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HELLFIRE AND ACADEMIC DISHONESTY: AN EMPIRICAL EVALUATION OF  
THE INFLUENCE OF RELIGIOUS ORIENTATION ON ACADEMIC DEVIANCE

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements  
For the degree of Doctor of Philosophy in Education  
In the Graduate School of the  
University of Missouri-St. Louis, 2008

St. Louis, Missouri

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UNIVERSITY OF MISSOURI - ST. LOUIS

GRADUATE SCHOOL

March 22, 2010

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## ABSTRACT

Academic dishonesty has long been considered a critical issue that threatens to undermine the very integrity of the educational process. This issue has taken on increased importance in an era in which higher education that has been characterized by calls for increased institutional accountability. While past studies have shed light on the issue of academic dishonesty, there are still a number of critical variables pertaining to student cheating that have yet to be examined. This exploratory study examined whether religious orientation influences three variables related to academic dishonesty; student perceptions of the prevalence of academic dishonesty, general student attitudes toward academic dishonesty, or student involvement in acts of academic dishonesty. The investigation proposed that religious orientation would have a significant influence on all three of these variables.

The study involved 417 undergraduate college students attending a large public university during the summer 2009. Participants were asked to submit an anonymous online survey which consisted of four preexisting scales that measured religious orientation, perceptions regarding the prevalence of academic dishonesty, perceived opportunity to cheat, and general attitudes toward academic dishonesty. Variables pertaining to religious orientation were defined by the work of Allport (1950) and grouped religious orientation as being intrinsic, extrinsic, indiscriminately anti-religious, and indiscriminately pro-religious. These independent variables were tested against the dependent variables using multivariate analysis of variance (MANOVA) and analysis of variance (ANOVA) tests.

Results of the study indicated statistically significant differences between the religious orientations and general attitudes toward academic dishonesty and rates of involvement in academic dishonesty. However, the study also indicated that there were no significant differences between the religious orientation groups and perceptions regarding the prevalence of academic dishonesty. Collectively, the results supported the contention that religious orientation can influence some aspects of academic dishonesty and that religion can act as a conforming social institution in this respect. The study also indicates that general religious orientation was far from being a controlling or defining factor in academic dishonesty and that many interacting factors contribute to students decisions to cheat.

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## CHAPTER 1

### Introduction

One of the first major public scandals in America occurred seven years after the Civil War ended in 1872 (Friedrichs, 2007). The Credit Mobilier affair, as it was eventually known, involved charges that government officials had taken bribes in exchange for making legislative decisions favorable to the westward expansion of the Union Pacific Railroad (Noonan, 1984). At the time, many hoped that events such as these would ultimately prove to be the exception rather than the rule. Unfortunately, it seemed that little had changed more than 100 years later when seven members of Congress were indicted on charges of accepting and soliciting bribes during the course of what became known as the Abscam Case (Noonan, 1984).

Today, public scandals continue to be a regular occurrence in American society. In 2001, Enron, one of the largest energy companies in the nation filed for bankruptcy after executives issued misleading reports regarding the company's overall financial condition and gross revenues (Sloan, 2001). Four years later Tom DeLay became the newest in a long line of influential Congressmen to be forced out of office. Delay left office under a cloud of suspicion after he was indicted for conspiring to violate state election laws (Friedrichs, 2007). Public scandals have become so commonplace that they are now a part of the public consciousness. Not only does this familiarity increase the prevalence of amoral behavior, it also threatens to undermine public faith in, and support for, our nation's political, social, and corporate institutions.

Given our nation's ongoing experience with corporate and governmental abuses of power in so many areas, it is perhaps not unexpected that the American system of higher

education has had its own share of scandal and ignominy since its creation in the mid-17<sup>th</sup> century (Rudolph, 1990). While criticisms of the American higher education system are many and varied, much of its recent negative attention has been the result of high profile scandals involving alleged acts of academic dishonesty. In 2006, an independent panel confirmed four instances of plagiarism by the President of Wesley College in Delaware (Fain, 2006). In that same year, Ohio University had to create a special investigatory board to examine charges that more than forty graduate students had plagiarized their master's theses or doctoral dissertations over the course of twenty years (Bartlett, 2006). In one of the most recent scandals, the president of Southern Illinois University was accused of plagiarizing portions of his doctoral dissertation (Bartlett, 2007). These allegations arose after the president was forced to ask the chancellor of Southern Illinois University to step down when it was alleged that the chancellor had plagiarized portions of a strategic plan (Bartlett, 2007).

Instances such as these have focused new attention on the issue of academic dishonesty in higher education. In addition, they have resulted in increased public scrutiny of the higher education system and have spurred interest in research and scholarship related to student cheating. This has been viewed as a welcome development by many in academe who want to revisit the role that educational institutions play in developing both the character and intellect of students. However, focusing exclusively on contemporary instances of academic dishonesty may unintentionally disguise the longstanding history of problems with cheating that have plagued the American system of higher education.

Historians agree that academic dishonesty has been a significant concern among educators since the origins of organized systems of education (Hughes & McCabe, 2006; Robinson, Amburgey, Swank, & Faulkner, 2004). Despite this longstanding relationship, researchers have only been investigating academic dishonesty in the American system of higher education since the early part of the 20<sup>th</sup> century (Davis, et. al., 1992; Lupton, Chapman, & Weiss, 2000; Robinson, et. al., 2004). These investigations have indicated that cheating is a significant problem in the American system, yet it should be noted that the United States is not unique in this regard. To the contrary, academic dishonesty appears to be a pervasive problem in systems of higher education in countries around the world (Magnus, Polterovich, Danilov, & Savvateev, 2002). Research has indicated pervasive problems with student cheating in Taiwan (Lin & Wen, 2007), Australia (Marsden, Carroll & Neill, 2005; Sharman & Wilshire, 2007), Canada (Wendy, Davies, Bates, & Avellone, 2003), Poland (Lupton, et. al., 2000), Russia (Lupton & Chapman, 2002), and South Africa (Burns, Davis, Hoshino, & Miller, 1998).

While academic dishonesty has been found to exist to some degree in other countries, there does appear to be a set of unique cultural components in every society that may enhance or limit the extent of the problem. In this regard, American educational institutions appear to be near the average. Research has indicated lower rates of academic dishonesty among Japanese and South African students (Burns et. al., 1998), but higher rates among Russian and Polish students (Lupton et. al., 2000; Lupton & Chapman, 2002). While there is no universal consensus regarding what these cultural components are, it might plausibly be assumed that a greater level of understanding of

these components could improve the efficacy of efforts aimed at minimizing student cheating.

