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Effects of personal values on auditors' ethical decisions

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Abstract *This study investigates the effects of personal values on auditors' ethical decision making. Previous accounting research has investigated the value profiles of practicing CPAs and accounting students, and the effects of values on accounting students' ethical decisions. However, the current study is the first to empirically address the role of values in the ethical decision processes of professional auditors. We surveyed a random sample of AICPA members to assess their value preferences and reactions to an ethical dilemma involving client pressure for aggressive financial reporting. Contrary to our hypothesis, personal value preferences did not influence auditors' perceptions of the moral intensity of the ethical dilemma. As hypothesized, perceptions of moral intensity influenced both ethical judgments and behavioral intentions.*

The potential influence of personal values on ethical decision making and behavior has been recognized in both the social psychology and organizational behavior literature (Rokeach, 1973; Hunt and Vitell, 1986). However, several recent studies have failed to provide support for the effects of personal values on ethical decisions in business or organizational contexts (e.g. Akaah and Lund, 1994; Finegan, 1994). There have been relatively few studies of values in the accounting literature, and most extant studies have been limited to the assessment of value preferences, with no attempt to relate these preferences to ethical judgments or behavior (e.g. Wilson *et al.*, 1998; Giacomino and Akers, 1998).

The current study is the first to address empirically the effects of values on ethical decision making in an auditing context. We measured practicing auditors' value preferences using the Rokeach value survey (RVS), and elicited ethical decisions with a vignette involving client pressure on an auditor to acquiesce in aggressive financial reporting. We tested the hypothesized factorial structure of values using confirmatory factor analysis. We then tested the effects of the empirically derived value structures on participants' perceptions of the moral intensity of the ethical dilemma, and the effects of perceived moral intensity on ethical judgments and behavioral intentions.

The empirical findings were generally consistent with the hypothesized factorial structure of values, which suggests that the values measured by the RVS can be meaningfully grouped into distinct categories. However, we found very little support for the hypothesized effects of values on ethical decision making. The findings of the study also provide further evidence of the influence of moral intensity on ethical judgments and behavioral intentions.

The following two sections will provide a review of selected literature on values and the development of research hypotheses. This will be followed by discussions of the research methodology and empirical findings. In the final section of the paper, we discuss the findings and provide suggestions for future research.

Literature review

The subject of personal values has been a frequent topic of research and discourse in the social sciences for many years. However, the work of Rokeach (1973) has been most influential in the recent study of values. Rokeach (1973, p. 5) defined a value as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence." Values can be distinguished from similar concepts such as attitudes because the former are relatively enduring beliefs that transcend specific objects or situations, whereas the latter are focused on a specified object or situation. Because they occupy a central position within one's cognitive makeup, values may be viewed as the determinants of specific attitudes and behavior (Rokeach, 1973).

Rokeach assumed that the total number of values a person possesses is relatively small, and that people everywhere possess the same values to different degrees. These assumptions led him to attempt to distill common human values into a relatively succinct list, which is included in the Rokeach value survey (RVS). This instrument, which has been widely used in the study of values since its development, contains two lists of 18 terminal and 18 instrumental values. Terminal values are defined as beliefs regarding desirable end-states of existence, whereas instrumental values are beliefs regarding desirable modes of conduct (Rokeach, 1973).

Rokeach (1973) assumed that values play a pervasive role in defining human behavior, stating that "the consequences of human values will be manifested in virtually all phenomena that social scientists might consider worth investigating and understanding". Many studies in the social sciences have found that personal values do affect a wide variety of attitudes (e.g. attitudes toward civil rights, international affairs, religion) and behaviors (e.g. church attendance, political activism, classroom cheating, choice of academic major) (Mayton *et al.*, 1994).

Personal values may also influence decision making in business and organizational contexts. The potential link between values and managerial decision making has been recognized for many years (e.g. Learned *et al.*, 1959; England, 1967a). More recently, the influence of personal values on ethical judgments has been formally recognized in models of ethical decision making in organizations. For example, Hunt and Vitell (1991) included values in their model as one of several personal characteristics that potentially influence all phases of the ethical decision process. The role of personal values in ethical decision making was also explicitly recognized in Ferrell and Gresham's (1985) theoretical model.

Although researchers in the accounting literature have studied values for a number of years, no previous study has investigated the influence of values on professional auditors' ethical decision making. In one of the earliest studies of values in accounting, Baker (1976) assessed the value systems of accounting and nonaccounting majors using the Rokeach Value Survey. Baker concluded that his results were inconclusive as to whether accounting and nonaccounting majors possessed different value systems.

In a recent study, Wilson *et al.* (1998) profiled practicing CPAs' value preferences using the Rokeach value survey. Similarly, Giacomino and Akers (1998) assessed the values of a sample of business school students. In contrast to the findings of Baker (1976), Giacomino and Akers (1998) concluded that both gender and college major (accounting versus nonaccounting) were associated with observed differences in values. Although all these studies assessed participants' value preferences, they did not examine the relationship between values and ethical decision making.

Wright *et al.* (1997) is the only previous accounting study to investigate the relationship between values and ethical decisions. This study used an adaptation of Jones' (1991) ethical decision making model to hypothesize that values would influence perceptions of moral intensity. Using a sample of 102 undergraduate accounting students, they found support for the hypothesized effects of values on the perceived moral intensity of several generic ethical dilemmas that might arise in an organizational context. However, the generalizability of these findings appear limited, because the study used student subjects and ethical dilemmas that did not relate specifically to accounting. The current research extends the study of values in accounting to address the effects of personal value preferences on the ethical decisions of practicing auditors, using a context-specific ethical dilemma.

Hypothesis development

Two general approaches have been used to study the effects of RVS values on ethical decisions. The first is to assume that the 36 values measured by the RVS are independent of each other, and test the effects of individual values on ethical decisions (e.g. Brief *et al.*, 1996; Fritzsche, 1995; Finegan, 1994). The second approach is to assume that the RVS values can be reduced to a smaller number of value structures or dimensions, and to test the effects of these structures on ethical decision processes. Weber (1990) argued in favor of this method, stating that values work together to influence decision making and thus possess greater predictive power when considered as a set of values or value orientation. Wright *et al.* (1997) also followed this approach, adopting Weber's (1990) classifications of values as either personal, social, moral, or competence.

In the current paper, we explicitly test a hypothesized values structure prior to testing the effects of values on ethical decision processes.

Value structures

Factor analytic studies have generally supported Rokeach's basic dichotomy of terminal versus instrumental values (Crosby *et al.*, 1990). However, early attempts to reduce the RVS values to smaller groups produced inconsistent findings. For example, both Rokeach (1973) and Frederick and Weber (1987) concluded that the RVS values were not readily reducible to a smaller number of factors. Weber (1990) classified terminal values as either personal or social and instrumental values as either competence or moral, classifications originally proposed by Rokeach (1973). Weber's groupings were based on how the RVS values had been classified in four previous factor analytic studies, but some of his classifications were based on limited empirical support.

