The Impact of Business Education on Moral Judgment Competence: An Empirical Study

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ABSTRACT. This study uses theories of moral reasoning and moral competence to investigate how university codes of ethics, perceptions of ethical culture, academic pressure from significant others, and ethics pedagogy are related to the moral development of students. Results suggest that ethical codes and student perceptions of such codes affect their perceptions of the ethical nature of the cultures within these institutions. In addition, faculty and student discussion of ethics in business courses is significantly and positively related to moral competence among students. Our results point to the need to further examine the connections among academic institutional structures, ethics pedagogy, and students' moral development.

KEY WORDS: business education, ethical culture, ethics teaching, moral competence, moral judgment, moral reasoning

Introduction

Corporate scandals in companies such as Enron and WorldCom have raised the consciousness of business educators to the issues of ethics sensitivity and training as responsibilities of business education. Practitioners, teachers, consultants, and researchers alike have come to question the ethical basis of decisions made by business executives and the very way in which those decisions affect customers, clients, students, and the public's perceptions of business institutions. Some faculty members are even contemplating if their professional practices potentially contributed to these scandals [reflected in the recently adopted ethical standards by the Association to Advance Collegiate Schools of Business (AACSB) and the extra emphasis on the discussion of ethics encountered at recent Academy of Management (AOM) meetings]. After all, most of the executives

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and their subordinates caught in legal and ethical dilemmas hold business degrees, some from prestigious business schools. In his recent book examining MBA education, Mintzberg (2004) reports that Enron alone had hired 250 new MBA's each year in the 1990's (p. 152). Has the culture of business educational institutions and the teaching of business principles and practices contributed to the moral reasoning (or lack thereof), moral competence (or incompetence), and associated behaviors that the individuals involved in these scandals displayed? What impact, positive or negative, has business education had? Although the AACSB has encouraged business schools to include ethics in their curricula as far back as 1976 (Conaway, 2000), and has considered recent recommendations to require ethics courses in the curricula for business schools seeking AACSB accreditation or re-accreditation (Swanson and Frederick, 2003), recent scandals in corporate America have raised serious doubts as to the quality and effectiveness of ethics instruction and how ethics has been integrated into business curricula.

This research examines the impact that overall academic environment and teaching practices have in shaping everyday ethical decisions of future business leaders. Specifically, we assess the effects that ethical codes and culture (established within the educational institutional environment) as well as the teaching practices of business school faculty have on the moral reasoning and competence of business students. We try to shed light on whether or not business schools are enhancing the moral judgment competence of students by teaching them the requisite reasoning skills to effectively deal with the ethical dilemmas they are likely to encounter in their professional and personal lives after graduation.

In this study, we administered surveys to students from three educational institutions with different approaches to establishing and maintaining ethical cultures. Specifically, we examined the links between mechanisms for establishing ethical cultures within the different institutions and the perceptions of ethical culture among students attending these three schools. In addition, we explored the relationships among students' self-reports of witnessing unethical behavior in the institutional environment and their experiences of academic pressures on their moral judgment competence. Lastly, we examined relationships between ethics integration in teaching (e.g., the extent to which ethical topics are discussed or explored in business courses) and students' moral judgment competence.

In the following section, we review the literature on moral reasoning and competence, specifically focusing on how the aspects of academic environment may affect student ethical decision-making. Then we present hypotheses that examine the relationships among aspects of the teaching environment and students' moral reasoning and competence.

Literature review

Moral judgment competence: moral reasoning and moral competence

Kohlberg (1964, p. 425) defined moral judgment competence as "the capacity to make decisions and judgments which are moral (i.e., based on internal principles) and to act in accordance with such judgments." Thus, Kohlberg's theory of moral development emphasizes the cognitive basis of moral judgment competence, and its relationship to moral behavior. The key assumption in Kohlberg's theory is that unethical behavior reflects the absence of moral precepts and principles that might guide behavior (Baxter and Rarick, 1987). In addition, Kohlberg asserts that reasoning processes are developmental in nature and that an individual progresses through stages of moral reasoning (Green, 1997). Past research has shown that the stages of moral development are positively related to moral behavior (Kohlberg, 1964; Rest, 1979). In addition, Colby and Kohlberg (1987) found adult moral development was positively influenced by higher education and was not so much a reflection of IQ, but of the educational experience itself.

Thus, one component of moral judgment competence is moral reasoning, which has been defined as "individual or collective practical reasoning about what, morally, one ought to do" (Richardson, 2003). Moral reasoning indicates individual ethical sensitivity, and can be operationalized as individual moral reasoning capacity (Thorne, 2000). The extensively used Defining Issues Test (DIT), based on Kohlberg's theory of moral development, assesses moral reasoning. Theory suggests that the relationship between DIT scores and behavior is linear (Kohlberg, 1964; Rest, 1979); however a recent

study by Bay (2001) indicates that the intensity of an ethical dilemma affects the decision-making and behavior of individuals. The DIT remains a strong and valid instrument, but it must also be recognized for its weakness – it assesses an individual's moral attitudes, which are not necessarily an indication of his or her moral judgment competence (Jones, 1991; Lind, 2002).

