Ethical Reasoning of Accounting Students: Does Religiosity Matter?

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Abstract
The goal of this study is to determine if levels of religiosity and attendance at a religiously-affiliated university is related to the ethical reasoning skills of accounting students. Lawrence Kohlberg's Cognitive Moral Development Theory (CMD) is used to measure the ethical reasoning skills of accounting students in this study. Rest's DIT-2 and Gorsuch and McPherson's ROS is used to determine whether religiosity results in a difference in ethical reasoning skills in accounting students. The study finds that neither higher levels of intrinsic religiosity nor attendance at a religiously-affiliated college results in higher levels of ethical reasoning skills in accounting students.

Keywords: Religiosity; Accounting Students; Ethical Reasoning Skills; Religiously-Affiliated Colleges

1. Introduction
Following the numerous accounting scandals involving accounting professionals and audit firms, identifying variables which relate to an individual's ethical reasoning abilities is increasingly important. The cultural environment of a higher educational institution can define the ethical training and moral influences a student is exposed to. These accounting students ultimately are the future of the profession. It is essential that academia is able to identify the variables that enable students to obtain skills which allow them to carry out professional responsibilities. This must be done while maintaining the highest level of ethical reasoning when faced with an ethical dilemma. The results of this study are important to the academic community also, as the information could be used in developing an accounting or business curriculum. If a relationship between ethical reasoning skills and religiosity exists, an increase in religious education may be important in instilling these ideals in students and professionals. Higher levels of moral maturity could be achieved through this type of education or training. It also can provide information for professionals to use when recruiting college graduates, because it can give insight into variables that increase ethical reasoning abilities and determine which colleges are implementing programs that capitalize on this knowledge.

Researchers have tried to establish relationships between religiosity and moral reasoning, but there have been inconsistencies in the findings. Most of this research has attempted to establish a relationship that is "both linear and direct, when in fact it may be nonlinear and/or be moderated by other constructs" (Cottone, Drucker, & Javier, 2007, p. 39). Certain aspects of religiosity, such as conservative religious ideology, have been positively linked to moral reasoning. Particularly important to this study is the direct relationship found between attendance at a religious educational institution and moral reasoning. There are studies that focused on school-age children, who may not have reached the higher stages of Kohlberg's levels of moral reasoning (Cottone et al., 2007; Guttman, 1984). The focus of this study is on subjects enrolled in higher educational institutions that are more likely to reach these levels of moral reasoning.

2. Literature Review
In developing the conceptual model (Figure 1), I review the literature on religiously-affiliated colleges and religiosity, as each construct relates to ethical reasoning abilities. I discuss previous studies that provide theoretical evidence supporting the relationships contained in this model. The moderating effect of attendance at a religiously-affiliated college on religiosity, and ethical reasoning abilities is presented in the model which examines the interdependent relationships among these variables.
2.1 Cognitive Moral Development as the Base Theory

Building on work of Piaget, Lawrence Kohlberg developed the cognitive moral development theory (CMD). Kohlberg’s model is a three level model that exemplifies the reasons individuals make certain ethical choices. The three levels are Pre-conventional, Conventional, and Post-conventional. At the highest levels of Kohlberg's model, individuals are able to use ethical principles and reach a moral conclusion. Whereas individuals at the conventional level focus on consequences, those who have reached the Post-conventional level will rely on rules, principles, and guidelines (Bay, 2002). James Rest introduced a four-component model of ethical reasoning abilities. Rest used Kohlberg’s foundation of emphasis on cognition, an individual’s own construction of morality (that is, rights and duty), development, and shifts from conventional to post-conventional thinking in developing his model of moral judgment (Rest, Narvaez, Bebeau, & Thoma, 1999a). Unlike Kohlberg, Rest’s model attempts to explain moral behavior rather than focusing on affect. It also places a greater emphasis on community, whereas, Kohlberg focused on individual cognition. Rest’s model begins with the recognition of a moral dilemma and ends with an engagement in moral behavior (Gautschi, III & Jones, 1998). Rest (1994) states individuals do not progress in stages through the four component model as in Kohlberg’s CMD. It, instead, provides a framework of what is necessary to engage in moral behavior. The components of Rest’s model are moral sensitivity (identification), moral judgment (concluding using prescriptive reasoning), moral intent (choosing using deliberative reasoning), and moral character (execution).