According to Schwartz (1994), the most rigorous empirical study of the factor structure of the RVS was that of Crosby *et al.* (1990). Based on a review of previous factor analytic results, these researchers hypothesized that instrumental values could be grouped into three categories while four categories were hypothesized for terminal values. The values comprising these dimensions are:

(1) *Instrumental values*:
- Conformity: cheerful; clean; obedient; polite; and responsible.
- Virtuous: forgiving; helpful; honest; loving.
- Self-direction: ambitious; broadminded; capable; courageous; imaginative; independent; intellectual; logical; self-controlled.

(2) *Terminal values*:
- Idealism: a world of beauty; equality; and freedom.
- Security: world at peace; family security; national security.
- Self-actualization: sense of accomplishment; inner harmony; mature love; salvation; self-respect; true friendship; wisdom.
- Hedonism: a comfortable life; an exciting life; happiness; pleasure; social recognition.

The results of confirmatory factor analyses using LISREL generally supported the proposed value structures (Crosby *et al.*, 1990). The Crosby *et al.* value dimensions are also similar to those proposed by Weber (1990), the primary difference being that the Crosby *et al.* classification contains more groups and thus permits finer distinctions among certain values. For example, the conformity and virtuous dimensions are basically subgroups of Weber's moral values, while self-direction is roughly equivalent to Weber's competence values. Schwartz (1994) also noted that the Crosby *et al.* value dimensions closely parallel those obtained from his values instrument. Thus, based on the findings of the Crosby *et al.* (1990) study and the similarity of their value dimensions with those of other researchers, we propose the following hypotheses.

H1: Three dimensions underlie the RVS instrumental values: self-direction, conformity, and virtuousness.

H2: Four dimensions underlie the RVS terminal values: self-actualization, hedonism, idealism, and security.

Effects of values on ethical decision making

To examine the effects of values on ethical decisions, it is necessary to place them within the context of a more general model of the ethical decision making process. We used an adaptation of Jones' (1991) model for this purpose. The model, which is illustrated in Figure 1, incorporates the basic four-component model of ethical decision making proposed by Rest (1986):

(1) recognizing a moral issue;

(2) making a moral judgment ("ethical judgment");

(3) establishing moral intent ("behavioral intentions"); and

(4) engaging in moral behavior.

According to Jones' (1991) model, the perceived moral intensity of an ethical issue should influence all components of the ethical decision making process, including ethical judgments and behavioral intentions. Jones (1991) defined moral intensity as "a construct that captures the extent of issue-related moral imperative in a situation." Moral intensity is multidimensional, and its components include:

- magnitude of consequences;
- probability of effect;

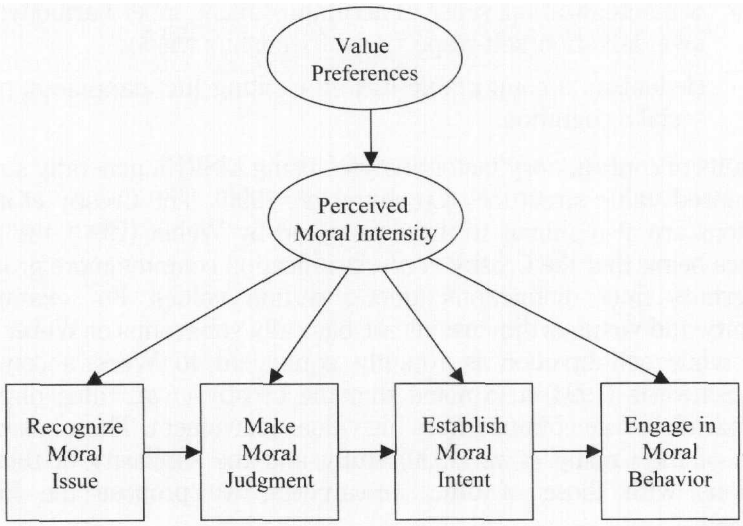

Figure 1.
Ethical decision making model

- temporal immediacy;
- social consensus;
- proximity; and
- concentration of effect.

Magnitude of consequences refers to the sum of the harms or benefits resulting from a given action. For example, in the case of client pressure for an auditor to acquiesce in aggressive financial reporting, the magnitude of consequences could be equated with the potential losses to financial statement users. In general, the magnitude of consequences in an auditing context should be positively correlated with the dollar amount of the financial statement misstatement (Ketchand *et al.*, 1999). *Probability of effect* refers to the likelihood of the consequences actually occurring. In a subordination of judgment context, probability of effect may be viewed as the joint probability of the users relying on the financial statements, and losses occurring as a result of that reliance. The *temporal immediacy* of a moral action refers to the length of time between the action and the onset of the consequences. According to Jones (1991), people discount the effects of future consequences; thus, for a given magnitude of consequences, events that will occur in the distant future will be less morally intense than events that are imminent.

Social consensus refers to the extent of agreement that an action is ethical or unethical. Greater consensus leads to greater moral intensity. For example, situations involving clear violations of professional standards should be more morally intense than situations that are in the "gray area". *Proximity* refers to the affinity of the moral agent with the victims or beneficiaries of the act in question. Stronger relationships with either the victims or beneficiaries of a moral act should increase the likelihood that the moral agent will act on these parties' behalf. *Concentration of effect* is an inverse function of the number of people affected by a moral act of a given magnitude. Greater concentration of effect leads to greater moral intensity. For example, if the effect of a financial statement misstatement is concentrated in a single investor or creditor, the moral intensity of aggressive reporting should be greater.

The adaptation of Jones' (1991) model presented in Figure 1 assumes that value preferences influence ethical decisions through their effect on the perceived moral intensity of an ethical dilemma. This assumption is consistent with Hunt and Vitell's (1991) theory of ethical decision making. According to this theory, personal values are one of many variables that potentially affect the moral agent's perceptions of the likelihood and desirability of the consequences of an action, and the importance of the stakeholders involved. The likelihood and desirability of consequences and importance of stakeholders are components of moral intensity, as defined by Jones (1991). Thus, the Hunt-Vitell theory implicitly recognizes the influence of personal values on perceptions of moral intensity.

Although the influence of values on ethical decision making is recognized in theoretical models, recent empirical research raises questions regarding the impact of personal values in business and organizational contexts. For example, Finegan (1994) found that honesty (ambition) was the only RVS value that was a significant predictor of subjects' ethical judgments (behavioral intentions). Based on a survey of marketing professionals, Akaah and Lund (1994) concluded that, while organizational values were significantly related to ethical judgments, personal values were not. Based on the results of several surveys of executives and managers, Fritzsche (1995) hypothesized that specific instrumental values (responsible, honest, and broadminded) and terminal values (self-respect, family security, and freedom) would affect ethical decision making. Although discriminant functions based on value preferences correctly classified most of Fritzsche's subjects, very limited support was found for the significance of the specific values hypothesized to affect ethical decisions.