The findings of existing research have caused many to conclude that cheating has reached epidemic levels in the American system of higher education (Carpenter, Harding, Finelli, Montgomery, & Passow, 2006; Hughes & McCabe, 2006; Magnus, et. al., 2002; Robinson, et. al., 2004, Jackson, 2007). In fact, the continued pervasiveness of the problem has even led some in academe to conclude that at some point all students engage in at least one act of academic dishonesty (Brown & Choong, 2003). Perhaps even more disturbingly, many researchers (Angell, 2006; McCabe & Trevino, 2002; Pino & Smith, 2003) believe that the problems associated with academic dishonesty are intensifying and will likely continue to do so in the future. At least some of these future concerns are related to technological advances and the growth of distance learning courses and programs. Critics argue that while students have always managed to find ways to cheat, online programs, text messages, and electronic storage devices have opened up new avenues to dishonest students that threaten to make cheating easier and more commonplace (Embleton & Helfer, 2007; Rakovski & Levin, 2007; Scanlan & Neumann, 2002).

Concerns such as these have generated a significant body of scholarship related to the factors that are believed to be associated with academic dishonesty. The fundamental goal of this research was to gain the knowledge needed to create more effective preventative measures in an attempt to reduce the prevalence and severity of this behavior. A wide variety of precipitating factors have been examined since researchers first turned their attention to understanding why students engage in acts of academic

dishonesty. Researchers have examined how a broad spectrum of individual, institutional, and contextual factors contribute to students decisions to cheat. Surprisingly, given the width and breadth of scholarship in this area, researchers largely have overlooked the role that religious beliefs might play in influencing attitudes toward cheating. This lack of attention is especially remarkable given that religious beliefs have been found to have a profound influence on human attitudes concerning everything from sexual relations (Thornton & Camburn, 1987) to euthanasia (Hamil-Luker & Smith, 1998) and palliative care (Burdette, Hill, & Moulton, 2005). A recent study by Jackson (2007) also indicates, almost incidentally, that the primary reason students chose not to cheat was because they viewed it as morally wrong. Research appears to indicate that religious orientation and spiritual beliefs may influence many aspects of human thought and behavior. As a result, it seems plausible to believe that a relationship may exist between religious orientation and academic dishonesty. It is possible that religious beliefs influence an individual's internal moral compass and that this compass is in turn responsible for influencing decisions related to ethically questionable activities.

#### *Statement of the Problem*

Despite numerous concerns voiced regarding the prevalence of student cheating, many have argued that academic dishonesty has not drawn the same amount and type of attention as other high profile educational issues. This apparent lack of concern caused Alschuler and Blimling (1995, p. 124) to ask “why there is so little passion about this massive assault on the highest values of the academy? Why no high profile investigations, and emergency programs to restore academic integrity?” This perceived lack of concern is somewhat surprising given the immense importance of ensuring the

academic integrity of the American system of higher education. Indeed, some have argued that reducing academic dishonesty is a critical part of higher education's larger mission (Hughes & McCabe, 2006). Individuals supporting this contention believe that institutions of higher education should be concerned with more than just intellectual development. Additionally, they believe that colleges and universities should focus on the development of their students' moral character, good citizenship skills, and ethical decision making talents (Hughes & McCabe, 2006). For example, Lickona (1991, p. 6) noted that leading societies have always "educated for character as well as intellect, decency as well as literacy, virtue as well as knowledge." To date it remains unclear if ongoing problems with academic dishonesty compromise the ability of the American system of higher education to accomplish this larger educational mission.

Student cheating can also result in the entry of improperly trained individuals into professions that rely on well trained and fully functional employees. This lack of preparedness can be especially critical in professions like engineering and medicine where the public's physical safety may be dependent on the proper products and services created by college graduates (Carpenter, et. al., 2006). Furthermore, there appears to be a possible correlation between cheating and other types of dishonest or unethical behaviors that students exhibit in the workplace (Harding, Carpenter, Finelli, & Passow, 2004) and home (Blankenship & Whitley, 2000; Kerkvliet, 1994). Some have argued that attempts to decrease levels of academic dishonesty would not only benefit the American system of higher education, but would also reduce the likelihood of student involvement in unethical behaviors and activities in other areas of their lives (Carpenter et. al., 2006). If this is the case, American educational institutions may well have a larger moral

obligation to society to do everything they can to instill a sense of ethics and values in students as part of the educational process. This ethical obligation may extend even further to ensuring that every student being awarded a degree or certificate has met the same rigorous standards. Clearly, these ethical obligations are undermined by pervasive acts of academic dishonesty.

While past research has examined a variety of factors that are believed to precipitate acts of academic dishonesty, there is still little information regarding other potentially important contributing factors. Religious orientation is one factor that has yet to receive a significant amount of attention in the existing body of scholarship. This is unfortunate given the potential that religious orientation has to influence behaviors, especially behaviors associated with ethically and morally questionable activities. The current study provides some much needed information regarding the interplay of religious orientation and academic dishonesty. It is hoped that this information can be used as an additional tool to reduce the prevalence of cheating, as a platform for additional research, and as a catalyst to generate additional discussion among researchers, faculty, administrators, and members of the public.

While educational institutions would be unable to mandate an adherence to religious beliefs among their students, the knowledge gained could have other practical implications. If religious beliefs influence attitudes toward academic dishonesty, it may well reflect an institutional need to focus on the development of students' internal moral compasses. While religion may be one significant influence on moral direction, it is probably not the only influence. Other institutional efforts could shape the development of the moral compass without the need to mandate religious adherence. Ultimately, these

results may indicate that traditional punitive approaches are doomed to fail because they do not focus on the fundamental cause of the problem. More specifically, punitive measures may be ineffective because they do not focus on the development of the strong moral compass noted above. Alternatively, a lack of commitment to religious principles might reflect a more utilitarian orientation toward the education process. If so, more punitive measures may be justified as a way of convincing those contemplating cheating that the costs of this type of behavior outweigh any perceived benefits.

#### *Purpose of the Study*

The purpose of this study was to examine if a relationship exists between religious orientation and each of three aspects of academic dishonesty. More specifically, this study attempted to determine if religious orientation had an influence on each of the three separate scales that were used to represent the aspects of academic dishonesty that are identified by the research questions below.