The other component of moral judgment competence, moral competence, is the ability to make an ethical decision. The concept of moral competence delineates the knowledge and skills that one possesses and is capable of incorporating into an assessment and response to a situation, particularly those situations that incorporate a moral dimension (Catalano, 1999). It is an individual's capability to identify the features of a moral situation, analyze them, and plan to behave in a certain way in response (Podolskiv, 2005). Moral competence, then, leads to the selection of a course of action or a behavior ultimately taken by the individual. Once the person can evaluate the moral constraints of a situation, he/she can then decide how to behave in that situation. It is the level of moral competency that determines the behavior.

Lind (2002) posits that to be moral, a behavior needs to be guided by moral ideals or principles; however, in order to be morally mature, a behavior must also be founded on developed reasoning competence. Lind argues that moral principles and judgment competencies are different aspects of moral judgment competence citing the work of Kolhlberg (1964). The capacity to be moral reflects both principles (i.e., moral judgment) and competence (i.e., ability to make the ethical decision). Subsequently, he developed the Moral Judgment Test (MJT) to assess the competence component of moral judgment competence.

Although the stages of moral development are intended to reflect the moral maturity of the individual, research suggests that the situation and the environment strongly influence the stages of moral development (Green, 1997; Luthar, 1997; Mc Devitt, 2002). Therefore, individuals might be sensitive to moral issues, but the situation or organizational environment might affect their capacity to make an ethical decision (Trevino et al., 1998). Although behavior is not a subject of our study, Figure 1 reflects the process by which moral reasoning, moral competence, and moral behavior are related.
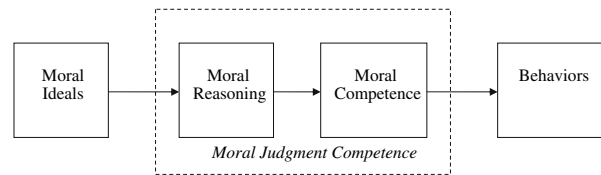

Figure 1. Kohlberg's theory of moral judgment competence as interpreted from Kohlberg (1964).

As indicated earlier, moral development progresses through stages, beginning in early childhood and continuing through adulthood (Schulman, 2002). Kohlberg (1981) claimed that higher stage judgments are objectively "better" and therefore more desirable than lower stage judgments according to both cognitive and moral criteria. He argued that stage five judgments are more cognitively complex (more differentiated) than lower stage judgments. Empirical research has found significant relationships between moral development stage and such behaviors as student cheating, resisting pressure from an authority figure, helping behavior, and whistle-blowing (Trevino, 1992). One model of ethical decision-making in organizations postulates that moral decisions are the result of cognitions, influenced by the individual's stage of cognitive moral development, individual moderators (e.g., ego strength, field independence, locus of control), and situational moderators (e.g., factors in the immediate job context, organizational culture, and characteristics of the work) (Trevino, 1986). Individuals at lower levels of moral development are more susceptible to influence from both these individual and situational moderators (Trevino, 1986). Since the moral development stage of individuals is an important component for making moral decisions (Baxter and Rarick, 1987; Kohlberg, 1964; Rest, 1979), it is critical that educators help students achieve the highest moral development stage possible by exposing them to ethical principles and practices in the college setting.

Due to the complexity of the situation that decision makers confront (Jones, 1991; Jones and Ryan, 1998; Trevino et al., 1998), and the fact that each individual brings in his or her own set of values (Jones and Ryan, 1997), the concept of morality centers not necessarily on ethical values, but on moral judgment, or the manner in which individuals reason through ethical problems (Kohlberg, 1964;

Rahim et al., 1999). A special emphasis is put not only on the capacity to make decisions and judgments that are moral, but to act in accordance with such judgments (Kohlberg, 1964; Lind, 2002), where regardless of the situational pressures, an individual's moral principles persist (Schulman, 2002). Therefore, our study focuses on measuring both student moral reasoning and moral competence to determine if and how the ethical climate of the educational institution and business education practices affect these processes.

Business education and moral judgment competence

Numerous studies have examined the subject of student moral development and reasoning, and the link to moral behavior in a variety of ways. Previous research has used student cheating as a manifestation of moral reasoning and moral behavior. Studies have sought to explain student cheating through a situational approach (McCabe and Trevino, 1993), or have looked at the moral development of cheaters (Blatt and Kohlberg, 1975).

Although Kohlberg sought the reasoning behind the answers (i.e., cognitive process) about morality, the study of moral development among business students raises questions about the link between moral reasoning, moral judgment, and situational factors in the educational environment. We agree with the arguments made by Kohlberg (1984) that moral judgment competence is reflective of the relationship between the individual and society, and is the product of the individual, and his/her surroundings (O'Connor, 2002). We do not assume, however, that educational climate and practices systematically affect the moral reasoning of students in a positive manner. On the contrary, O'Connor (2002) found that military educational settings had a negative influence on the stages of moral development of cadets, with a noticeable reversal in stages for graduating cadets. O'Connor explained these findings as due to the exposure of cadets to a strict regimented culture in the academy (i.e., restrictive environment, peer pressure, and institutional dogma). The severe pressures to conform to this culture might have influenced cadet moral development negatively by displacing the locus of responsibility for moral behavior from the individual to the situation.

