ***level of moral development*** (i.e., his or her moral competence) and the ***level of moral reasoning that he or she employs*** in a given situation. The former indicates the various levels of reasoning that an individual is potentially capable of utilizing. The latter indicates the moral reasoning actually employed by an individual in the determination of what he or she believes ideally should be

done to resolve a particular moral dilemma.

Generality of the theory. Ultimately, the issue of generality can only be substantiated or refuted through empirical examination. Two general points regarding (the lack of) generality of cognitive-developmental theory are significant. First, a recent review of forty-five studies provides support for invariant stage development from stages one to four across all cultures examined (Snarey, 1985); however, some evidence indicates that sequential cognitive-development at principled levels of moral reasoning may not occur across all cultures (Simpson, 1974). It remains unresolved whether this lack of generality reflects limitations and biases inherent in the available measures of moral development, or is due to underlying differences in cognitive-development across cultures (Colby & Kohlberg, 1987). Second, in spite of many suggestions to the contrary (e.g., Gilligan, 1982), the evidence does not substantiate a significant gender difference in level of moral development after education and occupation have been controlled (Rest, 1983). The theory, therefore, does appear to generalize across gender.

Additional concerns. Other concerns about the cognitive-developmental perspective to moral decision making also have been advanced. These concerns involve the existence of higher levels of moral reasoning that go beyond the six stages conceived by Kohlberg (Rest, 1983) and the narrowness of the justice orientation of morality defined by Kohlberg and his colleagues (Iozzi, 1980; Izraeli, 1988; Gilligan, 1982; Gilligan, Kohlberg, Lerner & Belenky, 1971). The definition of morality relied upon by the cognitive-developmentalists is limited in scope and does not encompass all conceptions of morality (Gilligan & Belenky, 1980). Although these additional concerns are legitimate, their potential resolution likely would not alter the overall approach and contribution of this stream of research to understanding the

general moral cognition of individuals (Rest, 1983).

2.2 REST'S MODEL OF MORAL ACTION

In addition to studying the development of the moral cognitive structures of individuals, cognitive-developmental researchers also have examined the relationship between the underlying cognitive structure of the decision maker and his or her moral actions (Brown & Herrnstein, 1975; Kohlberg, 1979; Rothman, 1971, 1976; Turiel & Rothman, 1972). Empirical research indicates that *a moderate relationship* (i.e., correlation in the low thirties) exists between an individual's level of moral development and his or her moral action/judgment (Blasi, 1980; Cooper, 1972; Thoma et al., 1991). This association has been found in a variety of contexts, with a variety of subjects, and with several measurement approaches (for reviews of the existing evidence see Blasi, 1980; Rest, 1979, 1983; Schlaefli et al., 1985; Thoma & Rest, 1986; Thoma et al., 1991). For example, Schwartz, Feldman, Brown & Heingartner (1969) reperformed Hartshorne & May's (1928) experimental analysis of students' cheating behaviors. A significant correlation between an individual's level of moral development and cheating behavior was found. Individuals at higher levels of moral development were less likely to cheat than individuals at lower levels of moral development. Thus, the examination of moral development in relation to moral action/behavior leads to the conclusion that moral development influences and enhances our understanding of moral action/behavior (Rothman, 1980).

Rest (1983, 1994) has developed a model of moral action built upon the presumption that an individual's moral action/behavior is related to his or her level of moral development.

Rest's model describes how various cognitive structures and processes involved in the moral decision making process combine to produce an individual's moral behavior. The model distinguishes four major components intrinsic to the moral decision making process. All four components are described according to a psychological process and an outcome, as identified in Figure 2.2 below:

Figure 2.2: Rest's four component model of moral action

PSYCHOLOGICAL PROCESS	OUTCOME
1. Moral Sensitivity	Identification of a moral dilemma.
2. Prescriptive Reasoning	Moral judgment of the ideal solution to the moral dilemma
3. Deliberative Reasoning	Intention to comply or not comply with the ideal solution.
4. Moral Character	Moral action or behavior.

2.2.1 COMPONENT ONE: IDENTIFICATION OF A MORAL DILEMMA.

Moral sensitivity initiates the moral decision making process through the *identification of a moral dilemma.* Moral sensitivity reflects an awareness that the resolution of a particular dilemma may affect the welfare of others (Rest, 1994). It involves the perception and interpretation of the cognitive aspects of a situation and an evaluation of the effects of the potential alternatives on the welfare of others (Rest, 1983). Research examining this component can be found in Staub (1978, 1979).

2.2.2 COMPONENT TWO: MORAL JUDGMENT OF THE IDEAL SOLUTION

The process of evaluating the ideal moral action which ought to occur in a particular situation is called ***prescriptive reasoning*** (Kohlberg, 1969, 1976; Rest, 1979). Generally, an individual's level of prescriptive reasoning corresponds to his or her level of moral development. However, situational factors may result in an individual resorting to a level of prescriptive reasoning different from that which corresponds to his or her level of moral development. The outcome of an individual's prescriptive reasoning process is a moral judgment of what ought to be done to resolve a moral dilemma (Rawls, 1971).

2.2.3 COMPONENT THREE: INTENTION TO COMPLY OR NOT WITH THE MORAL JUDGMENT

An individual's choice of whether or not to comply with his or her moral judgment depends on the importance which he or she gives the "moral" choice versus other decision alternatives. It is a value judgment which involves the deliberation of the course of action which an individual intends to take to resolve a particular moral dilemma. However, an individual's moral decision choice is not always consistent with his or her prescriptive judgment (Nisan & Kohlberg, 1992). A moral decision choice is the outcome of a ***deliberative reasoning*** process which considers *other non-moral values*, in addition to moral values. Hence, deliberative reasoning involves the consideration of what an individual actually **would** do to resolve a moral dilemma, whereas prescriptive reasoning involves the consideration of what **should** be done in the resolution of a moral dilemma. Deliberative reasoning weights the values associated with the moral and non-moral decision outcomes. Discrepancies between an

individual's moral decision choice and his or her ideal moral judgment occurs when non-moral considerations are more important than moral considerations.

Scharf (1973) was one of the first to recognize and document the existence of a discrepancy between prescriptive and deliberative reasoning. When attempting to set up a moral education program for inmates in a penal institution, it became apparent that the level of moral reasoning that prisoners applied to hypothetical moral dilemmas was different from that applied to resolve real life prisoner dilemmas. As Power & Reimer (1978) describe:

> ...once (inmates) began discussing real life dilemmas, the contrast became apparent between how the group thought the conflicts **should be resolved** and how they **actually were resolved**. Life in prison reflected the lowest stages of moral reasoning: Everyone acted either to avoid arbitrary punishment or to further his or her own instrumental interests. Inmates who in discussion suggested higher stage resolutions to real life conflicts admitted that they could not act on those resolutions and hope to survive in prison society (p.107, emphasis added).

This evidence provides some support for the distinction between prescriptive moral judgments and deliberative moral choices (Higgins et al., 1984). Inmates' deliberative reasoning applied to real life dilemmas appeared to reflect the application of a lower level of moral reasoning than that of which they were potentially capable, while prescriptive reasoning was generally consistent with the highest level of moral reasoning of which inmates' were capable. Although prisoners were aware and capable of higher level resolutions to real life dilemmas, other values (such as survival) were given higher precedence than moral values and influenced their actual decision choice (Scharf, 1973). Support for the result that deliberative judgment is systematically lower than prescriptive judgment when applied to realistic moral dilemmas can be found in Leming (1973, 1976) and in Gerson & Damon (1975).

2.2.4 COMPONENT FOUR: MORAL ACTION

Rest's (1983, 1994) model of moral action also recognizes that an individual's moral action/behavior is not always consistent with his or her deliberative choice. Depending upon an individual's moral character, an individual's moral behavior/actions may differ from his or her moral decision choice (Nisan & Kohlberg, 1982). An individual's moral action depends on one's deliberative choice and personal characteristics, such as ego strength and locus of control (Rest, 1994; Trevino, 1986). For example, a weak-willed person may choose to act in a given manner, but is unable to follow through in the decision choice due to lack of moral character. Thus, a discrepancy between an individual's moral action and moral decision choice reflects his or her (lack of) ability to carry out the decision choice and not a conscious intention to deviate from a chosen course of action. Evidence supporting this relationship (or lack of) can be found in Mischel & Mischel (1976), Krebs & Rosenwald (1967) and Staub (1979).

2.3 AN INTERACTIONIST PERSPECTIVE TO MORAL DECISION MAKING

The general cognitive-developmental perspective to moral decision making (i.e., Rest, 1983) does not attempt to derive a predictive model of moral decision making, but rather to describe the moral decision process. However, another approach which is based upon the cognitive-developmental perspective and Rest's model of moral action has been applied to develop predictive models of moral decision making across various contexts (Jones, 1991). The "interactionist" approach to moral decision making attempts to identify key individual and situational variables that interact with an individual's level of moral development to determine his or her moral behaviour (Trevino, 1986). In all, **at least 20 variables** have been identified

as influencing an individual's moral decision process (e.g., locus of control, opportunity, organizational culture; see Brommer, Gratto, Gavender & Tuttle, 1987, for an inventory of the variables).

Researchers adopting an interactionist perspective to moral decision making accept that the prediction of an individual's moral decision process is a joint function of contextual influences and an individual's level of moral development (McGeorge, 1977). This approach to moral decision making has been employed by researchers interested in predicting moral behaviour in general organizational settings (Brommer et al., 1987; Trevino, 1986) and by researchers interested in the morality of marketing decisions (i.e., Dubinsky & Loken, 1989; Ferrell & Gresham, 1985; Hunt & Vitell, 1986).

3.0 THE PROFESSIONAL JUDGMENT OF AUDITORS: A REVIEW OF THE EVIDENCE FROM A COGNITIVE-DEVELOPMENTAL LENS

...an accountant is paid for his judgment, not for his technical ability
(Harry Zug, 1951).

Auditors are frequently faced with moral dilemmas in their exercise of professional judgment. Moral dilemmas are complex, unpredictable and not amenable to resolution through the application of concrete rules. The definition of the ideal solution to a moral dilemma can vary from auditor to auditor and is integral to auditors' professional judgment (Gaa, 1992). The objective of this section is to employ a cognitive-development lens to gain an understanding of the moral aspect of auditors' professional judgment process. This objective is achieved through the application of Rest's (1983, 1994) model of moral action as a framework for organizing the existing empirical evidence.

The appropriateness of Rest's (1983, 1994) framework is demonstrated by its ability to describe the components of auditors' professional judgment processes. For example, Generally Accepted Accounting Principles (GAAP) and Generally Accepted Auditing Standards (GAAS)[3] exist as codified rules, standard practices and procedures. The rules provide guidance for auditors' resolution of moral dilemmas which occur in the audit context (Lampe & Finn, 1992). However, the incompleteness, inconsistency, and vagueness of the rules leave a significant amount of latitude for the application of moral reasoning to many situations encountered by auditors (Gaa, 1992). For instance, in circumstances for which explicit rules are not delineated, auditors must assess whether the reporting practices selected by clients are faithful to the

[3] For the remainder of the paper, references to "the rules" will be used to embrace GAAP and GAAS as explicitly codified in the Handbook, the Code of Ethics and regulatory requirements.

underlying situation. This assessment is analogous to the identification of the "ideal" reporting practice for a given situation and involves the application of an auditor's prescriptive reasoning as defined by the second component of Rest's (1983, 1994) model of moral action.

In addition, the exercise of professional judgment by auditors requires the application of other components of the moral reasoning process as defined by Rest's (1983, 1994) model of moral action. This is illustrated through an example, included in Figure 3.1, which draws an analogy between the steps involved in an auditor's issuing of a qualified audit opinion and the four components of Rest's model.

Figure 3.1: The Issuing of a Qualified Audit Opinion according to the Four Components of Rest's Model of Moral Action

1) The first step in an auditor's evaluation of whether or not to issue a qualified audit opinion is his or her identification of the existence of a client's transgression. This is analogous to the first component of Rest's model: *the identification of a moral dilemma.*

2) The second step requires the auditor to formulate his or her professional opinion of what the client ought to report in this situation. This is analogous to the second component of the model: *the prescriptive judgment of the ideal resolution to a moral dilemma.*

3) Given that a transgression exists and not resolved to the satisfaction of the auditor[4], the auditor is required to deliberate on whether or not he or she intends to qualify the audit opinion. This is analogous to the third component of the model: *an individual's intention to comply with moral judgment.*

4) Finally, the auditor's action of issuing the qualified audit opinion is analogous to the fourth component of the model: *an individual's moral action/behaviour*.

[4] Not all clients' transgressions are necessarily immoral. For instance, some transgressions may be errors, some may reflect a lack of technical competence and some may reflect a difference in professional opinion between the client and the auditor.

3.1 AUDITORS' MORAL DECISION MAKING

This chapter structures its review of the existing accounting-ethics research according to the framework provided by Rest's model of moral action. The scope of this review is limited to studies which empirically investigate the professional judgment of auditors using a cognitive-developmental perspective. All studies included in this review use external auditors as their subjects and measure auditors' level of moral development using the DIT (Rest, 1979), excepting Gaa & Ponemon's (1994) study which measures level of moral development using SIS (Colby & Kohlberg, 1987). Excluded from this review are studies which rely exclusively upon accounting students for subjects and studies which do not measure auditors' level of moral development. Figure 3.2 identifies the research studies according to the component of Rest's model that each examines. Results of studies pertaining to each component outlined in the figure are examined in turn:

Figure 3.2: **Accounting-ethics research examining the Professional Judgment of Auditors as Categorized by Rest's (1983, 1994) Four Component Model of Moral Action**

Outcome Component per Rest's model	**Outcome Component of Auditors' Professional Judgment Process**	**Related Research Studies**
1. Identification of a moral dilemma.	Identification of transgressions.	Bernardi (1994) Ponemon (1993) Ponemon & Gabhart (1993)
2. Prescriptive judgment of the ideal solution to the moral dilemma	Formulation of professional judgment.	Gaa & Ponemon (1994)
3. Intention to comply or not comply with the ideal solution.	Intention to exercise professional judgment.	Ponemon & Gabhart (1990)
4. Moral action or behavior.	Exercise of professional judgment	Ponemon (1992a) Tsui & Gul (1996) Windsor &Ashkanasy(1995)

3.1.1 COMPONENT ONE: IDENTIFICATION OF TRANSGRESSIONS

The moral decision process is initiated by the **recognition** that a particular situation will affect the welfare of others (Rest, 1983). In the audit context, this component is analogous to the identification of a situation where a transgression of "the rules" might have occurred or has occurred. Several studies have examined the association between an auditor's level of moral development and his or her ability to detect a client's transgressions, intentional or otherwise (Bernardi, 1994; Ponemon & Gabhart, 1993; Ponemon, 1993).

Bernardi (1994) examined the relationship between auditors' level of moral

development and their ability to detect a client's fraudulent financial statement information. This study required auditors, with different levels of experience, to review a realistic set of financial information that contained a seeded error which strongly pointed to the possibility of material fraud. The findings of this study suggest that auditors with higher levels of moral development and experience are more likely than other auditors (lower levels of moral development and/or inexperienced) to discover fraud in clients' financial statements. Two other studies, Ponemon & Gabhart (1993) and Ponemon (1993), examined the association between an auditor's level of moral development and his or her sensitivity to contextual cues which may signify the existence of client transgressions. These studies indicate that for a given level of technical competence, auditors at higher levels of moral development are more sensitive to contextual cues that a transgression has occurred than are auditors at lower levels of moral development. It may be inferred from these studies that auditors at higher levels of moral development may be better able to perceive the existence of material misstatement of financial statements. This inference, in turn, suggests that an auditor's level of moral development is integral to his or her capability to perform tasks essential to the auditors' role and to formulate professional judgments when required.

3.1.2 COMPONENT TWO: FORMULATION OF PROFESSIONAL JUDGMENT

The formulation of professional judgment requires more than just following the rules (Moizer, 1995). It involves the application of the rules to situations where they are unclear or when explicit standards have yet to be specified. The formulation of professional judgment compels an auditor prescriptively to assess what *should* be done, if the financial statements are

discovered to be materially misstated (Moizer, 1995). Although many studies have described the prescriptive reasoning capability of auditors as measured by auditors' level of moral development (e.g., Lampe & Finn, 1992; Ponemon, 1990, 1992a; Ponemon & Gabhart, 1993, 1994; Shaub, 1993), few studies have considered the association between prescriptive reasoning and the professional judgment of auditors.

An extensive review of the literature has revealed one unpublished study which considered this association (Gaa & Ponemon, 1994). Gaa & Ponemon (1994) examined the way in which auditors, with higher and lower levels of moral development and higher and lower levels of technical expertise, resolved a realistic audit dilemma which required the trade off between two conflicting accounting principles. Their analysis involved an examination of concurrent verbal protocols of auditors. The findings showed that both a higher level of moral development and a higher level of technical expertise was necessary for an auditor to display forward reasoning in the prescriptive resolution of a realistic auditing case. The study suggested that for auditors at higher levels of technical expertise, an auditor's level of moral development was associated with his or her capability to formulate professional judgment at an expert level. This finding in turn suggests that moral expertise, defined as the moral understanding held by individuals with higher levels of moral development, is necessary for the formulation of expert professional judgment by an auditor. Furthermore, it may be inferred from the results of this study that auditors' prescriptive reasoning is analogous to their formulation of professional judgment.

3.1.3 COMPONENT THREE: INTENTION TO EXERCISE PROFESSIONAL JUDGMENT

The intention to exercise professional judgment involves an auditor deliberating and choosing whether or not to comply with "the rules" or the moral ideal, as determined by his or her own prescriptive reasoning process. Ponemon & Gabhart (1990) examined the association between auditors' intentions to exercise professional judgment, the influence of situational consequences attached to alternative moral choices, and moral cognition as measured by level of moral development[5]. An experimental approach was used which asked auditors of various levels of moral development to deliberate on how another auditor (Bill) would resolve a realistic auditing scenario across three different conditions: a control condition, a penalty condition and an affiliation condition. For the penalty condition, the case information suggested that the "moral" choice would jeopardize "Bill's" promotion. For the affiliation condition, the case information suggested that compliance with "the rules" would cause disappointment to a good friend and the management of Bill's firm. Auditors at lower levels of moral development demonstrated a higher propensity to perceive that Bill would be more likely to violate "the rules" than auditors at higher levels of moral development, under all experimental conditions. Furthermore, depending upon the experimental manipulation, auditors changed their opinion of the likelihood that Bill would violate "the rules." The findings of this

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[5] Their study adopts a methodological approach commonly used by cognitive-developmental researchers to infer the level of moral reasoning used by auditors through the examination of their assessments of others' judgments. This approach is used to minimize self-report and social desirability biases which otherwise may be found in moral judgment measures (Colby & Kohlberg, 1987). For example, research results indicate that executives' assessments of others' moral judgments have been shown to have greater predictability of their own moral decisions than self-reports (e.g., Zey-Ferrell, Weaver & Ferrell, 1979; Zey-Ferrell & Ferrell, 1982).

study indicate that auditors' intention to exercise professional judgment appears to be a joint function of their moral cognition and situational consequences. Furthermore, this study also suggests that situational consequences may differentially influence auditors' propensity to exercise professional judgment depending upon their level of moral development.

3.1.4 COMPONENT FOUR: EXERCISE OF PROFESSIONAL JUDGMENT

The exercise of professional judgment describes the moral actions of auditors in their professional capacity. Ponemon (1992a) used an experimental approach to examine the association between an auditor's level of moral development and his or her tendency to underreport the time taken to complete a simulated audit task. The experimental manipulations involved staff accountants as subjects which received information that their peers required less time than themselves to complete an auditing task. Auditors' under reporting of time was measured through the comparison of observed time actually taken to complete an audit task to self-reports prepared by auditors. The results of this study showed that auditors at lower levels of moral development underreport their own time to a greater extent than auditors at higher levels of moral development. This difference was greater for auditors in the experimental conditions. Thus, the results of the study suggest an association exists between an auditor's level of moral development and his or her propensity to act morally. Furthermore, the results of this study also suggest an association exists between an auditor's level of moral development and the extent to which negative social comparisons/consequences influence his or her propensity to behave morally.

In addition, two other studies have examined the association between auditors' personal

characteristics, as described by Rotter's (1966) measure of "locus of control," and their responses to realistic moral dilemmas encountered in the workplace (Tsui & Gul, 1996; Windsor & Ashkanasy, 1995). Trevino (1986) contends that individuals which are designated as "internals" on Rotter's scale possess more moral character than individuals designated as "externals." Both Tsui & Gul (1996) and Windsor & Ashkanasy (1995) show that for a given level of moral development, auditors designated as "internals" were more likely to make professional judgments consistent with a high moral standard than auditors designated as "externals." Thus, these studies provide support for Trevino's contention that an individual's personal characteristics and level of moral development jointly influence his or her moral action. They also suggest that an auditor's exercise of professional judgment is jointly determined by his or her personal characteristics and his or her level of moral development.

3.1.5 SUMMARY OF FINDINGS

Two insights can be drawn from this review of the accounting-ethics literature. First, this review indicates that Rest's (1983, 1994) model of moral action appears to provide a framework which facilitates our understanding of the cognitive mechanisms underlying the moral aspect of auditors' professional judgment. In particular, the framework suggests the following four relationships: 1) identification of a moral dilemma appears to be analogous to auditors' identification of clients' transgressions; 2) prescriptive reasoning appears to be analogous to auditors' formulation of professional judgment; 3) deliberative reasoning appears to describe auditors' determinations of whether or not they intend to comply with their professional judgment, and 4) moral action/behavior appears to describe auditors' exercise of

professional judgment. Furthermore, application of the framework to the accounting-ethics literature leads one to infer that the exercise of professional judgment is related jointly to auditors' levels of moral development and personal characteristics (as measured by locus of control). Second, the review of the existing evidence also demonstrates that, in addition to level of moral development and personal characteristics, situational factors influence the professional judgment of auditors (Ponemon & Gabhart, 1994). In particular, the empirical evidence indicates that social pressure appears to differentially influence auditors' exercise of professional judgment depending upon their level of moral development; however, an exploration of the joint influence of social interaction and level of moral development on auditors' exercise of professional judgment has not previously been performed.

3.2 THE MORAL CONTEXT OF US AND CANADIAN AUDIT FIRMS

Insight into the influence of social factors on the moral reasoning process of auditors may be obtained through a comparison of the moral contexts provided by American and Canadian audit firms. Ponemon & Gabhart (1993) found significant differences between Certified Public Accountants' (CPA) and Chartered Accountants'[6] (CA) assessments of unethical auditor behavior, even after controlling for auditors' level of moral development and hierarchial level. Thus, an examination of the particular characteristics of the moral contexts provided by US and Canadian audit firms may provide some insight into contextual factors

[6] Chartered Accountant (CA) is the professional designation for public accountants in Canada. CAs are members of the Canadian Institute of Chartered Accountants (CICA). Certified Public Accountant (CPA) is the professional designation for public accountants in the United States. CPAs are members of the American Institute of Certified Public Accountants (AICPA).

which influence the moral decision process of auditors.

Numerous US studies have reported an association between the hierarchical rank of an auditor with his or her level of moral development (i.e., Lampe & Finn, 1992; Ponemon, 1992b; Ponemon & Gabhart, 1993; Ponemon & Glazer, 1990; Shaub, 1993). The lone study examining auditors in Canadian audit firms has not found the same association between tenure and level of moral development, even when using the same international firms for both the US and Canadian sample (Ponemon & Gabhart, 1993). Figure 3.3 presents a summary of the average DIT P scores by hierarchical rank for studies of Canadian and American auditors:

Figure 3.3: Auditors' DIT P Score by rank across Canada and the US

Rank	US DIT score	Canadian DIT score
Partner (> 6 years experience)	37.1 c *35.6 a (Big Six)** 32.3 b (national firm)	*46.7 a**
Manager (>5 years experience)	41.9 b (national firm) 41.9 d (Big Six) *38.7 a (Big Six)** 38.5 c (manager) 38.1 c (senior-manager) 35.7 b (north-east)	*45.9 a **
Senior (2-5 years of experience)	42.2 b 42.2 a 41.4 c	43.6 a
Staff-level (1-3 years of experience)	44.7 b 42.6 c 40.2 a 39.8 d	43.2 a
FIRM AVERAGE	*40.0 a**	*44.2 a **

Sources:
a Ponemon & Gabhart (1993)
b Ponemon (1992b)
c Shaub (1993)
d Lampe & Finn (1992)

*** statistically significant difference between median DIT score of CAs and CPAs at the same hierarchical level at 0.050 (from Ponemon & Gabhart, 1993).**

Two significant differences are evident from the comparison of the descriptive measures presented in Figure 3.3. First, the average level of moral development of CAs (Canadian auditors) is different from that of CPAs (American auditors). In particular, the **average** level of moral development of CAs in audit firms appears to be significantly higher than the **average** level of moral development of CPAs in audit firms. Second, the pattern of association between

level of moral development and hierarchical rank (or tenure) for American and Canadian audit firms appears to be quite different. For example, the evidence indicates that for CPA firms, the average level of moral development is highest for seniors and decreases at manager and partner ranks. In contrast, the average level of moral development tends to steadily increase with tenure in CA firms. As a result, the absolute difference in relative level of moral reasoning between CPA and CA firms is not significantly different at lower hierarchical ranks; however, it appears to become significantly different at the manager and partner ranks, with Canadian partners' and managers' levels of moral development being significantly higher than that of their American counterparts (Ponemon & Gabhart, 1993).

These findings suggest that interpersonal factors, as provided by the average level of moral development of one's colleagues, will differ significantly between US and Canadian audit firms. Social interaction with partners in CPA firms likely would be with individuals at lower levels of moral development, while social interaction with partners in CA firms likely would be with individuals at higher levels of moral development.