#### *Research Question One*

Did religious orientation influence the general attitudes of a group of undergraduate students attending a Midwestern university toward academic dishonesty?

#### *Research Question Two*

Did religious orientation influence student participation in acts of academic dishonesty among a group of undergraduate students attending a Midwestern university?



### *Research Question Three*

Did religious orientation influence the perceptions of a group of undergraduate students attending a Midwestern university regarding the prevalence and availability of opportunities to engage in acts of academic dishonesty?

In order to answer the research questions noted above, survey data were collected from a random selection of undergraduate students at a large public university. Religious orientation was the independent variable of interest in this study and it was measured in an attempt to identify four distinct subgroups: those with an intrinsic religious orientation, those with an extrinsic religious orientation, those with an indiscriminately pro-religious orientation, and those with an indiscriminately anti-religious orientation. Religious orientation was operationalized according to the traits and characteristics that are associated with each of these four different religious orientations. Once these four groups were identified, each was examined further in an attempt to determine if they vary regarding each of the three dependent variables of interest, identified below.

- (a) General attitudes toward the acceptance of academic dishonesty.
- (b) Perceptions related to the opportunity to engage in acts of academic dishonesty.
- (c) Frequency of past engagement in actual acts of academic dishonesty.

### *Hypotheses*

The following directional research hypotheses guided this research project as well as its accompanying research design and methodology.

#### *Hypothesis One*

Students manifesting an intrinsic religious orientation would have less permissive

attitudes toward academic dishonesty than would students manifesting an extrinsic religious orientation.

*Hypothesis Two*

Students manifesting an intrinsic religious orientation would have less permissive attitudes toward academic dishonesty than would students manifesting an indiscriminately pro-religious orientation.

*Hypothesis Three*

Students manifesting an intrinsic religious orientation would have less permissive attitudes toward academic dishonesty than would students manifesting an indiscriminately anti-religious orientation.

*Hypothesis Four*

Students manifesting an intrinsic religious orientation would be less likely to engage in acts of academic dishonesty than would students manifesting an extrinsic religious orientation.

*Hypothesis Five*

Students manifesting an intrinsic religious orientation would be less likely to engage in acts of academic dishonesty than would students manifesting an indiscriminately pro-religious orientation.

*Hypothesis Six*

Students manifesting an intrinsic religious orientation would be less likely to engage in acts of academic dishonesty than would students manifesting an indiscriminately anti-religious orientation.

*Hypothesis Seven*

Students manifesting an intrinsic religious orientation would perceive that fewer opportunities exist to engage in acts of academic dishonesty than would students manifesting an extrinsic religious orientation.

*Hypothesis Eight*

Students manifesting an intrinsic religious orientation would perceive that fewer opportunities exist to engage in acts of academic dishonesty than would students manifesting an indiscriminately pro-religious orientation.

*Hypothesis Nine*

Students manifesting an intrinsic religious orientation would perceive that fewer opportunities exist to engage in acts of academic dishonesty than would students manifesting an indiscriminately anti-religious orientation.

*Delimitations*

The following delimitations were applicable to this study. These factors provided a clear set of boundaries regarding the scope and purpose of the study. No conclusions or generalizations beyond these established boundaries were intended by the researcher, nor should they be inferred by the reader.

- 1.) The survey was conducted online with a group of students attending a large public university in the Midwestern United States that was referred to as “Midwestern University”. “Midwestern University” was selected because of its relatively diverse student population and large student enrollment. The selected site also provided ready access to a student sample of sufficient size for a

determination of statistical significance to be made between the variables involved using the types of statistical analyses employed in the study.

- 2.) The participant sample was selected during the summer 2009 academic year from a randomly selected sample of all students who attended Midwestern University. A randomly selected sample was used because it was believed that it offered a representative group of participants from the institution where the sample was drawn.
- 3.) The study was conducted strictly with volunteer participants who were informed that they had a right to refuse to participate if they did not want to do so. This may have resulted in some potential participants refusing to provide information. In order to ensure an appropriate sample size, more participants than were actually needed were initially selected for inclusion in the study.
- 4.) Access to participants was gained through the Office of Institutional Research at Midwestern University. Only those students who were selected for inclusion by the Office of Institutional Research were included as potential participants in this study.
- 5.) The current study did not include responses from adherents to non-Christian faiths because of the inherent deficiencies associated with the survey instrument that was used to measure religious orientation when it is used with members of non-Christian faiths.

#### *Limitations*

There were several limitations of this research project that should be fully understood, so that the study's findings can be appropriately contextualized, and not generalized to

populations or situations beyond those that were originally intended by the researcher.

These limitations included the following:

- 1.) “Midwestern University” is a large, public research-focused educational institution located in a suburban community of a major metropolitan area in the South central United States. The data obtained should not be generalized to other types of educational institutions and may not even be applicable to similar types of educational institutions that are located in significantly different geographic settings.
- 2.) The vast majority of the students included in the study were undergraduates who were at least 18 years of age. No graduate students or students under the age of 18 years of age were included in this study given the nature of the sampling procedures that were employed. Due to these limitations, the results obtained should not be generalized to college students as a whole. In addition, the findings from this study should not be generalized to graduate or professional student populations.
- 3.) The purpose of this study was to examine if adherence to Christian religious principles influenced general attitudes toward, involvement in, and perceptions regarding the prevalence of academic dishonesty. This is not to say that the attitudes of non-Christian religious adherents were viewed as unimportant, but rather that a variety of factors prohibited their inclusion in the study. As a result, any findings obtained cannot necessarily be generalized to individuals of non-Christian faiths.

4.) The intent of this study was to determine if religious orientation had an influence on each of the three dependent variables separately, rather than collectively. As a result, all findings should be viewed accordingly and should be viewed independently and not holistically.

5.) The intent of this study was to determine if religious orientation influenced each of the different dependent variables, rather than the degree to which it influenced them. Alternative analyses approaches were considered, but ultimately rejected because the intent of the study was not to determine if cheating behavior changed as a person were more or less religious, but if cheating behavior and attitudes differed based on a set of categories of religiosity. The religiosity scale used could only assign participants to one of four categories and was not designed to provide a continuum of religiousness. For this reason, all results should be viewed in terms of their implications for the absence or presence of a relationship, rather than their ability to explain the nature of this relationship or describe its magnitude.

#### *Assumptions*

This study was based upon several key assumptions related to the methodological design employed and the behavior of the participants selected for inclusion. These assumptions under lied and influenced the research project and contributed, at least in part, to the results obtained.

