



## The joint influence of client attributes and cognitive moral development on students' ethical judgments

Duane M. Brandon <sup>a,\*</sup>, William A. Kerler III <sup>b</sup>, Larry N. Killough <sup>c</sup>,  
Jennifer M. Mueller <sup>a</sup>

<sup>a</sup> Auburn University, School of Accountancy, 301 Lowder Business Building, Auburn, AL 36849, United States

<sup>b</sup> University of North Carolina at Wilmington, Department of Accountancy and Business Law,  
Cameron Hall, Suite 230, Wilmington, NC 28403, United States

<sup>c</sup> Virginia Tech, Department of Accounting and Information Systems, 3007 Pamplin Hall,  
Blacksburg, VA 24061, United States

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### Abstract

Academic interest in the ethical quality of accountants' judgments has produced a steady stream of research addressing the role of education in fostering ethical behavior. Although various studies have evaluated the cognitive moral development of accounting students, few studies have considered the influence of accounting contextual factors on ethical judgments. This study evaluates the influence of cognitive moral development and a contextual factor, client risk level, on both ethical judgments and behavioral intentions. Results from a study of auditing students indicate that students with higher moral development evaluate earnings management as less ethical and are less likely to accept earnings management by an audit client than are students with lower moral development. Students in a high client risk scenario evaluated earnings management as less ethical and were also less likely to accept earnings management by an audit client than were students in a low client risk scenario. The results also show an interaction between client risk and moral development.

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\* Corresponding author. Tel.: +1 334 844 6215.

E-mail addresses: [branddm@auburn.edu](mailto:branddm@auburn.edu) (D.M. Brandon), [kerlerw@uncw.edu](mailto:kerlerw@uncw.edu) (W.A. Kerler III), [larry@vt.edu](mailto:larry@vt.edu) (L.N. Killough), [jmueller@auburn.edu](mailto:jmueller@auburn.edu) (J.M. Mueller).

## 1. Introduction

Academic interest in the ethical quality of auditors' judgments has produced a steady stream of research addressing the role of education in fostering ethical behavior (e.g., Armstrong, 1993; Armstrong, Ketz, & Owsen, 2003; Eynon, Hill, & Stevens, 1997; Wright, Cullinan, & Bline, 1998). Studies concerning ethics education in accounting have primarily focused on measuring students' capacity for ethical decision-making, or their cognitive moral development.<sup>1</sup> Although higher levels of moral development (also called moral reasoning) should generally result in more ethical judgments, theory suggests and research has shown that characteristics of a moral issue may also affect the ethical decision-making process (Jones, 1991; Shafer, 2002). As the characteristics of a dilemma evoke more concern for the ethics of a decision (i.e., "moral intensity" increases), people are more likely to be aware of a moral dilemma, utilize moral reasoning in their decision-making, establish moral intentions, and behave ethically (Jones, 1991). While prior accounting research supports the prediction that students with high moral reasoning will make significantly more ethical judgments than students with low moral reasoning, we investigate whether this relationship is moderated by the moral intensity of the ethical dilemma.

In this study, auditing students were presented with an ethical dilemma faced by auditors—economic pressure to accept management of earnings. We examine whether moral reasoning and moral intensity (manipulated through client risk) affect students' perceived acceptability of an auditor allowing a client to manage earnings and students' likelihood of allowing a client to manage earnings.<sup>2</sup> Further, we investigate whether the moral intensity of the dilemma affects students' utilization of their moral reasoning in making decisions.

Overall, our results indicate that students do not utilize their full moral reasoning capabilities when making ethical judgments in situations of low moral intensity (e.g., low client risk). Students are in danger of "overlooking" or "diminishing" the ethical ramifications of an issue when there are few or no red flags concerning a client, despite the moral development of the individual student. This finding suggests that education aimed solely at increasing students' moral reasoning is not sufficient for improving their ethical decision-making. Educators should also seek to improve students' abilities to recognize ethical issues in varying contexts. Additional discussion of the implications of this study and suggestions for educators are presented in the final section of this paper.