In a study that appears directly relevant to the issues addressed in the current paper, Brief *et al.* (1996) investigated the potential influence of Rokeach's terminal values on financial executives' willingness to engage in fraudulent financial reporting. These authors suggested that personal values such as a comfortable life and family security may be particularly useful for understanding job behaviors. Since employment is viewed primarily in terms of its economic instrumentality, values that can be realized through economic outcomes are most likely to influence work-related behavior. The study found that three of Rokeach's terminal values (a comfortable life, pleasure, and self-respect) were significantly correlated with managers' propensity to fraudulently misstate their company's financial statements. As would be expected, "the more an individual valued a comfortable life and/or pleasure, and the less self-respect was valued, the more likely the individual was to choose a fraudulent response" (Brief *et al.*, 1996, p. 188). However, followup studies indicated that the relationships between these three values and fraudulent reporting decisions were weak and inconsistent.

As previously discussed, Wright *et al.* (1997) recently found that personal value preferences influenced perceptions of moral intensity among undergraduate accounting students. Thus, recent evidence on the impact of RVS values on ethical decision making appears to be mixed. Due to the lack of strong empirical support for the effects of personal values on ethical decisions in business contexts and the exploratory nature of the current research, the issue is posed as a research question rather than a formal hypothesis.

Q1: Do auditors' personal value preferences influence their perceptions of the moral intensity of an ethical dilemma?

Jones (1991) cited evidence that moral reasoning is issue-dependent to support the hypothesized link between moral intensity and ethical judgments. Perceived moral intensity should also influence behavioral intentions in an auditing context. For instance, as the perceived magnitude of potential losses to financial statement users and the perceived likelihood of those losses increases, the assessed likelihood of formal sanctions such as litigation and disciplinary actions from professional organizations should also increase. Thus, higher levels of moral intensity should act as a deterrent to unethical intentions among auditors. This argument was supported by the findings of Ketchand *et al.* (1999).

The influence of moral intensity on ethical judgments and behavioral intentions is also reflected in the Hunt-Vitell theory of ethics. Hunt and Vitell (1991) proposed that components of moral intensity, such as the likelihood and desirability of the consequences of the action and the importance of the stakeholders, will influence a person's teleological evaluation of a moral act, or evaluation of the consequences of the act. This teleological evaluation will in turn influence both ethical judgments and behavioral intentions. Thus, based on both theoretical and empirical support for the influence of perceived moral intensity on ethical judgments and behavioral intentions, we propose the following hypothesis.

H3: The perceived moral intensity of an ethical dilemma will influence auditors' ethical judgments and behavioral intentions regarding the dilemma[1].

Methodology

The data for this study were obtained through surveys of AICPA members. This section will describe the survey participants and the research instrument.

Participants

Research instruments were mailed to a random sample of 1,650 AICPA members in public practice whose membership information indicated an auditing specialty. A follow up mailing was made approximately two weeks after the initial mailing. A total of 202 usable responses were received, providing a response rate of approximately 12 percent. The low response rate to this survey was probably attributable to the fact that the questionnaires were mailed in January, which is the auditing "busy season". Due to the low response rate, a second survey was mailed to another random sample of 500 AICPA members approximately four months after the initial mailing. After a follow up mailing, a total of 121 responses were received from this survey.

There were no significant differences in demographic information or survey responses between the two samples. Based on these results, it appears that the first sample was not biased as a result of the unusually low response rate; however, the low response rate should be recognized as a limitation of the study. Due to the lack of differences in responses between the two surveys, we pooled all responses, resulting in a total of 323 participants and an overall response rate of approximately 15 percent. We also compared the early and late respondents to both surveys, noting no significant differences in demographic information or survey responses between the early and late groups.

A demographic profile of respondents is provided in Table I. As the data indicate, the sample consisted predominantly of male partners in local CPA firms. The fact that the sample was composed of 72 percent partners suggests that partners may be more likely than lower level employees to respond to surveys, creating a selection bias in their favor. However, since partners have the primary

	Number	Percent
Sample size	323	
Rank		
Partner	231	71.8
Manager	62	19.2
Supervisor and below	30	9.0
Gender		
Male	273	84.6
Female	50	15.4
Firm type		
National	21	6.1
Regional	34	10.8
Local	268	83.1
Highest degree		
Bachelors	257	79.6
Graduate	66	20.4
Age (years)		
Mean	44.4	
Standard deviation	11.4	
Public accounting experience (years)		
Mean	20.0	
Standard deviation	9.8	

Table I.
Demographic profile of participants

responsibility for decisions of the type tested in the audit case, a disproportionate number of responses from partners was not considered a cause for concern.

Since 91 percent of the participants were partners or managers, it is not surprising that the sample was over 80 percent male. Data reported by Doucet and Hooks (1999) indicated that as of 1997, males accounted for 84 percent (68) of all partners (senior managers) in public accounting firms. Thus, the gender composition of the respondent sample is approximately representative of this population.

A strong majority of participants (83 percent) were employed by local CPA firms. This is also consistent with the overall AICPA membership in public practice. Data reported by the AICPA indicates that only around 20 percent of the members in public practice are employed by the largest 25 CPA firms (AICPA, 1996). Although most respondents were employed by local firms, all those surveyed indicated an auditing specialty in their membership information. This, combined with the fact that the audit case dealt with a small nonpublic client (a typical audit client for a local firm), led us to conclude that the respondents were appropriately qualified to participate in the survey. However, it should be recognized that the findings may not be generalizable to employees of larger CPA firms. Most respondents had not earned a graduate degree. The average participant was approximately 44 years old and had worked in public accounting for 20 years.

Research instrument

The survey instrument consisted of a cover letter, an audit case, the Rokeach value survey, and a supplemental data sheet. The case involved client pressure for an auditor to give an unqualified opinion on a set of financial statements even though he had serious reservations regarding the adequacy of the allowance for doubtful accounts.

We chose to investigate the effects of values in the context of a subordination of judgment problem because this is one of the most common ethical issues auditing practitioners face. In a nationwide survey of CPA firm partners, client pressure for the alteration of financial statements was one of the most frequently identified ethical problems in public accounting (Finn *et al.*, 1988). Professional auditors have also been frequently criticized for failing to exercise independent judgment when faced with client pressure for aggressive financial reporting (Public Oversight Board, 1993; Schuetze, 1994; Levitt, 1998).

To manipulate the moral intensity of the ethical dilemma, we varied both the dollar amount of the potential misstatement and the intended use of the financial statements. In the low intensity version, the potential misstatement was $40,000 (eight percent of pretax income). In the high intensity version, the potential misstatement was $200,000 (40 percent of pretax income). A larger potential misstatement should increase the perceived magnitude of the consequences of the ethical decision. In the low intensity version, the planned use of the financial statements was described as distribution to two banks with whom the client did business, which is a relatively routine situation. In the high intensity version, it was indicated that the sale of the client company was imminent, and that the sales price was contingent on the audit verification of the net realizable value of accounts receivable and inventory. The latter situation should have increased the perceived probability of effect, or harm to the financial statement users, and also the perceived temporal immediacy of the effect. Both versions of the audit case are illustrated in the Appendix.