(1) It was assumed that the participants selected for the study would answer the questions employed in the survey instruments in an honest manner and to the best of their abilities.

(2) It was assumed that the research participants would be able to read and understand the questions employed in the survey instruments. The scales selected for inclusion in this study were all designed to be easily understood by the general population and did not require any special skills, abilities, or knowledge to complete. This was especially true of the religious orientation scale that was selected specifically for its proven reliability with participants from a variety of educational backgrounds and abilities (Gorusch & McPherson, 1989).

(3) It was assumed that the students selected for the study would be representative of the larger undergraduate student body at the institution where the research was conducted. The students were randomly chosen for inclusion from all of the undergraduate students attending the educational institution where the study was conducted. It was anticipated that this would ensure the representation of students across all disciplines and majors.

(4) It was assumed that the spectrum of religious orientations could be adequately represented by the four classifications employed in the survey design. The four classifications were: intrinsic, extrinsic, indiscriminately pro-religious, and indiscriminately anti-religious. For purposes of the study it was assumed that all of the participants could be accurately classified in one of these four groups.

#### *Definition of Terms*

As is the case with any research endeavor, definitional issues were of critical importance to this study. Much of the terminology associated with this evaluation could be defined and operationalized in a variety of ways. In fact, researchers have frequently noted the difficulty in providing precise definitions for the terminology associated with

academic dishonesty and religious orientation. This is at least partially because of the ambiguous nature in which these concepts have traditionally been understood and the diverse manner in which they have been applied in existing research (Burrus, McGoldrick, & Schuhmann, 2007). While the definitions that were identified and advanced in this study were by no means the only ones available or recognized, they were the ones that were believed to be the most pertinent to the nature and design of the study. In addition, each of the definitions employed in this research project were supported by the existing body of professional literature. Whenever possible, the definitions employed were examined by content matter experts to ensure their validity and applicability to the study (R.W. Hood, personal communication, February 10, 2008; D. L. McCabe, personal communication, May 24, 2009; A. Bolin, personal communication, March 19, 2009).

#### *Academic Achievement*

In this study, academic achievement referred to the degree to which a student was able or unable to successfully complete all of the required academic exercises for a particular course, or courses, as well as all of the courses that were required for the completion of a given course of study or degree program.

#### *Academic Dishonesty*

Academic dishonesty was defined as any type of behavior or act that students engaged in which involved the giving or receiving of unauthorized assistance in the attempt to secure some form of unearned academic advantage or credit. This definition included the use of the thoughts or words of another without first having give that individual proper credit (see definition for plagiarism).



### *Academically Dishonest Behaviors*

In this study, several specific types of behaviors were considered acts of academic dishonesty. Among these behaviors were: plagiarism; cheating on examinations; obtaining an unfair academic advantage; facilitating academic dishonesty; engaging in unauthorized academic collaboration; and falsely representing materials for academic gain.

### *Academic Exercise*

An academic exercise was defined as any and all forms of academic work that were submitted for course credit or that were used in fulfillment of institutionally mandated course credit hour requirements (Kibler, Nuss, Patterson, & Pavela, 1988).

### *Academic Honor Codes*

Academic honor codes were defined as institutional policies that identified prohibited academic behaviors and attempted to gain student support for, and compliance with, these policies.

### *Academic Integrity*

Academic integrity was defined as a student's willingness to follow recognized instructional and institutional guidelines, rules, and standards in relation to the manner in which academic materials were produced and the manner in which assignment and course grades were obtained.

### *Cheating*

Cheating was one term associated with academic dishonesty around which a broad general definitional consensus appeared to have developed. Callaway (1998, p. 9) noted that cheating referred to the use of "unauthorized materials, information, or study aids in

any academic exercise”. This definition had been adopted and used extensively by many researchers and authors (Burke, 1997; Jackson, 2007; Sutton, 1991). As a result of prevalence of this definition in prior scholarship, it was employed in its original version in this study.

#### *Extrinsic Religious Orientation*

Individuals with an extrinsic religious orientation have a utilitarian or instrumental approach to religion (Allport & Ross, 1967; Morris & Hood, 1981). Individuals manifesting an extrinsic religious orientation tend to use religion for their own ends (Allport & Ross, 1967). Religion is viewed as an advantageous or beneficial construct for extrinsic individuals, but it is really of little meaning and does not exert a significant influence on either outlook or behavior.

#### *Fabrication*

Gehring and Pavela (1994) defined fabrication as “the intentional and unauthorized falsification or invention of any information or citation in an academic exercise” (p. 12). This definition was very similar to others that had been used in prior research related to academic dishonesty, and it was employed in this study.

#### *Facilitating Academic Dishonesty*

For purposes of this evaluation, facilitating academic dishonesty was defined as purposefully assisting, or attempting to assist, another individual who was engaged in an act of academic dishonesty, or providing others with the materials necessary for them to commit acts of academic dishonesty (Burke, 1997).

### *Indiscriminately Anti-Religious Orientation*

Individuals designated as being indiscriminately anti-religious did not manifest either an intrinsic or extrinsic religious orientation. These individuals were often either agnostic or atheistic. Regardless of whether individuals formally claimed to be agnostic or atheistic, they viewed religious beliefs and principles as having little, if any, value or importance.

### *Indiscriminately Pro-Religious Orientation*

Individuals designated as being indiscriminately pro-religious manifested traits that were associated with both intrinsic and extrinsic religious orientations. These individuals appeared to demonstrate both a utilitarian and internalized response to religion and scored high on both dimensions of the Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989).

### *Intrinsic Religious Orientation*

Individuals that manifested an intrinsic religious orientation integrated and internalized their religious beliefs into their larger lives (Allport & Ross, 1967; Morris & Hood, 1981). Religion became a key guiding factor or a “master motive” (Allport & Ross, 1967, p. 434) that guided the individual’s thoughts, actions, and behaviors. Religion was a meaningful influence on those individuals with an intrinsic religious orientation and they fully endeavored to live their lives in accordance with the principles and tenants of their religion (Allport & Ross, 1967).

### *Plagiarism*

Plagiarism was defined as a student's attempt to claim credit for the ideas, thoughts, or words of another individual without first giving full and proper credit to that individual (Gehring & Pavela, 1994).

### *Perceived Opportunity*

For purposes of this study, perceived opportunity was defined as student perceptions regarding how commonplace they felt cheating was at their educational institution and the risk of detection they associated with committing an act of academic dishonesty (Bolin, 2004).