Recent corporate scandals point to the importance of researching ethical decision-making and its development in the context of business education. Referent group factors, in the form of peer group influence, top management influence, and rewards and sanctions, have been shown to influence ethical behavior in individuals in business settings (Ford, 1994; Trevino et al., 1998). There is limited research on the impact that business curricula and the learning environment have on moral reasoning and moral competence among students. Therefore, our study sought to determine the extent to which ethical policies of the institution, ethical culture, and ethics education have on student moral reasoning and judgment competence.

Since moral reasoning has been found to be positively related to the level of education (Eynon, 1997; Shenkir, 1990; Thorne, 1999), it could be assumed that college-educated executives who behave unethically are indeed sensitive to ethical issues as a result of their education. However, the situations they face in making business decisions may have overridden their cognitive processes, including their moral reasoning, and subsequently affected their moral competence. While examining the effects of both individual and situational variables in moral decision-making, past research has shown that situational variables, including organizational codes of conduct, the ethical climate, or culture of the organization, and organizational size, have consistent relationships with moral competence and ethical behavior (Trevino et al., 1998). It is therefore reasonable to assume that codes of ethics and ethical culture and practices in educational institutions might contribute to moral competence and ethical behavior among business students.

Theory and hypotheses

Mechanisms to enforce ethical culture

The empirical literature on codes of ethics suggests that such codes are surrogate indicators of top management's commitment to ethical behavior and that they will positively influence an employee's ethical beliefs and decision behavior (Ford, 1994). Trevino and colleagues (1998) found that a strong ethical culture has a significant impact on the organizational commitment and ethical conduct of individuals in

the workplace. Thus, we can speculate that a strong ethical culture in an educational setting might have similar effects on students' attitudes and conduct. In the educational environment, (McCabe and Trevino, 1993; McCabe and Trevino, 1997) presented evidence that academic honor codes, when used with contextual factors, are strong mechanisms for preventing academic dishonesty. The factors that were found to play an important role in preventing academic dishonesty were perceptions of peers' behavior, and to a lesser degree, perceived severity of penalties, certainty of being reported, and the degree to which the academic integrity policies were understood by students and faculty. Further, McCabe et al. (2002) have shown that traditional honor codes are most effective for reducing dishonesty, but modified honor codes work effectively also, especially as compared to having no codes at all. Therefore, stronger codes of ethics and code reinforcement mechanisms should send students a signal about the nature of the ethical culture of the institution.

While the above research has examined the effects of honor codes on student academic dishonesty, we could find no studies that explored the relationship between the presence of strong ethical codes and student perceptions regarding the ethical climate of the institution, other than those that examined the service academies. We argue that strong codes and the potentially strong ethical climates that codes might promote should provide an atmosphere conducive to student moral development. Accordingly, we propose the following hypotheses to examine the links between educational institution differences in codes of ethics and student perceptions of the ethical culture.

> *Hypothesis 1a.* The stronger the institution's code of ethics, the greater the student perceptions of the ethical culture of the institution.

A second related hypothesis looks at the connection between student perceptions of the institution's approach to ethics as a reflection of the official ethical stance of the institution and their perceptions of ethical culture. In other words, just because an institution outwardly proclaims that it has a focus on ethical concerns through strong and clear codes of ethics and reinforcement practices, it does not mean that students see such institutions as having a strong stance on ethics. Student perceptions of the culture

might be more directly influenced by what they perceive the organization is doing with regard to publicizing and reinforcing its code of ethics rather than what the institution is claiming with regard to ethical codes. Therefore, we propose:

> *Hypothesis 1b.* Student perceptions of the strength of the institution's code of ethics will mediate the relationship between the ranked strength of the institution's code of ethics and student perceptions of the ethical culture of the institution.

Educational experience, moral reasoning, and moral competence

Given that moral action takes place in a social context, situational variables are said to play an important role in shaping moral behaviors (Jones and Ryan, 1998; Trevino, 1986). Therefore, we posit that situational variables have a moderating effect on the moral judgment competence of business students during their tenure. For example, research by Bernardi et al. (2004) suggests that cheating behavior is related to situational factors, such as pressures to cheat and likelihood of being caught, and is less dependent upon moral development as measured by the DIT. Two situational variables that we examine in this study are: (1) perceptions of unethical behavior by others in the educational environment, and (2) experiencing pressures from various significant others, including classmates, professors, and family and friends to do well academically (Trevino, 1986). Previous research has shown that the perception of peer behavior is one of the most influential factors on student cheating under the situations of a code of conduct, a modified code of conduct, and no code of conduct (McCabe et al., 2002). Therefore, if students see their peers behaving unethically, they might reason and decide that it is acceptable for them to behave unethically also. Therefore, we propose:

> *Hypothesis 2a.* Students who report witnessing unethical behavior at their institutions will have lower moral reasoning and moral competence than students who do not report witnessing unethical behavior.