Moral intensity was manipulated on a between-subjects basis, i.e. each subject was randomly assigned to either the high or low intensity version of the audit case. To elicit ethical judgments, subjects were asked to rate the hypothetical auditor's action on an 11-point Likert scale anchored on "ethical" and "unethical"[2]. Behavioral intentions were measured by asking subjects to estimate the likelihood that the "average CPA" would act as the hypothetical auditor did using an 11-point scale anchored on "no chance" and "100 percent chance". As in previous accounting ethics research (Cohen *et al.*, 1996), it was assumed that responses to this question would provide a more reliable approximation of subjects' own behavioral intentions than would a direct elicitation, due to social desirability effects.

Two measures were used to assess perceived moral intensity. First, participants were asked to estimate the likelihood that the hypothetical CPA's action would cause harm to the users of the financial statements, using an 11-point scale anchored on "no chance" and "100 percent chance". These estimates were used as a measure of the perceived probability of effect. Second, subjects estimated the maximum financial statement misstatement that could be accepted as immaterial. The actual misstatement provided in the case divided by respondents' maximum acceptable misstatement provided a measure of materiality, which should be positively correlated with the perceived magnitude of consequences.

Value preferences were assessed with the Likert-scale version of the RVS. Although Schwartz (1992) has developed an alternative values assessment instrument that has been used in a number of recent studies, there is much more empirical support for the validity and reliability of the RVS, and the RVS has been used in most recent studies of values in the accounting literature (e.g. Wilson *et al.*, 1998; Wright *et al.*, 1997).

Results

Responses to audit case and manipulation checks

The mean responses for the high and low moral intensity versions of the audit case are presented in Table II. As anticipated, subjects judged the hypothetical CPA's action more harshly in the high intensity version, and estimated a lower probability that the average CPA would take similar actions. In the high (low) intensity version, the average respondent rated the action at 2.65 (6.34) on an 11-point scale where zero represents "unethical" and 10 represents "ethical". Similarly, in the high (low) intensity version, the average estimated likelihood that a CPA would commit such an action was 51.5 (72) percent. It is interesting that, even when the action was viewed as unethical, respondents felt there was more than a 50 percent chance that the average CPA would commit a similar action.

The results of the manipulation check for probability of effect indicate that, in the high (low) intensity version, respondents estimated a 60 (23.5) percent

Table II. Mean responses to audit case

	Moral intensity	
	Low	High
Ethical judgments[a,b]	6.34	2.65
	(2.79)	(2.06)
Behavioral intentions[c]	7.20	5.15
	(1.68)	(2.06)
Probability of harm[d]	2.35	6.00
	(1.71)	(2.39)
Maximum misstatement[e]	$48,853	$58,883
	(43,376)	(46,489)

Notes: [a]Numbers in parentheses represent the standard deviations of the responses. [b]Mean ethical judgments on an 11-point scale where 0 represents "unethical" and 10 represents "ethical". [c]Estimated likelihood that the "average CPA" would engage in the behavior on an 11-point scale where 0 represents "no chance" and 10 represents "100 percent chance", i.e. 7.2 is equivalent to a 72 percent chance. [d]Estimated likelihood that the action would cause harm to the financial statement users on an 11-point scale where 0 represents "no chance" and 10 represents "100 percent chance", i.e. 2.35 is equivalent to a 23.5 percent chance. [e]Mean estimated maximum understatement of the allowance for doubtful accounts which could be accepted as immaterial chance that the hypothetical CPA's action would cause harm to the financial statement users. A one-way analysis of variance with the estimated probability of effect as the dependent variable and case version as the independent variable indicated that this difference was significant at the 0.0001 level, which suggests that the manipulation was effective.

The results of the manipulation check for magnitude of consequences indicate that, in the high intensity version, the average estimate of the maximum financial statement misstatement that could be accepted by the auditor as immaterial was $58,883, which is far below the $200,000 misstatement specified in the case. In addition, 100 percent of the respondents set their maximum acceptable misstatement below $200,000. In the low intensity version, the average acceptable misstatement was $48,853, which suggests that the average respondent viewed the $40,000 misstatement specified in the case as slightly below their materiality threshold[3]. These results suggest an effective manipulation of the perceived magnitude of consequences, i.e. in the high intensity version subjects apparently viewed the misstatement (which would directly impact the sales price of the company) as highly material. In contrast, in the low intensity version the average respondent viewed the misstatement as immaterial.

The fact that subjects in the high intensity version set the maximum acceptable misstatement higher than subjects in the low intensity version is also an interesting finding. In the high intensity version, participants were willing to accept a larger misstatement when the client's books contained a larger initial error, despite the fact that the estimated likelihood of harm to the financial statement users was more than double that for the low intensity version. This result, which also was obtained in the Ketchand *et al.* (1999) study, suggests that materiality judgments may be affected by a process of negotiation between the auditor and client management.

Neither years of experience nor age were significantly correlated with respondents' ethical judgments or behavioral intentions. Also, ANOVA models revealed that neither firm type (national, regional, or local), firm size, gender, position (partner, manager, or supervisor and below), nor education level (bachelors, masters) significantly influenced ethical judgments or behavioral intentions. Recent studies of ethics in business and accounting have reported mixed results for the effects of demographic variables on ethical judgments (e.g. Glover *et al.*, 1997; Ketchand *et al.*, 1999); consequently, we did not have any strong expectations regarding the effects of these factors.

Value profiles of respondents

Table III presents the mean ratings and rankings of the RVS values. For purposes of comparison, the table also presents the value rankings reported by Wilson *et al.* (1998). The data indicate many similarities in the results of the two studies, particularly for the highest and lowest ranked values. For example, "honest", "responsible", "capable", and "independent" were among the five highest rated instrumental values in both studies. This finding is not surprising, since these are

	Rating[a]	Rank	Wilson rank[b]
Instrumental values			
Honest	6.03 (1.03)	1	1
Responsible	5.72 (1.01)	2	2
Capable	5.52 (1.04)	3	4
Independent	5.27 (1.36)	4	5
Courageous	5.19 (1.42)	5	17
Ambitious	5.07 (1.48)	6	9
Logical	5.06 (1.47)	7	9
Self-controlled	4.99 (1.52)	8	5
Forgiving	4.94 (1.53)	9	5
Loving	4.92 (1.61)	10	3
Helpful	4.91 (1.54)	11	5
Intellectual	4.88 (1.54)	12	9
Broadminded	4.86 (1.57)	13	9
Polite	4.83 (1.46)	14	14
Cheerful	4.82 (1.56)	15	9
Clean	4.26 (1.78)	16	16
Imaginative	4.24 (1.83)	17	15
Obedient	3.94 (1.95)	18	18
Terminal values			
Family security	6.00 (1.07)	1	1
Freedom	5.77 (1.25)	2	4
Self-respect	5.66 (1.49)	3	1
Happiness	5.61 (1.22)	4	3
Inner harmony	5.26 (1.59)	5	4
Mature love	5.13 (1.65)	6	7
A sense of accomplishment	5.12 (1.60)	7	4
Wisdom	5.04 (1.56)	8	7
True friendship	4.95 (1.67)	9	7
National security	4.89 (1.79)	10	15
A comfortable life	4.88 (1.54)	11	7
Salvation	4.67 (2.34)	12	11
Pleasure	4.59 (1.66)	13	13
An exciting life	4.42 (1.82)	14	16
Equality	4.32 (1.84)	15	13
A world at peace	4.34 (1.96)	16	12
Social recognition	4.26 (1.75)	17	16
A world of beauty	4.02 (1.85)	18	16