### *Religious Orientation*

Religious orientation was defined as a combination of an individual's motivation toward religion, the meaning that religious beliefs had for the individual, and the role that religion played in the individual's existence (Allport, 1950). There were four primary types of religious orientation included in this study: an intrinsic religious orientation, an extrinsic religious orientation, an indiscriminately anti-religious orientation, and indiscriminately pro-religious. The indiscriminately pro-religious orientation included individuals who manifested traits associated with both intrinsic and extrinsic orientations.

### *Unauthorized Academic Collaboration*

For purposes of this study, unauthorized academic collaboration was defined as any situation in which students worked together on an academic exercise when they knew, or strongly suspected, that doing so was a violation of the rules associated with that academic exercise or when they knew, or strongly suspected, that the course instructor would have disapproved of collaborative work.

### *Utilitarian*

For purposes of this study, the term utilitarian will be conceptualized as a personal orientation towards beliefs system, social institutions, or other factors that values them in direct relation to the utility or benefit that they can provide to the individual. This term will be strongly associated with the extrinsic religious orientation.

### *Significance of Study*

This study contributes to two distinct bodies of scholarship, albeit from distinctly different perspectives. The first body of scholarship is that which exists in relation to academic dishonesty, with this study contributing here in three different ways. First, this research helped provide additional insight into the factors that precipitate actual involvement in acts of academic dishonesty. Religious orientation was examined in an attempt to determine if it appeared to influence self-reported rates of student cheating. Second, this research provided additional insight into factors which influenced student perceptions regarding the prevalence of opportunities to engage in acts of academic dishonesty. Religious orientation was examined in an attempt to determine if it appeared to influence perceptions pertaining to the prevalence of cheating and the availability of opportunities to engage in acts of academic dishonesty. This was an especially important issue as research had indicated that perceptions related to opportunity are strongly correlated with actual involvement in acts of academic dishonesty (Davis, et al., 1992; Jackson, 2007). Finally, the research provided additional insight into factors that influenced general student attitudes toward academic dishonesty. Specifically, religious orientation was examined to determine if it appeared to have any influence on how tolerant or intolerant students were of academically dishonest behaviors.

Secondly, this study contributes to existing scholarship related to religious orientation and how religious orientation influences human behaviors and attitudes. Over time, religious orientation has been associated with a wide variety of human behaviors and attitudes. However, one area of research in which a gap appears relates to religious orientation and academic dishonesty. This study added to the existing knowledge base in this area by investigating if religious orientation, within a specific demographic segment, influenced human behaviors and attitudes related to three different aspects of academic dishonesty.

#### *Overview of Methods*

This study employed four existing surveys as its data collection instruments. These four survey instruments were intended to measure separate and distinct phenomenon. It was not the intent of this research to determine if religious orientation had an influence on the three dependent variables collectively, but rather if it had an influence on each independent variable individually. The Religious Orientation Scale-Revised developed by Gorsuch and McPherson (1989) was used to measure the religious orientation of those individuals selected for inclusion in the study. The study also included scales that measured the degree of perceived opportunity to engage in acts of academic dishonesty (McCabe & Trevino, 1997), the extent of prior involvement in actual acts of academic dishonesty (McCabe & Trevino, 1997), and general student attitudes regarding the acceptability of academic dishonesty (Davis, et al., 1992). Each of the included scales was used to measure either the independent variable or one of the three dependent variables that was incorporated into the study's design.

The survey was administered to a randomly selected group of undergraduate students who were attending a large public university in the Midwestern United States, referred to as “Midwestern University”. These students were randomly selected from all of the undergraduate students attending the Midwestern University during the summer 2009 semester. It was anticipated that the random selection strategy would result in the inclusion of students from a wide cross-section of majors and disciplines. The sample was composed of undergraduate students and did not include any graduate or professional students. In addition to the questionnaire items included in the study’s scales, each participant was asked to respond to a series of demographic and background questions. Once the questionnaire data had been gathered it was subjected to a combined series of Multivariate Analysis of Variance (MANOVA) and Analysis of Variance (ANOVA) analyses. This type of analysis strategy was chosen because it was believed to be the most appropriate, given the type of data that were collected and the type of design strategy that was employed. Alternative analysis approaches were considered, such as regression analysis, but they were ultimately discarded because the religiosity scale employed in the design only allowed participants to be assigned to one of four categories and did not provide a continuum of religiousness. As a result, the scale did not provide a basis for examining how cheating behaviors changed as a result of degrees of religious orientation. Instead, the scale lets researchers determine if study participants differed in regard to the dependent variables of interest based upon their religious orientation.

#### *Theoretical Framework*

There are a number of potential theoretical explanations for deviant behavior that could have been applicable to this study. The majority of these explanations have

traditionally attempted to explain why some individuals engage in deviant behavior while most individuals do not. These theoretical explanations are based upon the assumption that deviant predispositions are dysfunctional and that a full understanding of what causes them can result in their remediation and suppression. However, some have questioned these traditional assumptions and have instead argued that deviant behavior is much more natural and common than had previously been acknowledged. Academic dishonesty appears to be a phenomenon that lends itself better to theories that assume deviant behavior is a more common and natural occurrence. The majority of studies related to the prevalence of academic dishonesty have found that cheating is very widespread in the American system of higher education (Whitley, 1998). It appears that academic honesty may be more the exception than it is the rule. As a result, a theory that is better able to explain why a minority of students do not engage in deviant behavior, rather than why only a few do, is better suited to this study.

Travis Hirschi developed and advanced Social Bond Theory, now one of the most widely accepted versions of social control theory (Vold & Bernard, 1988). Hirschi (1969) examined human deviance in a novel way. Instead of examining why some people engaged in deviant behavior and others did not, he was interested in why everyone didn't engage in deviant behavior. Social Bond Theory assumes that all individuals have an inherent predisposition to engage in deviant types of behaviors (Nettler, 1984). This assumption is based on the belief that human beings are inherently self-interested and hedonistic. If an external factor does not restrain these innate human tendencies, individuals will inevitably engage in behaviors that are viewed by society as being deviant or criminal. Hirschi (1969) argued that it was our degree of attachment to various



conforming social institutions that determined which individuals engaged in deviant behavior and which did not. A number of conforming social institutions and individuals have been identified, including parents, peers, and schools (Hirschi, 1969). Those individuals who have developed strong bonds to conforming individuals and to social institutions will be better able to resist their natural tendencies to engage in deviant behavior.

