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MORAL REASONING AND MORAL BEHAVIOR AMONG INCOMING FIRST-YEAR BUSINESS STUDENTS: AN EXPLORATORY STUDY

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This study examined the moral reasoning and behavior of 177 incoming first-year business students. The students were presented with a realistic situation – an attempted hostile takeover of a corporation. Students were placed into one of three alternative scenarios as shareholders of the corporation – small investor, large investor, or a mutual fund manager – and viewed a portion of the film, “Other People’s Money,” as two actors argued for differing perspectives regarding the corporation. Students were then asked to vote their “shares,” and to provide an explanation for their behavior. The results indicated that incoming first-year students with higher levels of moral reasoning were more likely to cast their vote based upon a view of the corporation as a social institution, while those with lower levels of moral reasoning tended to vote their shares based upon perceived self-interest and personal gain.

INTRODUCTION

There continues to be concern expressed about the moral development that occurs among students during the course of their college education (Begley & Stefkovich, 2007; Rest & Narvaez, 1991), and the resulting effect of moral reasoning on the behaviors and choices of these individuals. This concern became especially acute at the start of the decade due to the high-profile scandals at Enron, Arthur Andersen, Worldcom, Tyco, and other corporations, and it has increased of late due to the collapse of financial markets worldwide (Podolny, 2009). Universities in general and business schools in particular were caught in the crossfire of criticisms that were levied by those trying to analyze the causes of such egregious lapses in behavior (Blake, 2006). Some suggested that the process of collegiate education, if not immoral, was at least amoral, that the nature of the education process, emphasizing individual or corporate gain, did not provide students with a framework for making moral choices (Giacalone & Thompson, 2006; Ghoshal, 2005; Mitroff, 2004; Podolny, 2009; Schneider, 2002; Swanson & Frederick, 2005).

Critics of the role of education in shaping the moral judgments of students assert that schools are “guilty of having provided an environment where the Enrons and Andersens of the world could take root and flourish” (Mitroff, 2004: 185), and must be considered culpable in such scandals. Ghoshal, for example, asserts that contemporary business education, “by propagating ideologically inspired amoral theories...[has] actively freed students from any sense of moral responsibility.” (Ghoshal, 2005: 76)

Is such criticism appropriate? If so, how might colleges and universities go about a process of integrating moral reasoning into the educational process? Should moral reasoning be the purview of specialized ethics education, should it be integrated throughout the curriculum, and/or should it be woven throughout the entire college experience? These are important questions for educators to consider. But

Pfeffer (2005), who is likewise critical of the role of education in moral development, suggests there is an unanswered question in terms of self-selection. Pfeffer (2005) asks whether immoral behavior is the result of moral development molded by the university education process, or whether students already enter the university with amoral attitudes and are predisposed toward those programs and educational experiences that enhance or support such views? He suggests that more explorations of the effects of higher education on values and behavior is an important research agenda.

The purpose of this study is to attend directly to these issues posed by Pfeffer’s critique. Specifically, we seek to provide insights into this fundamental and important question: what is the precondition of the students who are entering colleges and universities with respect to their moral reasoning and behavior? The study, exploratory in nature, examines the moral reasoning and behavior of incoming first-year business students as a preliminary inquiry into the influence of moral reasoning of college-age individuals prior to the impact of any college education or experience. Our study attempts to make two important contributions to the literature and the on-going discussion of this issue. First, we seek to examine the moral development of incoming students in order to provide an initial response to Pfeffer’s (2005) question regarding students’ moral reasoning and development and the question of self-selection. Second, the study is intended to provide a “baseline” assessment of the moral reasoning of students and to extend this line of inquiry by examining the relationship to students’ behavior.

BACKGROUND: MORAL REASONING, COGNITIVE MORAL DEVELOPMENT, AND MORAL BEHAVIOR

Rest (1986) suggested that there are four basic psychological processes that an individual performs when behaving morally: (1) the person interprets the situation in terms of the possible actions and the effects of those actions

on the self and others; (2) the person judges which course of action is morally right; (3) the person gives priority to what is right over other considerations present in the situation; and (4) the person demonstrates the strength to follow through and behave morally. For the purposes of this study, we decided to focus on moral reasoning, the process of judging why a particular act is “good” or “bad,” the second of the four elements in Rest’s process model. Our interest was to gain an understanding of how students’ moral reasoning might affect their behaviors prior to involvement in the collegiate experience.