Notes: [a]Reported numbers represent the mean importance rating on a seven-point scale where 1 = unimportant and 7 = important. Numbers in parentheses represent the standard deviations of the responses. [b]The lack of mean ratings and the ties among ranks are due to the fact that Wilson *et al.* (1998) reported only median ranks based on the rank order version of the RVS

Table III.
Mean value ratings and value ranks

values that should be critical for the ethical conduct of a CPA practice. Also, "polite", "clean", "imaginative", and "obedient" were among the five lowest rated instrumental values in both samples. Similar comparisons can be made for the terminal values. "Family security", "freedom", "self-respect", and "happiness" were among the top four terminal values in both samples. The two lowest rated terminal values in both samples were "social recognition" and "a world of beauty".

Hypothesis tests and research question

To test *H1* and *H2* regarding the RVS value dimensions, we performed confirmatory factor analyses using the AMOS structural equation modeling program (Arbuckle, 1997). Following Crosby *et al.* (1990), we tested separate structural equation models for instrumental and terminal values using maximum likelihood estimation. The measures of overall fit for the initial models, presented in Table IV, suggest a relatively poor fit to the data. In particular, the goodness-of-fit indices (GFI) were below the recommended minimum value of 0.90 (Bentler and Bonett, 1980), and the Root Mean Square Error of Approximation (RMSEA) values equaled or exceeded the recommended maximum of 0.08 (Byrne, 1998). Following the approach recommended by Byrne (1998), we deleted the values with the highest modification indices and reestimated the models[4]. The measures of overall fit for the modified models, also presented in Table IV, indicate a substantial improvement, and all measures suggest a reasonably good overall fit to the data.

The factor analyses for instrumental and terminal values are presented in Figures 2 and 3, respectively. The standardized regression weights (factor loadings) for each of the RVS values retained in both models were significant at a probability level of 0.01 or smaller, indicating that each of the retained values loaded significantly on to its hypothesized value dimension. To evaluate competing models, we also performed factor analyses based on the value classifications proposed by Weber (1990), which provided a significantly poorer fit to the data[5]. Based on these results and the acceptable measures of overall fit

	χ^2	*df*	χ^2/df	GFI	RMSEA
Values only					
Initial models					
Instrumental	471	132	3.6	0.86	0.09
Terminal	371	129	2.9	0.89	0.08
Modified models					
Instrumental	262	87	3.0	0.91	0.07
Terminal	245	98	2.5	0.92	0.06
Full models					
Instrumental	366	145	2.5	0.90	0.07
Terminal	329	159	2.1	0.91	0.06

Table IV.
Measures of structural equation model fit

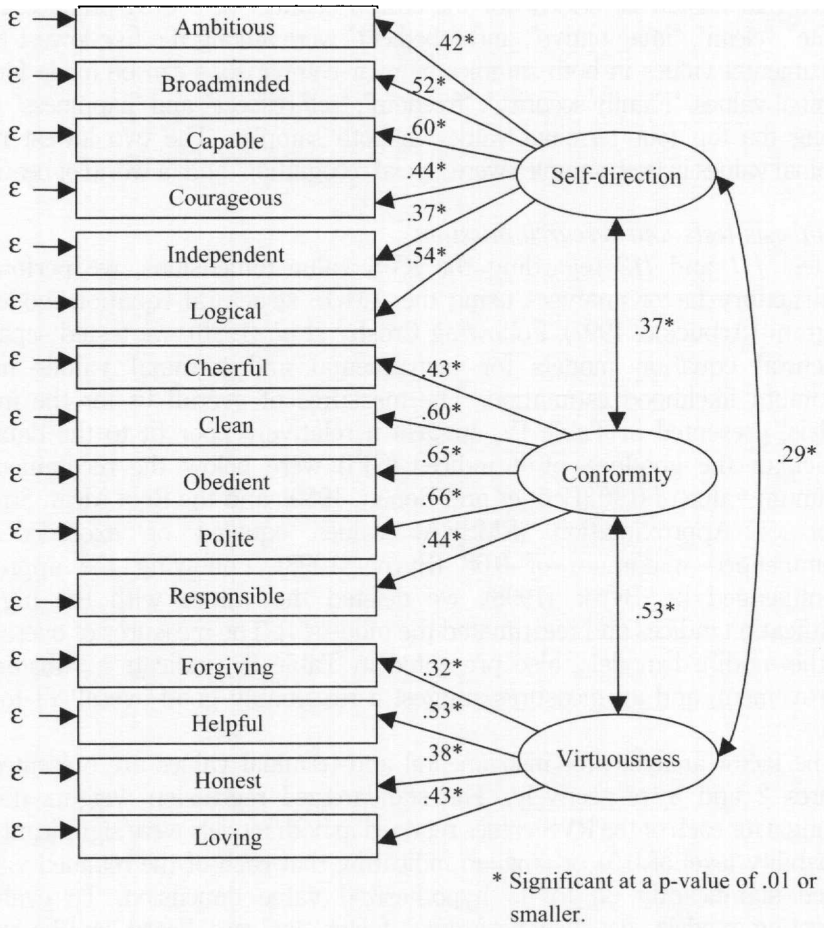

Figure 2.
Confirmatory factor analysis instrumental values

for our modified models, we concluded that the hypothesized value dimensions were generally supported by the data, which provides support for *H1* and *H2*.

To address *Q1* and *H3*, the structural equation models were expanded to examine the relationships among values, moral intensity, and ethical decisions. The full models for instrumental and terminal values are illustrated in Figures 4 and 5, respectively[6]. The measures of model fit for the full models, presented in Table IV, indicate a reasonably good fit to the data.

Q1 addresses the effects of personal value preferences on the perceived moral intensity of an ethical dilemma. In each of the models, perceived moral intensity is treated as a latent variable with two indicators: the estimated likelihood of harm to the financial statement users ("harm"), and the ratio of the actual financial statement misstatement to the subject's maximum acceptable misstatement ("material"). The regression weights for both these variables were significant at the 0.0001 level in both of the models. The regression