Religion is one conforming social institution that has received significant attention in prior social bond research (Hirschi & Stark, 1969; Baeir & Wright, 2001). If the underlying assumptions of Social Bond Theory are correct, those individuals with a strong commitment to religious institutions and religious principles will be less likely to engage in deviant behaviors than will those individuals with a weak or absent bond. There is no reason to expect that Hirschi's assumptions regarding deviant behavior would not apply to instances of academic dishonesty. In fact, prior research has indicated that Social Bond Theory is better suited to explaining less serious types of deviant behavior, a category into which academic dishonesty could logically be placed, than it is more serious types of deviant behaviors (Vold & Bernard, 1988). For this reason, it serves as the primary theoretical framework for analyzing the collected data.

#### *Summary and Overview of Remaining Sections*

This dissertation is divided into five chapters. Each chapter begins with introductory information that highlights and underscores that chapter's primary function and purpose. For the sake of clarity, each is briefly summarized below.

### *Chapter One*

Chapter one provides a broad general introduction to this research project, including an introduction to the topics of religious orientation and academic dishonesty. It provides readers with the basic information necessary to understand the identified topics and design strategies that were employed by the researcher. To this end, the first chapter provides an overview of key terminology, identifies key assumptions made by the researcher, establishes the research questions that drove the evaluation, delineates the boundaries and limitations of the study, and briefly describes the methods that were employed.

### *Chapter Two*

Chapter two provides a comprehensive review of the applicable body of literature and research pertaining to this study. The second chapter is divided into two primary sections, the first examining the existing body of research that has developed in relation to the study of academic dishonesty and the second section reviewing the body of research that has developed regarding religious orientation. Each of these sections is further divided into relevant subsections that examine pertinent clusters of related research and scholarship. The ultimate goal of this chapter is to identify both the relevant information that exists in relation to the identified topics and the areas in which that body of scholarship is lacking, thereby illustrating the need for this research.

### *Chapter Three*

Chapter three provides a broad general overview, rationale, and justification for the research design employed in this study. The chapter outlines the type of design employed as well as providing a detailed description of the data collection techniques and

processes employed. This chapter also identifies the data analysis techniques employed in the study. The ultimate purpose of the chapter is two-fold: to provide a broad general overview and description of the methodologies employed in the study and to establish a sound rationale regarding why these particular methods and design strategies were selected.

#### *Chapter Four*

Chapter four provides an overview of the results that were obtained at the conclusion of the study. The initial research expectations, research questions, and hypotheses are reviewed in this section in relation to the results that were ultimately obtained. The statistical data upon which the final results are based are identified and discussed at length, in order to place the information in an appropriate context and to evaluate its larger meaning.

#### *Chapter Five*

Chapter five provides a summary of the dissertation and a more thorough discussion and analysis of the project's key findings. This section also serves as a potential springboard for facilitating additional discussion and generating questions for future research and scholarship. This chapter examines the implications of the research results that were obtained and provides a series of recommendations and policy suggestions regarding academic dishonesty and its implications for the field of higher education. Finally, some concluding thoughts are presented and examined in an attempt to summarize and critique the dissertation, its design and methodology, and the findings that it eventually yielded.

## CHAPTER 2

### Review of Literature

#### *Introduction*

Many scholars and researchers have noted the growing importance of understanding the impact of academic dishonesty on the American system of higher education. Indications are that academic dishonesty has existed since the inception of organized systems of education (Robinson, Amburgey, Swank, & Faulkner, 2004) and research on its causes and prevalence date back more than seventy years. Grove published a study in 1936 that called for increased efforts to eliminate cheating in American schools. Despite the longstanding history of research related to cheating, concerns about the problem have increased dramatically in recent years. These increased concerns originated largely because of researcher's beliefs that cheating has been on the increase and has now reached epidemic proportions (Angell, 2006; Carpenter, Harding, Finelli, Montgomery, & Passow, 2006; Cochoran, Chamlin, Wood, and Sellers, 1999; Hughes & McCabe, 2006; Michaels & Miethe, 1989; Pino and Smith, 2003; Robinson et. al., 2004; Whitely, 1998). As these concerns have increased, so have the amount and quality of the research related to this phenomenon.

The current study necessitated an examination of existing research in two broad areas: academic dishonesty and religious influence on human behavior. Research in these areas is examined and discussed at length in this chapter, driving the discussion of academic dishonesty into two separate and distinct sections. The first section examines the prevalence and severity of academic dishonesty in the American system of higher education, while the second examines the precipitating or causal factors that researchers

have commonly associated with academic dishonesty. The discussion of religion and human behavior is also divided into two sections. The first section examines the relationship between religion and criminal propensity. The second examines the advent and development of the religious orientation concept.

At the time this study was conducted, there was no existing scholarship that directly examined the relationship between religious orientation and academic dishonesty, hence the need for the study. However, there was some very limited research that provided a cursory evaluation of the relationship between academic dishonesty and religion in a much broader and more general sense. This limited body of scholarship was incorporated into, and examined from the framework of the other areas that are discussed in this chapter. In order to provide the clearest and most up to date picture of the existing body of literature, attention was focused on studies that had occurred in the three decades prior to publication. A number of scholars have noted that it has only been during this time period that a coherent and organized body of scholarship related to the topics being examined developed (Davis, et al., 1992; Whitley, 1998). However, in some instances it was necessary to examine seminal studies that occurred prior to this time period in order to provide context, clarity and understanding.

#### *Prevalence of Academic Dishonesty*

Estimates of the prevalence of academic dishonesty have varied widely since the results of existing research tend to indicate that student rates of participation in cheating vary dramatically, ranging anywhere from 9% to 95% (Davis, et al., 1992; McCabe & Trevino, 1997; McCabe, Trevino, & Butterfield, 2001; Sherill, Salisbury, Horowitz, & Frieman, 1971). While there is some disagreement over the exact extent of student

cheating, most studies indicate that it is a pervasive problem. Research by Jackson (2007), Pino and Smith (2003), and Haines, Diekhoff, LaBeff, and Clark (1986) found that more than 50% of surveyed students admitted to engaging in acts of academic dishonesty. In a meta-analysis of 107 studies Whitley (1998) found that on average 70% of students cheated while in college. Other researchers have placed this number at more than 80% (Cochran, Chamlin, Wood, & Sellers, 1999; Michaels & Miethe, 1989).