Rather than attempt to define “right” or “wrong” in some normative sense, moral reasoning is seen as an issue of cognitive development. Consistent with the work of Jean Piaget (1932) and Lawrence Kohlberg (1981), the focus is on the manner in which individuals seek to provide a moral reason or explanation for behavior. Viewing morality as a cognitive process, Kohlberg (1981; 1984) has developed one of the more well-known frameworks of moral reasoning, termed Cognitive Moral Development theory (CMD). Drawing on the work of Piaget (1932), Kohlberg suggests moral development proceeds through three distinct levels, each with two stages. The first level of moral development, Preconventional Morality, begins with Stage One, wherein moral reasoning is based upon a sense of obedience to authority and/or a fear of punishment. Stage Two of moral development occurs when the person makes moral judgments based on their own self-interest and needs. Level 2 is termed Conventional Morality. At this level, moral reasoning is based upon interpersonal relationships and a desire to be seen as “good” by others (Stage 3). The second stage of Conventional Morality, Stage 4, occurs when moral reasoning is driven by a desire to do what is best for society as a whole, and includes following the rules of social order. Finally, Level 3, termed Postconventional Morality, incorporates Stage 5 “moral determinism,” wherein moral reasoning is based upon the social contract and individual rights, in a contractual or legalistic framework. At the highest level of moral development, Stage 6, moral reasoning is based upon universal principles, assumed to be norms that are held to be internalized within the conscience of the individual.

The stages of moral development emerge from how individuals think about moral problems (Kohlberg, 1981; Kohlberg, Levine, & Hower, 1983). In the process of reasoning, individuals form ways of thinking about their experiences which come to include understandings of moral concepts such as justice, rights, equality, and human welfare. Over time, this process can enable individuals to develop higher and more complex modes of moral reasoning. Hence moral reasoning becomes an important process within the cognitive moral development of individuals.

Kohlberg’s CMD theory has been used extensively in research, reviewed, and subjected to critical evaluation (e.g., Derry, 1989; Forte, 2004; King & Mayhew, 2002). Criticism of CMD theory has addressed the possible effects

of gender (Gilligan, 1982), the social context of moral reasoning (Turiel, 1983), and the need to include various perspectives on moral reasoning (Carpentale, 2000; Krebs and Denton, 2005). Despite these concerns, the CMD model of moral development and moral reasoning posited by Kohlberg is still widely used and accepted within contemporary research (e.g., Baxter & Rarick, 1987; King & Mayhew, 2004).

Kohlberg’s approach to moral development and moral reasoning has been applied to college students and found to be efficacious. Specific research has examined behaviors such as cheating and academic dishonesty, and found moral reasoning to be predictive of such behaviors (McCabe, Butterfield, & Trevino, 2006; McCabe, 1997; McCabe & Trevino, 1995; West, Ravenscroft, & Shrader, 2004). A meta-analysis of research on college business students found age and gender to be predictive of stronger ethical attitudes (Borkowski & Ugras, 1998). In an extensive review by King and Mayhew (2002) of studies using Kohlberg’s CMD on college students, they concluded that participation in higher education does have an impact on moral reasoning, even after controlling for age.

MORAL REASONING AND MORAL BEHAVIOR AMONG INCOMING COLLEGE STUDENTS: FRAMEWORK AND RESEARCH HYPOTHESES

The use of Kohlberg’s CMD framework on college students and the nature of the higher education experience makes it possible to suggest that one potential goal of the educational process is to increase the moral reasoning of individuals – to enable students to develop a higher level of moral reasoning, resulting in moral behaviors (Nucci, 2001). While there is some research evidence regarding the effects of higher education on students’ personal moral philosophies (Neubaum et al., 2009), the effect of such moral values on actual behaviors is not well understood (Kurtines, 1984).

To properly develop methods to address this goal, it would also be appropriate to have some information as to the level of moral reasoning of students before they begin the higher education process as a basis for determining the efficacy of the educational process on students’ moral development and reasoning (and the resulting behaviors that flow from such cognitive processes). Does their moral reasoning affect the choices they make? And, consistent with the question posed by Pfeffer (2005), what is the “incoming” state of these students?