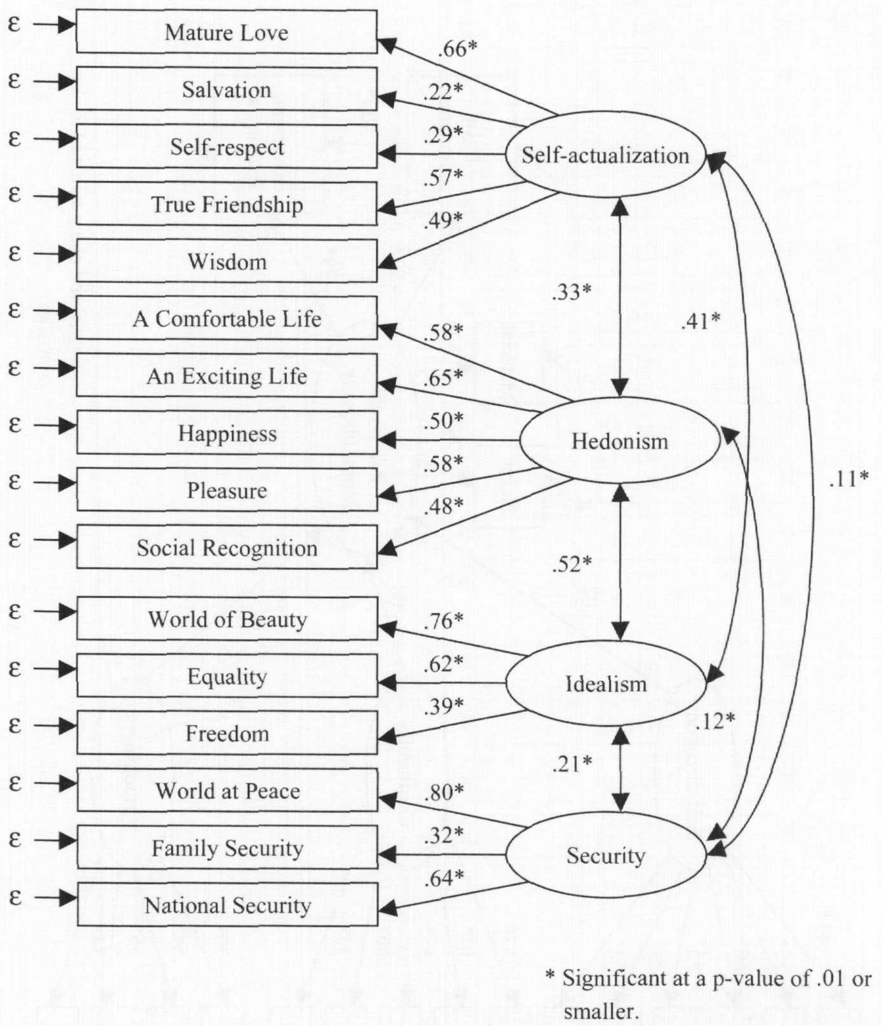

Figure 3. Confirmatory factor analysis terminal values

weights for the effects of the value dimensions on perceived moral intensity provided a basis for addressing the *Q1*. Across both models, none of these regression weights approached statistical significance. These results suggest that the personal values measured by the RVS do not have a significant influence on ethical decision making in an auditing context[7].

According to *H3*, the perceived moral intensity of an ethical dilemma should influence both ethical judgments and behavioral intentions. The regression weights for the effects of perceived moral intensity on ethical judgments were significant at the 0.0001 level in both models. The regression weights for the effects of moral intensity on behavioral intentions were also significant at the 0.01 level in each of the models. These results provide strong support for *H3*.