The remainder of this paper is organized as follows. The next section provides a review of the relevant literature on moral reasoning and moral intensity. The next section discusses the research method and the following section presents the experimental results. The final section of the article discusses the implications and limitations of the results and provides suggestions for future research.

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<sup>1</sup> Moral development has received the greatest attention because research has shown that it is highly correlated with subsequent ethical decisions (Bay & Greenberg, 2001; Ponemon, 1993b).

<sup>2</sup> We define client risk as inherent and control risk of an audit client (i.e., the uncontrollable portions of audit risk).

## 2. Review of literature

### 2.1. Ethics education and moral reasoning

Research into the relationship between education and ethical judgments has centered on the study of moral reasoning, which refers to an individual's method of interpreting moral dilemmas, defining the critical issues of a dilemma, and judging a response to the dilemma (Rest, 1979). Studies have shown that accountants tend to exhibit lower moral reasoning than similarly educated individuals (e.g., Armstrong, 1987; Eynon et al., 1997; Lampe & Finn, 1992; Ponemon & Glazer, 1990). Prior research on the effectiveness of ethics education for improving accountants' moral reasoning has been inconclusive (Armstrong, 1993; Eynon et al., 1997; Ponemon, 1993a; Shaub, 1994; St. Pierre, Nelson, & Gabbin, 1990; Wright et al., 1998). Thus, researchers have begun to look beyond moral reasoning as the determinant of ethical judgments in accounting contexts. Following a study of students' moral reasoning capabilities, Thorne (2001) suggested that researchers should identify factors that will prompt accounting students to utilize their moral capabilities and study students' judgments for accounting-specific dilemmas.<sup>3</sup>

### 2.2. The influence of moral reasoning on ethical judgments

While our interest is in understanding accounting students' ethical judgments and decisions, general conclusions from prior research provide insight for expected outcomes. A number of studies in various domains (e.g., education, marketing, medicine, psychology), utilizing various subject-types (e.g., students, professionals, general public), have found individuals' decisions and behaviors to be affected by moral reasoning (see, Rest, 1986; Rest, Narvaez, Bebeau, & Thoma, 1999 for a listing of published papers and a brief review of research findings). More specifically, for a wide variety of judgments and behaviors, auditors with high moral reasoning have generally made more ethical decisions and acted in a more ethical manner than those with low moral development. For example, prior research has shown that auditors with high moral development are less likely to underreport audit time (Ponemon, 1992), are more sensitive to client attributes (e.g., Bernardi, 1994; Ponemon, 1993b; Ponemon & Gabhart, 1993), and are more resistant to client persuasions (e.g., Arnold & Ponemon, 1991; Ponemon & Gabhart, 1990; Tsui & Gul, 1996; Windsor & Ashkanasy, 1995) than auditors with low moral development.

We state the following hypotheses based on the preceding research. The first hypothesis concerns ethical judgments and the second concerns behavioral intentions.<sup>4</sup>

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<sup>3</sup> Shaub (1994) and Arnold (1997) were early researchers who suggested using context-specific scenarios for the study of accounting students' moral development.

<sup>4</sup> It is important to examine how these factors influence accounting student's intentions to act ethically because the theory of planned behavior (Ajzen, 1985, 1991), an extension of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), suggests an individual's behavior is strongly correlated with the individual's intention to perform the behavior. In a meta-analysis, Armitage and Conner (2001) report a 0.47 correlation between intentions and behavior. Understanding what factors affect accounting students' behavioral intentions in an ethical dilemma ultimately sheds light on what factors are likely to affect ethical behavior.