3.3 CONCLUSIONS

Three inferences emerge from the review of the accounting-ethics literature. First, the review suggests the importance of auditors' moral reasoning to the professional judgment of auditors. It may be inferred from this review that in addition to technical expertise, auditors' level of moral reasoning is associated with their capability to formulate, exercise and act on professional judgment. Second, the review reveals that the moral reasoning processes of auditors could be subject to social influence. Third, the review indicates that audit firms may

be characterized by a wide range of moral contexts.

Accounting-ethics studies which examine auditors' ethical responses to audit-specific moral dilemmas have not, to date, considered whether their findings have been affected by social interaction inherent in the research study or by the particular moral context from which the sample of auditors is drawn (e.g., Ponemon, 1992a; Ponemon & Gabhart, 1990; Tsui & Gul, 1996). These considerations are important to ascertain to what extent the findings of this studies are attributable to social interaction and/or applicable across the diverse moral contexts found in audit firms. Furthermore, an identification of the influence of these factors is needed to assist accounting-ethics researchers in the derivation of a comprehensive understanding of the moral reasoning process of auditors. Thus, an investigation of the influence of social interaction on auditors' moral reasoning processes in the range of moral contexts found in audit firms may further our understanding of the professional judgment of auditors.

4.0 THE INFLUENCE OF SOCIAL INTERACTION ON AUDITORS' MORAL REASONING

> Although moral acts are undertaken within a certain ideological context and community atmosphere, most studies have treated their subjects as if they were lonely men of morality, acting alone and relying only on their inner moral principles to determine which moral action to take (Power & Reimer, 1978).

Auditors' professional judgments are often the result of a decision process involving considerable social interaction with others (Gibbins & Mason, 1988; Solomon, 1987). Prior accounting research investigating the influence of social interaction on auditors' professional judgments has relied upon experiments in which, typically, a well-defined decision problem with a "correct" technical answer was resolved by auditors before and after group discussion (e.g., Abdel-khalik et al., 1983; Reckers & Schultz, 1982; Schultz & Reckers, 1981). In contrast to considerable psychological evidence (e.g., Asch, 1951, 1955; Lewin, 1947; Sherif, 1935), accounting research has not identified a significant change in auditors' professional judgments due to social interaction (Solomon, 1987). Consequently, little guidance as to the effect (if any) of social interaction on auditors' professional judgments is provided by existing accounting research.

To address this gap, the objective of this study is to develop an understanding of how social interaction affects auditors' **moral reasoning**[7]. To this end, a framework for understanding the directional effect of social interaction on individuals' moral reasoning is developed by integrating social-psychological explanations (e.g., Asch, 1951, 1955; Deutsch & Gerard, 1955; Myers & Lamm, 1976) with a cognitive-developmental perspective (e.g.,

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[7] Recall from Chapter 2 that an individual's resolution of a particular moral dilemma involves his or her level of moral reasoning; whereas, an individual's level of moral development reflects his or her long-term capacity to think morally.

Kohlberg, 1979; Rest, 1979). From this framework, hypotheses are derived which postulate the influence of social interaction on auditors' moral reasoning.

4.1 SOCIAL INFLUENCE AND MORAL REASONING

The main focus of cognitive-developmental research on social interaction historically has been on how to affect a permanent increase on individuals' ***level of moral development*** (Blatt & Kohlberg, 1975). The empirical evidence indicates that social interaction generally results in a significant *permanent increase* in individuals' level of moral development, when discussion of moral dilemmas has occurred regularly, over a period of time longer than three months (for reviews see Rest, 1979; Schaefli et al., 1985). However, a significant *permanent increase* in individuals' level of moral development resulting from social interaction has not been found when experimental interventions are shorter than three months. Changes to individuals' moral positions resulting from a single social encounter are attributed to the effect of social influence on individuals' ***moral reasoning*** (Dukerich et al., 1990; Rest, 1983; Trevino, 1996). However, an understanding of the effect of social interaction on individuals' moral reasoning has yet to be achieved.

Social-psychological research investigating the phenomenon of **convergence or conformity** (Asch, 1951, 1955; Deutsch & Gerard, 1955; Sherif, 1935) may be used to facilitate our understanding of the influence of social interaction on ***moral reasoning.*** Convergence has been defined as a change in behavior or belief because of real or imagined social influence (Kiesler & Kiesler, 1969). This line of research is typified by a series of experiments conducted by Asch which compared responses from solitary individuals to

responses made by individuals following others. The results of these experiments demonstrated that individuals' judgments generally converged to the responses made by others. The phenomenon has been found to persist even after the subjects were removed from the social situation, even in situations where subjects were not required to expose their own position publicly, and even when the others' responses were incorrect (Moscovici, 1984). Thousands of replications and variations of Asch's experiments have established the applicability of the phenomenon of convergence across numerous contexts and under various conditions (Moscovici, 1984).

Convergence researchers (e.g., Brandstatter, 1981; Deutsch & Gerard, 1955; Lamm & Myers, 1978; Myers & Lamm, 1976) have differentiated two forms of social influence underlying convergence, **informational social influence** and **normative social influence.** Informational social influence reflects individuals' drive for knowledge, accuracy and the "truth." It is defined as an influence resulting from the acceptance of information obtained from another as *evidence* about reality (Deutsch & Gerard, 1955). Informational social influence is affected by the direction (pro-con), cogency, and novelty of arguments presented during social interaction; therefore, informational social influence results from the *substance of others' arguments* (Vinokur & Burnstein, 1978). In contrast, normative social influence reflects individuals' drive for affection, acceptance and/or respect. It is defined as an influence to conform with the positive expectations of another (Deutsch & Gerard, 1955, p.629). Normative social influence suggests that individuals are motivated to revise their decisions based upon their perceptions of an established norm. Thus, normative social influence results from knowledge of what others believe without detailed concern for the reasons underlying

others' beliefs.

Empirical support exists for both informational social influence and normative social influence (Brandstatter, 1981). **Informational social influence** is the most strongly and consistently supported explanation for social influence (Myers, 1993; see Myers and Lamm, 1976 for a review). Studies which expose individuals to others' arguments (without exposure to others' positions) consistently have resulted in revisions to individuals' decisions, as predicted by the informational influence explanation (e.g., Kaplan & Miller, 1976; Kaplan, 1978; Myers & Bach, 1974; Vinokur & Burnstein, 1978). Nevertheless, substantial empirical support for **normative social influence** also exists (see Myers & Lamm, 1976 for a review of the evidence). For example, a number of studies have reported a revision in individuals' decision choices from mere exposure to others' positions (without exposure to others' arguments) (i.e., Goethals & Zanna, 1977; Myers, 1973, 1982).

Social-psychological researchers also have demonstrated a significant effect of social influence on the **moral decision choices** made by individuals (Alker & Kogan, 1968; Myers, Schreiber & Viel, 1974; Rettig, 1966, 1972; Rettig & Turoff, 1967; Vinokur & Burnstein, 1978). However, a consistent directional shift in individuals' moral choices resulting from social interaction is not apparent from an examination of the existing evidence (Myers & Lamm, 1976). In some studies, social interaction resulted in individuals' increasing their preference for more **moral** outcomes (e.g., Alker & Kogan, 1968), while in other studies, social interaction resulted in individuals increasing their preference for more **immoral** outcomes (e.g., Myers et al., 1974; Rettig & Turoff, 1967; Rettig, 1972). Thus, an additional investigation of the influence of social interaction on individuals' moral decision process is

warranted.

4.2 PSYCHOLOGICAL EXPLANATIONS APPLIED TO MORAL REASONING

To obtain insights into which social influence explanations may apply to different components of individuals' moral reasoning process, this section examines evidence regarding the influence of social interaction on individuals' prescriptive and deliberative reasoning, separately. According to a normative social influence explanation, social interaction serves to convey information about others' moral positions, which in turn, leads individuals to revise their ***moral reasoning*** to more closely reflect the accepted norm. In contrast, an informational social influence explanation suggests that individuals revise their ***moral reasoning*** to reflect new and better information (Anderson & Graesser, 1976). According to an informational explanation, social interaction encourages individuals to revise their moral reasoning by facilitating the exchange of information between individuals (Petty & Cacioppo, 1986).

4.2.1 SOCIAL INTERACTION AND PRESCRIPTIVE REASONING

Dukerich et al. (1990) provide evidence on the directional influence of social interaction on individuals' prescriptive reasoning. They examined the effect of a single group discussion of the moral dilemmas contained in the DIT on individuals' DIT scores. Their results indicated that individuals' DIT scores were significantly higher after group discussion of the moral dilemmas than before. In addition, greater general increases in subjects' DIT scores were found in subjects assigned to discussion groups dominated by individuals with higher DIT scores, as compared with subjects assigned to discussion groups dominated by individuals with lower DIT

scores. Thus, their results indicate that social interaction results in a **general upward revision** to subjects' level of prescriptive reasoning.

The patterns of revision to individuals' DIT scores reported by Dukerich et al. (1990) are similar to the pattern of results described by Rest et al. (1969). Rest et al. (1969) examined the change in MJI scores after individuals were exposed to arguments indicative of levels of prescriptive reasoning different from their own. Some individuals were exposed to arguments of levels of prescriptive reasoning higher than their own, some individuals were exposed to arguments of the same level of prescriptive reasoning as their own and others were exposed to arguments of levels of prescriptive reasoning lower than their own. Rest et al. (1969) suggested that arguments consistent with higher levels of prescriptive reasoning were generally preferred. The results showed that individuals who were exposed to arguments at higher levels of prescriptive reasoning subsequently resolved the same moral dilemmas at levels of prescriptive reasoning above the one they were capable of producing spontaneously on their own (Rest et al., 1969; Kohlberg, 1969a). However, there was not a significant revision to the level of prescriptive reasoning for individuals exposed to arguments at levels of prescriptive reasoning at similar or lower levels than their own. Rest (1969) suggested that this result was because arguments indicative of similar and/or lower levels of prescriptive reasoning likely had been already considered and assimilated into individuals' prescriptive reasoning.

The pattern of results reported by Dukerich et al. (1990) and Rest et al. (1969) may be explained by informational social influence. The informational social influence explanation is based upon the cognitive-developmental assumption that arguments indicative of higher levels of prescriptive reasoning than one's own have not been considered previously by an individual.

According to an informational explanation, social interaction results in individuals' revising their own spontaneously produced level of prescriptive reasoning *upward* to assimilate new arguments consistent with higher levels of prescriptive reasoning presented during discussion.

4.2.2 SOCIAL INTERACTION AND DELIBERATIVE REASONING

Results from two studies are used to examine the effect of social influence on the level of ***deliberative reasoning*** individuals used to resolve a real life moral dilemma. Higgins, Power and Kohlberg (1984) used content analysis to compare the level of deliberative reasoning applied to a real life moral dilemma at a "Cluster" school community meeting with the average level of deliberative reasoning of the same individuals when alone. The results of their study showed that the level of deliberative reasoning in the community meeting was higher than the average level of deliberative reasoning of individuals when alone (Power, 1988). Higgins et al. (1984) attributed these results to normative influences exerted in the community meeting, arguing that discussion with others in the Cluster community reinforced the importance attributed to moral considerations.

In another study, Kohlberg (1979) performed content analysis of court transcripts and interviews of soldiers present at the My Lai massacre (Kohlberg, 1979). The My Lai massacre is an infamous event where an American combat unit massacred unarmed civilians at My Lai during the Vietnam War. The content analysis of these soldiers' deliberative reasoning indicated that soldiers engaged in lower levels of deliberative reasoning in the presence of others than they would have if left alone. Higgins et al. (1984) inferred from these results that social influence may have caused the soldiers at My Lai to deliberate at lower levels by increasing the

social value attached to non-moral considerations. Although the evidence is sparse, it appears that social interaction results in individuals' revising their level of deliberative reasoning toward the dominant perspective held by those with whom an individual interacts. A normative explanation would suggest that individuals revise their level of deliberative reasoning, either higher or lower, depending upon the normative position conveyed by those with whom they discuss the moral dilemma. In contrast, an informational explanation would suggest that individuals revise their level of deliberative reasoning upward when moral arguments are more convincing, and downward when non-moral arguments are more convincing. Consequently, either normative or informational explanations may account for the patterns of revision to deliberative reasoning found in the existing evidence.

4.3 AN INTEGRATED FRAMEWORK

The review of the evidence suggests that social interaction may result in individuals modifying the moral reasoning they apply to a particular moral dilemma. Furthermore, the evidence provides some insights into the directional influence of social interaction on individuals' moral reasoning. On the one hand, social interaction appears to result in a general upward revision to an individual's prescriptive reasoning. This evidence is consistent with an informational influence explanation. On the other hand, the directional effect of social interaction on an individual's deliberative reasoning may vary according to the moral context in which an individual finds him or herself. This bidirectional effect may be explained by either informational social influence or normative social influence. Figure 4.1 provides a framework which summarizes the directional effects of social interaction for individuals' prescriptive and

deliberative reasoning, and the social influence mechanism(s) which may explain the proposed directional effects:

Figure 4.1: DIRECTIONAL EFFECT OF SOCIAL INFLUENCE ACCORDING TO MODE OF MORAL REASONING

MODE OF REASONING	DIRECTION OF REVISION	SOCIAL INFLUENCE MECHANISMS
Prescriptive Reasoning	Higher	Informational Influence
Deliberative Reasoning	Higher or Lower depending upon dominant position of others and their arguments.	Normative or Informational Influence

4.4 HYPOTHESES

The following hypotheses are developed to facilitate empirical testing of the framework presented in Figure 4.1 in order to provide insight into the influence of social interaction on the moral reasoning of individuals, in general, and auditors, in particular. The first hypothesis examines whether the association between moral competence and moral reasoning described by Rest's model of moral action (1983, 1994) applies to auditors when resolving realistic moral dilemmas from the audit domain. It may be inferred from Rest's model that there is a positive association between the level of moral reasoning applied by an individual to a particular moral dilemma and his or her level of moral competence. Thus, this hypothesis examines whether *the association between an individual's level of moral reasoning and his or her level of moral development* applies to the domain of auditors and auditing:

Hypothesis 1: An auditor's level of moral development will be positively associated with his or her level of moral reasoning on auditing dilemmas.

The second hypothesis examines the influence of discussion on the moral reasoning of

auditors. This hypothesis is based upon the assumption that social interaction may cause an individual to shift the moral reasoning he or she uses to resolve a particular moral issue[8]. Thus, the second hypothesis postulates that social interaction influences the moral reasoning processes of auditors:

Hypothesis 2: Discussion of an auditing dilemma will lead to a revision in an auditor's level of moral reasoning.

The third hypothesis suggests that social interaction will cause the moral reasoning of an auditor engaged in discussion to converge toward the moral reasoning of those with whom he or she discusses the moral dilemma. This implies that the difference between an auditor's level of moral reasoning and the average level of moral reasoning of his or her group will be smaller after group discussion:

Hypothesis 3: The difference between an auditor's level of moral reasoning and the average level of moral reasoning of his or her group will be smaller after group discussion than before.

The fourth hypothesis examines whether the effect of discussion on auditors' prescriptive reasoning is different from the effect of discussion on the auditors' deliberative reasoning.

Hypothesis 4: The effect of discussion on auditors' level of prescriptive reasoning will be different from the effect of discussion on auditors' level of deliberative reasoning.

The fifth set of hypotheses is based upon the assumption that the effect of social interaction on the prescriptive reasoning of individuals is dominated by *informational influence*. Thus, it is posited that prescriptive discussion of an auditing dilemma generally leads to an

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[8] This hypothesis does not examine the influence of discussion on the level of moral development of moral competence or auditors.

increase in the level of prescriptive reasoning that auditors use in its resolution. Further, this increase is likely to be more pronounced for auditors at lower levels of moral development, as group discussion is likely to result in a greater exposure to *new* information for auditors at lower levels of moral development than for auditors at higher levels of moral development.

Hypothesis 5a: The *level of prescriptive reasoning* of auditors who engage in discussion of an auditing dilemma will increase.

Hypothesis 5b: Discussion of an auditing dilemma will cause a greater increase in the *level of prescriptive reasoning* for auditors with lower levels of moral development than for auditors with higher levels of moral development.

The sixth set of hypotheses is based upon the assumption that auditors' level of deliberative reasoning will converge to the dominant position advocated by those with whom they interact. This hypothesis suggests that the revision to an auditor's level of deliberative reasoning may vary according to the moral context of the discussion group. Thus, it is postulated that deliberative discussion of auditing dilemmas in high groups will result in an increase in the average level of deliberative reasoning of auditors. Alternatively, it is postulated that deliberative discussion of auditing dilemmas in low groups will result in a decrease in the average level of deliberative reasoning of auditors. This difference gives rise to the following hypotheses:

Hypothesis 6a: Auditors in high groups will <u>increase</u> their *level of deliberative reasoning* after discussion of an auditing dilemma.

Hypothesis 6b: Auditors in low groups will <u>decrease</u> their *level of deliberative reasoning* after discussion of an auditing dilemma.

5.0 INSTRUMENT DEVELOPMENT

In Chapter Three, it was argued that the professional judgment process of auditors entails moral reasoning, and that particular components of the professional judgment process are analogous to components of the moral reasoning process as described in Rest's model (1983, 1994). More specifically, the **formulation of professional judgment** seems to correspond to auditors' prescriptive reasoning process, whereas auditors' **intention to exercise professional judgment** seems to correspond to their deliberative reasoning process. Thus, an understanding of auditors' professional judgment may be fostered through the examination of auditors' prescriptive and deliberative reasoning processes. To do so, an instrument to measure the prescriptive and deliberative reasoning processes of auditors was needed.

In Ponemon's (1988, 1990) examination of the moral development of public accountants, an association between the level of prescriptive reasoning which accountants used to resolve hypothetical moral dilemmas and the level of prescriptive reasoning which they used to resolve practical accounting dilemmas was identified. The results of this work suggest that a surrogate measure of the level of ***prescriptive reasoning*** of auditors may be inferred either from the generic instruments used to measure moral development (i.e., DIT by Rest, 1979; MJI by Colby & Kohlberg, 1987), or from an accounting-specific MJI-like instrument that measures the prescriptive reasoning which auditors employ in the resolution of a realistic moral dilemma found in the audit context (Ponemon, 1988). However, an extensive review of the literature has not identified an instrument which measures the level of ***deliberative reasoning*** of auditors.

This chapter outlines the procedures used to develop an instrument designed specifically to measure the level of deliberative reasoning of auditors, when resolving realistic auditing dilemmas. This instrument will provide a measure of the level of moral reasoning that auditors perceive that they or others would use to resolve realistic moral dilemmas encountered in the auditing context. Fredrickson (1986) suggests realistic case scenarios "generate interest, and therefore *involvement* by the respondent" (p.481). This involvement facilitates the elicitation of realistic responses (Weber, 1992). A comparable prescriptive instrument also was developed to facilitate the comparison of the prescriptive and deliberative responses of auditors.

This chapter is organized into four sections. The first section describes the instrument design choice. The second section describes the procedures used in the development of the instrument. The third section examines the combination of cases chosen for the instrument used in the experiment. The final section summarizes the implications of instrument development and testing for the experimental design.

5.1 INSTRUMENT DESIGN

Two different approaches traditionally have been employed by researchers in the cognitive-developmental paradigm to elicit and measure individuals' level of moral reasoning: the Standard Issue Scoring (SIS) of a Moral Judgment Interview (MJI) (Colby & Kohlberg, 1987) and the calculation of Principled (P) scores to the Defining Issues Test (DIT) (Rest, 1979). The MJI involves the coding of a semi-structured interview of subjects' verbal resolution of moral dilemmas. It is a time-consuming approach which is not conducive to obtaining moral reasoning scores from large sample sizes. In contrast to SIS of an MJI, the

DIT is a short, objective test which is practical for large scale research (McGeorge, 1975). The P-score is calculated from the ranking that subjects assign to preselected "items of consideration" on the DIT. For the research experiment described in this paper, a large number of evaluations of the level of moral reasoning were required. Accordingly, for practical considerations, an instrument design based upon the traditional DIT was selected as a prototype for the design and structure of the audit-specific instrument.

The audit-specific DIT designed in this study differs from the traditional DIT in three ways. First, in contrast to the traditional DIT's use of hypothetical moral dilemmas, the audit-specific DIT uses moral dilemmas which may be encountered by auditors during an audit. Second, in contrast to the traditional DIT which elicits only the prescriptive reasoning of subjects, two versions of the audit-specific instrument were developed to elicit two modes of auditors' moral reasoning (prescriptive and deliberative). The prescriptive version of the audit instrument requests subjects to consider how realistic audit dilemmas "should" be resolved by auditors; the deliberative version of the audit instrument requests subjects to consider how realistic moral dilemmas "would" be resolved by auditors. Third, to ensure that the specified modes of moral reasoning are elicited and measured by a particular version of the audit-specific DIT, instrument instructions are enhanced. For the prescriptive mode, the instrument's instructions requested subjects to respond, **as if they were a member of a professional disciplinary committee, and they were asked to prescribe how the auditor described in the case ought to respond**. For the deliberative mode, the instrument's instructions requested subjects to consider how the auditor **described in the case would respond if he or she were a member of their audit firm**. This distinction is important for auditors, as it differentiates

between the **formulation of professional judgment** and the **intention to exercise professional judgment**. The formulation of professional judgment is analogous to the prescriptive assessment of how a particular situation ***should*** be resolved. The intention to exercise professional judgment is analogous to the deliberative assessment of how a particular situation actually ***would*** be resolved. Appendix A contains copies of the six-case audit-specific DIT developed for the measurement of auditors' moral reasoning in the prescriptive mode and Appendix B contains a copy of the instrument instructions used in the deliberative mode.

5.2 STEPS IN INSTRUMENT DEVELOPMENT

Figure 5.1 provides an overview of the steps taken in the development of the audit-specific instrument. Each step is described in turn.

Figure 5.1: Steps in Instrument Development	
Step	Procedures
1. Development of audit-specific cases	Identification and tailoring of audit cases based upon realistic moral dilemmas of auditors.
2. Generation of items of consideration.	Generation of items of consideration. Selection of expert panel and preliminary stage scoring of items of consideration by expert panel.
3. Creation of preliminary instrument	Development of instrument instructions for deliberative and prescriptive modes of reasoning. Selection of items of consideration.
4. Expert panel validation of stage scores.	Validate the appropriateness of stage scores for items of consideration by expert panel.
5. Instrument testing: Phase One	Testing and fine-tuning of the instrument. Examination of validity and case order effects.
6. Instrument testing: Phase Two	Examination of reliability, validity and instrumentation order effects.
7. Instrument testing: Phase Three	Examination of test-retest reliability of the instrument.

5.2.1 DEVELOPMENT OF AUDIT-SPECIFIC MORAL DILEMMAS

The first step in instrument development involved the identification and tailoring of audit-specific moral dilemmas. To accommodate the development of two "equivalent" three-case audit instruments, six audit-specific moral dilemmas were required. Six realistic audit dilemmas were adapted from previous accounting-ethics work to the format and style found in the traditional DIT (Rest, 1979). These six cases included: 1) "Conflict of interest" developed by Arnold & Ponemon (1987); 2) "Auditor independence" developed by Ponemon (1988) and adapted from Loeb (1970); 3) "Client Confidentiality" developed by Ponemon (1988) based upon Fund of funds v. Arthur Andersen & Co. (cite: 545 F 1314 (S.D.N.Y.,

1982)); 4) "Bob & Cora" adapted from a case presented and used in accounting-ethics research by Gunz & McCutcheon (1991); 5) "Big Boulder Beer" adapted from a case developed by J. Efrim Boritz (1994), and 6) "Cambridge Realty" adapted from a case used by Lampe & Finn (1992).

5.2.2 GENERATION AND SCORING OF ITEMS OF CONSIDERATION

The next step in instrument development involved the generation of items of consideration for the audit-specific instruments. An "item of consideration" is a factor critical to the resolution of a moral dilemma by individuals at particular stages of moral reasoning. Four professional accountants, all Chartered Accountants (CA) and former auditors, read each case and identified key factors that would influence their resolution of each case. These factors were formulated into a format consistent with the items of consideration found in Rest's (1979) DIT. In addition, this step required the generation of "M" and "A" items to accommodate the use of the traditional DIT as a template for the audit-specific instrument[9].

To decide the stage scoring of these audit-specific items of consideration, a panel of "expert judges" was convened. This panel comprised four experts in the measurement of moral reasoning of auditors: Dr. Mary-Beth Armstrong, California Polytechnic State University; Dr. Don Finn and Dr. James Lampe, Texas Tech, and Dr. John Sweeney, University

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[9] "M" items are nonsense items used to check the validity of subjects' responses. "A" items are intended to typify an "anti-establishment" orientation, a point of view which condemns tradition and the existing social order...for most purposes, the A score has been disregarded" (Rest, 1986, p.4.2).

of Missouri[10]. Each expert was sent a copy of the six cases, a comprehensive list of items of consideration generated by the CAs (each case had more than the required number of items) and was asked to assign a moral stage score to each item of consideration. Some variation in the assignment of stage scores between experts was anticipated. The assignment of a moral stage for items of consideration was determined according to the two-part decision rule outlined on Figure 5.2:

Figure 5.2: Decision Rule for determination of Stage Scores for Items of Consideration
Part 1) The stage scores for items of consideration for which the distinction between principled versus non-principled moral stage corresponded across at least three experts were designated according to the stage score agreed upon by the majority of the experts.
Part 2) Items for which the distinction between principled versus non-principled moral stage did not correspond across at least three experts were reworked until at least three experts agreed, and then part one of the decision rule was followed.