There is research evidence that moral development affects the decisions and behaviors of individuals (Greenburg, 2002; Kohlberg, 1984; Loe, Ferrell, & Mansfield, 2000; Rest, 1986; Trevino & Youngblood, 1990; Weber, 1990). Indeed, the linkage between moral reasoning and moral conduct within the framework of Kohlberg’s theory has been tested empirically and appears to be present (Malinowski & Smith, 1985). Research using Kohlberg’s framework appears to offer general support for the idea that

moral reasoning will affect the decisions of students (Derry, 1989; Forte, 2004; King & Mayhew, 2002; Narvaez, 1998), though there are some concerns about the linkage (Marmburg, 2001; Weber & Green, 1991). From our review of the existing literature, we developed the initial hypothesis:

Hypothesis 1: Incoming collegiate business students' moral behaviors will be affected by their level of moral reasoning; different levels of cognitive moral development will be associated with different behavioral choices.

The extant research also indicates, however, that moral reasoning is influenced by other factors, such as gender. Women have been found to have stronger ethical attitudes than males (Borkowski & Ugras, 1998; Crow et al., 1991; Gilligan, 1982). This has been found to occur in business settings as well (Betz, O'Connell, & Shepard, 1989; Cohen, Pant, & Sharp, 1998; Galbraith and Stephenson, 1993; Krachner & Marble, 2008; Stedham, Yamamura, & Beekun, 2007). There is evidence to suggest that women tend to be more ethical when making ethical decisions in a business setting (Harris, 1989; Robin & Babin, 1997; Sikula & Costa, 1994; Tsalikis & Ortiz-Buonafina, 1990), though there is some disagreement on this issue (e.g., Ambrose & Schminke, 1999; Trevino, Weaver, & Reynolds, 2006). Research using Kohlberg's framework has likewise indicated that gender is not always related to moral development (Bakken & Ellsworth, 1990; Wark, 1996). In light of these somewhat contradictory findings, we wanted to examine this issue in our sample and determine if there were gender-related differences that might affect the results, with particular emphasis on incoming students. We decided that the weight of the current evidence suggested a second hypothesis:

Hypothesis 2: Incoming collegiate business students' moral behaviors in a business situation will be affected by gender; female students will exhibit higher levels of moral reasoning resulting in different behavioral choices than males.

The context or situation has also been found to affect moral decisions and behaviors (Carpendale & Krebs, 1995; Forte, 2004; Smith & Rogers, 2000; McCabe, Dukerich, & Dutton, 1991; McNichols & Zimmerer, 1985). The agency relationship found in many business settings requires that decisions be made in the interest of those being represented by the agent, regardless of individual or personal moral philosophy. When acting as an agent for others with a fiduciary responsibility, individuals may feel that choices are constrained by the context, and their decisions will reflect the perceived contextual demands rather than the individuals' moral development. The psychic conflict of such moral dilemmas may be a significant issue in making

moral decisions (Moberg, 2006). Accordingly, a final hypothesis was posited:

Hypothesis 3: Moral behaviors will be affected by context; when acting as an agent for others, incoming collegiate business students' behavioral choices will be based on the obligation to others and will differ from decisions based on personal moral standards.

METHOD

To begin to address the question of moral reasoning and moral behavior among incoming first-year college students, we performed a study placing such students into a hypothetical situation that involved a moral decision, and examined students' moral reasoning and the resulting effect upon their behavior.

Participants

For this study we examined first-year students enrolled in two Introduction to Business classes at a private, independent university of approximately 6,000 students located in a medium-sized metropolitan area in the Midwestern United States. The majority of the students came from Midwestern states, and all were U.S. citizens. All were in their first semester of study, and the ages were typical for incoming first-year students; almost all were 18 or 19 years old. There were 84 males and 93 female students in the classes, for a total of 177 subjects. This sample size was adequate to provide sufficient statistical power for the analysis (Kirk, 1982).

The Introduction to Business class was one of the first business courses students are able to take in their first semester. The study took place the first day of class in the semester; therefore, the class represented the students' earliest exposure to business education at the collegiate level. In addition to presenting the course syllabus, the study was presented to the students on the first day of class to insure that the data were gathered at the start of their collegiate experience. There were 2 classes included in the study to maximize the sample size.