While Kohlberg does not agree that religion and ethical reasoning skills should be considered one idea, he did admit a correlation between the two concepts. He stated that a relationship with God might result in increased motivation to behave ethically (Kohlberg, 1981). Further, individuals who believe in God may tend to have increased ethical reasoning skills simply due to the fear of being caught acting unethically by God or others. Therefore, the introduction of religion into ethics should lead to increased ethical reasoning skills. Several studies have been conducted to determine variables that may relate to the ethical reasoning of an individual, such as age, gender, and nationality (Abdolmohammadi, Read, and Scarbrough, 2003; Conroy & Emerson, 2004; Ducut, 2006; Galla, 2006; Malone, 2006; Ponemon and Gabhart, 1993; Venezia, 2004). This study, however, examines the effect of attendance at a religiously-affiliated college and the level of one’s religiosity on the ethical reasoning abilities with the focus on accounting majors.

2.2 Influence of Religiously-Affiliated Colleges on Ethical Reasoning Abilities

A religiously-affiliated college or university sets itself apart from secular institutions by implementing a mission statement which emphasizes a religious or spiritual component. These institutions often accomplish this by requiring religious education and offering ministry opportunities, worship service opportunities, and professors who are committed to integrating faith throughout the curriculum (Paredes-Collins and Collins, 2011). In these institutions, religion and education are consistently integrated throughout the curriculum rather than separating these components (O’Connell, 2005).

Shaver (1987) found that students who attended religiously-affiliated colleges not only exhibited higher levels of ethical reasoning skills than students at secular institutions, but that the level of ethical reasoning skills increased from a student’s freshman to senior year. Rawwas, Swaidan, and Al-Khatib (2006) examined how academic dishonesty is related to “the influence of personal beliefs and values, opportunism, age, and gender on students of religious and secular universities in Japan” (p. 14). Students at both schools engaged in dishonest academic behavior when given the opportunity. Religion did not factor into the decision to commit the act but it did lead to fear after the act. The students who attended the religious institutions did identify “several personal beliefs and values (humanism, idealism, and relativism) that impacted academic dishonesty that were not identified in the secular group” (Rawwas et al., 2006, p. 15).

In regards to academic dishonesty, the religious group did not demonstrate increased levels of ethical reasoning. There is little research on the relationship between attendance at a religiously-affiliated college and ethical reasoning abilities. Further, the research that has been performed has resulted in mixed results. Because a gap exists in the ethics literature in regards to attendance at a religiously-affiliated institution, this study examines the relationship between attendance at these institutions and ethical reasoning skills. A relationship between these variables could provide insight for academia in curriculum development.
2.3 Influence of Religiosity on Ethical Reasoning Abilities

Barnett, Bass, & Brown (1996) define religiosity in terms of (1) cognition (religious knowledge, religious beliefs), (2) affect, which has to do with emotional attachment or emotional feelings about religion, and/or (3) behavior, such as church affiliation and attendance, Bible reading, and praying (p. 1163). According to the functionalist theory, religion has an integral function in society and individuals (Kennedy & Lawton, 1998; Phau & Kea, 2007).

Because religion impacts society, it ultimately can lead to the values and ideals that affect business decisions. As a key personality characteristic, it is anticipated that religion would influence the ethical reasoning skills of business executives (Hunt & Vitell, 1993). Phau and Kea (2007) found a relationship between individuals "who practice religion and those that describe themselves as ethically minded persons" (p. 72). There have been several studies on the effect religion has on ethical attitudes, which have determined that higher degrees of religion result in higher ethical attitudes (Allmon, Page, & Roberts, 2000; Barnett et al., 1996; Conroy & Emerson, 2004; Miesing & Preble, 1985; Smith & Oakley, 1996). Hegarty and Simms (1979) found the relationship between religiousness and ethical behavior to be insignificant. However, there is a significant relationship between religious beliefs and "negative attitudes toward the acceptability of unethical behaviors" (Singhapakdi, Marta, Rallapalli, & Rao, 2000, p. 308). The religion of a marketing professional can directly affect his assessment of an ethical dilemma, moral philosophies, and ethical perceptions (Hunt & Vitell, 1993; Singhapakdi, Rallapalli, & Rao, 2000). While numerous variables that relate to business ethics have been studied for decades, only a small amount of research exists in regards to religiosity. After identifying a void in the research concerning religiosity and business ethics, Albaum and Peterson (2006) found a relationship between religion and increased ethical reasoning abilities. Many studies have found that accounting majors consistently exhibit lower levels of ethical reasoning than other college majors (Abdolmohammadi et al., 2003). However, there is a gap in research on the relationship between religiosity and the ethical reasoning abilities of accounting students.

3. Research Hypotheses

Based on the results of the literature review, the following hypotheses are proposed:

H1: Accounting students at religiously-affiliated colleges will not exhibit higher levels of ethical reasoning abilities than accounting students at secular colleges.

H2: Religiosity will not influence the level of ethical reasoning abilities of accounting students.

H3: Attendance at a religiously-affiliated college has no significant moderating effect on the relationship between religiosity and ethical reasoning abilities.