5.2.3 CREATION OF THE INSTRUMENT

The creation of the audit-specific DIT required the writing of instrument instructions for both modes of reasoning and the testing and final selection of items of consideration. The three-story version of the DIT (Rest, 1979) was used as a prototype for the selection and ordering of items of consideration to be included.

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[10] I wish to thank these "experts" for their time, efforts and insights provided to me in the development of the audit-specific instrument.

5.2.4 EXPERT PANEL VALIDATION OF STAGE SCORES

The purpose of the second expert panel review was to validate the appropriateness of the stage scores of the items of consideration included in the audit-specific instrument. This step consisted of a reexamination of the assigned stage scores for all items of consideration included in the audit-specific DIT. Table 5.1 summarizes the percentage of agreement across the experts with respect to assigned stage score for the items of consideration included in the instrument[11].

Table 5.1: Expert Panel Validation of Stage Scores					
Percentage of Agreement with Assigned Stage Score per case					
Case	EXPERT 1	EXPERT 2	EXPERT 3	EXPERT 4	Total Agreement
Alice	100	100	92	100	98
Alex	84	100	92	92	92
Bob	92	100	100	92	96
John	92	92	92	75	88
Bill	84	100	100	100	94
Susan	92	92	100	100	94
ALL SIX	90.7	97.3	96	93.2	93.7

As indicated on Table 5.1, the average agreement across the four experts for the assigned stage scores was 93.7%. Table 5.2 summarizes the percentage agreement across the four experts for the distinction between principled and non-principled items of consideration.

[11] For each case, there are 12 items of consideration. When an expert agrees with the stage score assigned by the researcher for 12 items out of a possible 12 then 100% agreement is reported on Table 5.1. When an expert agrees with 11 items out of 12 for a particular case, then 92% agreement for the expert for that case is reported on Table 5.1.

Table 5.2: Expert Panel Validation of Principled/Non-Principled Classification for Items of consideration					
Percentage of Agreement with Assigned Classification					
CASE	EXPERT 1	EXPERT 2	EXPERT 3	EXPERT 4	Total Agreement
Alice	100	100	100	100	100
Alex	100	100	100	100	100
Bob	100	100	100	92	98
John	100	100	92	100	98
Bill	92	100	100	100	98
Susan	92	100	100	100	98
ALL SIX CASES	97.3	100	98.7	98.7	98.7

As indicated on Table 5.2, the average agreement across the four experts for the distinction between principled and non-principled items of consideration was 98.7%. This distinction reflects the percentage agreement across the four experts for the items used in the calculation of the P-score for the audit-specific instrument.

5.2.5 INSTRUMENT TESTING: PHASE ONE

Phase One of instrument testing had the following three objectives: 1) to review the wording and the appropriateness of the items of consideration selected; 2) to determine whether the order in which the cases were included in the audit-specific instrument affects subjects' scores; and, 3) to ascertain whether an auditor's score on the instrument was associated with his or her level of social desirability and/or locus of control. The procedures used to accomplish each objective is reviewed in turn.

Wording and appropriateness of items of consideration. The wording and selection of items of consideration included in the instrument were fine-tuned based upon insights from the participants' responses.

Case ordering. Five different orderings of the audit cases (for each mode of reasoning) were used and randomly assigned to subjects.

Social-desirability. The self-report methodology employed in moral judgment research raises the issue of a social-desirability bias in subjects' responses (Arnold & Feldman, 1981; Colby & Kohlberg, 1987; Fernandes & Randall, 1992). Social-desirability generally is considered to be the tendency of an individual to see oneself and describe one's own behavioural responses in a socially desirable light (Paulhus, 1986). The Marlowe-Crowne scale is a highly effective and widely used measure of an individual's level of socially desirable response tendency (Phillips & Clancey, 1972; Randall & Fernandes, 1991). Accordingly, the inclusion of the Marlowe-Crowne scale (Crowne & Marlowe, 1960) in Phase One testing was used to facilitate the assessment of whether auditors' levels of socially desirable responding were associated with their moral reasoning scores, as measured by the audit-specific instrument. A copy of the Marlowe-Crowne social-desirability scale is included in the last three pages of the questionnaire, in Appendix C (the Marlowe-Crowne scale is the True-False items).

Locus of control. Tsui & Gul (1996) and Windsor & Ashkanasy (1995) present evidence that suggests that auditors' locus of control is associated with their level of moral reasoning. Their research suggests that the moral reasoning of auditors classified as **internals** according to Rotter's (1966) locus of control scale is *less* susceptible to pressure exerted by clients, while auditors classified as **externals** are more susceptible to pressure exerted by

clients. **Internals** believe that they have control over their own destinies while **externals** believe that their destiny is controlled by factors extrinsic to themselves, for examples, by fate, luck or powerful others (Leftcourt, 1991; MacDonald, 1976). The distribution of Rotter's (1966) scale in Phase One testing was used to measure subjects' locus of control to assess whether auditors' scores on the audit-specific instruments varied with their locus of control. A copy of Rotter's locus of control scale also is included in Appendix C. The locus of control scale consists of the forced choice questions on the page entitled INDIVIDUAL PREFERENCES.

5.2.5.1 Administration of Phase One Instrument Testing

Accounting professors from the business school and graduate accounting program of a large Canadian university cooperated with the researcher by providing class time to accommodate Phase One instrument testing. Students in five different accounting classes were asked by the researcher voluntarily to complete a questionnaire consisting of the following five measures: 1) the three-case version of Rest's DIT; 2) the audit-specific instrument in one of two modes of moral reasoning (randomly assigned); 3) the Marlowe-Crowne (1960) social-desirability scale; 4) Rotter's (1966) locus of control scale; 5) demographic information. Although all 150 accounting students who attended the five classes appeared to participate in the research study, eight participants provided incomplete data and 25 participants failed to pass the internal validity checks included in the DIT[12]. Thus, the effective participation rate in

[12] According to Rest (1979), on average between 5-15% of subjects fail the internal validity checks included in the DIT.

this phase of instrument testing was 78 percent. The questionnaire took approximately one hour of class time to complete. Demographic data for the 117 subjects with valid and complete responses are described on Table 5.3.

Table 5.3: Descriptive characteristics of the audit student sample by mode of moral reasoning and in total

	Deliberative Instrument	Prescriptive Instrument	COMBINED
GENDER (% male)	36	46	41
YEARS OF UNIVERSITY EDUCATION	3.2	3.3	3.2
AGE	23.1	23.9	23.5
AUDIT EXPERIENCE (% with)	11	18	15
SAMPLE SIZE	n=56	n=61	n=117

5.2.5.2 Statistical analysis for Instrument Testing: Phase One

Multiple regression analysis was used to assess whether case order **(ORDER)**, social desirability **(SD)** and locus of control **(LC)** and subjects' generic DIT **(DIT)** score influenced subjects' moral reasoning score **(SCORE)** obtained on the instrument for the two different **MODES** of moral reasoning (i.e., PRESCRIPTIVE=1; DELIBERATIVE=0). Interactions were included to see if the impact of social desirability, locus of control and order were greater for one, as opposed to the other mode of moral reasoning. Table 5.4 presents the results of the analysis.

Table 5.4: Results of Multiple Regression of DIT, case order, locus of control and social desirability on audit-specific measures of moral reasoning

dependent variable	predictor	coefficient	st. dev.	t-ratio	p-value
SCORE	constant	20.2	4.75	4.25	0.00
	DIT	0.18	0.07	2.35	0.02
	MODE	5.07	6.13	0.83	0.41
	ORDER	0.43	0.51	0.85	0.40
	LC	-0.49	0.16	-3.03	0.00
	SD	-0.18	0.14	-1.20	0.23
	SD*MODE	-0.15	0.23	-0.66	0.51
	LC*MODE	0.36	0.26	1.39	0.177
	ORDER*MODE	-0.88	0.78	-1.12	0.26
F=3.01 p=0.004 DF=116 R-sq=18.2% R-sq(adj.)=12.2% N=117					

Three findings that had three implications for the experimental design or instrument development emerged from the analysis presented on Table 5.4[13]. First, there was no significant effect of case order on subjects' moral reasoning scores; therefore, it appeared that randomization of case order in the experiment itself was unnecessary (p=0.40). Second, social desirability did <u>not</u> appear to affect subjects' moral reasoning scores on the audit-specific DIT (p=0.23); therefore, concerns that the audit-specific instrument was measuring socially-desirable responses seemed unfounded. Third, the findings also indicated that "internals"

[13] For all statistical testing performed in this study, statistical significance is two-tailed and obtained at $p<0.05$ and marginal significance is obtained at $p<0.10$.

scored higher on the audit-specific instruments than "externals"($p=0.003$). Thus, the inclusion of a measure of subjects' locus of control in the experiment appeared to be prudent.

5.2.6 INSTRUMENT TESTING: PHASE TWO

Phase Two instrument testing had three objectives. The first objective was to determine whether the order in which the traditional DIT and the audit-specific instruments were presented affected subjects' scores on the audit-specific instruments (generic DIT, audit-specific DIT versus audit-specific DIT, generic DIT). The second objective was to examine the convergent and divergent validity of the audit instruments' scores with the traditional DIT scores. The third objective was to examine the internal consistency of the audit instrument in both modes of moral reasoning.

Accounting professors from the graduate accounting program of a large Canadian university provided class time for Phase Two instrument development. This graduate accounting program has been designed specifically to provide students with the prerequisite courses needed to write the Canadian Chartered Accountancy examination. The researcher asked accounting students from four sections of various accounting classes in the graduate accounting program to complete the following package: 1) the six-case version of Rest's DIT; 2) the audit-specific instrument for either prescriptive or deliberative moral reasoning; and 3) demographic information. One-hundred and nineteen students volunteered one hour of time, which resulted in a participation rate of 85% (total enrollment of 140). Twenty participants provided incomplete responses or failed to pass the internal validity checks included in the traditional DIT and have been excluded from further analysis; consequently, the participation

rate of subjects in this phase of instrument testing was 71%. Demographic data for the remaining 99 subjects is described in Table 5.5.

Table 5.5: Descriptive characteristics of the sample: phase two testing			
	Deliberative Instrument	Prescriptive Instrument	TOTAL SAMPLE
GENDER (% male)	68	60	64
YEARS OF EDUCATION (post-secondary)	4	4	4
AGE	25.6	25.9	25.5
AUDIT EXPERIENCE (% with)	22	23	22
SAMPLE SIZE	n=46	n=53	n=99

5.2.6.1 Instrumentation order.

To examine whether the order in which mode of reasoning was presented affected instrument scoring, four different instrument orders were assigned on a random basis: 1) the audit-specific DIT in prescriptive mode followed by the traditional DIT; 2) the traditional DIT followed by the audit-specific DIT in prescriptive mode; 3) the audit-specific DIT in deliberative mode followed by the traditional DIT; 4) the traditional DIT followed by the audit-specific DIT in deliberative mode. The mean instrument scores for the audit-specific DIT and the generic DIT by instrument order and mode are shown on Table 5.6.

Table 5.6: Mean Instrument Scores by instrument order and mode				
Instrument order	*Mean Audit DIT score*		*Mean Generic DIT score*	
Mode	Prescriptive	Deliberative	Prescriptive	Deliberative
Generic DIT first, Audit-instrument second	33	29	37	37
Audit-Instrument first, Generic DIT second	33	24	37	37

As shown on Table 5.6, the mean score of the generic DIT did not change across order or across instrument order; however, the mean score was lower for the audit-specific instrument in the deliberative mode when it came after the generic DIT than when it came before the generic DIT. To test whether the differences in mean instrument scores were significant across instrument order, two 2 (ORDER) by 2 (MODE) ANOVAs were used (see Table 5.7).

Table 5.7: ANOVAs examining ORDER and MODE on instrument scores					
Instrument Score	Source of variation	DF	MS	F	p-value
Generic DIT	**ORDER**	1	1	0.01	0.92
	MODE	1	4	0.05	0.82
	ORDER*MODE	1	4	0.06	0.81
Audit-specific DIT	**ORDER**	1	89	1.19	0.28
	MODE	1	79	1.06	0.31
	ORDER*MODE	1	41	0.54	0.46

As shown on Table 5.7, the results of the two ANOVAs of instrumentation order by mode did not reveal significant differences in instrument score across the four conditions (even

with a liberal significance level of 0.20). Thus, it would seem that instrumentation order does not influence subjects' scores for the audit-specific instrument or the generic DIT for either mode of the instrument (i.e., prescriptive or deliberative). However, given the mean score was lower for the audit-specific instrument in the deliberative mode when it came after the generic DIT than before the generic DIT, the cautious researcher would order the audit-specific instrument first and the generic DIT second. Thus, instrument order was held constant for the experiment with the audit-specific instrument being administered before the traditional DIT across all conditions.

5.2.6.2 Convergent/Divergent Validity of Audit Instruments.

The investigation of the audit instruments' convergent and divergent validity included a comparison of subjects' scores obtained on different modes of the audit specific instrument, and an examination of the within subjects' correlation of audit instrument scores with scores obtained from the traditional DIT (for both prescriptive and deliberative modes of moral reasoning). Table 5.8 presents the results of these comparisons.

Table 5.8: Phase two comparisons of scores obtained on the audit-specific instrument to the traditional DIT for Prescriptive and Deliberative modes

	Prescriptive Mode for Audit-specific DIT n=53	**Deliberative Mode for Audit-specific DIT n=46**
1. GENERIC DIT SCORE	37.3	37.5
2. AUDIT-SPECIFIC DIT SCORE	32.8	26.5
3. CORRELATION 1 & 2	0.65	0.28

Table 5.8 reveals that the correlations between subjects' scores on the prescriptive instrument and their traditional DIT scores average 0.65. This correlation appears to be comparable to those found between the traditional DIT and similar instruments, as Rest (1979) reports that correlations between the traditional DIT and other measures of prescriptive reasoning are as high as the low 0.70s and average about 0.50. Furthermore, Table 5.8 indicates that the correlation between subjects' scores on the traditional DIT scores and the prescriptive instrument are higher than the correlation between subjects' scores on the traditional DIT and the deliberative instrument. This pattern of convergence/divergence of subjects' scores on the three instruments is similar to the pattern found by Leming (1973).

Table 5.8 also shows that subjects' scores on the traditional DIT generally are higher than their scores on the prescriptive and the deliberative audit instrument. Additionally, subjects' scores on the prescriptive instrument are on average higher than subjects' scores obtained on the deliberative instrument. The relative values of the respective scores are similar to the pattern of scores found by Leming (1973) in his exploration of prescriptive and deliberative reasoning on hypothetical and practical dilemmas.

5.2.6.3 Internal consistency

The examination of the audit instruments' internal consistency (reliability) involved a comparison of Cronbach's alphas (Cronbach, 1951) for the audit-specific instrument (for both prescriptive and deliberative modes) to the Cronbach's alphas on the traditional DIT. The results from Table 5.9 indicate that the internal consistency (reliability) of both forms of the

audit-specific instrument, as measured by Cronbach's alpha[14], is higher than that of the traditional DIT for the same subjects.

Table 5.9: Comparisons of subjects' Cronbach's alphas between the audit-specific instruments and the DIT

	Prescriptive Mode for Audit-specific DIT n=53	**Deliberative Mode for Audit-specific DIT n=46**
Average Cronbach's alpha on The audit-specific instrument	.75	.65
Average Cronbach's alpha on The traditional DIT	.51	.60

5.2.7 INSTRUMENT TESTING: PHASE THREE

The objective of Phase Three instrument testing was to examine the test-retest reliability of the audit instruments. An auditing professor from a large Canadian college integrated the testing of the audit specific instrument into his auditing course requirements. This course was an integral requirement of the college's accounting diploma program designed to prepare students for the CGA (Certified General Accountant) designation[15].

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[14]Cronbach's alpha (Cronbach, 1951) is an estimate of an instrument's "internal consistency" based upon the average correlation among items within the instrument (Nunnally, 1988) . The score (alpha) is a function of the number of items in the instrument (numerator) divided by the heterogeneity of the sample in response to the items (denominator) (Bernardi, 1994).

[15] The Certified General Accountant (CGA) Association accepts both university and college degrees in fulfilment of its education requirements for professional accreditation. CGAs are permitted to perform audits in designated Canadian provinces (e.g., Alberta). None of the students included in the sample had audit experience.

To assess the reliability of the audit-specific instruments, the class was required to complete the same audit-specific instrument twice: once as a homework assignment and once, one week later, in class time. Two percent of the total course grade was awarded for completion of the homework assignment. Students alternatively were given the deliberative or the prescriptive version of the audit-specific instrument.

Fifty students were enrolled in the class. Seven failed to provide complete information or failed to pass the internal validity checks included in the DIT that resulted in an effective participation rate of 86% (see Table 5.10).

Table 5.10 Descriptive characteristics of the sample: Phase Three testing

	Prescriptive Mode for Audit-specific DIT	**Deliberative Mode for Audit-specific DIT**	**COMBINED**
EDUCATION (years of post-secondary)	2	2	2
AGE	26	25.8	25.9
AUDIT EXPERIENCE (% with)	0	0	0
SAMPLE SIZE	n=24	n=19	n=43

The Pearson correlation of subjects' scores on the same instrument administered two weeks apart was used to measure the instrument's test-retest reliability (see Table 5.11). Table 5.11 shows that the test-retest reliability of the prescriptive mode of the audit-specific instrument is 0.71 and the test-retest reliability of the deliberative mode of the audit-specific instrument is 0.79. These levels of reliability are comparable to the test-retest correlation on

the six-story traditional DIT, which generally has been found in the 0.70s or low 0.80s (Rest, 1979; Davison & Robbins, 1978).

Table 5.11: Test-retest correlations		
	Prescriptive Instrument n=19	**Deliberative Instrument n=25**
Mean Score-time 1	32.2	28.3
Mean score-time 2	31.0	27.6
CORRELATION BETWEEN SCORES TIME 1 AND TIME 2	0.71	0.79

5.3 DEVELOPMENT OF EXPERIMENTAL INSTRUMENT

The final objective of instrument development was to determine the best configuration of case groupings to be used in the experimental instrument. Six cases initially had been selected for instrument development, in order that two "equivalent" instruments with three cases could be developed to facilitate a within-subjects' experimental design. To determine the appropriateness of the use of equivalent instruments, the Pearson correlations for all combinations of three case groups were examined using the sample of 99 subjects described previously in Section 5.2.6. The best correlation between overall scores for two complementary sets of three cases was a Pearson correlation of 0.74 in the prescriptive mode and 0.63 in the deliberative mode.

Rest (1979) suggests that correlations of 0.70 are not sufficiently high to use as alternative forms. He advises that if sufficiently high correlations for alternative forms are not available, then the same cases should be used repeatedly. Accordingly, a between-subjects'

experimental design was adopted, with two different versions of the audit-specific instrument administered to distinct but similar samples of auditors. Each version of the audit instrument contained the same cases; however, one version elicited prescriptive reasoning and the other version elicited deliberative reasoning.

5.3.1 SELECTION OF SUBSET OF CASES FOR EXPERIMENTAL INSTRUMENT

Given the adoption of a between-subjects' design, practical considerations[16] dictated that less that the complete set of six audit cases be used in the experiment. Dukerich et al. (1990) indicated that discussion of a moral dilemma required on average ten minutes of time; therefore, four appeared to be the maximum number of cases possible. The primary criterion used for the selection of the four cases were the correlations of subjects' scores on selected combination of cases with their scores on the full six-case audit instrument. A secondary selection criterion was the similarity in subjects' mean scores from the subset with their scores on the full audit instrument.

The Pearson correlations for all combinations of four cases and the six-case audit instruments were examined for both modes of the instrument[17]. Two combinations of four

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[16] Practical considerations were time availability of subjects and subject fatigue. Discussion with various representatives from CA firms indicated that no more than one-and- a-half hours of time realistically would be available for the experiment manipulation and debriefing.

[17] The two combinations examined on Table 5.12 had the highest correlations for both modes of the instrument. For all possible four-case combinations, correlations with the six-case prescriptive instrument ranged from 0.86 to 0.95 and correlations with the six-case deliberative instrument ranged from 0.88 to 0.95. Correlations between three and two-case combinations with the six-case instrument were substantially lower than those found for the four-case versions for both modes of moral reasoning.

cases had the highest and virtually equivalent Pearson correlations with the six-case versions of the audit instrument (see Table 5.12). Both combinations included the three cases known as "Bill," "Alice" and "Bob"; however, one combination included "Alex" and the other included "John." These cases are included in Appendix A.

Table 5.12: Correlation between scores on alternative four-case combinations with six-case scores

CASE COMBINATION	PRESCRIPTIVE MODE n=53	DELIBERATIVE MODE n=46
1. Bill, Alice, Bob & Alex	0.94	0.95
2.Bill, Alice, Bob & John	0.95	0.95

The combination of four cases selected to be used for the experiment included "John." The secondary selection criteria of the similarity in subjects' scores on the combination of four cases when compared with their scores on the six-case audit instruments was used to make the choice.

Table 5.13 compares mean subjects' scores on the selected combination of four cases (Alice, Bill, Bob and John) for each of the prescriptive and deliberative modes with their mean scores on the traditional DIT and the six-case version of the instrument. There was no significant difference between subjects' mean instruments scores on this combination of four cases, as compared with the six-case audit instrument.

Table 5.13: Examination of scores on experimental instrument (i.e., Bill, Alice, Bob and John) to DIT and six-case audit-instrument		
	PRESCRIPTIVE n=53	**DELIBERATIVE n=46**
1. DIT SCORE	37.3	37.5
2. AUDIT-SCORE: FOUR-CASES	32.9	26.5
3. AUDIT-SCORE: SIX-CASES	32.8	26.5
4. CORRELATION 1 & 2	0.57	0.28
5. CORRELATION 1 & 3 (as per Table 5.7)	0.65	0.28

Expert panel review The purpose of the expert panel review was to verify the appropriateness of the stage scores of the items of consideration included in the audit-specific instrument. Table 5.14 summarizes and compares the percentage of agreement across the experts for the stage scoring and the distinction between P-items and non-P items of the four-case combination to the six-case instrument. The results of Table 5.14 suggest that the level of agreement between the experts across the selected four-case instrument correspond to that achieved in the six-case instrument.

Table 5.14: Expert Panel Review of Items of Consideration						
	Percentage of Agreement with Assigned Stage Score by Expert					
	EXPERT 1 responses	EXPERT 2 responses	EXPERT 3 responses	EXPERT 4 responses	Agreement for FOUR CASES	Agreement for SIX CASES
STAGE	92	98	96	92	95.0	93.7
P to NON-P distinction	98	100	98	98	98.5	98.7

Cronbach's alpha. Table 5.15 compares the Cronbach's alpha for the selected four-case combination to that of the six-case audit-specific instrument and the traditional DIT for the sample of graduate accounting students described above. The results on Table 5.15 indicate that Cronbach's alpha is lower for the four-case combination than the Cronbach's alpha for the six-case audit instrument. Bernardi (1994) shows that Cronbach's alpha is positively related to the number of items included in an instrument; therefore, it is not surprising that a lower Cronbach's alpha is found in a four-case instrument when compared with the Cronbach's alpha of its six-case counterpart. However, the Cronbach's alpha of the four-case combination does correspond to that of the traditional (six-item) DIT for the same sample of subjects.

Table 5.15: Examination of Cronbach's alpha on Experimental Instrument

	Prescriptive Mode n=53	**Deliberative Mode n=46**
Cronbach's alpha on four-case audit-specific instrument	0.62	0.60
Cronbach's alpha on six-case audit-specific instrument (per Table 5.9)	0.75	0.65
Cronbach's alpha on the traditional DIT (per Table 5.9)	0.51	0.60

Test-Retest Correlations. Table 5.16 examines the test-retest correlations between subjects' scores on the four-case combination compared with their scores' on the six-case audit instrument. The test-retest correlations for the four-case combination declined when compared with that of the six-case instrument. This decline in test-retest correlations was not surprising. Rest (1979) has reported that an average decline in test-retest reliability of 0.11, when the number of cases included in the traditional DIT decreased from six to three.

Table 5.16: Test-retest correlation between four and six case combinations		
	Prescriptive Mode n=19	Deliberative Mode n=25
MEAN SCORE-TIME 1	30.9	27.0
MEAN SCORE-TIME 2	31.5	26.6
Test-retest correlation for four cases	.55	.56
Test-retest correlation for six cases (from Table 5.11)	.71	.79

5.4 IMPLICATIONS

Three adjustments to the experimental design resulted from instrument development and testing. The first adjustment was to hold instrumentation order constant across subjects in all conditions, with the audit-instrument always being presented before the traditional DIT (for both modes of moral reasoning). This adjustment reflected the adoption of a cautious research approach that would mitigate any potential confounding of experimental results due to instrumentation order effects. The second adjustment was to adopt a between-subjects design for the experiment, which required subjects to respond to either the deliberative or the prescriptive forms of the audit-specific instrument. This adjustment was necessitated by the existence of low Pearson correlations among all possible alternative instrument forms of the audit-specific instrument and DIT. The third adjustment was necessitated by pragmatic considerations, which necessitated the use of four cases in the audit-specific instrument. As a result, the audit-specific instrument used in the experiment had similar levels of reliability to that found in the traditional DIT.

6.0 EXPERIMENTAL METHODOLOGY

To test the hypotheses presented in Chapter Four, an experiment was conducted to assess the influence of social interaction on the moral reasoning of auditors. The experimental approach required groups of auditors to engage in the discussion of realistic moral dilemmas, similar to those encountered in the workplace. Substantial support exists for the use of group discussion as an experimental approach for the operationalization of social influence on individuals' cognitive structures (i.e., Bishop & Myers, 1974; Greenwald, 1968; Lamm & Myers, 1978; Tesser, 1975) and on individuals' moral judgments (e.g., Blatt & Kohlberg, 1975).