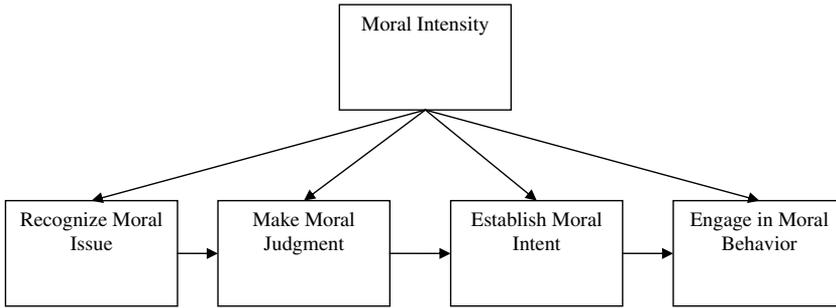


Fig. 1. Jones' (1991) model.

H1a: Students with high moral development will evaluate earnings management accepted by an auditor as less ethical than students with low moral development.

H1b: Students with high moral development will be less likely to accept earnings management by a client than students with low moral development.

### 2.3. The effect of moral intensity on ethical judgments

Jones (1991) extends Rest's moral reasoning model to include characteristics of the moral issue. As shown in Fig. 1, moral intensity can affect all aspects of the decision-making process (Jones, 1991).<sup>5</sup> Moral intensity is the sum of the characteristics that make moral issues more salient and vivid, where salience is the degree to which an issue stands out and vividness is the degree to which the issue evokes emotional interest (Wright et al., 1998). Jones (1991, pp. 374–378) identifies various issue characteristics that make up moral intensity:

- *Magnitude of consequences* refers to the sum of the harms (or benefits) resulting from an action. Moral intensity is greater when an action may result in a greater magnitude of consequences.
- *Social consensus* is the degree of social agreement that an act is evil or good. The greater the social consensus on the issue at hand, the higher the moral intensity of the issue.
- *Probability of effect* refers to the likelihood that the act in question will result in harm (consequences). The moral intensity of the issue increases as the probability of potential harm occurring increases.
- *Temporal immediacy* refers to the length of time between the action and the onset of consequences resulting from the action. Moral intensity decreases as the time between the action and possible consequences increases.
- *Proximity* is the sense of nearness the decision maker feels to the potential victims or beneficiaries of the act. Moral intensity will be higher if the decision maker is closer to those who stand to lose (or gain) from the action.

<sup>5</sup> Jones, Massey, and Thorne (2003) provide a similar model of accountants' ethical decision-making process.

- *Concentration of effect* is an inverse function of the number of people affected by an act of a given magnitude. Jones argues that people place great importance on individual justice. So, issues with more concentrated effects resulting from an action will produce higher moral intensity.

Research has shown that accountants' ethical sensitivity, judgments, and intentions are affected by moral intensity (Karcher, 1996; Ketchand, Morris, & Shafer, 1999; Shafer, 2002; Shafer, Morris, & Ketchand, 1999, 2001; Wright et al., 1998). Karcher (1996) found that CPAs' identification of ethical issues in three auditing scenarios was affected by the severity of the issue (moderate versus severe).<sup>6</sup> Specifically, the more severe an issue, the more likely accountants are to identify it as a potential "problem". Wright et al. (1998) found accounting students to be more likely to recognize moral issues when the moral intensity (specifically, the magnitude of consequences) of the issue is greater. However, the authors did not investigate whether moral intensity affects students' judgments or intentions. Studies by Shafer and colleagues (1999, 2001) demonstrated that issues of differing moral intensity, manipulated via the dollar amount of a misstatement (i.e., magnitude of consequences) and the intended use of the financial statements (i.e., concentration of effect), alter auditors' ethical judgments and behavioral intentions concerning independence. They also determined, in the second study, that personal values have no effect on perceived moral intensity and that the moral intensity of the issue may override the effects of individual traits, such as moral development (Shafer, Morris, & Ketchand, 2001). A third study by Shafer (2002) showed that increased moral intensity influenced corporate CPAs' willingness to commit financial statement fraud; specifically, they rated themselves as less likely to commit fraud when moral intensity (magnitude of effect) was high.