The variations in observed rates of academic dishonesty appear to be the result of a number of methodological and operational differences in the research (Maramark & Maline, 1993). The sampling techniques and sample sizes employed by researchers have varied, causing at least some of the disparate results observed. In addition, the design strategies implemented by researchers have not been uniform, contributing to some of the differences. Finally, the types of institutions examined in previous research studies have fluctuated dramatically. Some previous studies have focused on small private educational institutions, others have concentrated on large urban universities, and still others have examined medium sized state institutions of higher education. Existing studies have also examined faith-based institutions, community colleges, liberal arts colleges, and research focused universities. As a result, it is difficult to generalize the research findings from one study to another, given the widely different environments in which they were conducted.

Methodological differences are not the only factors that have differentiated previous research. Studies have also varied regarding how they have operationalized and measured academic dishonesty. Clearly, there is no one universally accepted definition of what academic dishonesty is or is not. This is perhaps expected given that academic

dishonesty is best viewed as a malleable and fluid concept, rather than a rigid and unchanging one. Early researchers tended to view academic dishonesty as only one manifest form of deceitful behavior (Hartstone & May, 1928). Others have defined academic dishonesty as the giving or receiving of unauthorized assistance in a quiz or examination (Storch, 2002). Some have tended to focus their definition around claims of credit for the work of others (Cahn, 1986). This definition is especially prevalent with researchers who have focused on plagiarism of written materials or ideas (Kibler, Nuss, Paterson, & Pavela, 1986). Finally, some have assumed a more inclusive view of academic dishonesty, understanding it as any type of student dishonesty or deceitfulness (Bowers, 1964).

As a result of these differences, it is difficult, if not impossible, to reach a singular conclusion regarding the prevalence of cheating. Instead, academic dishonesty must be viewed from a contextual perspective. Rates of involvement will vary in direct relation to the manner in which academic dishonesty is defined and the environment and context in which it occurs. While there are many different behaviors that qualify as academic dishonesty, the majority of the existing studies have focused on cheating on examinations and plagiarizing written work (Maramark & Maline, 1993). Large studies of this nature have tended to find relatively stable rates of student participation. McCabe (1992) found that 67% of the students in his sample admitted to cheating on examinations. This particular finding was somewhat surprising as the institutions selected for inclusion in this study were classified as “elite” educational institutions which might reasonably be expected to be more resistant to student cheating. Bowers (1964) found that over 75% of students from a large sample of 99 state colleges and universities admitted to cheating at

some point during their college careers. McCabe and Trevino (1996) discovered that 70% of students in their study admitted to cheating on exams, while 80% admitted to cheating on written assignments, and 50% admitted to engaging in inappropriate collaboration with other students. In a study involving three community colleges of differing sizes and three public universities, Jackson found self-reported incidents of cheating among 75% of community college students and 85% of university students (Jackson, 2007). It also appears that prevalence rates of many types of academic dishonesty have been slowly, but steadily, increasing over the course of the last few decades. The results of one study indicated that the percentage of students admitting to cheating on exams rose from 63% in 1963 to 70% in 1993 (McCabe & Trevino, 1996).

Disagreements regarding the prevalence of academic dishonesty are not strictly limited to students in the American system of higher education. Research conducted with faculty members has also produced contradictory results. A survey of faculty at a large multi-campus community college found that 80 percent had suspected, and 65 percent had confirmed, acts of academic dishonesty in their classes (Burke, 1997). Research results such as these tend to support the contention that academic dishonesty is a pervasive problem. However, other research (Cizek, 1999) indicated that faculty members believed academic dishonesty occurs less frequently than student self-reports would suggest. The reasons for these contradictory findings are somewhat unclear. Some have argued that they result from a general lack of common definitions regarding what academic dishonesty is (Schmelkin, Kaufman & Liebling, 2001). Others believe that the differences are the result of a general unwillingness among many faculty members to acknowledge or confront instances of academic dishonesty in the classroom



(Jendrek, 1989). The latter assertions are supported by the results of faculty surveys which have indicated that dealing with incidents of academic dishonesty is widely viewed as one of the most undesirable aspects of the teaching profession (Keith-Spiegel, Tabachnik, Whitley & Washburn, 1998).

### *Causal Factors*

Since the beginning of organized systems of higher education, researchers have attempted to determine why students decide to cheat. The research in this area has indicated that many factors influence the general propensity of students to engage in acts of academic deviancy. These factors can logically be grouped into two general collective categories: internal factors and external factors. Internal factors are those directly related to, or those that originate within, the individual student. External factors, on the other hand, are those that originate outside the individual student within the surrounding social, political, or cultural environments.

### *Internal Factors*

One of the first factors related to cheating that researchers have examined is academic achievement. This is perhaps not surprising given the intuitive appeal associated with the traditional assumption that superior students have less need to cheat than do inferior students. While there are a variety of ways to gauge academic achievement, most studies have used grade point average as a common barometer. Academic achievement appears to be negatively correlated with academic deviancy. Students with lower grade point averages appear to be more likely to cheat than those with higher grade point averages (Antion & Michael, 1983; Baird, 1980; Bowers, 1964; Crown & Spiller, 1998; Davis & Ludvigson, 1995; Diekhoff, LaBeff, Clark, Williams, Francis, & Haines, 1996; Graham,

Mondray, O'Brien, Steffen, 1994; Hetherington & Feldman, 1964; Lipson & McGavern, 1993; McCabe & Trevino, 1997; Roig & Neaman, 1994; Tang & Zuo, 1997; Tibbetts, 1999).

Other researchers have stressed the importance of using more subjective measures than grade point average when attempting to measure student academic achievement. These types of measures rely on student perceptions of their academic abilities more than they do the more objective scores generated from student transcripts. Results appear to indicate that students who lack confidence in their academic abilities are more likely to engage in acts of academic dishonesty than are students with greater confidence (Labeff et al., 1990; Leming, 1980; Schab, 1991; Tang & Zuo, 1997; Ward, 1986). Other studies have found that students who fear they will be unable to meet a specific professor's high academic standards and expectations will be more likely to cheat than those that are not concerned about such issues (Barnett & Dalton, 1981; Davis & Ludvigson, 1995). There appears to be ample evidence to support the contention that low academic achievement is related to cheating propensity. However, it has also been noted that the existing research cannot rule out the idea that students who perform well academically are simply better cheaters who are less likely to be detected and less willing to admit their involvement (Robinson et. al., 2004).