6.1 EXPERIMENTAL DESIGN

A three-stage experimental design was adopted. In the first stage, pre-manipulation measures were administered. The second stage involved the experimental manipulation. The third stage consisted of obtaining post-manipulation measures and subject debriefing. Completion of all three stages required approximately two-and-a-half hours of each participant's time[18]. Individual completion of the pre-manipulation measures took approximately one hour. An additional hour-and-a-half was required to accommodate the experimental manipulation, complete the post-manipulation measures and debrief the subjects.

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[18] The timing of each stage of the experimental procedures was pre-tested with a class of undergraduate auditing students.

6.1.1 PRE-MANIPULATION MEASURES

The pre-manipulation package was distributed to obtain measures of subjects' levels of moral development that were necessary for assignment to the experimental conditions and to secure baseline measures of subjects' levels of prescriptive and deliberative moral reasoning. The package included the audit specific instrument, the traditional three-case version of the DIT, the Marlowe-Crowne (1960) social-desirability scale, Rotter's (1966) locus of control scale and descriptive information. The two personality measures were included as possible covariates[19].

Two different versions of the pre-manipulation package were developed: a prescriptive version and a deliberative version (see Appendix C and D, respectively). Except for eliciting different modes of moral reasoning, the pre-manipulation packages for the two conditions were identical. In the prescriptive mode, auditors were asked for a prescriptive resolution to the four audit dilemmas included in the audit instrument described in Chapter Five (i.e., how **should** this dilemma be resolved). In the deliberative condition, auditors were asked for a deliberative resolution to the audit dilemmas included in the audit-instrument described in Chapter Five (i.e., how **will** this dilemma be resolved). The distribution of the two versions of the pre-manipulation package was alternated to facilitate random distribution of auditors to either the prescriptive condition or the deliberative condition. Subjects were asked to complete the pre-manipulation package on an individual basis.

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[19] Subsequent testing of the hypotheses did not reveal significant differences in reported results when subjects' locus of control and social desirability were included in the analysis.

6.1.2 EXPERIMENTAL MANIPULATION

The experimental manipulation took place within one week of collecting the pre-manipulation questionnaires. Subjects were assigned either to a "discussion group" or to an "individual" control condition. All participants were given an envelope that contained the experimental instructions, a case analysis form, and a copy of the four cases, and a second envelope that was sealed shut. Subjects assigned to a **discussion group** were required to discuss the four audit cases previously introduced in the pre-manipulation questionnaire with four other individuals, and to complete concurrently a group discussion form. Subjects in the **individual control condition** were asked to reconsider individually the four audit dilemmas and to complete a case analysis form. Instructions and instruments given to subjects assigned to the individual control condition were similar to those given to subjects assigned to experimental groups; although, references to the group or to "others" in the group were excluded from the instrument instructions in the control condition. After the experimental manipulation was completed, participants were asked to return the completed group discussion/case analysis form into its original envelope.

6.1.3 POST-MANIPULATION MEASURES AND DEBRIEFING

All subjects then opened the sealed envelope that contained the post-manipulation instrument. The post-manipulation questionnaires measured participants' "revised" responses to the same audit-specific moral dilemmas after group discussion (see Appendices E and F). A debriefing session, which described to the participants the purpose and contributions of the research immediately followed the completion of the post-manipulation questionnaire.

6.2 CATEGORIZATION OF INDIVIDUAL SUBJECTS

The pre-manipulation package was used to classify subjects into one of four categories: 1) higher level of moral development/prescriptive reasoning; 2) lower level of moral development/prescriptive reasoning; 3) higher level of moral development/deliberative reasoning; and 4) lower level of moral development/deliberative reasoning. Subjects who previously had completed the prescriptive version of the pre-manipulation package were assigned to the prescriptive category. Subjects who had previously completed the deliberative version of the pre-manipulation package were assigned to the deliberative category. The traditional DIT included in the pre-manipulation package was used to categorize subjects to higher or lower levels of moral development. Subjects with DIT scores above the median for their sub-sample[20] were classified as "higher," and subjects with scores below the median for their sub-sample were classified as "lower."

6.3 ASSIGNMENT TO EXPERIMENTAL MANIPULATIONS

The experiment used a two (**MODE** of moral reasoning: PRESCRIPTIVE OR DELIBERATIVE) by three (**CONTEXT** in which social interaction took place: HIGH discussion groups or LOW discussion groups or Individual CONTROL condition) between-subjects design, with subjects randomly assigned to conditions, subject to constraints imposed by their own level of moral development. High and low discussion groups were formed to

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[20] Categorization of subjects according to "higher" and "lower" levels of moral development was relative to others in the particular sub-sample assigned to the same mode of moral reasoning (prescriptive or deliberative). However, no significant differences in results were found when subjects were re-categorized as "higher" and "lower" relative to the median of the total sample.

permit the examination of the influence of social interaction on moral reasoning in a wide range of moral contexts. High groups were meant to emulate contexts where auditors with higher levels of moral development predominated. Low groups were meant to emulate contexts where auditors with lower levels of moral development predominated. The individual condition was meant to encourage auditors to engage in additional analysis of the cases while reducing their exposure to others' moral reasoning.

A group size of five was selected. "High" groups were composed of four "higher" auditors and one "lower" auditor. Low groups were composed of four "lower" auditors and one "higher" auditor. This group size was chosen for both real-world and practical considerations. The majority of auditors in Gibbins & Mason's (1988) survey indicated that they generally interacted with between three-to-five other individuals when making professional judgments. Thus, a group size of five allowed for auditors to interact with most other auditors in the experimental manipulation. On a practical level, this group size allowed for a manipulation of context, while enabling the examination of responses from individuals at various levels of moral reasoning within each context. Each full replication of the research design required 32 subjects with valid responses. Allowing for an additional three participants to have invalid responses[21], a full replication of the experimental design required 35 subjects. Table 6.1 summarizes one full replication of the research design[22]:

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[21] According to Rest (1979), on average 10% of subjects fail the internal validity checks included in the traditional DIT.

[22] In total, nine replications of the experimental design were obtained in the study. Eight replications were complete and one replication was missing two prescriptive subjects (1 higher, 1 lower) in the control condition.

Table 6.1. Single replication of design				
MODE	HIGH GROUP	LOW GROUP	CONTROL CONDITION	total subjects
Prescriptive	*4 HIGHER* *1 LOWER*	*4 LOWER* *1 HIGHER*	*3 HIGHER* *3 LOWER*	8 higher 8 lower
Deliberative	*4 HIGHER* *1 LOWER*	*4 LOWER* *1 HIGHER*	*3 HIGHER* *3 LOWER*	8 higher 8 lower
Total Subjects	10	10	12	16 higher 16 lower 32 total

6.4 DATA COLLECTION

To provide some assurance that realistic moral reasoning processes were being examined, an attempt was made to obtain experimental subjects with a wide range of auditing experience. Consequently, auditors from different types of audit firms and at different hierarchical levels were required. Due to the large sample requirement, the extensive commitment of subjects' time, as well as the required congregation of subjects necessitated by the research design, two different strategies to obtain an appropriate sample of auditors were adopted. The first strategy involved the integration of the experiment into the national training programs of three Canadian audit firms. The second strategy involved the integration of the experiment into senior level auditing courses taken by auditors in fulfilment of their professional educational requirements.

Contact was made with representatives from the national office of the eight largest Canadian audit firms. These eight firms appeared to be of a sufficient size to ensure that their training sessions would accommodate a full replication of the research design. Three of these

firms agreed to participate in the research through the provision of seniors and managers at national staff courses[23]. As well, an additional sample of auditors at the staff-accountant and senior level with work experience from a wide range of audit firms was secured through the cooperation of three auditing professors at a single large Canadian university with a cooperative accounting program. This program enables prospective CAs (Chartered Accountants) to fulfill simultaneously work experience requirements and the professional education requirements of the Institute of Chartered Accountants of Ontario (ICAO). Successful completion of the five-year cooperative program is considered fulfilment of all admission requirements necessary to write the Uniform Final Examination (UFE) of the Canadian Institute of Chartered Accountants (CICA). The designation of Chartered Accountant is awarded upon passing of the UFE.

Practical considerations required two slight variations between the experimental procedures used with auditors attending their audit firms' training courses from those procedures used with auditors attending the audit courses at the university. The first variation involved the use of tape recorders. Tape recorders initially were integrated into the research design to encourage auditors in the individual control condition to engage in additional analysis of the cases, while reducing their exposure to social influence. Group discussions also were tape-recorded. Subsequent to the initial data collection that consisted of the sample of auditors attending auditing courses at the university, one audit firm agreed to participate in the

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[23] As previously indicated on Table 3.2, staff-accountants generally have one-to-three years of audit experience, seniors generally have two-to-five years of audit experience, managers generally have greater than five years of audit experience and partners generally have more than six years of audit experience.

experiment on the provision that tape recorders were not used. Accordingly, an equivalent experimental procedure that did not require the use of tape recorders was devised. This procedure required subjects in the individual control condition to write a short description of the factors and considerations important for the resolution of the described case. As tape recorders were no longer used for the experimental manipulation, they were eliminated from all experimental procedures. The revised procedures were used for all subsequent data collection, which included all three sub-samples of auditors attending firms' training courses.

The second variation involved a financial reward offered to auditors attending university audit courses. Participation in the experiment was considered to be voluntary for all subjects; however, there was concern regarding the level of participation of subjects attending university courses. To ensure a high level of participation, these subjects were awarded $10 as a token of appreciation for their participation in the experiment. A high level of participation was anticipated because the experiment was incorporated into the staff courses of the audit firms; therefore, it was not considered necessary to entice subjects' participation through financial reward.

6.5 SAMPLE DESCRIPTION

All subjects included in the final sample had Canadian auditing experience and were public accountants or currently were completing professional requirements necessary to become public accountants. Responses were collected from a total of 341 participants that resulted in 286 complete and valid responses and nine replications of the experimental design. Of 341 participants in the experiment, responses of six were excluded due to lack of auditing

experience, and responses of forty-seven were excluded from the analysis because they were incomplete or because they failed to pass the internal validity checks included in the DIT. Responses from two deliberative subjects were randomly eliminated from the sample. A description of the characteristics of the 286 subjects used in the statistical analysis is provided in Table 6.2:

Table 6.2. Total Sample Descriptive Characteristics	
Gender (percent male)	53
Average Age	28 years
Average work experience in audit firm	4 years
English as a first language (percent)	91
CA designation (percent)	34
DIT score	38.1
Years of post-secondary education completed	4
Total sample size	286

Table 6.3 describes the sample characteristics of the subjects by mode of moral reasoning. As shown on Table 6.3, there were no significant differences across descriptive characteristics found between subjects assigned to different modes of moral reasoning excepting for DIT score.

Table 6.3 Descriptive Characteristics of subjects by Mode of Reasoning		
	Prescriptive	**Deliberative**
Gender (percent male)	55	52
Average Age	28 years	28 years
Average work experience in an audit firm	4 years	4 years
English as a first language (percent)	90	92
CA designation (percent)	35	33
DIT score*	38.9	37.3
Years of post-secondary education completed	4	4
Total sample size	142	144
*** Denotes that characteristics of subjects' assigned to different modes of reasoning are significantly different at or beyond $p<0.05$[24].**		

Sample characteristics of subjects according to hierarchical level are described in Table 6.4. The combined sample comprised 107 staff accountants, 91 seniors and 88 managers. Significant differences between subjects at different hierarchical levels were found for the characteristics of age, years of work experience and percentage of subjects that had obtained their CA designation. These differences are consistent with changes that would normally be associated with higher hierarchical levels in public accounting firms. There were no differences found between subjects at different hierarchical levels for DIT P scores[25], years of post-secondary education completed and percentage of subjects with English as a first language.

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[24] This result is not inconsistent with the findings reported on Table 5.6.

[25] Of interest, the pattern in DIT scores does not replicate those reported by Ponemon & Gabhart (1993). In particular, the increase in DIT score across rank is not found and the DIT score in the sample of auditors used in this study is lower than that reported for Canadian auditors by Ponemon & Gabhart (1993).

Table 6.4. Descriptive Characteristics by hierarchical level			
Characteristic	**Staff Accountant**	**Senior**	**Manager**
Gender (percent male)*	45	53	64
Average Age*	24 years	26 years	34 years
Average work experience in audit firm*	1.7 years	2.4 years	8.4 years
English as a first language (percent)	89	89	95
CA designation (percent)*	0	12	97
DIT score	37.1	39.2	38.0
Years of post-secondary education completed	4.0	4.4	4.3
Total sample size	107	91	88
*** Denotes that subjects' characteristics at different hierarchical levels are significantly different at or beyond $p<0.05$.**			

All auditors included in the sample worked in Canadian public accounting firms, representing a wide range of firm sizes. Thirty-seven percent (n=104) of the sample were employed by a "Big Six" firm, fifty-two percent (n=150) were employed by a mid-size national firm, while the remaining eleven percent (n = 32) were employed by a small regional firm. Table 6.5 shows the breakdown of the combined sample according to their hierarchical level and size of the firm in which they were employed. Table 6.5 shows that the final sample did not include auditors from all hierarchical levels from each category of firm size (i.e., Small, Medium and Big Six). In particular, there were no managers from small firms and no partners included in the sample. However, the final sample did include auditors at all hierarchical levels below partner from a full-range of firm sizes. Furthermore, additional analysis did not reveal any significant differences in subjects' characteristics across firm size after the differences in

hierarchical level were considered.

Table 6.5. Final sample according to hierarchical level and firm size				
	FIRM SIZE			
HIERARCHICAL LEVEL	Small	Medium	Big Six	Total
Staff Accountant	28	11	68	107
Senior	4	55	32	91
Manager	0	84	4	88
Total	32	150	104	286

Table 6.6 describes the sample characteristics, subdivided according to the experimental procedure used. Significant differences between the characteristics of auditors subject to different experimental procedures were found[26]. The subjects for which tape recorders were used in the experimental manipulation did not have their CA designation, were younger, were less likely to consider English as their first language and had less work experience, when compared with subjects for which tape recorders were not used.

[26] Subsequent testing of the hypotheses did not reveal significant differences between subjects' responses across experimental procedures.

Table 6.6. Descriptive Characteristics by experimental procedure		
Characteristic	**with tape recorders**	**without taperecorders**
Gender (percent male)	49	56
Average Age*	25 years	30 years
Average work experience in audit firm*	1.9 years	5.2 years
English as a first language (percent)*	87	94
CA designation (percent)*	0	54
DIT score	37.7	38.4
Years of post-secondary education completed	4.0	4.4
Total sample size	112	174
*** Denotes that subjects' characteristics at different hierarchical levels are significantly different at or beyond $p<0.05$.**		

7.0 EXPERIMENT RESULTS

This chapter presents the results of the experiment described in Chapter 6. Most hypotheses were investigated using a Repeated-Measures ANOVA design, the dependent variables being repeated measures of subjects' levels of moral reasoning taken before (i.e., PRETEST) and after the experimental manipulation (i.e., POSTTEST)[27]. Table 7.1 describes the means and standard deviations of the dependent variables for the levels of prescriptive and deliberative reasoning found in the study.

Table 7.1: Descriptive Statistics for Dependent Variables for Experimental Sample

DEPENDENT VARIABLE	PRETEST		POSTTEST	
Mode	Prescriptive	Deliberative	Prescriptive	Deliberative
EXPERIMENTAL-Mean	32.6	26.6	37.0	22.0
Standard Deviation	12.7	13.4	14.1	13.0
n	90	90	90	90
CONTROL-Mean	32.2	26.3	32.4	26.5
Standard Deviation	11.4	15.1	13.9	15.1
n	52	54	52	54
TOTAL-Mean	32.4	26.6	35.3	23.6
Standard Deviation	12.2	14.0	14.1	13.9
n	142	144	142	144

[27] **PRETEST** is a measure of an auditor's response to the audit-specific moral dilemmas. It is measured as an auditor's P-score on the audit-specific DIT before the experimental manipulation takes place. **POSTTEST** is a measure of an auditor's response to the audit-specific moral dilemmas after the experimental manipulation takes place. It is measured as an auditor's P-score on the audit-specific DIT after the experimental manipulation takes place.

7.1 HYPOTHESIS 1: The Relationship of DIT Scores to Moral Reasoning Scores

Hypothesis 1: An auditor's level of moral development will be positively associated with his or her level of moral reasoning on auditing dilemmas.

The first hypothesis examines the association between auditors' level of moral development and their moral reasoning scores on auditing dilemmas. To test this hypothesis, Pearson correlations of auditors' DIT scores (**DIT**) and moral reasoning scores were computed (measured before and after the experimental manipulation, i.e., **PRETEST** and **POSTTEST**) for both modes of moral reasoning (i.e., Prescriptive and Deliberative). Support for Hypothesis 1 is suggested by significant, positive correlations between PRETEST and POSTTEST and DIT. Table 7.2 presents the results of these correlations:

Table 7.2. Correlations of auditors' DIT score with moral reasoning scores

VARIABLES CORRELATED	Prescriptive mode	Deliberative mode
PRETEST (p-value) n	0.37 (0.00) 142	0.48 (0.00) 144
POSTTEST (p-value) n	0.28 (0.00) 142	0.32 (0.00) 144

Support for Hypothesis 1 was found (see Table 7.2). The results of the correlation analyses show that there was a significant, positive relationship between the level of moral development and the moral reasoning of auditors for both modes of moral reasoning (before discussion: p=0.00; after discussion: p=0.00).

7.2 HYPOTHESIS 2: Discussion and the revision to auditors' moral reasoning

Hypothesis 2: Discussion of an auditing dilemma will lead to a revision in an auditor's level of moral reasoning.

To examine the effect of discussion on auditors' moral reasoning directly, the second hypothesis tests whether discussion resulted in a significant revision to auditors' moral reasoning scores. The revision to auditors' moral reasoning scores was operationalized as the absolute value (i.e., ABSOLUTE_REVISION) of the difference between an auditor's moral reasoning score taken before discussion from his or her moral reasoning score after discussion (i.e., absolute difference of POSTTEST less PRETEST).

A 2 (MODE) by 2 (LEVEL) by 3 (CONTEXT) by 9 (GROUP nested within MODE by CONTEXT) ANOVA was used to test whether the change in moral reasoning scores of auditors assigned to the experimental conditions was different from the change in moral reasoning scores of auditors assigned to the control condition. The first factor, **MODE**, was a between-subjects' factor used to identify to which mode of moral reasoning subjects were assigned (i.e., DELIBERATIVE=1 or PRESCRIPTIVE=0). The second factor, **LEVEL**, was a between-subjects' factor used to assess the subjects' own level of moral development (i.e., HIGHER=1 or LOWER=0)[28]. The third factor, **CONTEXT**, was a between-subjects' factor used to identify to which experimental group auditors were assigned (i.e., LOW=0 or HIGH=1 or CONTROL=2). The fourth factor, **GROUP**, was used to designate the various groups to

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[28] Subjects with levels of moral development above the median of their subsample were designated as having a HIGHER level of moral development and subjects with levels of moral development below the median of their subsample were designated as having a LOWER level of moral development (i.e., HIGHER=1 or LOWER=0). The significance of the results of this analysis do not change when auditors are classified as higher or lower based upon their level of moral development relative to others in the entire sample.

which the subjects were assigned. **GROUP** was nested within **MODE by CONTEXT**[29].

Support for Hypothesis 2 required a significant finding for the factor **CONTEXT.** Table 7.3 presents the results of this ANOVA.

Table 7.3: ANOVA of the *ABSOLUTE REVISION* to moral reasoning scores

EFFECT	Source of Variation	DF	MS	F	p-value
FACTORS	**WITHIN + RESIDUAL**	178	60		
	MODE	1	294	4.86	0.03
	LEVEL	1	23	0.38	0.54
	CONTEXT	2	295	2.44	0.09
	GROUP within CONTEXT by MODE	48	72	1.18	0.18
INTERACTIONS	**LEVEL*MODE**	1	21	0.35	0.56
	CONTEXT *MODE	2	15	0.25	0.78
	LEVEL * CONTEXT	2	53	0.87	0.42
	LEVEL*CONTEXT* MODE	2	201	3.33	0.04
	LEVEL *GROUP within CONTEXT by MODE	48	75	1.18	0.22

Two significant effects are shown in Table 7.3, a significant effect of MODE (p=0.03) and a significant three-way interaction of LEVEL by CONTEXT by MODE (p=0.04). The significant effect of mode indicates that the absolute revision to auditors' level of prescriptive reasoning (mean=10.0) was greater than the absolute revision to auditors' level of deliberative reasoning (mean=9.0). The three-way interaction will be discussed later on page 98.

[29] This factor was included to maintain the necessary ANOVA assumption of uncorrelated error variance.

Table 7.3 also provides marginal support for Hypothesis 2 that social interaction results in a revision to auditors' moral reasoning (p=0.09). To examine the directional implications of this result, Table 7.4 presents the results of the mean ***ABSOLUTE_REVISION*** to auditors' moral reasoning scores among the three levels of **CONTEXT** (i.e., LOW discussion groups, HIGH discussion groups, and the CONTROL condition). As can be seen on Table 7.4, auditors assigned to the control condition had a smaller absolute revision to their moral reasoning scores when compared with auditors assigned to discussion groups.

Table 7.4: Mean *ABSOLUTE_REVISION* according to CONTEXT

	LOW groups	HIGH groups	CONTROL condition
ABSOLUTE_REVISION	**9.2**	**11.1**	**8.5**
St. dev.	7.3	9.2	7.4
(n)	(90)	(90)	(106)

Independent samples' t-tests were used to examine whether the ABSOLUTE_REVISIONs to auditors' level of moral reasoning were significantly different between CONTEXTs. As predicted, the ABSOLUTE_REVISION to auditors' level of moral reasoning in HIGH discussion groups was significantly greater than the ABSOLUTE_REVISION to auditors' level of moral reasoning assigned to the CONTROL condition (p=0.04)[30]. Also as predicted, the ABSOLUTE_REVISION to auditors' level of moral reasoning in LOW discussion groups was greater than that found in auditors' level of moral reasoning assigned to the CONTROL condition; however, this latter difference did not reach statistically significant levels (p=0.55).

[30] Consistent with other statistical tests in this study, statistical significance of the t-tests is two-tailed and obtained at $p<0.05$ and marginal significance is obtained at $p<0.10$.

Recall, that a significant three-way interaction of LEVEL by CONTEXT by MODE also was found. To look at Hypothesis 2 more closely, two separate ANOVAs [2 (LEVEL) by 3 (CONTEXT) by 9 (GROUP nested within CONTEXT)] were used to examine the effects for each mode of moral reasoning. Table 7.5 presents the results of the ANOVA that investigates auditors' *ABSOLUTE_REVISION* to their prescriptive reasoning scores.

Table 7.5: ANOVA of the ***ABSOLUTE_REVISION*** to prescriptive reasoning scores

EFFECT	Source of Variation	DF	MS	F	p-value
FACTORS	**WITHIN + RESIDUAL**	88	63		
	LEVEL	1	0	0.00	0.99
	CONTEXT	2	120	1.91	0.15
	LEVEL*CONTEXT	2	212	3.38	0.04
	LEVEL*GROUP within CONTEXT	24	107	1.71	0.04
	GROUP within CONTEXT	24	94	1.49	0.09

Table 7.5 reports two significant effects. The first effect is a significant two-way interaction of LEVEL by GROUP nested within CONTEXT (p=0.04). The significance of this effect merely suggests that the influence of social interaction on the prescriptive reasoning of *group members* at different levels of moral development varied between discussion groups[31].

[31] Given that the discussion of the moral dilemmas was unique to each discussion group, it appears reasonable that there is a differential effect of discussion across groups. The significance of this factor likely reflects a difference in DIT score between group members assigned to a particular LEVEL of moral development across the various groups. For instance, some HIGHER auditors have very high DIT scores while some HIGHER auditors have only moderately high DIT scores. The converse also is true for auditors classified as LOWER according to their DIT score.

The second effect is a significant two-way interaction of LEVEL by CONTEXT (p=0.04). The significance of this factor suggests that the influence of social interaction on auditors' prescriptive reasoning varied according to their level of moral development and the experimental condition to which they were assigned. To look at this finding more closely, Table 7.6 presents the mean *ABSOLUTE_REVISION* to auditors' prescriptive reasoning scores according to their LEVEL of moral development and CONTEXT.

Table 7.6: Mean *ABSOLUTE_REVISION* to PRESCRIPTIVE REASONING by LEVEL and CONTEXT

	LOW groups	HIGH groups	CONTROL condition
Revision for HIGHER levels	**12.2**	**9.9**	**11.0**
st. dev.	11.9	8.9	10.2
(n)	(9)	(36)	(26)
Revision for LOWER levels*	**9.4**	**15.8**	**7.5**
st. dev.	6.9	10.6	5.7
(n)	(36)	(9)	(26)

*lower auditors significantly different between contexts at p=.01

Table 7.6 shows that the absolute revision of prescriptive reasoning scores of auditors at LOWER levels of moral development was significantly different across conditions (p=0.01), while the absolute revision of prescriptive reasoning scores of auditors at HIGHER levels of moral development did not vary between conditions. Thus, support for Hypothesis 2 is found for auditors of LOWER levels of moral development assigned to the prescriptive mode[32].

[32] In addition, the results of Table 7.6 also show that auditors in the minority in discussion groups [i.e., HIGHER (LOWER) auditors in LOW (HIGH) groups] changed their level of prescriptive reasoning more than auditors in the majority in discussion groups [i.e., HIGHER (LOWER) auditors in HIGH (LOW) groups].