The current study addresses auditing students' sensitivity to client risk, an accounting-specific issue. Heightened client risk should increase moral intensity through the *probability of effect*. The probability that a client's earnings management (and auditor's acquiescence) would injure and/or be discovered by beneficiaries of the audit (e.g., through financial difficulty or litigation concerning the client) is higher with a riskier client. Jones' model and prior research predict that higher moral intensity leads to more ethical judgments and behavioral intentions. Based on this premise, the following hypotheses are posited.

- H2a: Students in a high risk scenario will evaluate earnings management accepted by an auditor as less ethical than students in a low risk scenario.
- H2b: Students in a high risk scenario will be less likely to accept earnings management than students in a low risk scenario.

#### 2.4. Client risk as a moderator of moral development

Client risk may also moderate the influence of cognitive moral development on ethical judgments and behavioral intentions, tempering the main effects predicted by

<sup>6</sup> It is not clear exactly which components of moral intensity were affected by the severity manipulations; however, Karcher (1996) suspects the manipulations may have simultaneously influenced multiple components (p. 1045).

Hypotheses 1a and 1b. Jones (1991) indicates this effect when linking his moral intensity construct to moral reasoning, particularly in his proposition 2, which states that “[i]ssues of high moral intensity will elicit more sophisticated moral reasoning (higher levels of cognitive moral development) than will issues of low moral intensity” (p. 385). Jones contends that when stakes are low (i.e., low moral intensity), people are likely to economize on efforts devoted to moral reasoning. However, when stakes are high, people are more likely to engage in increased cognitive effort and are more likely to utilize their full moral reasoning abilities. This would suggest that students will be less likely to utilize their cognitive moral capacity in low risk situations and an observed effect of moral reasoning on ethical judgments will be less likely. However, in high risk situations, students are likely to utilize their full cognitive moral ability, where differences among students attributable to moral reasoning may be observed. Based on Jones’ (1991) model, we predict the following.

- H3a: The influence of cognitive moral development on students’ evaluations of earnings management accepted by an auditor will be greater in a high risk scenario than in a low risk scenario.
- H3b: The influence of cognitive moral development on students’ evaluations of whether they would accept earnings management will be greater in a high risk scenario than in a low risk scenario.

### 3. Research method

#### 3.1. Participants

To test the hypotheses, a laboratory experiment was conducted with 186 undergraduate auditing students from two major southeastern universities.<sup>7</sup> Demographic information was self-reported by the participants. As shown in Table 1, the participant group included both males (50%) and females (50%) approximately twenty-two years of age. Participants had completed an average of 31 accounting course hours (approximately ten accounting courses) and had approximately two years of business experience. Participants had also completed an average of three ethics course hours (one course). Academic statistics indicate an average GPA of 3.1 and a mean SAT of 1174. There were no significant differences between the two universities in the dependent measures, however, the schools differed on several demographic variables (GPA, SAT, accounting course hours, and ethics course hours).<sup>8</sup>

<sup>7</sup> The study began with 204 participants, six of whom were eliminated due to invalid consistency checks in DIT (the measure of cognitive moral development) scoring. The remaining twelve were eliminated because they scored the median DIT *P*-score; this was done to avoid arbitrary assignment of subjects to “high” or “low” moral development conditions.

<sup>8</sup> The reported analyses were also performed while including university as a factor; however, the results including this factor do not differ from those reported in the paper.

Table 1  
Participant descriptive statistics

	Count	Mean	Median	Standard deviation	Minimum	Maximum
GPA <sup>a</sup>	183	3.10	3	0.45	2	4
College hours	178	122.65	120	22.91	81	256
Accounting course hours	168	31.26	30	12.43	10	100
Ethics course hours	183	2.61	3	2.39	0	15
Years of bus. experience	178	2.10	1	2.81	0	20
Age	182	22.24	22	2.98	19	44
SAT	119	1174.00	1170	129.73	810	1540
			Count			Percent
Gender						
Male			77			50
Female			77			50
School						
A			103			55.4
B			83			44.4

<sup>a</sup> Cases where numbers do not add to 186 indicate missing values.