Design of the Study

The study was structured as a 2 x 3 x 3 partially randomized factorial design, based upon the variables under investigation in the study. To examine the effects of gender, students indicated their gender as Male or Female on their response forms. As part of the initial class lecture period, students were given a single sheet of paper that described a realistic business situation: an attempted hostile takeover of a mid-sized manufacturing company by a large, New York-based investment firm. There were 3 different scenarios into which the students were randomly placed. In the first

situation the student was a private individual investor with 100 shares of common stock. In the second situation, the student was a private individual investor with 100,000 shares of common stock. In the third situation, the student was told that they were a manager of a mutual fund that held 100,000 shares of common stock of the company for other investors. The scenarios were distributed randomly to the class and the final sample included 65 students with 100 shares, 57 students with 100,000 shares, and 55 students with 100,000 shares under their management in a mutual fund.

These three scenarios were presented to alter the context and to examine the differences in the subjects' perception of the context. In the first situation, termed the "small investor," the 100 shares were seen as financially insignificant within the individual's investment portfolio, thereby reducing the financial impact of the choice. In the second situation, the "large investor," the 100,000 shares were financially significant and could have an impact on the value of the individual's investment portfolio. In the third situation, the "Mutual Fund Manager," the 100,000 shares represented the same level of financial value to control for financial perceptions, but the addition of the mutual fund management role provided the student with the fiduciary responsibility as the agent of the investors as a factor in the decision process.

In addition to being given their investor status, the students were provided with some information and background on the company, and selected financial data on the firm's recent performance. At the conclusion of the situation description there was a ballot with the names of the 2 competing Boards of Directors vying for control of the company, along with a space in which the students could indicate their vote. (A copy of the scenario description is available from the authors).

The students were asked to read the scenario description and familiarize themselves with the business situation. After a short period of time to allow the students to comprehend the material, the students were shown a video clip from the motion picture "Other People's Money." Based on the stage play by Jerry Sterner that opened off-Broadway in 1988 and ran for nearly two and a half years, the film depicts the fictional struggle between the current management of the fictitious New England Wire & Cable Company, led by the CEO, Andrew Jorgenson (played by the actor Gregory Peck) and the Wall Street firms of Garfield Investments, led by CEO Lawrence Garfield or "Larry the Liquidator," portrayed by actor Danny DeVito. In the portion of the film shown to the students, the situation is the annual meeting of the shareholders at which time a vote on the potential sale of the company will be required from the stockholders. Jorgenson argues that the company is worth more than the price of its stock, that firms have more value to people than can be captured by the share price. Garfield, by contrast, argues that the purpose of owning stock is to get a return on investment, and that when corporations no longer can fulfill that purpose, investors need to cash out and transfer their

funds elsewhere. This film has been applied as an effective teaching tool for presenting the two contrasting views of corporate America: the corporation as social institution versus the corporation as financial investment (Chan, Weber, & Johnson, 1995).

Having viewed the video, the students were then asked to vote their shares based on the information that had been made available to them, both in writing and at the "shareholder's meeting" which they had just viewed. After allowing a short time period for the students to vote, the students were then asked to turn their scenario descriptions and ballots over and, on the back of the sheet, to complete the following sentence: "I voted the way I did because..." This was done to determine the level of moral reasoning the student used in making the decision. The word "because" is critical, for what follows is the "cause of" or the explanation for the decision, and provides the justification for the choice. This technique is a variation on the use of moral narratives as a method for assessing moral reasoning which has been established in the literature (Carpendale & Krebs, 1995; Narvaez, 1998). In a moral narrative, a subject is presented with a written description of a situation and then asked to evaluate the situation within the domain of the subject's moral framework. Rather than limit to only a written scenario, we added the video as a means of increasing the realism of the situation as well as to present the opposing moral views of the primary characters. The use of film and video in ethics education has been reported to be an effective pedagogical technique (Chan, Weber, & Johnson, 1995; Nofsinger, 1995; Serey, 1992). Since we were interested in students' moral development and choices within a business setting, we used this method to focus on the business setting. Extant instruments within the moral development framework, such as the Defining Issues Test (DIT) (Rest, 1986), do not address the types of moral choices that confront business managers; hence, we developed this approach.

To establish a consistent coding method, we performed a pilot test on a small sample of students in the college to determine the types of responses we were likely to obtain. We then analyzed these responses using Kohlberg's framework to establish basic protocols for analyzing and coding the responses. In developing the coding protocols for the raters, two individuals with expertise in moral reasoning were used to determine the types of responses that would be representative of Kohlberg's levels. This was done so that, in addition to the face validity of the various responses, expert validation of the coding protocols was provided a priori as a basis for enhancing the validity of the instrument. Once these were developed, we provided the coding protocols and data to two research assistants and asked them to code the data from the pilot study as a means of training these individuals in the coding of the data. This allowed us to establish a consistent methodology for measurement.