Table 7.7 presents the results of the ANOVA that investigates auditors' *ABSOLUTE_REVISION* to their deliberative reasoning scores. As can be seen in Table 7.7, the results do not provide support for Hypothesis 2 as applied to auditors' deliberative reasoning.

Table 7.7: ANOVA of the ***ABSOLUTE_REVISION*** to deliberative reasoning scores

EFFECT	Source of Variation	DF	MS	F	p-value
FACTORS	**WITHIN + RESIDUAL**	90	58		
	LEVEL	1	44	0.76	0.39
	CONTEXT	2	42	0.72	0.49
	LEVEL*CONTEXT	2	40	0.69	0.50
	LEVEL*GROUP within CONTEXT	24	43	0.74	0.67
	GROUP within CONTEXT	24	49	0.85	0.77

7.3 HYPOTHESIS 3: Convergence of auditors' moral reasoning

Hypothesis 3: The difference between an auditor's level of moral reasoning and the average level of moral reasoning of his or her group will be smaller after group discussion than before.

The third hypothesis evaluates whether the moral reasoning scores of group members converge toward the average moral reasoning scores of those with whom they discuss auditing dilemmas. It was examined by assessing whether the *absolute difference in moral reasoning scores* between each group member and the average of his or her discussion group is smaller after group discussion than before. An auditor's absolute difference score, **DIFFSCORE**, is calculated as the absolute difference between an auditor's moral reasoning score and the

average moral reasoning score of others in his or her group[33]. A 2 (TIME) by 2 (MODE) by 2 (LEVEL) by 2 (CONTEXT) by 9 (GROUP nested within CONTEXT by MODE) ANOVA was used to test whether auditors' *DIFFSCORES* decreased after group discussion.

The first factor of the ANOVA, **TIME**, was a repeated-measure of individual auditors' DIFFSCORE before and after the experimental manipulation. With the exception of **CONTEXT**, all other factors were identical to those employed in the ANOVA used to test Hypothesis 2. In this analysis, **CONTEXT** was a between-subjects' factor with only two levels (i.e., LOW discussion group=0; HIGH discussion group=1). The individual control subjects were not included in the analysis since the dependent variable assessed convergence to a group average. Support for Hypothesis 3 required a significant finding for the factor **TIME.** Table 7.8 presents the results of this ANOVA.

[33] The group average moral reasoning score may be calculated in two ways: 1) the average moral reasoning score of all members of the group including the moral reasoning score of the individual for whom DIFFSCORE is being calculated, or 2) the average moral reasoning score of others in the group which excludes from the group average the moral reasoning score of the group member for whom DIFFSCORE is being calculated. Both methods were used and the results of the statistical analysis were similar regardless of the method chosen.

Table 7.8: ANOVA of auditors' *DIFFSCORES*					
EFFECT	Source of Variation	DF	MS	F	p-value
WITHIN SUBJECTS	**WITHIN + RESIDUAL**	108	33		
	TIME	1	2	0.05	0.82
	TIME * MODE	1	7	0.21	0.64
	TIME*LEVEL	1	8	0.25	0.62
	TIME * CONTEXT	1	1	0.02	0.89
	TIME*MODE*CONTEXT	1	2	0.06	0.81
	TIME*LEVEL*CONTEXT	1	3	0.09	0.76
	TIME*MODE*LEVEL	1	57	1.76	0.19
	TIME*MODE*LEVEL*CONTEXT	1	0	0.00	0.98
	TIME*LEVEL*GROUP within CONTEXT by MODE	32	50	1.53	0.06
	TIME*GROUP within CONTEXT by MODE	32	63	1.93	0.01
BETWEEN SUBJECTS	**WITHIN + RESIDUAL**	108	50		
	MODE	1	25	0.49	0.49
	CONTEXT	1	4	0.08	0.79
	LEVEL	1	32	0.64	0.43
	MODE*CONTEXT	1	164	3.27	0.07
	LEVEL * MODE	1	211	4.20	0.04
	LEVEL*CONTEXT	1	284	5.65	0.02
	LEVEL*CONTEXT*MODE	1	14	0.28	0.60
	LEVEL*GROUP within CONTEXT by MODE	32	55	1.09	0.37
	GROUP within CONTEXT by MODE	32	84	1.67	0.03

Four effects of statistical significance are reported in Table 7.8. The first effect is a

significant two-way interaction of TIME by GROUP nested within CONTEXT by MODE (p=0.01). The significance of this effect merely suggests that the influence of social interaction on auditors' DIFFSCORES varied from group to group. The second effect is a significant effect of GROUP nested within CONTEXT (p=0.03). The significance of this effect suggests that auditors' DIFFSCORES varied from discussion group to discussion group. These effects are related to factors included in the analysis to maintain the necessary ANOVA assumption of an uncorrelated error variance.

The third effect is a significant two-way interaction of LEVEL by MODE (p=0.04). The significance of this effect suggests that the DIFFSCORES of auditors at different levels of moral development varied between the different modes of moral reasoning. The fourth effect is a significant two-way interaction of LEVEL by CONTEXT (p=0.02). The significance of this effect suggests that the DIFFSCORES of auditors at different levels of moral development varied across experimental conditions.

The results presented on Table 7.8 do not provide support for Hypothesis 3 as TIME is not significant in the ANOVA (p=0.82).

7.4 HYPOTHESIS 4: Social Influence and Mode of Moral Reasoning

Hypothesis 4: The effect of discussion on auditors' level of prescriptive reasoning will be different from the effect of discussion on auditors' level of deliberative reasoning.

Hypothesis 4 examines whether the revision to auditors' prescriptive reasoning is different from the revision to auditors' deliberative reasoning after social interaction. A 2 (TIME) by 2(MODE) by 2 (LEVEL) by 3 (CONTEXT) by 9 (GROUP nested within MODE

by CONTEXT) ANOVA was used to test Hypothesis 4. The first factor of the ANOVA, **TIME,** was a repeated-measure of individual auditors' level of moral reasoning taken before and after the experimental manipulation. All other factors were identical to those employed in the ANOVA used to test Hypothesis 2. Support for Hypothesis 4 required a significant finding for **TIME by CONTEXT by MODE.** Table 7.9 presents the results of this ANOVA.

Table 7.9: ANOVA of auditors' *PRETEST to POSTTEST scores*					
EFFECT	Source of Variation	DF	MS	F	p-value
WITHIN SUBJECTS	**WITHIN + RESIDUAL**	178	68		
	TIME	1	7	0.10	0.75
	TIME * MODE	1	1121	16.38	0.00
	TIME*LEVEL	1	224	3.27	0.07
	TIME * CONTEXT	2	87	1.26	0.29
	TIME*LEVEL*MODE	1	16	0.23	0.63
	TIME*CONTEXT*MODE	2	423	6.17	0.00
	TIME*LEVEL*CONTEXT	2	42	0.62	0.54
	TIME*CONTEXT*LEVEL* MODE	2	20	0.29	0.75
	TIME*LEVEL*GROUP within CONTEXT by TIME	48	78	1.14	0.26
	TIME*GROUP within CONTEXT by MODE	48	73	1.07	0.37
BETWEEN SUBJECTS	**WITHIN + RESIDUAL**	178	254		
	MODE	1	11487	45.14	0.00
	LEVEL	1	7894	31.03	0.00
	CONTEXT	2	183	0.72	0.49
	LEVEL*MODE	1	395	1.55	0.22
	CONTEXT * MODE	2	565	2.22	0.11
	CONTEXT*LEVEL	2	42	0.17	0.85
	LEVEL*CONTEXT*MODE	2	515	2.02	0.14
	LEVEL*GROUP within CONTEXT by MODE	48	286	1.13	0.29
	GROUP within CONTEXT by MODE	48	231	0.91	0.64

Four significant effects are reported on Table 7.9. In particular, two significant main effects of MODE (p=0.00) and LEVEL (p=0.00) are identified. The significance of the effect of MODE suggests that auditors' moral reasoning scores varied according to the mode of moral reasoning to which they were assigned. As shown on Table 7.1, auditors' prescriptive scores generally were higher than auditors' deliberative reasoning scores. The significance of the effect of LEVEL suggests that auditors' moral reasoning scores varied according to auditors' level of moral development. As shown on Table 7.2, auditors' moral reasoning scores were positively correlated with their level of moral development; therefore, auditors at higher (lower) levels of moral development generally had higher (lower) moral reasoning scores. The significance of these two effects confirms that the design was well implemented in the study.

In addition, two significant interactions are identified on Table 7.9. The first is a significant two-way interaction of MODE by TIME (p=0.00) which suggests that the effect of the experimental manipulation on auditors' moral reasoning varied significantly according to their assigned mode of moral reasoning. This effect is qualified by a significant three-way interaction of MODE by TIME by CONTEXT (p=0.00). This result is consistent with Hypothesis 4 and suggests that the influence of discussion varied according to the experimental condition to which auditors were assigned and depends upon whether it is prescriptive or deliberative reasoning that is being considered. Further investigation of the effect of social interaction on the prescriptive and deliberative reasoning of auditors is provided by the examination of the fifth and sixth sets of hypotheses, respectively.

7.5 THE FIFTH SET OF HYPOTHESES: Social interaction and Prescriptive reasoning

Hypothesis 5a: The *level of prescriptive reasoning* of auditors who engage in discussion of an auditing dilemma will increase.

Hypothesis 5b: Discussion of an auditing dilemma will cause a greater increase in the *level of prescriptive reasoning* for auditors with lower levels of moral development than for auditors with higher levels of moral development.

The fifth set of hypotheses examines the influence of social interaction on the prescriptive reasoning of auditors. A 2(TIME) by 2(LEVEL) by 3(CONTEXT) by 9 (GROUP nested within CONTEXT) ANOVA was used to test the fifth set of hypotheses. Table 7.10 presents the results of this ANOVA.

Table 7.10: ANOVA of auditors' *PRETEST to POSTTEST scores for* PRESCRIPTIVE MODE

EFFECT	Source of Variation	DF	MS	F	p-value
WITHIN SUBJECTS	**WITHIN + RESIDUAL**	88	75		
	TIME	1	650	8.69	0.00
	TIME*CONTEXT	2	381	2.39	0.01
	TIME*LEVEL	1	179	5.10	0.13
	TIME*CONTEXT*LEVEL	2	60	0.80	0.44
	TIME*LEVEL*GROUP within CONTEXT	24	104	1.39	0.14
	TIME*GROUP within CONTEXT	24	89	1.19	0.27
BETWEEN SUBJECTS	**WITHIN + RESIDUAL**	88	245		
	CONTEXT	2	464	9.66	0.16
	LEVEL	1	2365	1.70	0.00
	LEVEL* CONTEXT	2	464	1.90	0.19
	LEVEL*GROUP within CONTEXT	24	415	0.99	0.48
	GROUP within CONTEXT	24	250	1.02	0.45

Three significant effects are reported on Table 7.10. In particular, two significant main effects of TIME (p=0.00) and LEVEL (p=0.00) are identified. The significance of the main effect of TIME indicates that auditors' prescriptive reasoning scores were higher after the experimental manipulation (mean=35.3) than before (mean=32.4). The significance of the main effect of LEVEL indicates that auditors' level of prescriptive reasoning was positively correlated with their level of moral development. Thus, the significance of these two effects confirms that the design was well implemented in the study.

In addition, the two-way interaction of TIME by CONTEXT was significant (p=0.01). The significance of this effect suggests that the influence of discussion on the prescriptive reasoning of auditors varied according to the experimental condition to which they were assigned. This effect is depicted in Table 7.11.

Table 7.11: Mean Increase in Prescriptive Reasoning Scores for auditors according to Experimental CONTEXT

EXPERIMENTAL CONDITION	TIME	Mean Score	Mean Increase	t-value	DF	p-value
HIGH DISCUSSION GROUPS	**PRETEST**	32.2				
	POSTTEST	39.1	+6.9	-3.58	44	0.00
LOW DISCUSSION GROUPS	**PRETEST**	33.0				
	POSTTEST	34.9	+1.9	-0.99	44	0.33
CONTROL CONDITION	**PRETEST**	32.3				
	POSTTEST	32.4	+0.1	-0.11	51	0.91

The results in Table 7.11 identify a statistically significant increase in the prescriptive reasoning scores of individuals assigned to the HIGH discussion groups (p=0.00). However,

the increase in the prescriptive reasoning scores of auditors in LOW discussion groups was not statistically significant and there was virtually no change in the level of prescriptive reasoning of individuals assigned to the CONTROL condition. Thus, these results provide partial support for Hypothesis 5a, as it appears that only the level of prescriptive reasoning of auditors assigned to HIGH discussion groups significantly increased with group discussion.

Support for Hypothesis 5b was not found.

7.6 THE SIXTH SET OF HYPOTHESES: Social Interaction and Deliberative Reasoning

Hypothesis 6a: Auditors *in high groups will increase* their level of deliberative reasoning after discussion of an auditing dilemma.

Hypothesis 6b: Auditors *in low groups will decrease* their level of deliberative reasoning after discussion of an auditing dilemma.

The sixth set of hypotheses examines the influence of social interaction on the deliberative reasoning of auditors. A 2 (TIME) by 2 (LEVEL) by 3 (CONTEXT) by 9 (GROUP nested within CONTEXT) ANOVA was used to test Hypotheses 6a and 6b. Table 7.12 presents the results of this ANOVA.

Table 7.12: ANOVA of PRETEST to POSTTEST scores for DELIBERATIVE MODE					
EFFECT	Source of Variation	DF	MS	F	p-value
WITHIN SUBJECTS	**WITHIN + RESIDUAL**	90	62		
	TIME	1	478	7.67	0.01
	TIME*CONTEXT	2	127	2.04	0.14
	TIME*LEVEL	1	61	0.97	0.33
	TIME*LEVEL*CONTEXT	2	2	0.03	0.97
	TIME*LEVEL*GROUP within CONTEXT	24	53	0.84	0.67
	TIME*GROUP within CONTEXT	24	58	0.92	0.57
BETWEEN SUBJECTS	**WITHIN + RESIDUAL**	90	264		
	CONTEXT	2	282	1.07	0.35
	LEVEL	1	5944	22.53	0.00
	LEVEL* CONTEXT	2	142	0.54	0.59
	LEVEL*GROUP within CONTEXT	24	330	1.25	0.23
	GROUP within CONTEXT	24	212	0.81	0.72

Two significant main effects of TIME (p=0.01) and LEVEL (p=0.00) are identified in Table 7.12. The significant effect of TIME indicates that auditors' deliberative reasoning scores were lower after the experimental manipulation (mean=23.6) than before (mean=26.6). The significance of the main effect of LEVEL indicates that auditors' levels of prescriptive reasoning scores were positively correlated with their level of moral development. The significance of these two effects confirms that the design was well implemented in the study.

Although the two-way interaction of CONTEXT by TIME only approached accepted

significant levels for deliberative reasoning (p=0.14), Table 7.1 shows an overall decrease in auditors' level of deliberative reasoning after the experimental manipulation. Thus, to explore further Hypotheses 6a and 6b, paired-samples t-tests of the means for the two-way interaction of CONTEXT by TIME for deliberative reasoning are presented in Table 7.13.

Table 7.13: Difference in deliberative reasoning scores over TIME by experimental CONTEXT.

CONTEXT	MEASURE	Mean Score	Change	SD	t-value	DF	p-value
HIGH DISCUSSION GROUP	PRETEST	29.3	-6.0	13.0	3.10	44	0.00
	POSTTEST	23.3					
LOW DISCUSSION GROUP	PRETEST	23.9	-3.2	10.0	2.15	44	0.04
	POSTTEST	20.7					
CONTROL CONDITION	PRETEST	26.5	+0.8	10.2	0.20	53	0.84
	POSTTEST	27.3					

As shown in Table 7.13, there was a significant decrease in the level of deliberative reasoning of auditors in both HIGH and LOW discussion groups (i.e., HIGH p=0.00 and LOW p=0.04), but not for auditors assigned to the control condition. Thus, the results of the analysis do provide support for Hypothesis 6b, as they show that the level of deliberative reasoning of auditors in LOW groups declined after social interaction. Support for Hypothesis 6a was not found. Indeed, discussion caused a decrease in the level of deliberative reasoning of auditors assigned to both experimental discussion groups.

These results also clarify the three-way interaction of CONTEXT by MODE by TIME in Table 7.9. As shown on Table 7.11, the prescriptive reasoning score of auditors in HIGH

groups increased with social interaction; however, the prescriptive reasoning scores of auditors in the individual control condition was not affected. As shown on Table 7.13, the deliberative reasoning of auditors decreased with social interaction; however, the deliberative reasoning of auditors in the individual control condition was not affected. Thus, the directional influence of social interaction on auditors' level of moral reasoning appears to be a function of the mode of moral reasoning used to resolve the moral dilemma. On the one hand, discussion resulted in auditors resolving audit-specific moral dilemmas at a higher level of prescriptive reasoning, particularly for auditors in HIGH groups. On the other hand, discussion resulted in auditors resolving audit-specific moral dilemmas at a lower level of deliberative reasoning. Hence, it may be inferred from the findings of this study that mode (i.e., prescriptive or deliberative) moderates the effect of social interaction on auditors' moral reasoning.

8.0 DISCUSSION AND CONCLUSIONS

McNair (1991) argues that audit firms are exposing themselves to an excessive risk of possible litigation by over-reliance on auditors' moral judgments. However, reliance on auditors' moral judgments would not result in legal exposure for audit firms if auditors consistently adhered to high moral standards. To ensure that auditors' professional judgments consistently comply with a high moral standard, an understanding of auditors' moral reasoning processes is required.

This study draws attention to the importance of social interaction for the moral reasoning of auditors and to further our understanding of how social interaction influences two important components of the moral reasoning process of auditors: deliberative reasoning and prescriptive reasoning. To this end, a DIT-like instrument was developed to measure the deliberative and prescriptive reasoning of auditors. Furthermore, it used an experiment to examine the influence of social interaction on both types of auditors' moral reasoning in a situation carefully constructed to emulate factors and conditions commonly encountered by auditors. The statistical analysis necessitated the use of a large number of auditors in the experiment. This large sample requirement facilitated the inclusion, in the experimental sample, of auditors with a wide range of auditing experience from a variety of hierarchical levels (with the obvious exception of partners not being included). Also included in the experimental sample were auditors from all sizes of audit firms excepting for a very small audit firm (e.g., sole practitioners). Consequently, the findings of this study provide insight into the influence of social interaction on the moral reasoning of a wide spectrum of Canadian auditors. The contributions, implications and extensions of this research for existing theory and practice are

discussed below.

8.1 CONTRIBUTIONS

The study makes two significant contributions to our understanding of individuals' moral decision process and auditors' professional judgment. First, this study facilitates a comparison of the prescriptive and deliberative reasoning processes of auditors through the development of a DIT-like measure of their level of prescriptive and deliberative reasoning. The results of the study indicate that auditors generally used a higher level of *prescriptive reasoning* to resolve audit-specific moral dilemmas than the level of *deliberative reasoning* that they used to resolve audit-specific moral dilemmas. In addition, the results of the study also show that the levels of moral reasoning auditors apply to realistic auditing dilemmas, although related, are lower than their level of moral development. These results provide support for Rest's (1983) conception of additive cognitive structures and his model of moral action by providing evidence of differences between the levels of moral reasoning associated with various components of the moral decision process as described by Rest's model (i.e., moral development, prescriptive reasoning and deliberative reasoning). Furthermore, these results also provide support for Jones' (1991) issue-contingent model of moral decision making by showing that the issue-specific factor of mode is related to the level of moral reasoning auditors use in the resolution of moral dilemmas.

Second, this study provides empirical evidence of the effect of social interaction on the moral reasoning of auditors. The results of this study provide support for Trevino's (1986) interactionist theory of moral decision making which suggests that social factors influence

individuals' moral decisions. Consistent with Trevino's model, this study shows that mode and the moral context jointly influence the effect of social interaction on the resolution of moral dilemmas. Furthermore, this study contributes to the growing body of knowledge that investigates the effect of social influence on auditors' professional judgments by providing insight into how discussion affects auditors' moral decision process. Thus, this study takes an important first step in the development of a predictive model of auditors' moral judgment through the identification of the directional effects of discussion and moral context on various components of auditors' moral decision process.

The findings of this study are of practical significance to public accounting firms in their quest to increase the morality of auditors' professional judgments. At a pragmatic level, these findings show that the social interaction does not always result in a professional judgment of higher moral quality. Deliberative discussion of auditing dilemmas tends to result in the use of less principled moral reasoning by auditors; therefore, deliberative discussion of auditing dilemmas should be avoided. Nevertheless, auditors should be encouraged to discuss auditing dilemmas prescriptively, as prescriptive discussion tends to result in the use of more principled moral reasoning by auditors. This particularly applies to situations where there are others of high levels of moral development with whom to discuss moral dilemmas. Thus, the findings of this study suggest that auditors should be careful about the level of moral development of others with whom they discuss moral dilemmas and the mode they use in the discussion of moral dilemmas. This conclusion should lead audit firms to consider how their organizational structure, practices and procedures may be altered to avoid deliberative discussion of moral dilemmas, and to encourage prescriptive discussion of moral dilemmas particularly with others

of high levels of moral development. For example, standardized working papers could use prescriptive wording when auditors are asked to identify the moral issues that should be discussed with others. Furthermore, audit firms should also consider including a criterion of high moral capacity for the job requirements of positions involving a great deal of discussion with others.

The significance of this study for the audit profession as a whole lies in its ability to guide the governing bodies in the identification of alternative approaches to encourage auditors to adhere to high moral standards in their exercise of professional judgement. The audit profession traditionally has relied upon the use of codes of conduct to establish and impose a rigorous moral standard upon its membership. However, codes of conduct, although important, are apparently not sufficient to eliminate the occurrence of moral transgressions by auditors. An effective alternative approach to the mitigation of moral transgressions by auditors may be based upon the results of this study.

In particular, the results of this study suggest that the audit profession should consciously adopt the objective of ensuring its members' level of moral cognition and level of moral reasoning consistently adhere to a high moral standard. This study demonstrates that it is possible to develop objective measures of auditors' moral capacity and moral reasoning. Thus, the audit profession should consider the adoption of a minimum cognitive moral standard for entry into the audit profession. It may be inferred from the results of this study this requirement, if appropriately implemented, should result in an overall increase in the moral capacity of auditors by deterring individuals of low levels of moral competence from entering the audit profession. The results of this study also demonstrate that discussion, which is an

integral part of auditors' professional judgment process, plays a crucial role to the determination of the moral standard by which auditors resolve moral dilemmas. Thus, the audit profession should undertake to educate its membership of the importance and significance of mode and moral context on discussion. Furthermore, the audit profession should undertake to implement procedures that encourage its members to prescriptively discuss auditing and accounting issues with a moral dimension and make auditors with high levels of moral capacity easily accessible for confidential consultation of moral issues.

8.2 LIMITATIONS OF THE STUDY

A few caveats are in order in interpreting the conclusions of the study. The first caveat is with regard to the nature of the sample. A significant effort was made to obtain subjects with a wide range of auditing experience on two dimensions: hierarchical level and type of audit firm. Nevertheless, the applicability of the results of this study to types of auditors not examined (e.g., audit partners and sole practitioners) and to organizations that are not audit firms remains to be established.

The second caveat is with regard to the nature of the setting in which the study was carried out. The nature of the experiment required the interaction of a large number of auditors; consequently, it was conducted during audit firms' training courses or during class time of university level auditing courses. Furthermore, discussion groups were structured to attempt to emulate the range of moral contexts that may be encountered by auditors. However, the elicitation of a representative moral reasoning process of auditors may have been hindered by using locations and social contexts that are not representative of the location or context in

which these decisions actually are made. For instance, by design, the discussion groups included auditors at similar hierarchical ranks; therefore, the results of the experiment may not apply to situations where different hierarchical levels are involved in group discussion. Accordingly, additional work is required to assess to what extent the results of this study apply to the moral reasoning of auditors in the workplace.

The third caveat is with regard to the nature of the measures used to evaluate auditors' moral reasoning. The experiment relied upon the use of newly developed measures of prescriptive and deliberative reasoning of auditors that have not been widely tested. Further work is necessary to give increased assurance of their accuracy in measuring the moral reasoning of auditors.

The fourth caveat is with regard to the modes of moral reasoning elicited in the experimental manipulations. The experimental instructions and procedures attempted to ensure that a single mode of moral reasoning was elicited from a subject throughout the experiment. Thus, this study did not examine the effect of social interaction on auditors' moral reasoning when discussion of auditing dilemmas involved both modes of moral reasoning, either simultaneously or consequently. Additional work is required to ascertain the effect of social influence on auditors' moral reasoning when both modes of moral reasoning are involved. Further investigation of the influence of mixed modes of moral reasoning may be of particular interest to accounting-ethics researchers, as it is likely that auditors engage in both modes of reasoning, and possibly both modes of discussion, in the resolution of auditing dilemmas in the work place.

8.3 POSSIBLE EXTENSIONS

This study examines the prescriptive and deliberative moral reasoning process of auditors and compares the effect of social interaction on both. Additional work is needed to extend the examination to other components of auditors' decision processes, and to other situations in which auditors, typically, exercise professional judgment. For example, an empirical investigation of the association between an auditor's deliberative reasoning and his or her moral actions may be the next logical step to take for the development of a predictive model of auditors' moral decision process. As well, more practically motivated extensions to the proposed research may attempt to ascertain whether the anticipated results of this study apply to the moral decisions made by teams or groups of auditors, or relate to the auditor-client relationship and an auditor's ability to withstand client pressure.