### 3.2. Experimental instrument

The instrument contains a case adapted from Anderson, Kaplan, and Reckers (1997) representing an ethical dilemma.<sup>9</sup> In the case, a client records a material amount of sales revenue for which the accounts receivable have questionable collectability. The auditor is pressured to accept management's collectability judgment due to the economic importance of the client to the audit firm. The case contains information regarding characteristics of the client's CEO, financial performance, controls, and the relationship to the audit firm (i.e., length of tenure, non-audit services offered). These information cues, which include control and inherent risk factors, are used to establish the level of risk associated with the audit client.

Following the scenario just described, the student is presented with the decision of the auditor in the case. The student is then asked to respond to various questions that provide the independent and dependent measures, as well as manipulation check and demographic information. The tasks will be explained further as the variables are described below.

### 3.3. Variables

The study examined the association between two independent variables, client risk and level of cognitive moral reasoning, and students' ethical judgments and behavioral intentions. Students were randomly assigned to either a *high risk* or *low risk* condition, thus allowing a between-subjects' manipulation of client risk level. After reading the case scenario, students made ethical judgments and reported the likelihood of engaging in the partner's action. To assess ethical judgments, students were asked to evaluate the ethical quality of the partner's decision to accept the client's desired reporting on an eleven-point

<sup>9</sup> The case is available to *Journal of Accounting Education* readers by contacting one of the authors.

Likert-type scale anchored “Very Unethical” (–5) and “Very Ethical” (5). To assess behavioral intentions, students were asked how likely they would be to engage in the partner’s action.<sup>10</sup> Responses were provided on an eleven-point Likert-type scale anchored with “Not Very Likely” (–5) and “Very Likely” (5). Responses to these questions represent the dependent measures, *students’ ethical judgment* and *students’ behavioral intentions*, used to test the research hypotheses.

After reading the case and responding to the questions, students completed the defining issues test (DIT), which yields the second independent measure, *cognitive moral development*. The DIT, developed by James Rest Rest (1979), is a self-administered questionnaire consisting of six standard hypothetical moral dilemmas, with each dilemma followed by twelve statements of issues reflecting the different stages of moral development. Students read each dilemma, make an action choice, and then identify the four most important issues considered when making the decision. The Center for the Study of Ethical Development at the University of Minnesota scores the DIT and provides a *P-Score* for each student as a percentage ranging from 0 to 95. Students are categorized as having either high or low cognitive moral development according to whether they score above or below the median, respectively. The median score for our participants is 30. This method is consistent with other accounting studies investigating the effects of moral development on decision-making (e.g., Ponemon, 1992; Ponemon & Gabhart, 1993).

## 4. Results

### 4.1. Preliminary analysis

To test the efficacy of the client risk manipulation, students were asked to rate the riskiness of the client on an 11-point Likert-type scale with endpoints labeled “Very Low Risk” (0) and “Very High Risk” (10). Students’ mean perceptions of client risk were 5.90 in the low risk condition and 8.28 in the high risk condition. This difference is statistically significant ( $p < 0.001$ ), indicating that the client in the low risk case was viewed as significantly less risky than the client in the high risk case. Thus, the risk manipulation was successful.

Other preliminary analyses were necessary to determine the presence of covariates. Some previous ethics research in accounting has shown differences between males and females in their moral development and behavioral intentions (e.g., Jones et al., 2003; Radtke, 2000; Smith & Rogers, 2000; Thorne, 2001). To investigate whether gender should be included as a covariate in the analysis, the effects of gender on *P-Scores*, individual behavioral intentions, and perceptions of peer behavioral intentions were evaluated. A one-way ANOVA indicated that there were no differences in *P-Scores* between genders ( $p = 0.884$ ). However, the analysis indicated that behavioral intentions (for both students themselves and perceptions of peers) were significantly different for males and females. Specifically, females reported lower likelihoods than males that both they and their peers would engage in the partner’s action. To account for this, the analysis below was also performed with

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<sup>10</sup> Participants were also asked how likely their *peers* would be to engage in the partner’s action. Previous research argues that by asking participants what their peers would do, they may be more likely to respond with accurate estimates of their own intentions, due to the social desirability of the action (e.g., Cohen, Pant, & Sharp, 1995; Shafer, 2002). However, perceived behavioral intentions of peers is not of interest in this study.

gender as a control variable; however, the results from this analysis (not reported) do not differ from those reported in the paper.