The assistants, along with the researchers, then independently read the self-reports of the moral rationale for

their Board vote of the students and coded the responses based on the Kohlberg levels as Level 1, Level 2, or Level 3. The coding was independent of the students' vote; for example, two different students might have voted for Jorgenson or Garfield because "you have to do what's right, regardless of how you may feel personally about it." In this instance, both students were coded as Level 2 in terms of Kohlberg's model of moral development, since both are appealing to a sense of duty and right apart from personal feelings of instrumental gain. Thus, it was NOT the students' voting behavior that was determined to be moral or immoral, for a moral argument could be made for either position. Rather, we were interested in the level of moral reasoning that students applied to explain their behavior.

In making the final determination regarding the level of CMD displayed, the coders had to agree on the level of moral reasoning represented by the student's self-report statement of the justification of their choice. For this study, all four coders were in agreement as to the level of moral reasoning as indicated by the self-report statement in 92% of the cases. The high level of inter-rater agreement suggested a fairly high level of reliability in the rating and gave further support to the validity of the measurement and analysis of the results. The remaining cases indicated a rater agreement of 75%.

Independent Variables. Based on the research hypotheses proposed for this study and the research design, there are three independent variables, measured as follows:

- IV1: Level of Moral Reasoning (Kohlberg CMD) – was based on the coding of the raters of the students' self-descriptions of the moral basis or rationale for their choice.
- IV2: Gender – was based on the students' self-report of gender, male or female.
- IV3: Scenario – was based on the specific situation to which the student was randomly assigned.

Dependent Variable. As the hypotheses all posit a difference in moral behaviors, the dependent variable was the students' behavioral outcome, that is, their Board vote from the sample ballot. The students either voted for current management (the Jorgenson group) or for the acquiring company (the Garfield group). Since there were only two choices, and the students had to select only one, there was a clear difference in voting behaviors among the students.

RESULTS

Table 1 displays the cell frequencies for the study design. The students were reasonably well distributed among the 3 alternative scenarios. The table also shows the votes cast for the respective Boards of Directors and the percentage of each group voting for the candidates.

Table 1: Cell Frequencies (and Voting Percentages) of the Study Design

	n	Voting for Jorgenson	Voting for Garfield
Gender:			
Males	84	15 (17.9%)	69 (82.1%)
Females	93	24 (25.8%)	69 (74.2%)
Scenario:			
100 shares	65	8 (12.3%)	57 (87.7%)
100,000 shares	57	16 (28.1%)	41 (71.9%)
Mutual Fund Manager	55	15 (27.3%)	40 (72.7%)
Moral Development:			
Level 1	93	7 (7.5%)	86 (92.5%)
Level 2	52	10 (19.2%)	42 (80.8%)
Level 3	32	22 (68.8%)	10 (31.2%)

As can be seen from the data, the majority of students voted for the Garfield slate and to approve the hostile takeover of the company, with 138 voting for Garfield ("you want to make money") and 41 for Jorgenson ("a business is worth more than the price of its stock"). When tallying the

votes by number of shares, the results are somewhat closer, with 8,005,800 shares voted for Garfield and 3,300,800 shares voted for Jorgenson.

Table 2 presents the results of the Analysis of Variance (ANOVA) for the study variables.

Table 2: Analysis of Variance for the Study Variables (with interactions)

Source	ss	df	MS	F
Main Effects				
Moral Reasoning	9.53	2	4.765	45.235***
Gender	0.33	1	0.332	3.151
Scenario	0.70	2	0.352	3.339*
2-Way Interactions				
Gender x Scenario	0.04	2	0.021	0.201
Gender x Moral Development	0.09	2	0.045	0.425
Scenario x Moral Development	0.97	4	0.241	2.292
3-Way Interaction				
Gender x Scenario x Moral Development	2.37	4	0.592	5.621***

*** $p < .001$ ** $p < .01$ * $p < .05$

Based on these results, Hypothesis 1, suggesting that students' voting behaviors would be affected by their level of moral reasoning, was supported ($F = 45.235$, $p < .001$). While the hypothesis posited simply a relationship, a review of the data indicates that there was a relationship between the level of moral reasoning and the voting preference. The higher the reported level of moral reasoning, the greater the probability will be that the student would cast his or her votes for Jorgenson (and in favor of the broader view of business as a social institution) versus the Garfield perspective (business as a means of making money). Thus while we were careful not to view a particular vote as indicative of a specific level of moral reasoning, the data suggest that higher levels of moral reasoning were associated with an increased probability of voting to retain the current management.