Additional work examining the longevity of different types of social influence on moral reasoning also is required. This examination potentially would contribute to our understanding of how to affect permanent changes in the levels of moral reasoning of auditors, and would be of particular interest to those interested in educating and training public accountants.

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APPENDICES

Appendix A: Prescriptive Accounting Instrument
Appendix B: Deliberative Accounting Instrument
Appendix C: Prescriptive Premanipulation Instrument
Appendix D: Deliberative Premanipulation Instrument
Appendix E: Prescriptive Postmanipulation Instrument
Appendix F: Deliberative Postmanipulation Instrument

Appendix A: Prescriptive Accounting Instrument

OPINIONS ABOUT PROBLEMS IN ACCOUNTING FIRMS

This questionnaire examines your opinions about auditors' professional judgments. It is in three parts. The first part presents six cases which are specific to the accounting/audit context. The second part presents cases which describe situations that may occur in everyday life. The third part asks for some descriptive information about yourself, your attitudes, and your own behaviours. The questionnaire is completely anonymous and is entirely voluntary. However, if you are interested in the results of the questionnaire, you may provide an address on the last page to receive a copy of the findings. Your cooperation and assistance are greatly appreciated.

For the audit cases, we ask you to respond to these cases as if you are an auditor conducting a peer or quality-control review. You have been asked in your professional capacity to give your advice to the accountant, described in the case, as to how he/she should resolve this dilemma. He/she wants to know the ideal way in which the described situation should be resolved. This individual has come to you because you have no vested interest. Your response should provide a description of what a professional accountant ought to do to resolve the described situation.

For the final three cases, we ask you to describe how you would advise the individual as to what he/she ought to do to resolve the described problem. Your response should reflect your opinion of what is the "proper" or the "correct" way to respond to the situation without considering the pressures that the described individual faces.

There are no "right" or "wrong" answers to the questionnaire. The cases have been carefully written to encourage you to consider the influence of different factors to your opinion. Once you finish one case, please proceed immediately to the next. Please do not go back and change responses to cases that have already been completed.

Your assistance and cooperation are greatly appreciated.

Here are an illustration case and sample questionnaire.

Simon Fellows is thinking about buying a house. He is married, in his early thirties, has two small children, and earns an average income. No additions to his family are planned. His family has two cars and his wife works. Simon comes for you for advice as to whether he should buy a house.

Should Simon buy a house? (Check one) ___Yes __Can't decide __No

In the process of advising Simon whether or not he should buy the house, you may consider many different issues to be important. Below is a list of some of these issues. On the left-hand side of each statement check the space which best corresponds to the importance you believe should be given to the particular consideration. (For instance, if you think that statement #1 should be of great importance in making a decision about buying a house, check the space on the left).

IMPORTANCE:

Great	Much	Some	Little	No
X				
				X
			X	
X				
	X			

1. Whether Simon can afford a suitable house. (Note in this example, the person taking the questionnaire thought that Simon should place great weight on this consideration in reaching his decision).

2. Whether the furnace on the house was thermal dynamic (Note that if a statement sounds like gibberish, nonsense or is not relevant to the question at hand, mark it of "no importance").

3. Whether Simon could still go on his annual golf vacation.

4. Whether Simon's wife wants to buy a house (Note in this sample, the person extending the advice thought that Simon should weight this consideration very heavily).

5. Whether Simon could find a suitable house within walking distance to work.

From the list of considerations above, select the most important to the decision choice. Put the number of the most important consideration on the blank beside "Most important". Do likewise for your 2nd, 3rd and 4th most important choices.

Note in this example, the top choices in this example will come from those statements that were checked on the left-hand side--statements #1 and #4 were thought to be very important. In deciding what is the most important, a person would reread #1 and #4 and then pick one of them as the most important, then put the other one as "second most important", and so on). Statement #5 was of the next highest importance (much importance); therefore, #5 would be put beside the "third most important" choice. Finally, statement #3 was of the next highest importance; therefore, #3 would be put beside the "fourth most important" choice.

From the list above, select the four most important:

_1_MOST IMPORTANT _4_SECOND MOST IMPORTANT 5 THIRD MOST IMPORTANT _3_FOURTH MOST IMPORTANT

ALICE AND THE ABC COMPANY

Alice is a senior auditor and a CA for a national CA firm that provides auditing, tax and consulting services. The firm has developed a package called the ACME ACCOUNTING SYSTEM which is sold to the general public as well as the firm's clients. Alice is the auditor in charge of the field work on the ABC Company, Inc. audit. During the course of this audit assignment, Alice is asked to evaluate the quality control of the accounting system which happens to be the ACME package. Alice uncovers several severe control weaknesses in the ACME system. Before rendering the management letter to ABC management, Alice is told by her boss to modify the negative comments regarding the ACME package.

Should Alice amend the management letter? (Check one)

___Should amend it ___Can't decide ___Should not amend it

In the process of advising Alice whether or not she should amend the management letter, you may consider many different issues. Below is a list of some of these issues. Please indicate the importance of each of the following considerations in your advice to Alice.

IMPORTANCE:

Great	Much	Some	Little	No

1.Whether the weaknesses in the ACME system may be easily remedied by compensating controls.

2.What effect does Alice's refusal to amend the letter have on the ABC company?

3.Whether Alice's job may be threatened by her refusal to revise the letter.

4.Whether fair deliberation on the client's financial position can predilect professional reputation.

5.What course of action is best for Alice's firm?

6.Does Alice have the right to threaten the reputation of the firm?

7.What is the value of an audit in lieu of society's perspective on an enterprise's worth?

8.Does society expect that Alice's responsibility extends to other companies which rely upon her firm's software?

9.Whether ABC really cares about internal control or if they really only want a clean audit opinion.

10.Can Alice revise the letter and feel she has fulfilled her responsibility to ABC company?

11.Whether other partners in the firm support Alice's boss' position.

12.What factors are relevant in determining Alice's professional responsibility?

From the list above, select the four most important:

___MOST IMPORTANT ___SECOND MOST IMPORTANT __THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

SUSAN AND CAMBRIDGE REAL ESTATE

Susan is a C.A. and the partner on the Cambridge Real Estate audit. It is a privately controlled company and her firm's largest client. The relationship between Cambridge and Susan's firm has seriously deteriorated over the last two years, as has its profitability. A contentious issue has emerged from this year's annual audit. The proposed estimate for uncollectible receivables as included by management on the financial statements is understated by an amount Susan considers material. The client is unwilling to budge on this issue. The CEO of Cambridge feels that it is merely a difference of professional opinion regarding the adequacy of an estimate. He feels that his own staff has specialized knowledge of the client base which renders their estimate of collectability more reliable than estimates formulated by the audit staff. Cambridge needs a clean audit opinion in order to extend it line of credit at the bank. Susan's firm has a strong desire not to lose the client.

Should Susan concede this issue? (Check one)

___Yes ___Can't decide ___No

In the process of advising Susan on whether or not she should concede this issue, you may consider many different issues. Below is a list of some of these issues. Please indicate the importance of each of the following considerations in your advice to Susan.

IMPORTANCE:

Great	Much	Some	Little	No	
					1.How other firms in the industry estimate uncollectible receivable?
					2.Whether the client's position would be considered reasonable by an independent assessment and by society-in-general.
					3.Whether Susan's firm can afford to lose its most important client.
					4.Whether GAAP prevents Susan from endorsing her client's professional judgement.
					5.Whether the essence of professional judgment overwhelms the advocation of isomorphism.
					6.Whether Susan could concede this issue and still feel she has fulfilled her professional responsibility.
					7.What position will be taken by the other partners of the firm?
					8.Whether the threat from the client has substance.
					9.Whether the resulting financial statements mislead existing and potential users.
					10.On what basis should differences of professional opinion be acceptable?
					11.Doesn't society expect auditors to ensure clients do not materially misstate assets.
					12.Whether the bank is aware of the difference of opinion.

From the list above, select the four most important:

___MOST IMPORTANT ___SECOND MOST IMPORTANT___ THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

BILL AND DOGOOD CONSTRUCTION

Bill is a staff auditor and CA for a small firm that provides auditing services. The President of the DoGood Construction Corporation is searching for a Chief Financial Officer, and has asked Bill to recruit and select an appropriate candidate. Bill is the "in-charge" auditor on the DoGood engagement which is among the largest most profitable jobs for the firm. Bill truly believes that he can provide a valuable service to DoGood as well as his firm by performing the function. In addition, Bill already knows an individual, a personal friend, who has the right qualifications for this very important position.

Should Bill assist DoGood's president? (Check one)

___Should assist him ___Can't decide ___Should not assist him

In the process of advising Bill whether or not he should assist DoGood's president, many different issues need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations in your advice to Bill.

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO	
					1.Whether the client will otherwise be able to fill the position with a suitable candidate.
					2.Whether an employment referral by an auditor constitutes a conflict of interest.
					3.Whether employment referrals ought to be in the hands of a few greedy headhunters?
					4.Does telling his friend the job is available constitute an infringement of Bill's professional responsibilities?
					5.Will having a friend as the controller prevent Bill from making a fair assessment of the firm's financial position in the future?
					6.Is assisting a valued client any different from Bill accepting the position himself?
					7.Whether Bill's firm would endorse his actions.
					8.Whether Bill actions are consistent with GAAP and GAAS.
					9.What effect will Bill's refusal have on his firm's relationship with the client?
					10.Whether the professional code of conduct forbids Bill from performing the service.
					11.Would refusing to assist the president be consistent with what Bill thinks is right?
					12.Will telling his friend the job is available hurt anyone?

From the list above, select the four most important:

___MOST IMPORTANT ___SECOND MOST IMPORTANT __THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

JOHN AND THE FOLDGERS' AUDIT

John is a CA and the senior in charge of the field work for two legally unrelated audit clients: the Foldgers company and Colby Corporation. While on the Foldgers job, John learns that Colby is the only supplier of a product that is critical to the manufacturing of Foldgers' final output. Colby is the only vendor in the marketplace. The next day, John learns from Colby's management that they are greatly increasing the price of their primary products--and the new pricing policy can bankrupt Foldgers. John knows that Foldgers recently considered the acquisition of a small company in Asia that with some effort can redirect its production to produce a product similar to the one made by Colby. However, the estimated unit cost was greater than the present (known and assumed stable) prices offered by Colby. Based on their limited information, Foldgers did not seriously consider the purchase of this small company.

Should John disclose Colby's plans to Foldgers? (Check one)

___Yes ___Can't decide ___No

In the process of advising John whether or not he should disclose Colby's plans to Foldgers, you may consider many different issues. Below is a list of some of these issues. Please indicate the importance of each of the following considerations in your advice to John.

IMPORTANCE:

Great	Much	Some	Little	No

1. Does GAAS oblige John to maintain client confidentiality regardless of circumstance?

2. Whether Colby is aware of the potential impact on Folgers.

3. Whether Foldgers or Colby paid a larger audit fee.

4. Whether Foldgers' reliance on a single supplier is disclosed in the financial statements.

5. Whether client confidentiality is a prelude to rendering of an audit opinion.

6. Which action will minimize the overall potential damage?

7. Whether the partner on the audit will endorse John's actions.

8. What is best for the reputation of John's firm.

9. Whether John's actions are acceptable according to the professional code of conduct.

10. Whether the disclosure of confidential client information will prevent the firm's ability to render fair audit assessments in the future.

11. What is the basis for determining which clients' interests take precedence?

12. Whether the reputation of the audit profession will suffer if Foldgers goes bankrupt.

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

___Most Important ___Second Most Important ___Third Most Important ___Fourth Most Important

BOB AND CORA LIMITED

Bob is a brand new partner in a medium size audit firm. Bob has inherited a substantive book of business as a result of the unanticipated demise of one of the firm's founders. In fact, Bob has had the good fortune to have been granted the audit of the firm's largest and oldest client, Cora Limited, and its 70 percent owned subsidiary, Corinne Incorporated. Bob discovers that Cora Limited has historically been charging an exorbitant management fee to Corinne Incorporated. Bob is concerned that the interests of the minority shareholders of Corinne Incorporated are materially compromised by such an arrangement. In discussions with the client, Bob learns that this procedure was undertaken several years ago upon the advice of his own firm's tax department. It is used to boost Cora's earnings to take advantage of significant tax savings that would otherwise be lost to Cora Limited. Cora's management is not amenable to losing these tax savings. They submit that because the magnitude of all related party transactions between Cora Limited and Corinne Incorporated are fully disclosed in the published financial statements, their present financial statements are, and have always been, in compliance with stated accounting standards.

Should Bob insist that Cora Limited disclose the management fee to Corinne's minority shareholders?

___Yes ___Can't decide ___No

In the process of advising Bob on whether or not he should insist that Cora disclose the management fee to Corinne's minority shareholders, many different issues need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations in your advice to Bob.

IMPORTANCE:

Great	Much	Some	Little	No	
					1.Whether other partners in the firm will endorse Bob's position.
					2.Is Bob professionally obliged to assess the reasonableness of the management fee?
					3.Whether anybody really cares about GAAP in their efforts to exploit everyone else.
					4.Doesn't GAAS require that client confidentiality be maintained, regardless of circumstance?
					5.What is the basis for determining which shareholders' interests take precedence when they conflict?
					6.What benefits do audits have apart from society, especially for minority shareholders?
					7.Whether Cora Limited is exposing itself to a lawsuit from minority shareholders?
					8.Whether it is generally accepted that the management fee between associated firms is used to minimize tax liability.
					9.What is best for the reputation of Bob's firm.
					10.Whether Bob is required to protect the rights of minority shareholders?
					11.Whether the financial statements provide adequate information so that the reasonableness of the management fee may be determined.
					12.What values are the basis for governing fair disclosure when commonly accepted reporting conventions do not present a firm's operations fairly?

From the list above, select the four most important:

___MOST IMPORTANT ___SECOND MOST IMPORTANT ____THIRD MOST IMPORTANT ____FOURTH MOST IMPORTANT

ALEX AND BIG BOULDER BEER

Alex is the partner on the Little Rock Brewing Company audit. Little Rock Brewing Company is a wholly owned subsidiary of Big Boulder Beer Manufacturing. The audit of Little Rock Brewing Company proceeded without a hitch.

entire audit of the Big Boulder consolidated entity is handled by different offices of Alex's firm and nearing completion. Nevertheless, Alex is troubled. Alex is aware that several sites of Big Boulder Beer have not been visited by audit staff and, the soon to be released, consolidated financial statements of Big Boulder do not show that the plants at these sites are out of operation. The financial statements carry these plants at their historic cost, subject to normal depreciation provisions. Alex feels that the asset write down "impairment" of the unused plants cannot be dismissed as temporary or immaterial to the consolidated entity. These concerns have been discussed with the audit partner of the Big Boulder Beer who has indicated that this issue is not Alex's concern. The senior partner of Alex's office also has advised Alex that this matter is not Alex's responsibility.

Should Alex pursue the issue (check one):

__Yes __Can't decide __No

In the process of advising Alex whether he should or should not pursue the issue, many different issues need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations in your advice to Alex.

IMPORTANCE:

Great	Much	Some	Little	No

1. Does signing the audit report for Little Rock have anything to do with the Big Boulder Issue?
2. How may this issue affect Alex's reputation?
3. What is the position of the managing partner of Alex's firm?
4. Whether Alex is a beer lover or prefers wine to beer.
5. Is Alex professionally obliged to persue this matter any further?
6. Does society expect Alex to protect the rights of minority shareholders?
7. Does Alex's sovereignty extend to articulating a negative response to the partner-in-charge of the consolidated enterprise?
8. How will the reader of the financial statement be affected by the disclosure?
9. Whether the other partners are trying to pull rank on Alex.
10. On what bases should differences of professional opinion be acceptable?
11. What is in the best interest of Alex's firm?
12. Does knowledge of an oversight by others constitute professional responsibility?

From the list above, select the four most important:

___MOST IMPORTANT ___SECOND MOST IMPORTANT ___THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

---END OF AUDITING CASES---

For the next three cases, please indicate what factors you assess individuals <u>ought</u> to consider when resolving the described dilemma.

. . . . . .

HEINZ AND THE DRUG

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

Should Heinz steal the drug? (Check one)

__Should steal it ___Can't decide __Should not steal it

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO

1.Whether a community's laws are going to be upheld.

2.Isn't it only natural for a loving husband to care so much for his wife that he'd steal.

3.Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?

4.Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.

5.Whether Heinz is stealing for himself or doing this solely to help someone else.

6.Whether the druggist's rights to his invention have to be respected.

7. Whether the essence of living is more encompassing than the termination of dying, socially, and individually.

8.What values are going to be the basis for governing how people act toward each other.

9.Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.

10. Whether the law in this case is getting in the way of the most basic claim of any member of society.

11.Whether the druggist deserves to be robbed for being so greedy and cruel.

12. Would stealing in such a case bring about more total good for the whole society or not?

From the list above, select the four most important:

Most important____ Second most important____ Third most important_____ Fourth most important____

NEWSPAPER

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. He wanted to speak out the government's position on Bosnia-Herzegovina and to speak out inst some of the school's rules, like the rule forbidding boys to wear earrings. When Fred started his .spaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal's approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks. But the principal had not expected that Fred's newspaper would receive so much attention. Students were so excited by the paper that they began to organize protests against the government, the earring regulation, and other school rules. Angry parents objected to Fred's opinions. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred's activities were disruptive to the operation of the school.

Should the principal stop the newspaper? (Check one)

__Should stop it __Can't decide __Should not stop it

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO

1. Is the principal more responsible to the student or to the parents?

2.Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve the newspaper one issue at a time?

3.Would the students start protesting even more if the principal stopped the newspaper?

4.When the welfare of the school is threatened, does the principal have the right to give orders to students?

5.Does the principal have the freedom of speech to say "no" in this case?

6.If the principal stopped the newspaper would he be preventing full discussion of important problems?

7. Whether the principal's order would make Fred lose faith in the principal.

8.Whether Fred was really loyal to his school and patriotic to his country.

9.What effect would stopping the paper have on the student's education in critical thinking and judgments?

10.Whether Fred was in any way violating the rights of others in publishing his own opinions.

11.Whether the principal should be influenced by some angry parents when it is the principal that knows best what is going on in the school.

12.Whether Fred was using the newspaper to stir up hatred and discontent.

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

Most important___ Second most important____ Third most important____ Fourth most important_____

ESCAPED PRISONER

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

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

___Should report him ___Can't decide ___Should not report him

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO

1.Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?

2.Every time someone escapes punishment for a crime, doesn't that just encourage more crime?

3.Wouldn't we be better off without prisons and the oppression of our legal systems?

4.Hasn't Mr. Thompson really paid his debt to society?

5.Would society be failing what Mr. Thompson should fairly expect?

6.What benefits would prison be apart from society, especially for a charitable man?

7.How could anyone be so cruel and heartless as to send Mr. Thompson to prison?

8.Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off?

9.Was Mrs. Jones a good friend of Mr. Thompson?

10.Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?

11.How would the will of the people and the public good best be served?

12.Would going to prison do any good for Mr. Thompson or protect anybody?

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

Most important___ Second most important____ Third most important____ Fourth most important_____

SUPPLEMENTAL DATA-Please complete all three parts

Part one: The following are a number of statements concerning personal attitudes and traits. Read each item and indicate by circling either *true* or *false* how each item pertains to you personally.

1.(T / F) Before voting, I thoroughly investigate the qualifications of all the candidates.

2.(T / F) I never hesitate to go out of my way to help someone in trouble.

3.(T / F) It is sometimes hard for me to go on with my work if I am not encouraged.

4.(T / F) I have never intensely disliked anyone.

5.(T / F) On occasion I have had doubts about my ability to succeed in life.

6.(T / F) I sometimes feel resentful when I don't get my way.

7.(T / F) I am always careful about my manner of dress.

8.(T / F) My table manners at home are as good as when I eat out in a restaurant.

9.(T / F) If I could get into a movie without paying and be sure I was not seen I would probably do it.

10.(T / F) On a few occasions, I have given up doing something because I thought too little of my ability.

11.(T / F) I like to gossip at times.

12.(T / F) There have been times when I felt like rebelling against people in authority even when I knew they were right.

13.(T / F) No matter who I'm talking to, I'm always a good listener.

14.(T / F) I can remember "playing sick" to get out of something.

15.(T / F) There have been occasions when I took advantage of someone.

16.(T / F) I'm always willing to admit it when I make a mistake.

17.(T / F) I always try to practice what I preach.

18.(T / F) I don't find it particularly difficult to get along with loud mouthed, obnoxious people.

19.(T / F) I sometimes try to get even rather than forgive and forget.

20.(T / F) When I don't know something I don't at all mind admitting it.

21.(T / F) I am always courteous, even to people who are disagreeable.

22.(T / F) At times I have really insisted on having things my own way.

23.(T / F) There have been occasions when I felt like smashing things.

24.(T / F) I would never think of letting someone else be punished for my wrong-doings.

25.(T / F) I never resent being asked to return a favour.

26.(T / F) I have never been irked when people expressed ideas very different from my own.

27.(T / F) I never made a long trip without checking the safety of my car.

28.(T / F) There have been times when I was quite jealous of the good fortune of others.

29.(T / F) I have almost never felt the urge to tell someone off.

30.(T / F) I am sometimes irritated by people who ask favour of me.

31.(T / F) I have never felt that I was punished without cause.

32.(T / F) I sometimes think when people have a misfortune they only got what they deserved.

33.(T / F) I have never deliberately said something that hurt someone's feelings.

Part two: Listed below are a number of opinions. Read each items and circle either a or b depending upon which most closely reflects your opinion on the topic.

1.a.Children get into trouble because their parents punish them too much.
b.The trouble with most children nowadays is that their parents are too easy with them.

2.a.Many of the unhappy things in people's lives are partly due to bad luck.
b.People's misfortunes result from the mistakes they make.

3.a.One of the major reasons why we have wars is because people don't take enough interest in politics.
b.There will always be wars, no matter how hard people try to prevent them.

4.a.In the long run people get the respect they deserve in this world.
b.Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5.a.The idea that teachers are unfair to students is nonsense.
b.Most students don't realize the extent to which their grades are influenced by accidental happenings.

6.a.Without the right breaks one cannot be an effective leader.
b.Capable people who fail to become leaders have not taken advantage of their opportunities.

7.a.No matter how hard you try some people just don't like you.
b.People who can't get others to like them don't understand how to get along with others.

8.a.Heredity plays the major rule in determining one's personality.
b.It is one's experiences in life which determine what one is like.

9.a.I have often found that what is going to happen will happen.
b.Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10.a.In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
b.Many times exam questions tend to be so unrelated to course work that studying is really useless.

11.a.Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b.Getting a good job depends mainly on being in the right place at the right time.

12.a.The average citizen can have an influence in government decisions.
b.This world is run by the few people in power, and there is not much the little guy can do about it.

13.a.When I make plans, I am almost certain that I can make them work.
b.It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14.a.There are certain people who are just no good.
b.There is some good in everybody.

15.a.In my case getting what I want has little or nothing to do with luck.
b.Many times we might just as well decide what to do by flipping a coin.

16.a.Who gets to be the boss often depends on who was lucky enough to be in the right place first.
b.Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17.a.As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
b.By taking an active part in political and social affairs, the people can control world events.

18.a.Most people don't realize the extent to which their lives are controlled by accidental happenings.
b.There really is no such thing as "luck".

19.a.One should always be willing to admit mistakes.
b.It is usually best to cover up one's mistakes.

20.a.It is hard to know whether or not a person really likes you.
b.How many friends you have depends on how nice a person you are.

21.a.In the long run the bad things that happen to use are balanced by the good ones.
b.Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22.a.With enough effort we can wipe out political corruption.
b.It is difficult for people to have much control over the things politicians do in office.

23.a.Sometimes I can't understand how teachers arrive at the grades they give.
b.There is a direct connection between how hard I study and the grades I get.

24.a.A good leader expects people to decide for themselves what they should do.
b.A good leader makes it clear to everybody what their jobs are.

25.a.Many times I feel that I have little influence over the things that happen to me.
b.It is impossible for me to believe that chance or luck plays an important role in my life.

26.a.People are lonely because they don't try to be friendly.
b.There's not much use in trying too hard to please people, if they like you, they like i.

27.a.There is too much emphasis on athletics in high school.
b.Team sports are an excellent way to build character.

28.a.What happens to me is my own doing.
b.Sometimes I feel that I don't have enough control over the direction my life is taking.

29.a.Most of the time I can't understand why politicians behave the way they do.
b.In the long run the people are responsible for bad government on a national as well as on a local level.

Part three: Please complete each of the following questions. Your careful participation is greatly appreciated.

1.Please indicate your date of birth: Year___

2.Please check: Male___ Female___

3.Please indicate the number of years of university education you have completed:_____

4.Please indicate your years of full-time work experience (rounded to the nearest year):____

5.Do you currently work in an audit firm (Please check) Yes___ No_____ Years_____

6.Please indicate the highest level you achieved at a public accounting firm:

Staff:__ Senior:___ Supervisor:___ Manager:___ Partner:____

7.What is your mother tongue: English____ French____ Other_____

8.If you wish to receive a final copy of the results of this study, please print your name and address on the back of this page.

Thank-you, your cooperation is appreciated.

Appendix B: Deliberative Accounting Instrument

OPINIONS ABOUT PROBLEMS IN ACCOUNTING FIRMS

This questionnaire examines your opinions about auditors' professional judgments. It is in three parts. The first part presents six cases which are specific to the accounting/audit context. The second part presents cases which describe situations that may occur in everyday life. The third part asks for some descriptive information about yourself, your attitudes, and your own behaviours. The questionnaire is completely anonymous and is entirely voluntary. However, if you are interested in the final results of the questionnaire, there is a place on the last page so that you may be contacted directly by the researcher. Your cooperation and assistance are greatly appreciated.