#### 4.2. Tests of hypotheses

The experiment was designed to test for the associations between two independent variables and three dependent measures. A multivariate analysis of variance (MANOVA) is appropriate in order to control the experiment-wide error rate for multiple dependent measures and also because of the potentially high correlations among the dependent variables (Hair, Anderson, Tatham, & Black, 1998). Furthermore, it is appropriate to verify that the independent variables have an overall significant association with the group of dependent measures. A MANOVA was performed with client risk and moral development as the independent variables, and ethical judgment, behavioral intentions of students, and behavioral intentions of peers as the dependent measures. The results of the test, shown in Table 2, indicate significant overall associations for moral development ( $p = 0.014$ ) and client risk ( $p < 0.001$ ). Table 2 also shows that the overall interaction between moral development and client risk is not significant ( $p = 0.222$ ). However, as described in more detail

Table 2  
Multivariate analysis of variance (MANOVA)<sup>a</sup>

Factor	<i>F</i>	<i>p</i> -Value <sup>b</sup>
Moral development	3.10	0.014
Client risk	17.20	<0.001
Moral development × client risk	0.09	0.222

<sup>a</sup> *F*-statistics and *p*-values are based on Wilks' Lambda.

<sup>b</sup> All reported *p*-values are 1-tailed.

Table 3  
Analysis of variance (ANOVA) for *ethical judgment*<sup>a</sup>

Source of variance	Sum of squares	df	<i>F</i>	<i>p</i> -Value
<i>Panel A: Analysis of variance</i>				
Moral development	7.75	1	1.79	0.092
Client risk	149.43	1	34.52	<0.001
Moral development × client risk	5.21	1	1.20	0.137
Error	787.84	182		
	Moral development			
	Low	High		
<i>Panel B: Means (Standard deviation)</i>				
Low client risk	−0.45 (2.15)	−0.52 (2.53)		−0.48 (2.33)
High client risk	−1.91 (1.96)	−2.65 (1.61)		−2.30 (1.82)
	−1.14 (2.18)	−1.65 (2.34)		

<sup>a</sup> Rated on a scale anchored "Very Unethical" (−5) to "Very Ethical" (5).

Table 4  
Analysis of variance (ANOVA) for behavioral intentions<sup>a</sup>

Source of variance	Sum of squares	df	F	p-Value
<i>Panel A: Analysis of variance</i>				
Moral development	15.40	1	3.00	0.043
Client risk	241.21	1	46.97	<0.001
Moral development × client risk	0.37	1	0.07	0.394
Error	934.71	182		
	Moral development			
	Low	High		
<i>Panel B: Means (Standard deviation)</i>				
Low client risk	-0.29 (2.62)	-0.77 (2.57)		-0.52 (2.59)
High client risk	-2.48 (2.01)	-3.14 (1.76)		-2.83 (1.90)
	-1.32 (2.58)	-2.02 (2.47)		

<sup>a</sup> Rated on a scale anchored “Not Very Likely” (-5) to “Very Likely” (5).

below, we rely on a more appropriate method (i.e., contrast coding) for analyzing *a priori* ordinal interactions. The associations of the two significant independent variables with each individual dependent measure, as well as the contrasts, are evaluated in order to test the hypotheses.