While previous research has established perception of peer behavior as an important factor in student cheating

behavior, there may be other pressures on students to behave dishonestly. If students perceive that family members or faculty are placing a great deal of pressure on them to do well in school, students may decide that they have to "cut corners" in order to succeed academically, much like employees may feel pressure from their bosses to engage in questionable ethical practices to complete assignments successfully in a timely and cost-efficient manner (Trevino, 1986). Therefore, the following hypothesis tests if pressure to excel academically from significant referent others leads to lower moral competence. Since the focus is on intent to behave as a direct result of pressures, we do not expect pressures to affect moral reasoning but we do expect them to influence moral competence.

> *Hypothesis 2b.* The more that students feel pressure from family, peers, and faculty to excel academically, the lower their moral competence.

Ethical pedagogy, moral reasoning, and moral competence

The relationship between education and moral reasoning has wide support (Eynon, 1997; Shenkir, 1990; Thorne, 1999), with most research using number of years of schooling to measure education. However, there is little insight on the effect that specific teaching practices have on an individual's moral reasoning and competence. We argue that examining the effects of teaching practices and the integration of ethics across the core business courses on student capability to recognize ethical issues and form judgments or courses of action in response to such issues might be fruitful. In particular, pedagogical practices that expose students to ethical issues and dilemmas in an active manner may encourage greater development of moral reasoning and competence.

Faculty who teach business courses may have an impact on the sensitivity and appreciation for ethical issues that students take away from such courses. Therefore, the pedagogical components faculty utilize in managing their courses, such as prescriptions in course syllabi that emphasize ethical behavior as well as the course topics they choose to emphasize may have an effect on students' moral development

and reasoning. In addition, teaching practices that attempt to engage students actively in classroom discussions on ethical issues might enhance moral development, and continue sensitivity to moral issues after students complete the courses. These speculations lead to the following hypotheses:

> *Hypothesis 3a.* Students who recall faculty discussing ethics in their business core courses will have higher moral reasoning and moral competence than those who do not.

> *Hypothesis 3b.* Students who participate in discussions on ethics in their business core courses will have higher moral reasoning and moral competence than those who do not.

Methodology

Participants

Survey participants were all enrolled in business core courses during the spring semester 2003 at three higher education institutions in the northeastern region of the U.S. They were mostly undergraduate students, with some graduate students where such programs were available. The study complied with all Institutional Research Review guidelines set by the various institutions and received appropriate approvals. The total student sample consisted of 23 undergraduate students from institution one, 311 undergraduate students from institution two, and 487 undergraduate and 78 graduate students from institution three. The response rates varied between 14 and 32 percent (we do not disclose institution specific response rates to ensure anonymity). Out of 821 total undergraduate respondents, 56% were male and 44% were female, with these numbers being consistent with those reported by AACSB (2004) for business school enrollments (i.e., 55% male and 45% female). Of the 78 graduate students in our sample, 73% were male and 23% were female (two respondents did not disclose their sex), compared with AACSB graduate enrollments being 65% male and 35% female. Therefore, our sample of graduate students is over-represented by men and under-represented by women compared to the national population of graduate students.

Measures

Participants had the opportunity to complete a hardcopy version of the questionnaire in class or as a take-home assignment. In some cases, students could complete a web-based version of the instrument outside of class. On-line surveys accounted for only 70 of 899. Most students earned extra credit in their courses as an incentive to participate in the study.

The questionnaire consisted of four sections. Section one asked basic demographic information, such as gender, year of birth, class level, part- vs. full-time student status, years of work experience, degree program, major, and university that one attends. In addition, we asked participants if they had witnessed cheating in high school and in college (Yes/No responses). Participants also were asked about their perceptions of the code of ethics at their respective institutions by a single item (i.e., "I believe that < institution > has a strong code of ethics") using a five-point Likert-type scale (1 = strongly disagree to 5 = strongly agree). Similarly, a single item was used to measure student perceptions of the ethical cultures of their institutions (1 = strongly disagree to 5 = strongly agree). Lastly in this section, students were asked in three items (1 = strongly disagree to 5 = strongly agree) whether they feel pressure from family members, fellow students, and faculty to excel academically.

Section two asked participants if they recalled faculty members discussing ethics in core business courses they had taken or were currently taking, and whether they had engaged in these discussions. Participants were presented with a list of core business courses and asked if they had (or were currently taking) each of the courses and if so, were asked to respond "yes," "no," or "I don't remember" to questions of recalling whether faculty discussed ethics in that course and whether the respondent had participated in discussions on ethics in that course.

The third section consisted of the short version of the scenario-based *Defining Issues Test* (DIT) developed by James Rest (1979), which is the most widely recognized and reliable measure of moral reasoning in the field to date. Specifically, participants read three different scenarios and responded to 12 questions/items in terms of their importance in making a decision about the scenario. Then after rating each of these 12 statements, we asked participants to select the four most important statements and rank them.