4. Methodology

4.1 Sample description

The sample consisted of undergraduate accounting and non-accounting students at three religiously-affiliated colleges and secular colleges. Subjects were given the Defining Issues Test (DIT-2), the Religious Orientation Scale-Revised (ROS), and a demographic questionnaire. The instruments were given to 170 students enrolled in Financial Accounting, Intermediate Accounting, and Auditing classes in religiously-affiliated and secular colleges at different locations in the United States. The colleges included Shorter College (100), Utah Valley State University (43), and Jacksonville State University (27). One hundred three respondents (60.6%) attend a religiously-affiliated university, and sixty-seven respondents (39.4%) attend a secular college. The ages of those surveyed range from 18 years to 36 years old, with a mean of 22 years old. The majority of those surveyed, 100 or 57.8%, are 20-22 years old. Twenty respondents (13.3%) are under the age of 20; 33 respondents (18.9%) are 23-25 years old; and 17 respondents (10%) are over the age of 25.

4.2 Measures of Research Variables

4.2.1 Ethical Reasoning

Rest's DIT-2 was used in this study to determine the level of ethical reasoning based on utilizes. The DIT-2 uses Kohlberg’s Cognitive Moral Development Theory and the Pre-conventional, Conventional, and Post-conventional levels of moral development to measure an individual’s stage of moral maturity.
The DIT-2 consists of five dilemmas: (1) famine- the father of a starving family considers stealing food from a rich man who is hoarding food in a warehouse; (2) reporter - a reporter contemplates releasing a story that is detrimental to a political candidate; (3) school board- a school board chair has to decide if a contentious and dangerous open meeting should be held; (4) cancer- a doctor considers giving extra pain killers to a suffering but frail patient; (5) demonstration- college students demonstrate against U.S. foreign policy (Rest et al., 1999b). In order to resolve the dilemma, individuals will rate "the importance of twelve possible considerations in resolving the dilemma" (Eynon, Hill, & Stevens, 1997, p. 1299). Each of the 12 items represents either a stage level of ethical reasoning, or a meaningless item ("M"). The subjects will then consider the 12 items collectively and rank the four most important items. Each stage is assigned points based on the level the item represents, ranging from four points for the most important to one point for the fourth most important item. The P score represents the highest level of ethical reasoning.

The scores for each of the stories are added together and then divided by 0.3 to obtain stage percentages. The DIT P scores range from 0 to 95. A P score of 60 indicates the highest level of moral reasoning is utilized 60% of the time and lower levels are used 40% of the time (Coleman & Wilkins, 2004). A P score of 95 suggests a participant's responses were all ranked at the Post-conventional level. Whereas, a score of 0 demonstrates the respondent's answers were at the Pre-conventional or Conventional level (Venezia, 2004). Higher P scores denote proportionately higher ethical reasoning abilities (Rest, 1999). Average P scores for college males and females are 44.1 and 45.9, respectively (Ponemon, 1990). The DIT-2 also will use an additional measure, the N2 score, which Rest indicates is a more valid and reliable score (Cottone et al., 2007). A Cronbach's Alpha of the high 0.70s to the low 0.80s is consistently found for the DIT (Abdolmohammadi et al., 2003; Rest, Narvaez, Bebeau, & Thoma, 1999b).

4.2.2 Religiosity

Because intrinsic motivation measures how a person lives his or her life, this study focused on the intrinsic component of the survey to assess a person's religiosity. Eight items were used from the Allport and Ross' (1967) religiosity scale.

4.3 Data Collection

Subjects were given the DIT-2 instrument and the ROS during a 50-minute class period at the undergraduate level. The students were informed that the survey was for dissertation research. The surveys were conducted by the author or the professor of the class. The instruments took approximately 40 minutes to complete. Because the instrument was completed during class time, the response rate was 100%.

5. Data Analysis and Study Results

H1: Accounting students at religiously-affiliated colleges will not exhibit higher levels of ethical reasoning abilities than accounting students at secular colleges.

H2: Religiosity will not influence the level of ethical reasoning abilities of accounting students.

The first two hypotheses were tested using regression where the dependent variable, N score or P score, was regressed with religiosity and whether or not the student attended a religiously-affiliated college. The religiously-affiliated college variable was coded 0 – 1 and was a dummy regression variable.

Nscore = a + B1*religiosity + B2*relinstitute + e.

Nscore dependent variable The equation as a whole with the two independent variables is statistically significant given the sig. value of 0.022 but the accounted for variance in the Nscore dependent variable is very low at an adjusted 0.033. An examination of the individual co-efficient shows that only the religious institution predictor is statistically significant (sig. 0.007) but the standardized co-efficient is only 0.21. The religious institution variable only explains 4% of the variance in the ethical reasoning variable. Given the low strength of the relationship the only reason the relationship is significant is the large sample size of 170. Thus hypotheses 1 and 2 are only weakly supported using the Nscore measure of ethical reasoning.