Hypotheses 1a and 1b address the association between moral development and the dependent measures. Specifically, H1a predicts that students with higher moral development will view an auditor’s acceptance of earnings management as less ethical than will students with lower moral development. The results of an ANOVA indicate significant differences in students’ ethical judgments (Table 3, Panel A,  $p = 0.092$ ). Students with higher moral development exhibited a lower mean acceptance rating (-1.65) than did students with lower moral development (-1.14), as shown in Panel B of Table 3.

Hypothesis 1b predicts that students with higher moral development will be less likely to accept earnings management than those with lower moral development. Results of an ANOVA indicate significant differences in students’ behavioral intentions (Table 4, Panel A,  $p = 0.043$ ). Descriptive statistics in Panel B of Table 4 show that students with higher moral development rated themselves as less likely to accept earnings management (-2.02) than students with lower moral development (-1.32), supporting H1b.<sup>11</sup>

Hypotheses 2a and 2b examine the association between client risk and students’ ethical judgments and behavioral intentions. Hypothesis 2a predicts that students in the high client risk scenario will view the auditor’s acceptance of earnings management as more unethical than those in the low client risk scenario. The results of a univariate ANOVA indicate significant differences in students’ ethical judgment (Table 3, Panel A,  $p < .001$ ). Panel B of Table 3 shows that students in the high client risk scenario viewed the acceptance of earnings management as less ethical than those in the low client risk scenario (-2.30 and -0.48, respectively), supporting hypothesis 2a.

<sup>11</sup> Perceptions of the behavioral intentions of peers are not affected by moral development.

Table 5  
Analysis of hypothesized interaction: effects of moral development at levels of client risk

Contrast	df	<i>F</i>	<i>p</i> -Value		
<i>Panel A: Contrast<sup>a</sup></i>					
Overall (MANOVA)	180	17.90	<0.001		
Ethical judgment (ANOVA)	182	38.29	<0.001		
Behavioral intentions (ANOVA)	182	49.24	<0.001		
Dependent variable	Participants with		Mean difference	<i>F</i>	<i>p</i> -Value
	Low moral development	High moral development			
<i>Panel B: In the high risk scenario</i>					
Ethical judgment (mean)	-1.91	-2.65	0.74	4.016	0.024
Behavioral intentions (mean)	-2.48	-3.14	0.66	2.912	0.046
<i>Panel C: In the low risk scenario</i>					
Ethical judgment (mean)	-0.45	-0.52	0.07	0.023	0.440
Behavioral intentions (mean)	-0.29	-0.77	0.48	0.815	0.185

<sup>a</sup> Contrast weights are +3 for the high risk/high moral development group, +1 for the high risk/low moral development group, and -2 for each low risk group.

Hypothesis 2b predicts that students in the high client risk scenario will be less likely to accept earnings management than those in the low client risk scenario. Results of an ANOVA indicate significant differences in students' behavioral intentions (Table 4, Panel A,  $p < 0.001$ ). Sample means, shown in Panel B of Table 4, reveal that students in the high client risk scenario rated themselves as less likely to accept earnings management than those in the low client risk scenario (-2.83 and -0.52, respectively). This result supports H2b.<sup>12</sup>

Hypotheses 3a and 3b posit that client risk moderates the influence of moral development on ethical judgments. The hypothesized interactions are ordinal, where the association between moral development and evaluations will be greater when moral intensity is greater. As indicated in Table 2, the interaction effect is not significant in the traditional MANOVA. However, these results may be misleading. According to Buckless and Ravenscroft (1990) and others (e.g., Rosnow & Rosenthal, 1995), the most appropriate method for analyzing such *a priori* interactions is contrast coding. Traditional analysis of variance models are inappropriate in this situation because they spread variance due to ordinal interaction effects to both main effects and the interaction (Buckless & Ravenscroft, 1990). Therefore, we use contrast coding to analyze the predicted interaction.

We follow Rosnow and Rosenthal (1995) and use contrast weights of +3 for the high risk, high moral development group, +1 for the high risk, low moral development group, and -2 for each low risk group. As can be seen in Table 5, Panel A, the contrast is statistically significant ( $F = 17.90$ ,  $p < 0.001$ ). We also separately calculated contrasts for the two dependent measures. Results show significant contrasts for both ethical judgments ( $p < 0.001$ ) and behavioral intentions ( $p < 0.001$ ).