Using scoring protocols developed by Rest, we calculated the P-scores. Higher scores indicate higher moral reasoning. We arbitrarily decided to use the P-scores over the D-scores to represent moral reasoning given that research using this instrument has not indicated that one type of score is superior to the other. Using the strict protocols designed by Rest to ensure reliable measurement, we had to discard 465 scores (slightly over 50% of our total sample) due to incomplete or inconsistent responses. In previous research using the DIT, the number of discarded scores due to inconsistencies is usually 15%. We believe that our high number of inconsistencies is due to the limited time faculty provided students to complete the hard copy of the instrument in class.

The fourth and last section of the questionnaire consisted of the items that measured moral competence. Similar to the DIT, the *Moral Judgment Test* designed by Lind (2002) is also a scenario-based measure. Participants read two stories, and responded to 13 items. The first item asked if the participant agreed or disagreed (seven-point scale) with the behavior illustrated in the story. The next six items asked if the participant thought various arguments were acceptable to them in supporting the behavior illustrated in the story (nine-point scale from strongly reject to strongly accept) and the last six items asked if various arguments were acceptable to them in rejecting the behavior in the story (nine-point scale from strongly reject to strongly accept). We constructed C-index scores based on protocols developed by Lind, with higher scores indicating higher moral competence.

Results

Table I shows the correlations among selected study variables. Moral competence is positively related to moral reasoning ($r = 0.096$, $p < 0.05$) and age ($r = 0.082$, $p < 0.05$), while it is negatively related to perceived strength of code of ethics ($r = -0.078$, $p < 0.05$) and perceived pressures to excel academically ($r = -0.057$, $p < 0.10$). Moral reasoning is related to gender ($r = 0.173$, $p < 0.01$), with women indicating higher moral reasoning than men, and is positively related to perceptions of ethical culture ($r = 0.108$, $p < 0.05$). Perceived strength of

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TABLE I

Correlations among selected study variables

	Moral Competence	Moral Reasoning	Gender	Years of Experience	Age	Perceived Strength of Code of Ethics	Perceptions of Ethical Culture	Perceived Pressure to Excel Academically
Moral Competence	1							
Moral Reasoning	0.096★	1						
Gender	0.009	0.173★★	1					
Years of Experience	−0.014	0.023	−0.046	1				
Age	0.082★	0.068	−0.026	0.521★★	1			
Perceived Strength of Code of Ethics	−0.078★	0.091	−0.026	−0.032	−0.116★★	1		
Perceptions of Ethical Culture	0.000	0.108★	0.015	.007	−0.028	0.591★★	1	
Perceived Pressure to Excel Academically	−0.057†	−0.009	0.002	−0.178★★	−0.275★★	0.152★★	0.163★★	1

★★Correlation is significant at the 0.01 level (2-tailed).
★Correlation is significant at the 0.05 level (2-tailed).
†Correlation is significant at the 0.10 level (2-tailed).

the school's code of ethics is negatively related to age ($r = -0.116$, $p < 0.01$) and positively related to both student perceptions of an ethical culture ($r = 0.591$, $p < 0.01$) and pressures to excel academically ($r = 0.152$, $p < 0.01$). Lastly, the greater the perceptions of ethical culture, the more pressure students feel to excel academically ($r = 0.163$, $p < 0.01$).

The following describes the results of the testing of the hypotheses.

> *Hypothesis 1a.* The stronger the institution's code of ethics, the greater the student perceptions of the ethical culture of the institution.

The three educational institutions in which the students in our sample were enrolled had very different codes of ethics and code reinforcement practices. Consequently, the authors ranked the institutions according to the strength of their codes of ethics and reinforcement practices. The institution ranked highest (1) required that all students take and sign a pledge to behave honorably by following a code that was outlined in the student handbook. All faculty members were expected to reinforce this code in the conduct of their courses. The institution ranked second highest (2) had a code of ethics in place, and also reinforced it by having students take a pledge at convocation whereby students agreed to follow the code and to behave accordingly. The third-ranked institution had a code of ethics outlined in the student handbook, but it made no effort to reinforce the code through public pledges or course expectations.

To test Hypothesis 1a, we ran an ANOVA to examine any mean differences in student perceptions of codes of ethics across institutions. The ANOVA indicated that no group differences existed among the three institutions ($F = 2.195$, df = 2, 894, $p < 0.112$), with group means of 3.43, 3.66, and 3.56, for those institutions ranked one, two, and three, respectively. Therefore, we rejected Hypothesis 1a.

> *Hypothesis 1b.* Student perceptions of the strength of the institution's code of ethics will mediate the relationship between the ranked strength of the institution's code of ethics and student perceptions of the ethical culture of the institution.