For the audit cases, we ask you to describe how you think the auditor in the case will respond to the dilemma given the pressure that an auditor in an audit firm actually faces. Your response should consider the pragmatics of the situation and reflect the real-world considerations and compromises in which auditors engage. We ask you to attempt to make your response as realistic as possible, and if possible, taking into consideration the actual actions and behaviour of auditors you know in similar situations. **We ask that your assessment describe your perception of how auditors would actually resolve cases similar to those described in the questionnaire.**

For the final three cases, we ask you to describe how you would advise the individual as what he/she ought to do to resolve the described problem. Your response should reflect your opinion of what is the "proper" or the "correct" way to respond to the situation without considering the pressures that the described individual faces.

There are no "right" or "wrong" answers to the questionnaire. The cases have been carefully written to encourage you to consider the influence of different factors to your opinion. Once you finish one case, please proceed immediately to the next. Please do not go back and change responses to cases that have already been completed.

Your assistance and cooperation are greatly appreciated.

Appendix C: Prescriptive Premanipulation Instrument

McGill

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A letter to course participants:

Your firm has agreed to incorporate my dissertation research, which examines the factors which influence the resolution of ethical dilemmas by auditors, into this staff course. This research will provide insight into how we, as accounting professionals, may ensure that our professional judgments comply with ethical and legal requirements. The importance of auditors compliance with ethical and legal requirements has been reinforced by recent legal rulings against professional accounting firms in Canada and the United States.

Your own participation involves two steps. The first step involves the completion of the attached questionnaire which takes about 45 minutes. Please complete this questionnaire on an individual basis as soon as it is convenient for you. **This material is to be returned to the course administrator 9 a.m. Tuesday morning.** Please do not discuss the contents of the questionnaire as it will be used to facilitate your assignment for the second step of the research which will take place on Thursday afternoon.

Please rest assured that your responses are anonymous. Although some identification is required for research purposes, particular care has been taken to ensure that individual responses cannot be identified by myself or by your firm.

Your participation is critical to the completion of my doctoral dissertation. Thank-you for your cooperation and assistance.

Yours truly,

Linda Thorne, CA
PhD Candidate
McGill University

ILLUSTRATION

This material is designed to provide some insight into your perceptions of how ethical dilemmas are resolved in your audit firm and in everyday life. This is achieved through the analysis of your responses to the ethical dilemmas described in several short case studies.

The case studies have been constructed so that there are no "right" or "wrong" responses. More important is an understanding of what factors are important to the resolution of these dilemmas. Accordingly, the ranking of the four most important factors at the bottom of each case is the most critical part of your response.

Once you finish one case, please proceed immediately to the next. Please, do not go back and change responses to cases that have already been completed. Your assistance and cooperation are greatly appreciated.

Here are an illustration case and sample response.

Simon Fellows is thinking about buying a house. He is married, in his early thirties, has two small children, and earns an average income. No additions to his family are planned. His family has two cars and his wife works. Simon comes to you for advice as to whether to buy or not buy a house.

Should Simon buy a house? (Check one) _X_Yes __Can't decide __No

In the process of advising Simon whether or not to a house, you may consider many different issues to be important. Below is a list of some of these issues. On the left-hand side of each statement check the space which best corresponds to the importance you believe should be given to the particular consideration. (For instance, if you think that statement #1 should be of great importance in making a decision about buying a house, check the space on the left).

IMPORTANCE:

Great	Much	Some	Little	No
X				
				X
		X		
X				

1. Whether Simon can afford a suitable house. (Note in this example, the person taking the questionnaire thought that Simon should place great weight on this consideration in reaching his decision).

2. Whether the furnace on the house was thermal dynamic (Note that if a statement sounds like gibberish, nonsense or is not relevant to the question at hand, mark it of "no" meaning it is of no importance).

3. Whether Simon could still go on his annual golf vacation.

4. Whether Simon's wife wants to buy a house.

From the list of considerations above, select the most important to the decision choice. Put the number of the most important consideration on the blank beside "Most important". Do likewise for your 2nd, 3rd and 4th most important choices. For example, the four most important items could be ranked as follows:

_1_Most Important _4_Second Most Important _3_ Third Most Important _2_Fourth Most Important

Included in the questionnaire are some words and sentence that are not entirely clear or do not make sense. Please mark these "no" of no importance and do not include them in your ranking of the four most important factors.

Note in this example, the top choices will come from those statements that were checked on the left-hand side--statements #1 and #4 were thought to be very important. In deciding what is the <u>most</u> important, a person would reread #1 and #4, then pick one of them as the most important, and then put the other one as "second most important". Statement #3 was of the next highest importance; therefore, #3 would be put beside the "third most important" choice. Finally, statement #2 was of the fourth highest importance; therefore, #2 would be put beside the "fourth most important" choice.

Please, do not go back and change responses to cases that have already been completed. Once you finish one case, please proceed immediately to the next. Your assistance and cooperation are greatly appreciated.

ETHICAL DILEMMAS OF ACCOUNTANTS

We ask you to respond to the following four cases as you perceive the accountant described in the case, ***ideally, ought to respond*** to the described situation. It might help to think of yourself as a member of a professional disciplinary committee whose role is to advise on the ideal way in which the situation described in the case should be resolved. Accordingly, you have no vested interest in the described situation. Your mandate is to identify the four most important factors which, ideally, should be most important to the ethical resolution of the described dilemma.

ALICE AND THE ABC COMPANY

Alice is a senior auditor and a CA for a national CA firm that provides auditing, tax and consulting services. The firm has developed a package called the ACME ACCOUNTING SYSTEM which is sold to the general public as well as the firm's clients. Alice is the auditor in charge of the field work on the ABC Company, Inc. audit. During the course of this audit assignment, Alice is asked to evaluate the quality control of the accounting system which happens to be the ACME package. Alice uncovers several severe control weaknesses in the ACME system. Before rendering the management letter to ABC management, Alice is told by her boss to modify the negative comments regarding the ACME package.

Ideally, should Alice amend the management letter? (Check one)

___Should amend it ___Can't decide ___Should not amend it

In the process of advising Alice whether or not she should amend the management letter, many items need to be considered. Below is a list of some of these items. Please indicate the importance of each of the following considerations:

IMPORTANCE:

Great	Much	Some	Little	No	
					1. Whether the weaknesses in the ACME system may be easily remedied by compensating controls.
					2. Wouldn't a good employee defer to her superior's judgment.
					3. Whether Alice's job may be threatened by her refusal to revise the letter.
					4. Whether fair deliberation on the client's financial position can predilect professional reputation.
					5. What is best for Alice's firm?
					6. Whether or not Alice has a duty to ensure the management letter is accurate?
					7. What is the potential value of an independent audit in lieu of society's current perspective on an enterprise's net worth?
					8. How is society best served?
					9. Whether clients really care about internal control or if all they ever really want is a clean audit opinion.
					10. Would amending the management letter be consistent with what Alice thinks is right?
					11. What action would Alice's peers in the audit firm expect her to make?
					12. What factors are relevant in determining Alice's professional responsibility?

From the list above, rank the four items of greatest importance to an "ideal" response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT __THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

BILL AND DOGWOOD CONSTRUCTION

Bill is a staff auditor and CA for a small firm that provides auditing services. The President of the Dogwood Construction Corporation is searching for a Chief Financial Officer, and has asked Bill to help recruit and select an appropriate candidate. Bill is the "in-charge" auditor on the Dogwood engagement which is among the largest and most profitable jobs for the firm. Bill truly believes that he can provide a valuable service to Dogwood as well as his firm by performing the function. In addition, Bill already knows an individual, a personal friend, who has the right qualifications for this very important position.

Ideally, should Bill assist Dogwood's president? (Check one)

___Should assist him ___Can't decide ___Should not assist him

In the process of advising Bill whether or not he should assist Dogwood's president, many different issues need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations:

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO	
					1. What effect will Bill's refusal have on his firm's relationship with the client?
					2. Whether Bill has the right to assist a client in the selection and recruitment of a Chief Financial Officer?
					3. Whether employment referrals ought to be in the hands on a few greedy headhunters?
					4. Does telling his friend the job is available constitute an infringement of Bill's professional responsibilities?
					5. Will having a friend as the controller prevent Bill from making a fair assessment of the firm's financial position in the future?
					6. Whether Bill is overweight or has a weakness for fast food.
					7. Whether the audit partner of the Dogwood audit will endorse Bill's actions.
					8. Wouldn't a good auditor refuse to assist Dogwood's president?
					9. What actions would Bill's friend expect him to take?
					10. Would it be fair to other clients if Bill assisted Dogwood's president?
					11. Would assisting the president in any way violate the rights of others?
					12. Would refusing to assist the president be consistent with what Bill thinks is right?

From the list above, rank the four items of greatest importance to an "ideal" response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT ___THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

BOB AND CORA LIMITED

Bob is a brand new partner in a medium size audit firm. Bob has inherited a substantive book of business as a result of the unanticipated demise of one of the firm's founders. In fact, Bob has had the good fortune to have been granted the audit of the firm's largest and oldest client, Cora Limited, and its 70 percent owned subsidiary, Corinne Incorporated. Bob discovers that Cora Limited has historically been charging an exorbitant management fee to Corinne Incorporated. Bob is concerned that the interests of the minority shareholders of Corinne Incorporated are materially compromised by such an arrangement. In discussions with the client, Bob learns that this procedure was undertaken several years ago upon the advice of his own firm's tax department. It is used to boost Cora's earnings to take advantage of significant tax savings that would otherwise be lost to Cora Limited. Cora's management is not amenable to losing these tax savings. The magnitude of all related party transactions between Cora Limited and Corinne Incorporated are disclosed in the financial statement as required by the accounting standard. Consequently, submits Cora's management, the financial statements of Cora Limited and Corinne Incorporated are fairly presented.

Ideally, should Bob insist on separate disclosure of the management fee by Cora Limited?

___Yes ___Can't decide ___No

In the process of advising Bob on whether or not he should insist that Cora disclose the management fee, many different issues need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations:

IMPORTANCE:

Great	Much	Some	Little	No	
					1.Whether other partners in the firm will support Bob's position.
					2.Would it be fair to the tax department if Bob did not insist that the management fee be disclosed?
					3.Whether anybody really cares about GAAP in their efforts to exploit everyone else.
					4.Whether a retroactive adjustment to the financial statements is required.
					5.Whether or not disclosure of the management fee would benefit more people to a greater extent?
					6.What is the quintessence of an audit apart from displacement, especially for minority shareholders?
					7.Is Bob obliged by professional standards to assess the reasonableness of the management fee?
					8.Whether it is generally accepted that firms manipulate the amount of management fees between associated companies to minimize their tax liability.
					9.What is the financial importance of the Cora audit to Bob's firm.
					10.Doesn't Bob have a professional duty to protect the rights of minority shareholders?
					11.Would Bob's decision be consistent with his own personal beliefs?
					12.What values are the basis for governing fair presentation when specific accounting standards do not result in full disclosure?

From the list above, rank the four items of greatest importance to an "ideal" response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT ____THIRD MOST IMPORTANT ____FOURTH MOST IMPORTANT

JOHN AND THE FOLDERS' AUDIT

John is a CA and the senior in charge of the field work for two legally unrelated audit clients: the Folders Company and Colby Corporation. While on the Folders job, John learns that Colby is the only supplier of a product that is critical to the manufacturing of Folders' final output. Colby is the only vendor in the marketplace. The next day, John learns from Colby's management that they are greatly increasing the price of their primary products--and the new pricing policy can bankrupt Folders. John knows that Folders recently considered the acquisition of a small company in Asia that with some effort can redirect its production to produce a product similar to the one made by Colby. However, the estimated unit cost was greater than the present (known and assumed stable) prices offered by Colby. Based on their limited information, Folders did not seriously consider the purchase of this small company.

Ideally, should John disclose Colby's plans to Folders? (Check one)

___Yes ___Can't decide ___No

In the process of advising John whether or not he should disclose Colby's plans to Folders, many different items need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations:

IMPORTANCE:

Great	Much	Some	Little	No	
					1.Is John obliged to maintain client confidentiality regardless of circumstance?
					2.Whether the partner on the audit will endorse John's actions.
					3.What is best for the reputation of John's firm?
					4.Whether Folders' reliance on a single supplier is disclosed in the financial statements.
					5.Whether client confidentiality is the ultimate prelude to the necessity of rendering of an audit opinion.
					6.Which course of action will bring about the greatest good for all society?
					7.How will John's actions be perceived by others in the audit firm?
					8.Whether the Folders Company brought this upon itself by relying solely upon one supplier.
					9.Whether John's actions go against regulatory standards with respect to insider information.
					10.What values are the basis for determining which stakeholder's interest takes precedence when they conflict?
					11.Would John's action be consistent with what he believes is just?
					12.Whether the reputation of the audit profession will suffer if Folders goes bankrupt.

From the list above, rank the four items of greatest importance to an "ideal" response:

___Most Important ___Second Most Important ___Third Most Important ___Fourth Most Important

ETHICAL DILEMMAS IN EVERYDAY LIFE

The purpose of this section is used to gain insight into the way you perceive individuals resolve ethical decisions in everyday life. This section includes three cases which describe ethical dilemmas that occur outside of the workplace. For these three cases, we ask you to respond as you perceive the individual described in the case ***should*** respond to the described situation. It might help to think of your response as advice given to the described individual as to how he/she **ought** to resolve his/her problem or dilemma. He/she has requested your advice on the ideal way in which the situation described in the case should be resolved. This individual wishes to do what is best.

HEINZ AND THE DRUG

In Europe a woman was near death from a special kind of cancer. There was one drug that doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid $2000 for the radium and charged $20,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $10,000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife.

Ideally, should Heinz steal the drug? (Check one) __Should steal it___Can't decide__Should not steal it

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO	
					1.Whether a community's laws are going to be upheld.
					2.Isn't it only natural for a loving husband to care so much for his wife that he'd steal.
					3.Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?
					4.Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.
					5.Whether Heinz is stealing for himself or doing this solely to help someone else.
					6.Whether the druggist's rights to his invention have to be respected.
					7.Whether the essence of living is more encompassing than the termination of dying, socially, and individually.
					8.What values are going to be the basis for governing how people act toward each other.
					9.Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
					10.Whether the law in this case is getting in the way of the most basic claim of any member of society.
					11.Whether the druggist deserves to be robbed for being so greedy and cruel.
					12. Would stealing in such a case bring about more total good for the whole society or not?

From the list above, rank the four items of greatest importance to an "ideal" response:

Most important____ Second most important____ Third most important_____ Fourth most important____

NEWSPAPER

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. Ie wanted to speak out the government's position on Bosnia-Herzegovina and to speak out against some of the school's rules, like the rule forbidding boys to wear earrings. When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal's approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks.

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

Ideally, should the principal stop the newspaper? (Check one) __Should stop it __Can't decide __Should not stop

IMPORTANCE:

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

rom the list above, rank the four items of greatest importance to an "ideal" response:

Most important___ Second most important____ Third most important____ Fourth most important_____

ESCAPED PRISONER

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

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

___Should report him ___Can't decide ___Should not report him

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO

1.Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?

2.Every time someone escapes punishment for a crime, doesn't that just encourage more crime?

3.Wouldn't we be better off without prisons and the oppression of our legal systems?

4.Hasn't Mr. Thompson really paid his debt to society?

5.Would society be failing what Mr. Thompson should fairly expect?

6.What benefits would prison be apart from society, especially for a charitable man?

7.How could anyone be so cruel and heartless as to send Mr. Thompson to prison?

8.Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off?

9.Was Mrs. Jones a good friend of Mr. Thompson?

10.Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?

11.How would the will of the people and the public good best be served?

12.Would going to prison do any good for Mr. Thompson or protect anybody?

From the list above, rank the four items of greatest importance to an "ideal" response:

Most important___ Second most important____ Third most important____ Fourth most important_____

INDIVIDUAL PREFERENCES

The following is used to gain insight into your personality, decision preferences and life-experience. Listed below are a number of opinions or personal attitudes. Read each item and circle either a or b or true or false depending upon which most closely matches your opinion. Sometimes this will be the choice which you disagree with least. Nevertheless, be sure to respond to each item and only once to each item.

1.a. Children get into trouble because their parents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy with them.

2.a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.

3.a. One of the major reasons why we have wars is because people don't take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.

4.a. In the long run people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5.a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6.a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7.a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.

8.a. Heredity plays the major rule in determining one's personality.
b. It is one's experiences in life which determine what one is like.

9.a. I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10.a. In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11.a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.

12.a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.

13.a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14.a. There are certain people who are just no good.
b. There is some good in everybody.

15.a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.

16.a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17.a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
b. By taking an active part in political and social affairs, the people can control world events.

18.a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as "luck".

19.a. One should always be willing to admit mistakes.
b. It is usually best to cover up one's mistakes.

20.a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends on how nice a person you are.

21.a. In the long run the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22.a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.

23.a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.

24.a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.

25.a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.

26.a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.

27.a. There is too much emphasis on athletics in high school.
b. Team sports are an excellent way to build character.

28.a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29.a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run the people are responsible for bad government on a national as well as on a local level.

(T / F) Before voting, I thoroughly investigate the qualifications of all the candidates.

31.(T / F) I never hesitate to go out of my way to help someone in trouble.

32.(T / F) It is sometimes hard for me to go on with my work if I am not encouraged.

33.(T / F) I have never intensely disliked anyone.

34.(T / F) On occasion I have had doubts about my ability to succeed in life.

35.(T / F) I sometimes feel resentful when I don't get my way.

36.(T / F) I am always careful about my manner of dress.

37.(T / F) My table manners at home are as good as when I eat out in a restaurant.

38.(T / F) If I could get into a movie without paying and be sure I was not seen I would probably do it.

39.(T / F) On a few occasions, I have given up doing something because I thought too little of my ability.

40.(T / F) I like to gossip at times.

41.(T / F) There have been times when I felt like rebelling against people in authority even when I knew they were right.

42.(T / F) No matter who I'm talking to, I'm always a good listener.

43.(T / F) I can remember "playing sick" to get out of something.

44.(T / F) There have been occasions when I took advantage of someone.

45.(T / F) I'm always willing to admit it when I make a mistake.

46.(T / F) I always try to practice what I preach.

47.(T / F) I don't find it particularly difficult to get along with loud mouthed, obnoxious people.

48.(T / F) I sometimes try to get even rather than forgive and forget.

49.(T / F) When I don't know something I don't at all mind admitting it.

50.(T / F) I am always courteous, even to people who are disagreeable.

51.(T / F) At times I have really insisted on having things my own way.

52.(T / F) There have been occasions when I felt like smashing things.

53.(T / F) I would never think of letting someone else be punished for my wrong-doings.

54.(T / F) I never resent being asked to return a favour.

55.(T / F) I have never been irked when people expressed ideas very different from my own.

56.(T / F) I never made a long trip without checking the safety of my car.

57 (T / F) There have been times when I was quite jealous of the good fortune of others.

58.(T / F) I have almost never felt the urge to tell someone off.

59.(T / F) I am sometimes irritated by people who ask favour of me.

60.(T / F) I have never felt that I was punished without cause.

61.(T / F) I sometimes think when people have a misfortune they only got what they deserved.

62.(T / F) I have never deliberately said something that hurt someone's feelings.

You are almost done. Just these few more questions to answer.

1.a Please check the single category which best describes your formal education:
_____Undergraduate Degree in process
_____Completed Undergraduate Degree
_____Completed Undergraduate degree and Graduate Degree-in-progress

1b. Please indicate the number of years of university education you have completed____years.

1c. Please identify the university you attended_____

2. Year of birth: ____ 3. Please check: Male:____ Female:_____

4. Please indicate the numbers of **years** of full-time audit experience_____

5.Please indicate your current level in the firm: Staff:___ Senior:____ Supervisor:____ Manager:____

6a) Are you currently a CA? (Please check) Yes_____ No_____
b) If applicable, what year did you pass the U.F.E. (Year)_____
c) If applicable, please indicate in what year do you intend to write the U.F.E. (Year) _____

7a) What language do you consider to be your mother tongue?
(Check) English_____ Please specify if other_____

8a) Have you previously participated in this particular accounting research? Please circle: Yes No
b) If the answer to 8a is Yes, please indicate the extent of your previous involvement_____
_____
_____

9. Your responses to this questionnaire are to be used to determine your group assignment for a follow-up session ·' ·t will occur during this staff course. In order to maintain the anonymity of your responses and facilitate your ɜ.oup assignment, please take care to comply with the following steps.

Step 1: Write down the designated digits of the phone number that <u>you phone the most</u> in the space provided (This number should not be your work number) in the following space provided:

<u>X</u> <u>__</u> <u>__</u> - <u>X</u> <u>__</u> <u>X</u> <u>__</u>

(For example, if you phone your home number the most and this number is **4<u>3</u><u>9</u>-9<u>8</u>9<u>7</u>** you would write down the digits: **<u>x</u> <u>3</u> <u>9</u> - <u>x</u> <u>8</u> <u>x</u> <u>7</u>**, that is the digits **3 9 8 7** in the blank spaces above)

Step 2: Write down the number of situps you can do consecutively on a good day: _____
(For example, if you can do three sit-ups consecutively, you would write down the number 3 in the space above).

Step 3: Write down a "password", that is unique to you, easy to recognize, that you can remember for the duration of the staff course _____
(For example, if you were born in Windsor and were using this as your password, you would write down: WINDSOR in the space above)

Step 4: Copy the information already written down for steps 1, 2, 3 in the space provided at the bottom of this page. This is your identification code: five to seven digits (depending upon the number of situps) **followed by a password. For the example above, the identification code is 39873 Windsor.**

·· ·ry gently rip the bottom portion of the page off using your pencil/pen as a straight edge. Please be careful not to damage the rest of the page. Put this little paper in your driver's licence behind your picture (or in another location where it may be accessed at all times during this staff course).

Step 5: Please return this completed questionnaire into its original envelope provided and seal it closed. Hand it in at the designated time and place.

Thankyou for you cooperation.

(rip here) (rip here)

step 1: _____ step 2: _____ step 3: _____

My identification code is: _____

Appendix D: Deliberative Premanipulation Instrument

ILLUSTRATION

This material is designed to provide some insight into your perceptions of how ethical dilemmas are resolved in your audit firm and in everyday life. This is achieved through the analysis of your responses to the ethical dilemmas described in several short case studies. The case studies have been constructed so that there are no "right" or "wrong" responses. More important is an understanding of what factors are important to the resolution of these dilemmas. Accordingly, the ranking of the four most important factors at the bottom of each case is the most critical part of your response.

Once you finish one case, please proceed immediately to the next. Please, do not go back and change responses to cases that have already been completed. Your assistance and cooperation are greatly appreciated.

Here are an illustration case and sample response.

Simon Fellows is thinking about buying a house. He is married, in his early thirties, has two small children, and earns an average income. No additions to his family are planned. His family has two cars and his wife works. Will Simon buy or not buy a house.

Will Simon buy a house? (Check one) _X_ Yes __ Can't decide __ No

In the process of determining whether or not Simon will buy a house, you may consider many different issues to be important. Below is a list of some of these issues. On the left-hand side of each statement check the space which best corresponds to the importance you believe Simon will give to the particular consideration. (For instance, if you think that statement #1 is of great importance in making a decision about buying a house, check the space on the left).

IMPORTANCE:

Great	Much	Some	Little	No
X				
				X
		X		
X				

1. Whether Simon can afford a suitable house. (Note in this example, the person taking the questionnaire thought that Simon will place great weight on this consideration in reaching his decision).

2. Whether the furnace on the house was thermal dynamic (Note that if a statement sounds like gibberish, nonsense or is not relevant to the question at hand, mark it of "no" meaning it is of no importance).

3. Whether Simon could still go on his annual golf vacation.

4. Whether Simon's wife wants to buy a house.

From the list of considerations above, select the most important to the decision choice. Put the number of the most important consideration on the blank beside "Most important". Do likewise for your 2nd, 3rd and 4th most important choices. For example, the four most important items could be ranked as follows:

_1_ Most Important _4_ Second Most Important _3_ Third Most Important _2_ Fourth Most Important

Included in the questionnaire are some words and sentence that are not entirely clear or do not make sense. Please mark these "no" of no importance and do not include them in your ranking of the four most important factors.

Note in this example, the top choices will come from those statements that were checked on the left-hand side--statements #1 and #4 were thought to be very important. In deciding what is the <u>most</u> important, a person would reread #1 and #4, then pick one of them as the most important, and then put the other one as "second most important". Statement #3 was of the next highest importance; therefore, #3 would be put beside the "third most important" choice. Finally, statement #2 was of the fourth highest importance; therefore, #2 would be put beside the "fourth most important" choice.

Please, do not go back and change responses to cases that have already been completed. Once you finish one case, please proceed immediately to the next. Your assistance and cooperation are greatly appreciated.

ETHICAL DILEMMAS OF ACCOUNTANTS

We ask you to respond to the following four cases as you perceive the accountant described in the case, ***realistically, would actually respond*** to the described situation, taking into consideration the pressures and tradeoffs that influence accountants' behaviours on the job. It might help to think of yourself as being on the same audit team as the accountant described as the case. Accordingly, you are able to provide a pragmatic evaluation of the four most important factors that would actually influence the accountants response to each of the dilemmas. Please make your response as realistic as possible.

ALICE AND THE ABC COMPANY

Alice is a senior auditor and a CA for a national CA firm that provides auditing, tax and consulting services. The firm has developed a package called the ACME ACCOUNTING SYSTEM which is sold to the general public as well as the firm's clients. Alice is the auditor in charge of the field work on the ABC Company, Inc. audit. During the course of this audit assignment, Alice is asked to evaluate the quality control of the accounting system which happens to be the ACME package. Alice uncovers several severe control weaknesses in the ACME system. Before rendering the management letter to ABC management, Alice is told by her boss to modify the negative comments regarding the ACME package.