Pscore dependent The results obtained using the Pscore are very similar to those with the Nscore where the overall equation was significant but the accounted for variance was only 2%.
Of the two independent variables only the religious institution variables was significant at the 0.044 level. The similarity of findings is a result of the fact that the two measures correlate at 0.82 (Sig. 0.000).

**H3: Attendance at a religiously-affiliated college has no significant moderating effect on the relationship between religiosity and ethical reasoning abilities.**

In order to test this hypothesis it was necessary to construct a moderating variables composed of the product of religiosity and religious institute. This mediating variable was then used as the independent variable in a simple regression analysis. When the Pscore dependent variable was used, the product variable was not significant at the 0.282 level. The Nscore dependent variable yielded similar results and was not significant at the 0.187 level. The results show that the moderating variable did not have statistically significant relationship with ethical reasoning. Thus, hypothesis three was not supported.

6. **Discussion of Findings**

Guttman (1984) found religiously educated school-age children possess firmer moral reasoning capabilities and were more apt to apply those skills than those students who received a secular education. However, previous research which used college students as subjects did not find higher ethical reasoning in students attending a Catholic university. This study supports Conroy and Emerson’s (2004) and Koeplin’s (1998) findings that accounting students at secular colleges have higher ethical reasoning skills than accounting students at religiously-affiliated colleges. The foundation for the CMD is the philosophy of Kant, which "assumed people generally understood Christian religious teachings emphasizing the universal duty to be honest, truthful, charitable, and so on" (Lan, Gowing, McMahon, Rieger, & King, 2008, p. 125). This universal duty emphasizes that an individual’s moral reasoning is motivated by duty, not self-interest, which represents the highest level of moral reasoning, the post-conventional level. If religiously-affiliated colleges are placing emphasis on religious teachings, then students attending these institutions should exhibit higher levels of ethical reasoning abilities than those attending secular institutions. The findings of this study do not support this assumption.

Kohlberg did not state that an explicit relationship between religiosity and ethical reasoning exists. He did find parallels between the two which could explain religion's role in supporting ethical reasoning or moral behavior. This study focused on intrinsicness as a measure of religiosity, which means an individual with high levels of intrinsicness practices religion “as an end in itself” (Weaver & Agle, 2002, p. 89) and views religion as the ultimate truth. Thus, religion will guide all decisions made by this individual, including those made when faced with ethical dilemmas. If individuals with higher levels of religiosity do in fact demonstrate behavior based on universal ethical principles, these individuals should precede to the highest level of ethical reasoning. Thus, this study does not support the presumption that religiosity supports ethical reasoning. There are mixed results in previous literature about the relationship of religiosity and ethical reasoning. This study supports findings of Hegarty and Simms and Clark and Dawson (as cited by Weaver & Agle, 2002) which did not find a relationship between levels of religiosity and ethical business decision-making.

7. **Conclusion**

This study focused on the relationship between attendance at religiously-affiliated colleges and religiosity and ethical reasoning abilities. This study found that attendance at religiously-affiliated colleges and religiosity does not influence ethical reasoning abilities. This study broadened research in the field of accounting from examining accountants' ethical reasoning abilities by utilizing the Defining Issues Test, which is based on the Cognitive Moral Development Theory. Taken as a whole, this study revealed neither attendance at a religiously-affiliated college nor religiosity increases the level of ethical reasoning abilities of accounting students.

7.1 **Limitations of Study**

Limitations to this research do exist. The students were given a paper and pencil survey instrument to evaluate how they would react to certain ethical dilemmas. Their reaction could vary when actually faced with an ethical decision and could, in fact, differ. Another related limitation is the type of scenarios presented in the DIT-2. These scenarios are not business-related dilemmas; therefore, the results may not be indicative of how an accountant or business professional would respond to a typical situation faced in his or her career.
Another limitation may be the sample population. The students identified as the population of a religiously-affiliated college were all from the same college. Thus, they may not represent the population of all religiously-affiliated colleges. In addition, one of the secular colleges is located in an area of Utah that is highly populated with individuals of the Mormon faith. While the college is a secular college, many of the students are involved in this faith. Therefore, this sample may not represent the population of secular colleges.

7.2 Suggestions for Future Research

Future research could examine the effect of religiosity and attendance at religiously-affiliated colleges on accounting practitioners and ethical reasoning abilities. While accounting students offer a good representation of accounting professionals, these practitioners could provide a more accurate portrayal. A longitudinal pre-test and post-test examination of college students also could prove to be beneficial. By surveying the same students rather than different subjects, this could reveal whether ethical reasoning changes during one's academic career at a religiously-affiliated college.

References


Figure 1: Conceptual Model