Following Baron and Kenny's (1986) procedures for testing mediation, since we found no relationship between the institutions' ranks on codes of ethics and reinforcement practices and student perceptions of ethical culture of the institutions, we could not test the mediating effect of student perceptions of the institution's code strength regarding ethics. Therefore, we rejected Hypothesis 1b. However, we decided to explore the relationships among our rankings of the strength of the three institutions' codes of ethics, student perceptions of the strength of their institution's code of ethics, and student perceptions of ethical culture.

First, we performed an ANOVA to compare our rankings of the institutions to students' perceptions of code strength and found significant differences ($F = 6.58$, df = 2, 817, $p < 0.001$). A post-hoc analysis of the group means of student perceptions (3.83, 3.67, and 3.49 for those institutions ranked one, two, and three, respectively) indicates that Institution 1 had a marginally significantly higher mean than Institution 3 ($p < 0.07$) (with no significant difference between Institutions 1 and 2), and Institution 2 had a significantly higher mean than Institution 3 ($p < 0.05$) suggesting that institutions that we ranked strongest on ethical code and reinforcement mechanisms were perceived by students as the strongest on code strength.

Second, we examined the relationship between students' perceptions of the strength of their institution's code and their perceptions of the ethical culture of the institution, and found a correlation of 0.59 ($p < 0.001$) between these two variables (see Table I). Taken together, these results seem to suggest a positive relationship between student perceptions of the strength of an institution's code of ethics and our rankings (based on official code promulgation practices), and student perceptions of the code strength are positively related to their perceptions of an ethical culture. Since Hypothesis 1a was not supported, it appears that student perceptions of code strength are more highly related to their perceptions of an ethical culture than espoused institutional codes and practices.

> *Hypothesis 2a.* Students who report witnessing unethical behavior at their institutions will have lower moral reasoning and moral competence than students who do not report witnessing unethical behavior.

We divided participants into two groups based on whether they responded ''yes'' or ''no'' to the

question of whether they witnessed unethical behavior at their institutions. We then calculated mean P-scores for moral reasoning and mean C-index scores for moral competence for each group. The mean P-Score of respondents who did not report witnessing unethical behavior was 24.54 (SD = 17.34), compared to the mean P-Score of 27.85 (SD = 16.01) for those who did report witnessing unethical behavior. The mean C-Index of respondents who did not report witnessing unethical behavior was 17.22 (SD = 13.56) compared to a mean of 18.26 (SD = 12.95) for those who did report witnessing unethical behavior. Independent *t*-tests on the means of both P-Scores and C-Index scores for the two groups showed a marginal significant difference on respondents' P-Scores ($t = -1.807$, $p < 0.1$), but no significant difference on their C-Index scores ($t = -0.994$, $p < 0.320$). However, the analysis also indicated that students who had witnessed unethical behaviors had *higher* moral reasoning scores (mean = 27.85) rather than lower ones as compared to those who had not witnessed unethical behavior (mean = 24.85), opposite to what was hypothesized. Thus, we rejected Hypothesis 2a.

> *Hypothesis 2b.* The more that students feel pressure from family, peers, and faculty to excel academically, the lower their moral competence.

The three items that measured student perceptions of pressures from family, peers, and faculty to excel academically were summed to form a composite score, and this score was regressed on C-index scores (i.e., moral competence). The regression results indicated that the relationship was marginally significant ($F = 2.771$, $df = 1, 846$, $p < 0.10$), with pressure explaining only 3% of the variance in moral competence. Hypothesis 2b was marginally supported.

> *Hypothesis 3a.* Students who recall faculty discussing ethics in their core business courses will have higher moral reasoning and higher moral competence than those who do not.

We tested this hypothesis in three different ways depending on three methods of measuring student recall of faculty discussing ethics in core business courses. In the first method, we divided participants into two groups based on whether they indicated "yes" or "no" to the question of whether or not they recalled faculty discussing ethics in at least one of their courses. Those who answered, "I don't remember" were dropped from the analysis. With regard to examining moral reasoning, 370 respondents (86%) reported that faculty members in at least one of their courses had discussed ethics (mean P-Score = 27.14), compared to 62 respondents (14%) who reported that faculty did not discuss ethics in any of the courses they had taken (mean P-Score = 26.50). An independent t-test indicated that the group means were not significantly different from each other ($t = -0.282$, $p < 0.778$).

With regard to examining moral competence, 723 respondents recalled faculty members discussing ethics (mean C-Index score = 18.36), compared to 127 respondents who reported that faculty did not discuss ethics in any of the courses they had taken (mean C-Index score = 15.82). An independent *t*-test indicated that the group means on moral competence were significantly different ($t = -2.207$, $p < 0.03$). Therefore, these results partially confirm Hypothesis 3a in that students who recall faculty discussing ethics in at least one of their core business courses had significantly higher moral competence scores, but not moral reasoning scores, than those students who did not recall faculty discussing ethics in any of their courses.