Hypothesis 2 concerning the effect of gender was not supported. There was no significant effect of the students' gender on their Board vote ($F = 3.151$, $p > .05$), though the data indicates that the percentage of females voting for Jorgenson was higher than the percentage of males. Hypothesis 3 was also supported ($F = 3.339$, $p < .05$); The scenario did have an effect on their Board vote. Smaller investors indicated a greater tendency to vote for Garfield and larger investors were more likely to vote to retain the existing management.

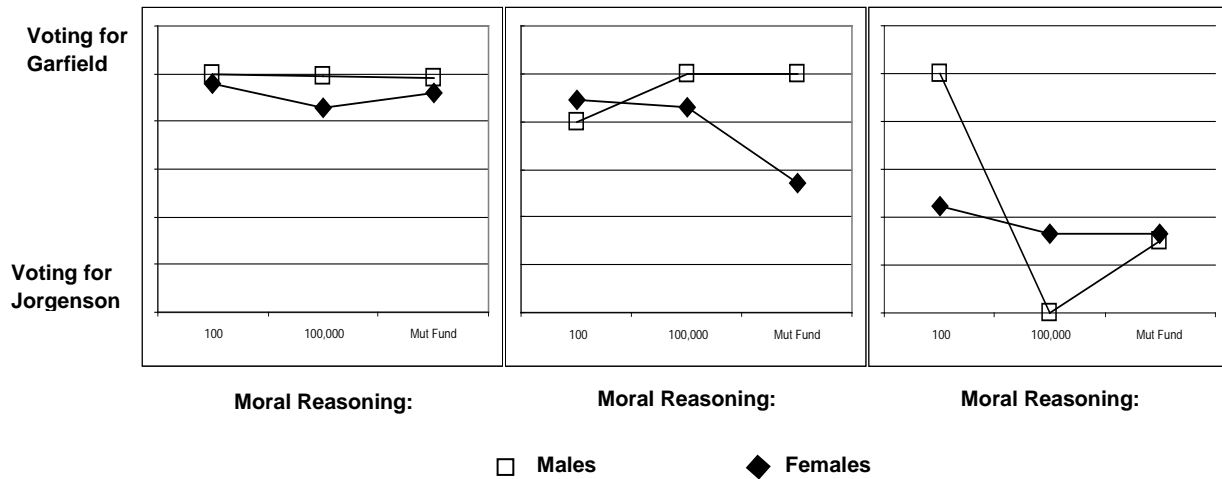
None of the 2-way interactions were significant. There did not appear to be any effects of the interactions among the variables on the students' Board vote. The 3-way interaction among the variables was significant ($F = 5.621$, $p < .001$). Based upon this observation, we performed a post hoc analysis of the data using the Scheffe test to determine which differences were significant. The results indicated that the only significant differences in the group means were due to the level of moral reasoning. The analysis of the

interaction showed that at higher levels of moral reasoning students were more likely to perceive a duty to act in the interest of all persons in the scenario, not only themselves or the investors whom they represent, and were more likely to cast their votes for the Jorgenson position of business as a social institution as opposed to the Garfield view of financial gain. This effect was particularly acute for the males in the study, who tended to vote for the Jorgenson position with far greater frequency at higher levels of moral reasoning, as shown graphically in the Figure.

DISCUSSION

Education in ethics and social responsibility have been included in the collegiate business curriculum for many years, though the effectiveness of such courses has been a matter of some debate (Collins & Wartick, 1995). Approaches range from integrating ethics into the core curriculum (Baetz & Sharp, 2004) to stand-alone applied ethics classes (Sims & Sims, 1991). Though the emphasis placed on ethics instruction has been questioned over the years (Pizzolatto & Bevil, 1996), the recent spate of scandals has elevated the perceived importance of ethics in the business curriculum (Evans & Robertson, 2003). In an effort to address the concerns of academicians and university administrators regarding the moral reasoning and development of incoming students, a major goal of our study was to provide an initial assessment of first-year students' level of moral reasoning. This aids in establishing a baseline measure for future analysis, and addresses the need for research on this specific cohort expressed by Pfeffer (2005). The results suggest that differences in moral reasoning do affect the decisions made by incoming first-year college students with respect to moral issues. The most significant factor influencing the voting behavior appears to be the

Figure: 3-Way Interaction Effects



students' level of moral reasoning. The fact that these were new first-year students, with no exposure as yet to the university curriculum or a program of collegiate education, is significant. It suggests that enhancing the moral reasoning of students may affect the moral behaviors these individuals will make in their professional careers.