<sup>12</sup> Perceptions of the behavioral intentions of peers are similarly affected by client risk.

Panels B and C of Table 5 report the association between moral development and ethical judgments and behavioral intentions at fixed levels of client risk. Panel B shows significant differences in ethical judgments ( $p = 0.024$ ) and behavioral intentions ( $p = 0.046$ ) for students in the high risk scenario. Students with higher moral development viewed the acceptance of earnings management as more unethical ( $-2.65$ ) than students with lower moral development ( $-1.91$ ). Further, students with higher moral development were less likely to accept earnings management ( $-3.14$ ) than were students with lower moral development ( $-2.48$ ). However, as shown in Panel C, we observe no statistically significant difference between the ethical judgments ( $p = 0.440$ ) or behavioral intentions ( $p = 0.185$ ) of students with higher and lower moral development that received the low client risk scenario. These results support hypotheses 3a and 3b.

## 5. Discussion

The often-quoted speech of Arthur Levitt on “The Numbers Game” has brought earnings management to the forefront of concern over accounting ethics (Levitt, 1998). Earnings management, particularly when the auditor is pressured by the client to accept it, provides a realistic context in which to study the ethical judgments of accounting students. Understanding how students make ethical judgments when faced with a professional ethics issue can help accounting education researchers effectively identify areas where sound professional judgment may be lacking and tailor future research and teaching efforts accordingly.

Previous research has shown that accountants with higher moral reasoning generally make more ethical judgments and act in a more ethical manner than accountants with lower moral reasoning (e.g., Arnold & Ponemon, 1991; Bernardi, 1994; Ponemon, 1992; Ponemon, 1993b; Ponemon & Gabhart, 1990, 1993; Tsui & Gul, 1996; Windsor & Ashkanasy, 1995). With the goal of improving accountants’ ethical decision-making, research has sought ways to increase accountants’ moral reasoning through ethics education (e.g., Armstrong, 1993; Eynon et al., 1997; Ponemon, 1993a; Shaub, 1994; St. Pierre et al., 1990; Wright et al., 1998). An important implication of this study is that it shows that high moral reasoning does not necessarily translate into more ethical decision-making. We found no difference in ethical decision-making between students with high and low moral reasoning, when they were faced with an ethical dilemma of low moral intensity. Consistent with Jones’ (1991) second proposition, the results of this study indicate that students do not utilize their full moral reasoning abilities when making decisions in situations of low moral intensity. This result implies that students only utilize their moral reasoning abilities when faced with issues of higher moral intensity. Therefore, efforts of educators to increase students’ moral reasoning may fall short of the goal of improved ethical decision-making.

Another implication for accounting research is that any study investigating the association between moral reasoning and decision-making should consider the moral intensity of the issue under investigation. This is an important methodological concern because it can potentially explain why a study might find a weak or non-existent relationship between moral reasoning and ethical judgments and/or decisions. Researchers should consider whether the issue in question is sufficiently morally intense to trigger utilization of moral reasoning.

The results reported here provide several avenues for future research. One potentially fruitful area would be to investigate whether attempts to sensitize students to issues of lower moral intensity could mitigate the results found here. Previous research suggests that exposing students to a stakeholder framework may increase their ability to recognize ethical issues of lower moral intensity (Wright et al., 1998). Future research could investigate whether this increased awareness leads to increased utilization of moral reasoning for issues of lower moral intensity.

A limitation of this study is that we are unable, provided the design of the experimental instrument, to determine which specific risk cues (or “red flags”) may be influencing students’ ethical judgments. For example, it may be that cues regarding the control environment are much more influential than cues regarding the client’s industry. Future research might address this issue. Also, future research might identify individual characteristics other than moral reasoning to better predict ethical decision-making in situations of low moral intensity.

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