The second way we tested Hypothesis 3a was by measuring student recall of faculty discussion of ethics in core business courses by counting the total number of times they recalled faculty discussing ethics, and the third way that we tested this hypothesis was by using percentage of the times that students recall faculty discussing ethics. First, we ran two separate regressions to test whether the number of times and the percentage of times students recalled faculty discussing ethics in core courses predicted P-Scores (i.e., moral reasoning). Neither method yielded significant results. Next, we ran separate regressions to test whether the number of times or the percentage of times that students recalled faculty discussing ethics in core courses predicted C-Index scores (i.e., moral competence). As with the results for the P-scores, neither method yielded significant results.

Taking all these results of testing Hypothesis 3a together, we found only marginal support for a positive relationship between student recall of faculty

discussing ethics in core business courses and moral competence, and no support for the relationship between student recall of faculty discussing ethics and moral reasoning.

> *Hypothesis 3b.* Students who participate in discussions on ethics in their core business courses will have higher moral reasoning and moral competence than those who do not.

Again, we used three methods of measuring student participation in discussions on ethics: grouping based on ''yes'' or ''no'' responses; total number of times students recalled discussing ethics; and the percentage of times students recalled discussing ethics.

First examining the hypothesis with regard to moral reasoning, 264 respondents (61%) reported participating in discussions in at least one of their courses (mean P-Score = 27.87), compared to 168 respondents (39%) who reported that they did not discuss ethics in any of the courses they had taken (mean P-Score = 25.75). Independent t-tests indicated that these two means were not significantly different from each other ($t = -1.314$, $p < 0.190$).

We found no significant relationships with moral reasoning when we measured student recall of participating in ethics discussions as number of times. However, when student recall of participation in ethics discussion was measured as percentage of time, a significant relationship with moral reasoning was found ($F = 4.848$, df = 1, 431, $p < 0.028$), but accounting for only 1% of the variance. Therefore, none of the three methods of testing this hypothesis yielded strong enough results for us to support Hypothesis 3b for moral reasoning.

With regard to examining the hypothesis with regard to moral competence, 479 respondents (56%) recalled participating in ethics discussions in at least one of their courses, compared to 371 respondents (44%) who did not recall discussing ethics in any of their core courses (mean C-Index score = 18.67). Independent t-tests indicated that these two means were marginally significantly different from each other ($t = -1.791$, $p < 0.074$). The other two methods of measuring student participation in ethics discussion yielded non-significant findings. That is, neither the relationship between the total number of times and the percentage of times students recall discussing ethics in their core courses and moral

competence were significant. Therefore, Hypothesis 3b was marginally supported for moral competence.

Discussion

The purposes of this study were to investigate: (1) the impact of codes of ethics and ethics practices on student perceptions of the institution's ethical culture; (2) the impact of students witnessing unethical behavior and pressure from significant others on student moral reasoning and moral competence; and (3) the effect on student moral reasoning and moral competence of faculty and students discussing ethics in business core courses.

Student perceptions of the Institution's ethical culture

Previous research found that organizations' codes of conduct have a positive effect on employee ethical beliefs and decision behavior (Ford, 1994). Similarly, previous studies within educational institutions also found that traditional academic honor codes are strong mechanisms for preventing academic dishonesty (McCabe and Trevino, 1993, 1997). These latter studies noted that modified codes of ethics resulted in higher levels of academic dishonesty than did traditional codes of ethics, but less than when no codes existed. We found no significant differences between students in their assessment of the ethical culture of the institution based on our ranking of the schools on strength of code of ethics. The fact that we found no significant differences among the institutions may be due to two factors: our measurement of strength of code of ethics and the small sample size of students from Institution 1. We did not actually measure the codes and practices that the institutions claimed, but instead relied on official statements regarding these codes and practices to develop our ranking of the institutions on strength of ethics codes and practices. Therefore, the objective variables that we used to rank institutions (e.g., code promulgation, taking pledges, and code reinforcement in the classroom) may not have reflected what the organizations actually do in practice. Secondly, only 23 undergraduate students from Institution 1 participated in the study and the failure to find significant differences may be due to the lack of power to detect an effect due to this small sample size.

However, our exploratory analyses revealed a consistent alignment between our rankings of the schools on code strength and student perceptions of code strength. Institution 1 and 2 were perceived to be significantly stronger on their codes of ethics and reinforcement practices than Institution 3. In addition, the more the students perceived that their school had a strong code of ethics, the more they believed their school had an ethical culture. Further, there is a significant and positive relationship between perception of an ethical culture and moral reasoning ($r = 0.11$, $p < 0.05$). These findings supplement McCabe et al.'s (2002) conclusion that traditional and modified academic codes may be effective in discouraging academic dishonesty. Perhaps establishing a strong code of ethics and reinforcing it through active practices provide the foundation for a strong ethical culture within an educational institution. However, our results seem to suggest that student perceptions of code strength might be a better predictor of ethical culture than espoused practices. As Schein (1985) has argued, what organizational members pay attention to, measure, and control through reward systems, role modeling, teaching, coaching, etc. are the mechanisms used to reinforce values, beliefs, and expectations of the institution. These operational practices must accompany the official policies and codes for them to be taken seriously. Therefore, instituting codes of ethics in educational or business institutions may only be effective to the extent that organizational members perceive that they are implemented and enforced as stated. Otherwise, ethics codes may be perceived at best as irrelevant and at worst as hypocritical as guides for decision-making and action.