While the contexts in which the students were placed did have an effect on their Board vote in the 3-way interaction, interpreting these results is somewhat problematic. The incoming students with minimal investments in the company (100 shares) were more likely to vote for the sale of the company, while students with higher levels of financial commitment were more likely to support the existing management. This result might be due to the fact that the students with minimal financial commitment were more likely to view the situation in purely monetary terms, while those with higher levels of commitment were looking for a way to explain their substantial level of investment and thus were more likely to support the existing management team. Students who were in the Mutual Fund Manager situation exhibited voting behavior not unlike that of the large individual investors; there was no apparent impact from the implied agency relationship. Perhaps these first-year students were not as yet aware of the legal fiduciary requirements of the agent (the Mutual Fund Manager) toward the investors. It may be too early in the students' education to have an understanding of the legal frameworks that can influence moral decisions and choices. These alternative explanations suggest a need for further research with other, more senior students to determine if these results would hold throughout a student's education.

Naturally, there are several limitations in this study that must be considered when interpreting the results. The study was on a single group of students, all were first-year from a single university, and were enrolled in the same course. Care should be taken when generalizing toward other

populations of students, both demographically and geographically. The use of the scenario method of eliciting moral reasoning is somewhat artificial. After all, the students do not have any "real" money at stake. Accordingly, their voting behavior may tend to be driven more by an intellectual understanding of the situation and not necessarily by the reality of the potential impact on their personal financial situation, which can often affect proxy voting behavior. Although the use of the novel stimulus of the video shareholder's meeting was intended to address some of the artificiality of the situation, the students did not have a true financial stake in the outcome.

Furthermore, the study only examines one situation among the literally hundreds and thousands of possible scenarios that involve a moral decision. Perhaps students' decisions might be different and the effects of moral reasoning might differ in alternative scenarios. Given that previous research has been found to be inconclusive across an array of different factors such as university context, age, major curriculum of study, etc. (King & Mayhew, 2002), and that our study only examined one particular moral situation, caution should be exercised in generalizing the results of this study to students in different settings, differing moral issues, and to other groups of students, as both the sample of students and the classroom setting limit the external validity of the study.

The use of the video scenario, while enhancing the realism of the hypothetical situation, also exposed students to moral perspectives that the students might not have considered on their own. This may have affected the students' moral reasoning. Indeed, it would be useful to replicate this study without the video and determine if there are any significant differences in moral reasoning. The nature of the study was such that we were not able to obtain a pre-test measure of moral development, and even if we had, whether students' moral development in one situation

would have been applicable to this scenario is uncertain. This issue needs to be explored in future research, since the impact of the video on the students' moral reasoning is unknown in the present study design.

The results of this study raise an interesting question. More than half of the incoming first-year students' responses (52%, 93 of the 177) indicated that the students were at Level 1 of Kohlberg's stages of moral development. These students viewed the situation in terms of self-interest and personal financial gain. Note that this occurs before the student has had any significant exposure to collegiate education. The subjects were first-year in one of their first courses, and there were no expectations provided by the instructor regarding the scenario or the class. Insofar as moral development is concerned, these students were at the most basic level of moral reasoning. If colleges and universities are to address the issue of moral behavior among students and graduates, it would be helpful to consider the nature of the object of the educational process – the students themselves.

This study provides some initial insight into the nature of the moral decision-making process of incoming freshman students, and suggests some avenues for future research and exploration. Before initiating curriculum change or overhauling educational processes and systems in order to make more "moral" persons, it might be productive to perform research on the true magnitude and nature of the challenge facing the school regarding ethics education, and to develop baseline measures of student understanding of morality and ethics in order to determine which components of the higher education process are most effective. The issues surrounding the education and development of moral persons are far too important to be addressed without careful consideration and sound empirical information. Research and thoughtful analysis are essential if schools are to be successful in educating students to make moral decisions in their professional careers.

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