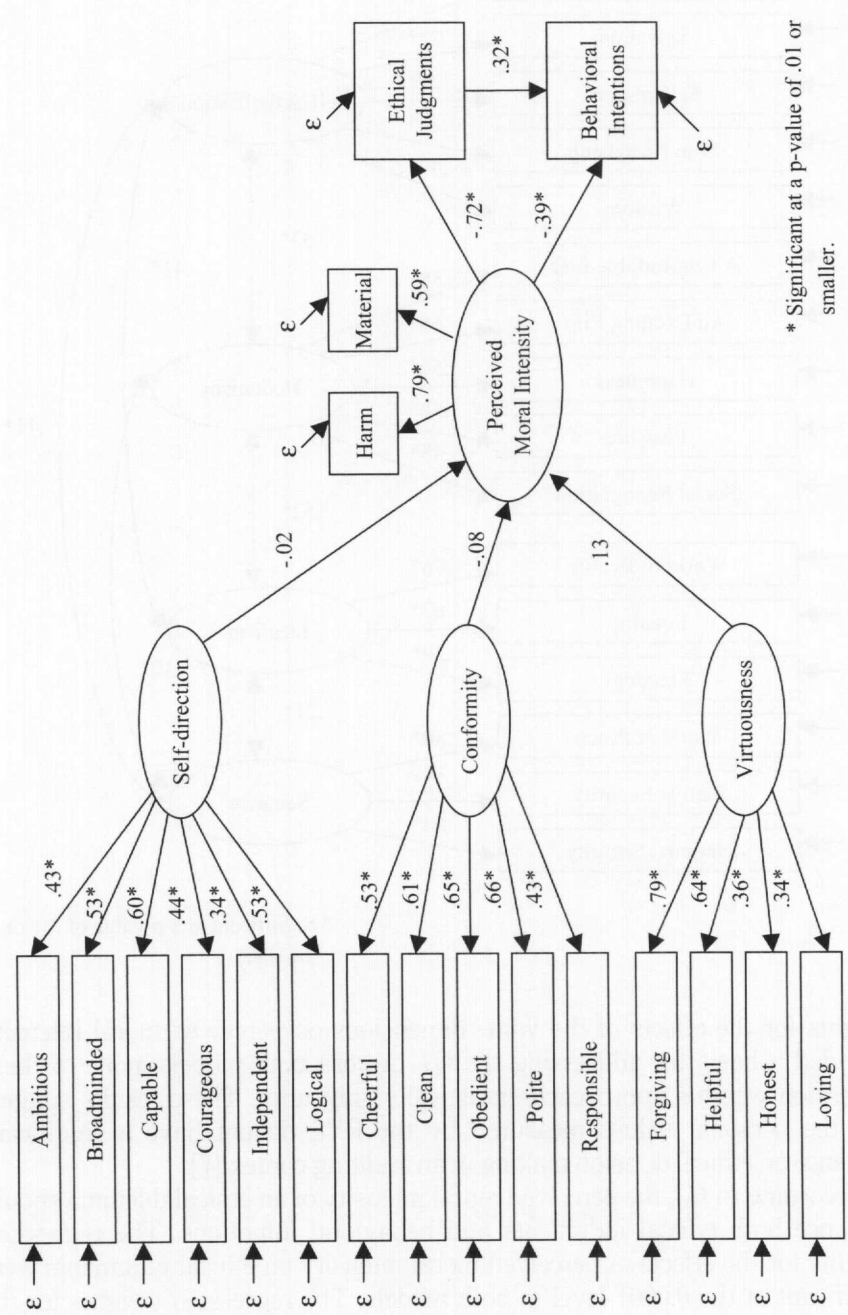

Figure 4.
Instrumental values model

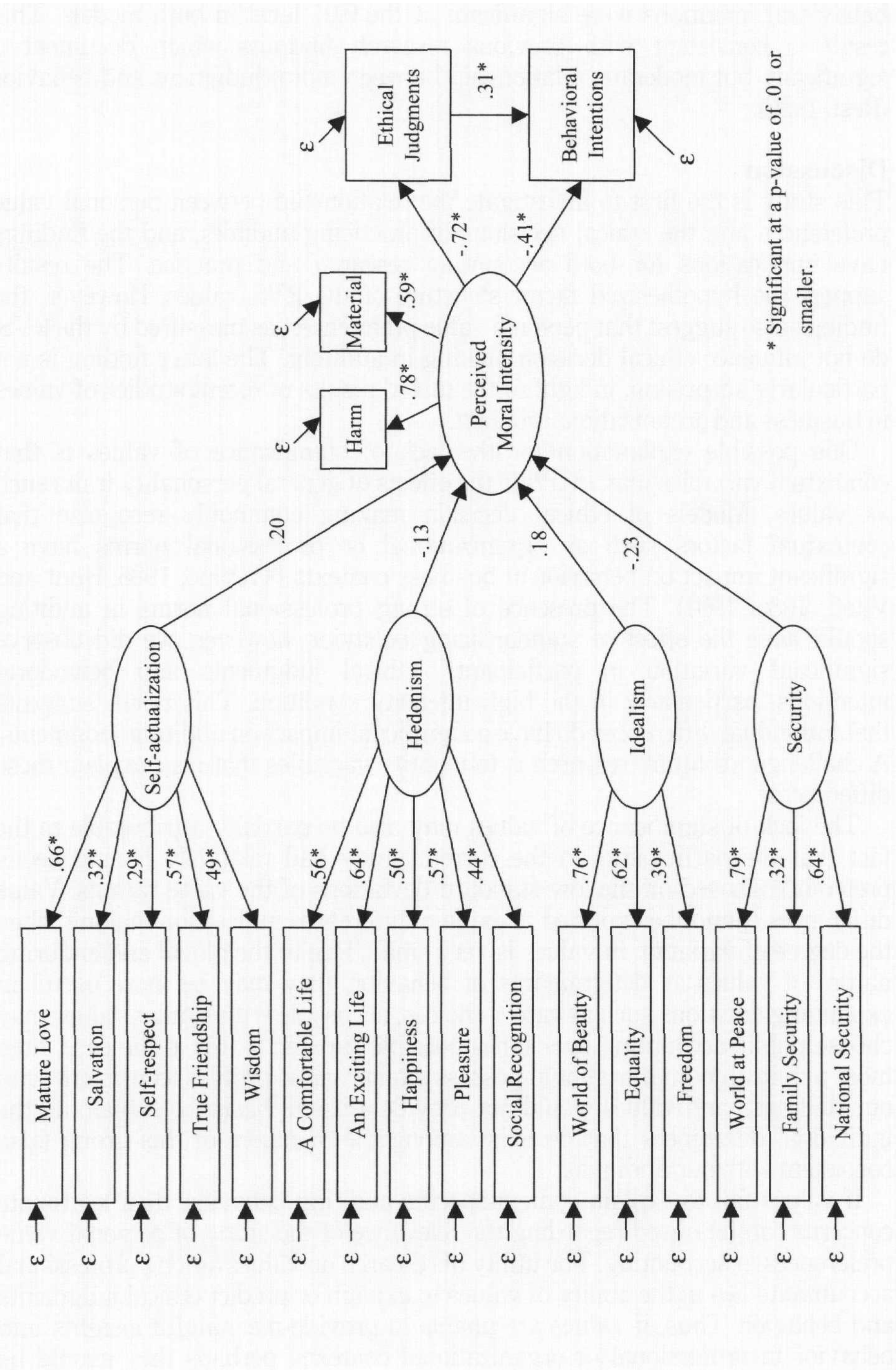

Figure 5.
Terminal values model

Finally, the regression weights for the effects of ethical judgments on behavioral intentions were significant at the 0.01 level in both models. This result is consistent with previous research findings which document a significant, but moderate, relationship between moral judgment and behavior (Rest, 1986).

Discussion

This study is the first to investigate the relationship between personal value preferences and the ethical decisions of practicing auditors, and the findings have implications for both accounting research and practice. The results support the hypothesized factor structure of the RVS values. However, the findings also suggest that personal value preferences, as measured by the RVS, do not influence ethical decision making in auditing. The latter finding is not particularly surprising, in light of the mixed results of recent studies of values in business and organizational contexts.

One possible explanation for the lack of significance of values is that contextual variables may override the effects of general personality traits such as values. Models of ethical decision making commonly recognize that contextual factors such as organizational or professional norms have a significant impact on behavior in business contexts (Trevino, 1986; Hunt and Vitell, 1986, 1991). The presence of strong professional norms in auditing should have the effect of standardizing behavior; however, we did observe significant variation in participants' ethical judgments and behavioral intentions, particularly in the high intensity condition. This result suggests that individual differences do have a significant impact on auditing judgments. A challenge for future research is to identify variables that may explain these differences.

The lack of significance of values may also be partially attributable to the fact that the participants in the current study had relatively homogeneous preferences, based on the low standard deviations of the value ratings. Value differences cannot be expected to explain differences in decision making when the degree of variation in values is very small. Due to the global and enduring nature of values as determinants of behavior, they may be more useful in explaining decisions such as career choices, i.e. people with similar values may choose public accounting over other possible careers. If this is the case, then most public accountants should possess similar value profiles (consistent with our findings), and values would not provide a useful basis for explaining the individual differences that do exist among the members of this group (also consistent with our findings).

If values fail to explain context-specific auditing behavior, then legitimate concerns can be raised regarding the relevance of the study of personal value preferences in accounting. The utility of research on values among professional accountants lies in the ability of values to explain or predict ethical judgments and behavior. Thus, if values are unable to provide meaningful insights into behavior in professional or organizational contexts, perhaps they should be dismissed from further consideration. Models of ethical decision making in organizations have commonly recognized values as one of several personal characteristics that may influence ethical decisions; therefore, before abandoning this line of research, further attempts could be made to clarify the role and significance of values, if any, in professional accountants' decision processes.

There are a number of directions that this research could take. For example, values other than personal values also may be more relevant to the study of ethical decisions in auditing. For instance, Akaah and Lund (1994) found that personal values were not significantly related to marketing professionals' ethical behavior, but England's (1967b) measures of organizational values were. Alternative value measures such as the instrument developed by Schwartz (1992) and recently used by Giacomino and Akers (1998) in their study of business students could also be used to investigate the role of values in the context of auditing practice. Future research could also address the influence of values in other accounting contexts. For instance, previous research has not addressed the role of personal characteristics such as values and cognitive moral development in tax practitioners' ethical judgments. Similarly, this type of research could be extended to the study of ethical judgments that arise in a management accounting context.

The results of this study also provide support for the influence of moral intensity on auditors' ethical decision processes. Consistent with the findings of Ketchand *et al.* (1999), the current results indicate that components of moral intensity such as the magnitude of potential consequences and probability of harm to financial statement users have a significant effect on auditors' propensity to support aggressive accounting treatments. These findings suggest that auditors' ethical behavior is strongly influenced by economic or utilitarian considerations.