Student witnessing unethical behavior and pressure from significant others on moral reasoning and competence

Hypotheses 2a and 2b sought to determine how student observation of unethical behavior and pressure from significant others influenced student moral reasoning and competence. Opposite to what we predicted in Hypothesis 2a, we found that students who reported witnessing unethical behavior within their institutions had marginally higher moral reasoning than those who did not report witnessing unethical behavior. We found no differences with

regard to moral competence. These findings are contradictory to those made by previous researchers who argue that situational variables that promote cheating and other unethical behaviors will negatively affect one's level of moral reasoning and moral competence (McCabe et al., 2002; Trevino, 1986). Our findings prompt us to interpret the relationship between individual moral reasoning and situational variables in a different light. That is, perhaps those students with higher moral reasoning capabilities are more morally aware and sensitive to unethical behavior occurring around them, and thus report more unethical behavior than those with less moral awareness. Similarly, students with less moral awareness and weaker moral reasoning skills may not view some behaviors as unethical. Future research needs to be more carefully designed to tease out causal relationships among situational and individual cognitive variables in explaining ethical decision-making and behavior.

Previous research found that student ethical behavior is influenced to a great degree by peer ethical/unethical behavior (McCabe et al., 2002). We did find marginal significance for Hypothesis 2b, where significant pressure from family, peers, and faculty to excel academically is related to lower moral competence, although only three percent of the variance in this latter variable is explained. Interpreting the results of Hypothesis 2a and 2b together, it seems that ethical sensitivity among students is heightened by the perception that unethical behavior is occurring in the educational environment, but high performance pressures directly placed on students by significant others might affect their moral competence in adverse ways.

Faculty and student discussion of ethics and moral reasoning and competence

Our last two hypotheses tested the relationships among faculty discussing ethics in business core courses, student participation in discussions on ethics in core courses, and student moral reasoning and moral competence. We found marginally significant findings for both Hypotheses 3a and 3b, reflecting higher moral competence for students who remembered faculty discussing ethics at least once in core courses and for students who recalled

participating in ethics discussions in their core courses. Although we found no significant difference for student moral reasoning, perhaps promoting the discussion of ethics in business core courses might be an effective strategy for building students' competence in applying ethics to practical situations. That is, such pedagogical practices might help students develop better moral competence when making decisions in ethically challenging situations, such as those presented in the scenarios. Interestingly, frequency of participation in ethics discussions does not seem to be related to moral competence, in that we found no significant findings for either greater number of times or for percentage of times students recall discussions of ethics. Therefore, it may be the quality rather than the quantity of exposure to ethical situations in the learning environment that is crucial for developing student moral competence.

Limitations and directions for future research

Our study allowed us to examine the relationship between codes of ethics and student perceptions of ethical culture in three different educational institutions, as well as the relationship of various situational variables (e.g., unethical behavior in the environment, pressures from significant others, and course discussions of ethics) to moral reasoning and judgment competence among business students. Our approach to studying moral development among students differed from most previous research that looked at the relationship between academic honesty and codes of ethics since we focused on the impact of culture and pedagogy on the moral development of students. While limited significant findings were realized, the current research does highlight the difficulty in studying student moral development in the context of the academic environment. In particular, the validity of our method of measuring codes of ethics and ethical practices was questionable. We relied on official statements of the institutions to develop a relative ranking system regarding strength of codes, but these may not have reflected what actually happens within the institution. Therefore, in future research, it may be desirable to use descriptions of traditional and modified academic codes to define this variable more accu-

rately and then examine differences among institutions that vary on these characteristics (McCabe et al., 2002).

In addition, another possible limitation in the form of social desirability bias (McCabe et al., 2002) was likely in the present research. While our study did not include self-declaration of unethical behavior and responses were anonymous, there may have been some sensitivity among students with regard to reporting observed academic dishonesty. As pointed out in previous studies, the perceptual measures for our constructs are also another limitation, but unavoidable because this is the most appropriate way to examine people's perception of ethical constructs (McCabe et al., 2002). Also, the complexity of the survey scenarios, which required careful reading and thinking, made them difficult for students to complete reliably and accurately. Consequently, we could not use slightly over 50% of the surveys because of incomplete and inconsistent responses to the DIT scenarios. In future research, web-based administration of the surveys may be a more effective means to gather these kinds of data, as it would eliminate the time factor for completion otherwise imposed when the surveys are administered during class.

A further limitation concerns the lack of regional diversity in the kinds of schools included in the study. All were located in the Northeast U.S., with one having very few students participating in the study. In addition, we cannot generalize our results to students who are not taking business classes. Future research should examine a greater diversity of educational institutions and majors.

Lastly, our study highlights the need for further research on the complex relationships among the moral development of students, codes of ethics, ethical culture, peer pressure, and business course pedagogy to better understand the role of higher education in grounding future organizational leaders in ethical business practices.

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