Realistically, will Alice amend the management letter? (Check one) ___Will amend it ___Can't decide ___Will not amend it

Alice will consider many different factors in arriving at her decision. Many of them of a practical and a pragmatic nature. Below is a list of some of these items. Please indicate the importance of each of the following items to Alice's response:

IMPORTANCE:

Great	Much	Some	Little	No	
					1. Whether the weaknesses in the ACME system may be easily remedied by compensating controls.
					2. Wouldn't a good employee defer to her superior's judgment.
					3. Whether Alice's job may be threatened by her refusal to revise the letter.
					4. Whether fair deliberation on the client's financial position can predilect professional reputation.
					5. What is best for Alice's firm?
					6. Whether or not Alice has a duty to ensure the management letter is accurate?
					7. What is the potential value of an independent audit in lieu of society's current perspective on an enterprise's net worth?
					8. How is society best served?
					9. Whether any clients really care about internal control issues or if all they ever really want is a clean audit opinion.
					10. Would amending the management letter be consistent with what Alice thinks is right?
					11. What action would Alice's peers in the audit firm expect her to take?
					12. What factors are relevant in determining Alice's professional responsibility?

From the list above, rank the four items of greatest importance to a practical, realistic response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT __THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

BILL AND DOGWOOD CONSTRUCTION

Bill is a staff auditor and CA for a small firm that provides auditing services. The President of the Dogwood Construction Corporation is searching for a Chief Financial Officer, and has asked Bill to help recruit and select an appropriate candidate. Bill is the "in-charge" auditor on the Dogwood engagement which is among the largest and most profitable jobs for the firm. Bill truly believes that he can provide a valuable service to Dogwood as well as his firm by performing the function. In addition, Bill already knows an individual, a personal friend, who has the right qualifications for this very important position.

Realistically, will Bill assist Dogwood's president? (Check one) ___Will assist him ___Can't decide ___Will not assist him

Bill will consider many different factors in arriving at his decision. Many of them of a practical and a pragmatic nature. Below is a list of some of these items. Please indicate the importance of each of the following items to Bill's response:

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO	
					1. What effect will Bill's refusal have on his firm's relationship with the client?
					2. Whether Bill has the right to assist a client in the selection and recruitment of a Chief Financial Officer?
					3. Whether employment referrals ought to be in the hands on a few greedy headhunters?
					4. Does telling his friend the job is available constitute an infringement of Bill's professional responsibilities?
					5. Will having a friend as the controller prevent Bill from making a fair assessment of the firm's financial position in the future?
					6. Whether Bill is overweight or has a weakness for fast food.
					7. Whether the audit partner of the Dogwood audit will endorse Bill's actions.
					8. Wouldn't a good auditor refuse to assist Dogwood's president?
					9. What actions would Bill's friend expect him to take?
					10. Would it be fair to other clients of the firm if Bill assisted Dogwood's president?
					11. Would assisting the president in any way violate the rights of others?
					12. Would refusing to assist the president be consistent with what Bill thinks is right?

From the list above, rank the four items of greatest importance to a practical, realistic response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT __THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

BOB AND CORA LIMITED

Bou is a brand new partner in a medium size audit firm. Bob has inherited a substantive book of business as a result of the unanticipated demise of one of the firm's founders. In fact, Bob has had the good fortune to have been granted the audit of the firm's largest and oldest client, Cora Limited, and its 70 percent owned subsidiary, Corinne Incorporated. Bob discovers that Cora Limited has historically been charging an exorbitant management fee to Corinne Incorporated. Bob is concerned that the interests of the minority shareholders of Corinne Incorporated are materially compromised by such an arrangement. In discussions with the client, Bob learns that this procedure was undertaken several years ago upon the advice of his own firm's tax department. It is used to boost Cora's earnings to take advantage of significant tax savings that would otherwise be lost to Cora Limited. Cora's management is not amenable to losing these tax savings. The magnitude of all related party transactions between Cora Limited and Corinne Incorporated are disclosed in the financial statements as required by the accounting standard. Consequently, submits Cora's management, the financial statements of Cora Limited and Corinne Incorporated are fairly presented.

Realistically, will Bob insist that Cora Limited separately disclose the management fee? ___Yes ___Can't decide ___No

Bob will consider many different factors in arriving at his decision. Many of them of a practical and a pragmatic nature. Below is a list of some of these items. Please indicate the importance of each of the following items to Bob's response:

IMPORTANCE:

Great	Much	Some	Little	No

1. Whether other partners in the firm will support Bob's position.

2. Would it be fair to the tax department if Bob did not insist that the management fee be disclosed?

3. Whether anybody really cares about GAAP in their efforts to exploit everyone else.

4. Whether a retroactive adjustment to the financial statements is required.

5. Whether or not disclosure of the management fee would benefit more people to a greater extent?

6. What is the quintessence of an audit apart from displacement, especially for minority shareholders?

7. Is Bob obliged to assess the reasonableness of the management fee?

8. Whether it is generally accepted that firms manipulate the amount of management fees between associated companies to minimize their tax liability.

9. What is the financial importance of the Cora audit to Bob's firm.

10. Doesn't Bob have a duty to protect the rights of minority shareholders?

11. Would Bob's decision be consistent with his own personal beliefs?

12. What values are the basis for governing fair presentation when conventional reporting practices do not result in full disclosure?

From the list above, rank the four items of greatest importance to a practical, realistic response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT ___THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

JOHN AND THE FOLDERS' AUDIT

John is a CA and the senior in charge of the field work for two legally unrelated audit clients: the Folders Company and Colby Corporation. While on the Folders job, John learns that Colby is the only supplier of a product that is critical to the manufacturing of Folders' final output. Colby is the only vendor in the marketplace. The next day, John learns from Colby's management that they are greatly increasing the price of their primary products--and the new pricing policy can bankrupt Folders. John knows that Folders recently considered the acquisition of a small company in Asia that with some effort can redirect its production to produce a product similar to the one made by Colby. However, the estimated unit cost was greater than the present (known and assumed stable) prices offered by Colby. Based on their limited information, Folders did not seriously consider the purchase of this small company.

Realistically, will John disclose Colby's plans to Folders? (Check one) ___Yes ___Can't decide ___No

John will consider many different factors in arriving at his decision. Many of them of a practical and a pragmatic nature. Below is a list of some of these items. Please indicate the importance of each of the following items to John's response:

IMPORTANCE:

Great	Much	Some	Little	No	
					1.Is John obliged to maintain client confidentiality regardless of circumstance?
					2.Whether the partner on the audit will endorse John's actions.
					3.What is best for the reputation of John's firm?
					4.Whether Folders' reliance on a single supplier is disclosed in the financial statements.
					5.Whether client confidentiality is the ultimate prelude to the necessity of rendering an audit opinion.
					6.Which course of action will bring about the greatest good for all society?
					7.How will John's actions be perceived by others in the audit firm?
					8.Whether the Folders Company brought this upon itself by relying solely upon one supplier.
					9.Whether John's actions will contravene regulatory standards with respect to insider information.
					10.What values are the basis for determining which client's interest takes precedence when they conflict?
					11.Would John's action be consistent with what he believes is just?
					12.Whether the reputation of the audit profession will suffer if Folders goes bankrupt.

From the list above, rank the four items of greatest importance to a practical, realistic response:

___Most Important ___Second Most Important ___Third Most Important ___Fourth Most Important

Appendix E: Prescriptive Postmanipulation Instrument

Identification code_____

We are *now* asking for you to redo the questionnaire which examines **your own individual analysis** of the four accounting cases you just reviewed. We ask **you** to record your response as you perceive the accountant described in the case ideally **should** respond to the ethical dilemma. It may help to think of your response as advice you, as a member of a professional disciplinary committee, give to the accountant described in the case. He/she has requested your guidance on what is the **most ethical solution** to his/her dilemma and **which factors are most critical for resolving the dilemma while maintaining the highest standard of ethical conduct**.

The instructions for filling out this questionnaire have not changed from when you filled it out previously. They are included for a reference.

The cases have been carefully written to encourage you to consider what factors are important to the particular decision choice. Be sure that every form is complete. Please, do not go back and change responses to cases that have already been completed.

Once you finish one case, please proceed immediately to the next. When all four cases have been completed, place the completed questionnaire into its original envelope. Your assistance and cooperation are greatly appreciated.

ILLUSTRATION

This material is designed to provide some insight into your perceptions of how ethical dilemmas are resolved in your audit firm and in everyday life. This is achieved through the analysis of your responses to the ethical dilemmas described in several short case studies. The case studies have been constructed so that there are no "right" or "wrong" responses. More important is an understanding of what factors are important to the resolution of these dilemmas. Accordingly, the ranking of the four most important factors at the bottom of each case is the most critical part of your response.

Once you finish one case, please proceed immediately to the next. Please, do not go back and change responses to cases that have already been completed. Your assistance and cooperation are greatly appreciated.

Here are an illustration case and sample response.

Simon Fellows is thinking about buying a house. He is married, in his early thirties, has two small children, and earns an average income. No additions to his family are planned. His family has two cars and his wife works. Simon comes to you for advice as to whether to buy or not buy a house.

Should Simon buy a house? (Check one) _X_ Yes __ Can't decide __ No

In the process of advising Simon whether or not to a house, you may consider many different issues to be important. Below is a list of some of these issues. On the left-hand side of each statement check the space which best corresponds to the importance you believe should be given to the particular consideration. (For instance, if you think that statement #1 should be of great importance in making a decision about buying a house, check the space on the left).

IMPORTANCE:

Great	Much	Some	Little	No
X				
				X
		X		
X				

1. Whether Simon can afford a suitable house. (Note in this example, the person taking the questionnaire thought that Simon should place great weight on this consideration in reaching his decision).

2. Whether the furnace on the house was thermal dynamic (Note that if a statement sounds like gibberish, nonsense or is not relevant to the question at hand, mark it of "no" meaning it is of no importance).

3. Whether Simon could still go on his annual golf vacation.

4. Whether Simon's wife wants to buy a house.

From the list of considerations above, select the most important to the decision choice. Put the number of the most important consideration on the blank beside "Most important". Do likewise for your 2nd, 3rd and 4th most important choices. For example, the four most important items could be ranked as follows:

_1_ Most Important _4_ Second Most Important _3_ Third Most Important _2_ Fourth Most Important

Included in the questionnaire are some words and sentence that are not entirely clear or do not make sense. Please mark these "no" of no importance and do not include them in your ranking of the four most important factors.

Note in this example, the top choices will come from those statements that were checked on the left-hand side--statements #1 and #4 were thought to be very important. In deciding what is the <u>most</u> important, a person would reread #1 and #4, then pick one of them as the most important, and then put the other one as "second most important". Statement #3 was of the next highest importance; therefore, #3 would be put beside the "third most important" choice. Finally, statement #2 was of the fourth highest importance; therefore, #2 would be put beside the "fourth most important" choice.

Please, do not go back and change responses to cases that have already been completed. Once you finish one case, please proceed immediately to the next. Your assistance and cooperation are greatly appreciated.

ETHICAL DILEMMAS OF ACCOUNTANTS

We ask you to respond to the following four cases as you perceive the accountant described in the case, ***ideally, ought to respond*** to the described situation. It might help to think of yourself as a member of a professional disciplinary committee whose role is to advise on the ideal way in which the situation described in the case should be resolved. Accordingly, you have no vested interest in the described situation. Your mandate is to identify the four most important factors which, ideally, should be most important to the ethical resolution of the described dilemma.

ALICE AND THE ABC COMPANY

Alice is a senior auditor and a CA for a national CA firm that provides auditing, tax and consulting services. The firm has developed a package called the ACME ACCOUNTING SYSTEM which is sold to the general public as well as the firm's clients. Alice is the auditor in charge of the field work on the ABC Company, Inc. audit. During the course of this audit assignment, Alice is asked to evaluate the quality control of the accounting system which happens to be the ACME package. Alice uncovers several severe control weaknesses in the ACME system. Before rendering the management letter to ABC management, Alice is told by her boss to modify the negative comments regarding the ACME package.

Ideally, should Alice amend the management letter? (Check one)

___Should amend it ___Can't decide ___Should not amend it

In the process of advising Alice whether or not she should amend the management letter, many items need to be considered. Below is a list of some of these items. Please indicate the importance of each of the following considerations:

IMPORTANCE:

Great	Much	Some	Little	No

1. Whether the weaknesses in the ACME system may be easily remedied by compensating controls.

2. Wouldn't a good employee defer to her superior's judgment.

3. Whether Alice's job may be threatened by her refusal to revise the letter.

4. Whether fair deliberation on the client's financial position can predilect professional reputation.

5. What is best for Alice's firm?

6. Whether or not Alice has a duty to ensure the management letter is accurate?

7. What is the potential value of an independent audit in lieu of society's current perspective on an enterprise's net worth?

8. How is society best served?

9. Whether clients really care about internal control or if all they ever really want is a clean audit opinion.

10. Would amending the management letter be consistent with what Alice thinks is right?

11. What action would Alice's peers in the audit firm expect her to make?

12. What factors are relevant in determining Alice's professional responsibility?

From the list above, rank the four items of greatest importance to an "ideal" response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT __THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

BILL AND DOGWOOD CONSTRUCTION

Bill is a staff auditor and CA for a small firm that provides auditing services. The President of the Dogwood Construction Corporation is searching for a Chief Financial Officer, and has asked Bill to help recruit and select an appropriate candidate. Bill is the "in-charge" auditor on the Dogwood engagement which is among the largest and most profitable jobs for the firm. Bill truly believes that he can provide a valuable service to Dogwood as well as his firm by performing the function. In addition, Bill already knows an individual, a personal friend, who has the right qualifications for this very important position.

Ideally, should Bill assist Dogwood's president? (Check one)

___Should assist him ___Can't decide ___Should not assist him

In the process of advising Bill whether or not he should assist Dogwood's president, many different issues need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations:

IMPORTANCE:

GREAT	MUCH	SOME	LITTLE	NO

1. What effect will Bill's refusal have on his firm's relationship with the client?

2. Whether Bill has the right to assist a client in the selection and recruitment of a Chief Financial Officer?

3. Whether employment referrals ought to be in the hands on a few greedy headhunters?

4. Does telling his friend the job is available constitute an infringement of Bill's professional responsibilities?

5. Will having a friend as the controller prevent Bill from making a fair assessment of the firm's financial position in the future?

6. Whether Bill is overweight or has a weakness for fast food.

7. Whether the audit partner of the Dogwood audit will endorse Bill's actions.

8. Wouldn't a good auditor refuse to assist Dogwood's president?

9. What actions would Bill's friend expect him to take?

10. Would it be fair to other clients if Bill assisted Dogwood's president?

11. Would assisting the president in any way violate the rights of others?

12. Would refusing to assist the president be consistent with what Bill thinks is right?

From the list above, rank the four items of greatest importance to an "ideal" response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT __THIRD MOST IMPORTANT ___FOURTH MOST IMPORTANT

BOB AND CORA LIMITED

Bob is a brand new partner in a medium size audit firm. Bob has inherited a substantive book of business as a result of the unanticipated demise of one of the firm's founders. In fact, Bob has had the good fortune to have been granted the audit of the firm's largest and oldest client, Cora Limited, and its 70 percent owned subsidiary, Corinne Incorporated. Bob discovers that Cora Limited has historically been charging an exorbitant management fee to Corinne Incorporated. Bob is concerned that the interests of the minority shareholders of Corinne Incorporated are materially compromised by such an arrangement. In discussions with the client, Bob learns that this procedure was undertaken several years ago upon the advice of his own firm's tax department. It is used to boost Cora's earnings to take advantage of significant tax savings that would otherwise be lost to Cora Limited. Cora's management is not amenable to losing these tax savings. The magnitude of all related party transactions between Cora Limited and Corinne Incorporated are disclosed in the financial statement as required by the accounting standard. Consequently, submits Cora's management, the financial statements of Cora Limited and Corinne Incorporated are fairly presented.

Ideally, should Bob insist on separate disclosure of the management fee by Cora Limited?

___Yes ___Can't decide ___No

In the process of advising Bob on whether or not he should insist that Cora disclose the management fee, many different issues need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations:

IMPORTANCE:

Great	Much	Some	Little	No

1. Whether other partners in the firm will support Bob's position.

2. Would it be fair to the tax department if Bob did not insist that the management fee be disclosed?

3. Whether anybody really cares about GAAP in their efforts to exploit everyone else.

4. Whether a retroactive adjustment to the financial statements is required.

5. Whether or not disclosure of the management fee would benefit more people to a greater extent?

6. What is the quintessence of an audit apart from displacement, especially for minority shareholders?

7. Is Bob obliged by professional standards to assess the reasonableness of the management fee?

8. Whether it is generally accepted that firms manipulate the amount of management fees between associated companies to minimize their tax liability.

9. What is the financial importance of the Cora audit to Bob's firm.

10. Doesn't Bob have a professional duty to protect the rights of minority shareholders?

11. Would Bob's decision be consistent with his own personal beliefs?

12. What values are the basis for governing fair presentation when specific accounting standards do not result in full disclosure?

From the list above, rank the four items of greatest importance to an "ideal" response:

___MOST IMPORTANT ___SECOND MOST IMPORTANT ____THIRD MOST IMPORTANT ____FOURTH MOST IMPORTANT

JOHN AND THE FOLDERS' AUDIT

John is a CA and the senior in charge of the field work for two legally unrelated audit clients: the Folders Company and Colby Corporation. While on the Folders job, John learns that Colby is the only supplier of a product that is critical to the manufacturing of Folders' final output. Colby is the only vendor in the marketplace. The next day, John learns from Colby's management that they are greatly increasing the price of their primary products—and the new pricing policy can bankrupt Folders. John knows that Folders recently considered the acquisition of a small company in Asia that with some effort can redirect its production to produce a product similar to the one made by Colby. However, the estimated unit cost was greater than the present (known and assumed stable) prices offered by Colby. Based on their limited information, Folders did not seriously consider the purchase of this small company.

Ideally, should John disclose Colby's plans to Folders? (Check one)

___Yes ___Can't decide ___No

In the process of advising John whether or not he should disclose Colby's plans to Folders, many different items need to be considered. Below is a list of some of these issues. Please indicate the importance of each of the following considerations:

IMPORTANCE:

Great	Much	Some	Little	No

1. Is John obliged to maintain client confidentiality regardless of circumstance?
2. Whether the partner on the audit will endorse John's actions.
3. What is best for the reputation of John's firm?
4. Whether Folders' reliance on a single supplier is disclosed in the financial statements.
5. Whether client confidentiality is the ultimate prelude to the necessity of rendering of an audit opinion.
6. Which course of action will bring about the greatest good for all society?
7. How will John's actions be perceived by others in the audit firm?
8. Whether the Folders Company brought this upon itself by relying solely upon one supplier.
9. Whether John's actions go against regulatory standards with respect to insider information.
10. What values are the basis for determining which stakeholder's interest takes precedence when they conflict?
11. Would John's action be consistent with what he believes is just?
12. Whether the reputation of the audit profession will suffer if Folders goes bankrupt.

From the list above, rank the four items of greatest importance to an "ideal" response:

___Most Important ___Second Most Important ___Third Most Important ___Fourth Most Important

SESSION EVALUATION

The purpose of this evaluation is to capture your impressions of the realism of the cases and the topic. If additional space is required, please do not hesitate to write on the back of this form.

1. Have you ever encountered a situation or situation (s) similar to the ones included in the case material? Please describe.

2. What factor was most critical to your resolution of the case studies? Did additional analysis (i.e., discussion or documentation) influence the priority this factor received?

3. How did additional analysis influence your evaluation of each of the cases? For example, was the quality or degree of certainty with which you made decisions influenced by your analysis?

4. Do you consider that your "analysis" was realistic? That is, was it representative of discussion you have had with colleagues or similar to documentation that you might make when encountering problems on an audit?

5. On what types of professional matters would you most likely consult with colleagues? Please give examples.

Thankyou for your assistance and cooperation. You have now completed the exercise. Please return this form to its original envelope and remain seated for the debriefing.

Appendix F: Deliberative Postmanipulation Instrument

Identification code_____

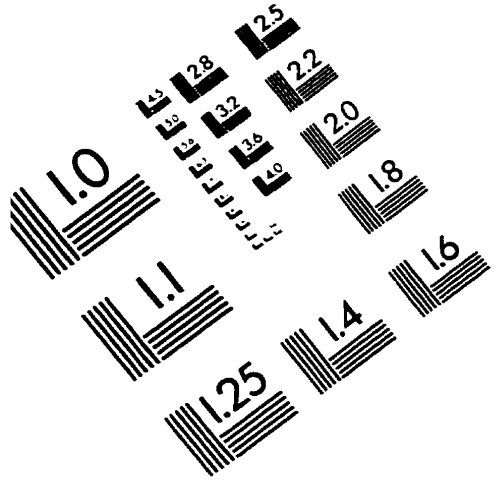
are ***now*** asking for you to redo the questionnaire which examines **your own individual analysis** of the four accounting cases you just reviewed. We ask **you** to record your response as you perceive the accountant described in the case actually **would** respond given the pressures and tradeoffs that occur during the course of an audit. Most important is the identification of the factors which you believe are most critical to the practical resolution of each dilemma. Please make your responses as realistic as possible taking into consideration the pragmatics of the situation faced by the accountant.

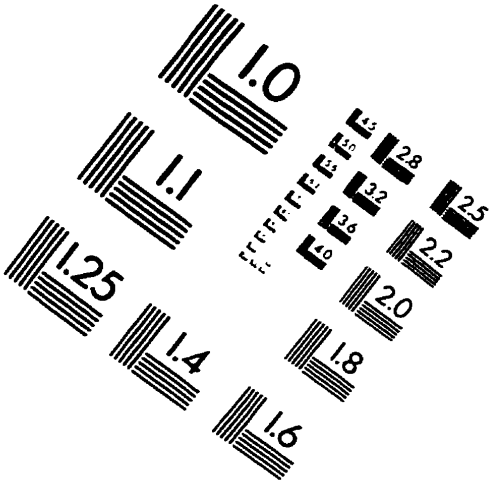
The instructions for filling out this questionnaire have not changed from when you filled it out previously. They are included for a reference.

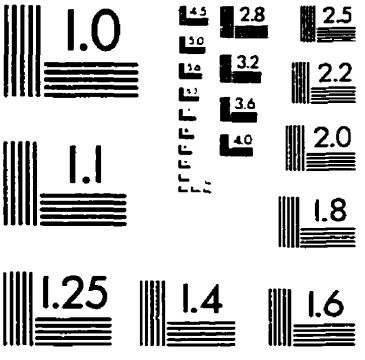
The cases have been carefully written to encourage you to consider what factors are important to the particular decision choice. Be sure that every form is complete. Please, do not go back and change responses to cases that have already been completed.

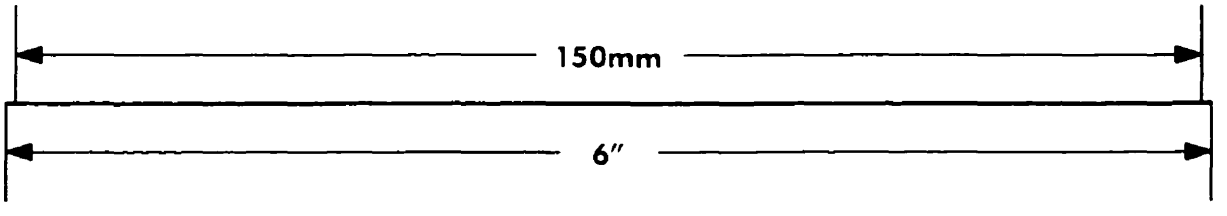
Once you finish one case, please proceed immediately to the next. When all four cases have been completed, place the completed questionnaire into its original envelope. Your assistance and cooperation are greatly appreciated.

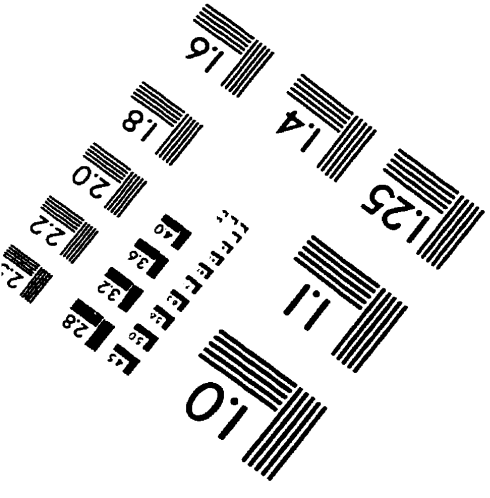
IMAGE EVALUATION
TEST TARGET (QA-3)

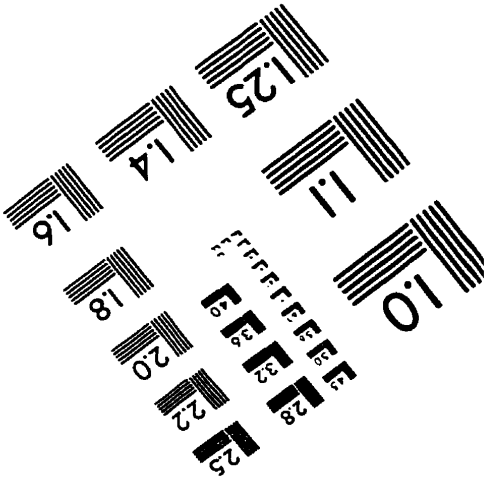












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