The apparent willingness of our respondents to permit the manipulation of reported earnings also raises concerns regarding ethical standards in auditing practice. For the low intensity case, the experienced CPAs participating in this study estimated a 72 percent probability that the "average CPA" would permit an audit client to manipulate earnings by an amount equal to 8 percent of pretax income. Furthermore, they tended to view such actions as ethically acceptable. These findings appear consistent with recent SEC allegations that auditors often comply with clients' desires to manage earnings, particularly when the amounts involved can be rationalized as immaterial.

Perhaps more troubling is the fact that, for the high intensity scenario, even though the estimated probability of harm to financial statement users was relatively high (60 percent) and the potential misstatement was viewed as very material, participants felt that the average CPA more likely than not would subordinate their judgment to an audit client. If these responses represent valid estimates of what participants would do personally, as assumed in this study, they call into question the integrity and independence of practicing CPAs. Even if we assume these responses do not represent respondents' personal proclivity to subordinate their judgment, but their honest estimates of what a typical CPA would do, they have serious implications. Numerous studies of ethical decision making in business contexts have concluded that one of the primary determinants of ethical behavior is perceptions of what one's peers would do under similar circumstances (Ferrell and Gresham, 1985; Trevino, 1986). Consequently, such a high level of cynicism among professional auditors regarding the behavior of their peers certainly does not bode well for their own behavior if placed in a similar position.

In light of the current findings, as well as many recent charges that auditors are compromising their integrity due to pressure from clients, further research is clearly needed on this issue. The current study included primarily small firm practitioners, and dealt with a small, nonpublic audit client. It seems likely that auditors' willingness to compromise their ethical principles would differ in the case of public companies, e.g. due to a higher likelihood of litigation. Thus, future studies should extend this research to the context of public companies, and use samples of auditors who regularly audit those companies.

A broader issue that deserves future consideration is the compatibility of professional accountants' values and ethical standards with their expanding role in society. With the transformation of traditional public accounting firms into global professional services conglomerates, accountants arguably now enjoy more power and social influence than ever before. However, if accountants as a group possess values and ethical standards that permit questionable behavior such as that observed in the current study, one could seriously question whether they should be given an expanded role in establishing accountability in our society.

Notes

1. Due to practical considerations, the current study is limited to the second and third components of the Rest (1986) ethical decision making model, i.e. ethical judgments and behavioral intentions. To ensure that all subjects are responding to the same stimulus, it is necessary to provide them with a clearly defined ethical dilemma, which essentially eliminates the problem of recognizing the ethical issue. Due to the difficulty of observing ethical behavior in practice, the study also omits consideration of the final component of the Rest model, engaging in moral behavior.
2. We acknowledge there is a risk that ethical and economic considerations may be conflated in this type of measure, i.e. subjects' responses to the ethical judgment scale may be influenced by economic considerations such as the risk of client loss or litigation. However, it has frequently been assumed in the accounting ethics literature that subjects are capable of separating moral and economic influences when making this type of judgment. Also, the fact that respondents' ethical judgments differed significantly from their behavioral intentions, as well as the fact that the effects of moral intensity on ethical judgments and behavioral intentions differed significantly, supports the contention that respondents made a distinction between moral and economic factors.
3. Even if subjects viewed the misstatement in the low intensity version as immaterial, this would not obviate the presence of the ethical issue and in many accountants' view would not justify acquiescing in the client's understatement of the allowance for doubtful accounts. For example, in a recent speech delivered at the New York University Center for Law and Business, SEC Chairman Arthur Levitt discussed what he referred to as the

"abuse of materiality", and stated that he rejects the view that the concept of materiality can be used to justify deliberate misstatements of performance (Levitt, 1998).

4. For the instrumental values model, three values accounted for all modification indices above 20: "self-controlled", "intellectual", and "imaginative." In the terminal values model, two values accounted for all indices above 20: "inner harmony" and "a sense of accomplishment".
5. We also used a hierarchical testing procedure similar to that of Crosby *et al.* (1990) to evaluate the hypothesized models against alternatives. We tested alternative models with each pair of instrumental and terminal value dimensions constrained to be perfectly correlated, as well as models which contained only a single dimension for both instrumental and terminal values. In all cases, these models also provided a significantly worse fit to the data.
6. To simplify the presentation in Figures 4 and 5, the covariances among the value dimensions are not reported, although they were included in the models. The covariances among the value dimensions were very similar to those previously reported in Figures 2 and 3.
7. We performed a number of supplemental analyses to further test for a possible influence of values on auditors' ethical decision processes. First, we tested the direct effects of the value dimensions on ethical judgments and behavior. For the instrumental values model, none of the three value dimensions significantly influenced either ethical judgments or behavioral intentions. In the terminal values model, the only significant relationship was for the effects of hedonism on ethical judgments (0.01 level). We also tested the effects of the individual RVS values on the ethical decision process, an approach that has been commonly used in the business ethics literature. This involved omitting the latent variables for the value dimensions, and testing the direct effect of each value on ethical judgments and behavioral intentions. Again, the results indicated that values have little influence on ethical decisions.

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Appendix. Experimental cases

High intensity version

John Ellis, a partner in a regional accounting firm, is completing the December 31, 1997 audit of Simpson Stores, Inc. (SSI), a privately owned company that operates a chain of retail clothing outlets. The owner of SSI, Bob Simpson, owns several businesses and is one of the firm's largest tax and auditing clients. Simpson is currently negotiating to sell SSI. A tentative sales price has been agreed upon, but is contingent on the audit verification of the net realizable value of accounts receivable and inventory. SSI has total current assets of $5,000,000 and pretax income (before audit adjustments) of $500,000.

Near the end of the audit Ellis has a disagreement with Simpson regarding the adequacy of the allowance for doubtful accounts. Based on SSI's historical collection experience, Ellis' best estimate of the allowance is $300,000. However, Simpson contends that, due to an improving economy, the recorded allowance of $100,000 is adequate. Although there has been some improvement in economic conditions in SSI's market areas, Ellis feels it is unlikely to significantly impact the collectibility of their receivables. Nevertheless, because Simpson is a valued client of the firm, Ellis agrees to accept the allowance as recorded and give an unqualified opinion on the financial statements.

Low intensity version

John Ellis, a partner in a regional accounting firm, is completing the December 31, 1997 audit of Simpson Stores, Inc. (SSI), a privately owned company that operates a chain of retail clothing outlets. Bob Simpson, the owner of SSI, owns several businesses and is one of the firm's largest tax and auditing clients. The financial statements will be distributed to two banks with whom SSI does business. SSI has total current assets of $5,000,000 and pretax income (before audit adjustments) of $500,000.

Near the end of the audit Ellis has a disagreement with Simpson regarding the adequacy of the allowance for doubtful accounts. Based on SSI's historical collection experience, Ellis' best estimate of the allowance is $300,000. However, Simpson contends that, due to an improving economy, the recorded allowance of $260,000 is adequate. Although there has been some improvement in economic conditions in SSI's market areas, Ellis feels it is unlikely to significantly impact the collectibility of their receivables. Nevertheless, because SSI is a valued client of the firm, Ellis agrees to accept the allowance as recorded and give an unqualified opinion on the financial statements.