Age also appears to be negatively correlated with academic deviancy. A number of studies have found that underclassmen tend to report higher rates of cheating than do their upperclassmen counterparts (Antion & Michael, 1983; Crown & Spiller, 1998; Haines et. al., 1986; McCabe & Trevino, 1997; Park, 2003; Straw, 2002). There is also evidence that older students tend to be less accepting of cheating than are younger

students. Lambert, Ellen, and Taylor (2003) examined how students viewed academic dishonesty and found older students were more likely than younger students to view cheating as a serious offense. Older students also tend to be more likely to support more serious sanctions for those caught cheating. Kuther's (2003) research indicated that junior and senior students disagreed more with faculty members who ignored acts of cheating and failed to punish cheaters than did freshman students.

While studies have found relatively consistent evidence that age influences attitudes toward academic dishonesty, less consistent results exist regarding the influence of gender. Some studies (Bowers, 1964; Hetherington & Feldman, 1964, McCabe & Trevino, 1997) found that males cheat more frequently than females. Others (Buckley, Wiese & Harvey, 1998) have argued that greater male involvement in academic dishonesty is simply a reflection of the greater male tendency to view unethical behavior as acceptable. For example, Lambert et. al. (2003) obtained results which indicated that women were more likely than men to view scenarios involving academic dishonesty as a serious matter. Contradictory research (Antion & Michael, 1983; Leming, 1980) found that female students actually cheat at higher rates than do male students. Leming's (1980) research results supported the contention that women cheat more, but only under low-risk conditions. To further complicate this issue, other researchers (Baird, 1980; Crown & Spiller, 1998; Haines et. al., 1986; Whitley, 1998) obtained results which indicated that there is no difference in the prevalence rates of cheating between male and female students.

While many researchers have focused on biological or genetic factors like age and gender, others have focused on the decisions that individual students make, such as the

choice of a college major. A small but growing body of research appears to indicate that attitudes toward academic dishonesty are more accepting among business majors than they are among students from other majors (Crown & Spiller, 1998; Roig & Ballew, 1994). These divergent attitudes appear to carry over into the actual behaviors of students majoring in business. A number of studies have reported that business students are the most likely to cheat by major, followed by students in engineering and then humanities programs (Meade, 1992; Park, 2003; Pullen, Ortloff, Casey, & Payne, 2000). While the bulk of the research appears to support the contention that business students are disproportionately likely to cheat, not all of the existing research has supported this contention (Brown, 1996; Nowell & Laufer, 1997).

A number of studies have also found that the social activities in which students engage are correlated with both their perceptions of and their involvement in acts of academic dishonesty. Activities like drinking, partying, and fraternity or sorority membership have all been found to be positively correlated with rates of academic dishonesty (Baird, 1980; Crown & Spiller, 1998; Kirkvliet, 1994). While a definitive cause for this relationship has yet to be established, it may be because students overly involved in extracurricular social activities do not have enough time to devote to their studies. This explanation is provided with some support by research which has indicated that students who spend less time studying are more willing to cheat than are students who spend more time studying (Michaels & Miethe, 1989; Whitely, 1998).

The decision to join a fraternity or sorority may have special implications in regards to the student choice to engage in academic dishonesty. Researchers have found that there is a positive correlation between fraternal membership and the propensity to cheat

(Haines et. al, 1986) and that fraternity and sorority members are more likely to cheat than non-members (Stannord & Bowers, 1970, Storch & Storch, 2002). Not only does the decision to engage in Greek membership appear to influence cheating behaviors, but as the degree of involvement in fraternities and sororities increases, so does the extent of academic dishonesty (Storch & Storch, 2002). Bolin (2004) summarized some of the existing research in this area by noting that Greek membership is one of three primary factors in existing research that have been found to increase the opportunity to engage in academic dishonesty.

A number of possible causes for these findings have been suggested. As noted above, some have suggested that involvement in fraternal organizations limits the time available to study, making cheating a practical necessity (Storch & Storch, 2002). Others have asserted that Greek organizations are especially conducive to the creation of cheating behaviors because they convey both the values and mentalities that are associated with and justify student cheating (McCabe & Trevino, 1997; Storch & Storch, 2002). Finally, some have argued that the observed relationship between Greek involvement and cheating is the result of greater access to the materials and skills needed to engage in acts of academic dishonesty (McCabe & Trevino, 1997; Storch & Storch, 2002). For example, membership in a fraternity or sorority provides students with ready access to an existing pool of older, more experienced students in the form of their fellow Greek members. These older students can then suggest cheating strategies and may even be able to make old copies of exams and course papers available to younger students.

The connection between extracurricular activities and student cheating may also extend to participation in student athletic programs. Research indicates that student

athletes tend to be more accepting of various types of academic dishonesty (Bowers, 1964; Haines et. al., 1986; LaBeff et. al., 1990), and studies have documented significantly higher rates of cheating among student athletes (Aaron & Georgia, 1994; Mitchell & Wisbey, 1995; Pavela & McCabe, 1993). These findings apply to both intramural and institutional athletic programs and are a significant cause for concern for the American higher education system because of the negative effect they have on public image and public support. While the initial research in this area appears to indicate that a significant relationship exists, it must be viewed with a certain amount of skepticism. The amount of scholarship is limited and has tended to involve relatively small sample groups. As a result, it would be premature to generalize these findings to all student athletes or all American educational institutions.

Another internal factor that has been examined is the student's initial motivation for attending college. Clearly, not all students enter the higher education system for the same reasons. The literature identifies three primary student motivations for learning: intrinsic, extrinsic, and amotivational (Vallerand, Pelletier, Blais, Briere, Senecal, & Vallieres, 1992). Intrinsic learning motivations are based on an individual's internal desire to learn in order to expand his or her knowledge base and experience a sense of personal growth and development. Extrinsic learning motivations are based on external factors, such as a desire to secure advancement or pursue a better paying career. Amotivation might best be viewed as lack of motivation to learn. Individuals manifesting amotivational characteristics tend to feel that education is generally a waste of their time and effort. Several studies indicate that individuals attending college primarily for extrinsic reasons are more likely to engage in acts of academic dishonesty (Davis & Ludvigson, 1995;

Jordan, 2001; Michaels & Miethe, 1989) than are those attending for intrinsic reasons. Other researchers have found that students primarily focused on getting good grades are more likely to approve of academic dishonesty than are students whose primary educational objective is to understand the material presented in the courses they take (Diekhoff, LaBeff, Clark, Williams, Francis & Haines, 1996; Huss, Curnyn, Roberts, Davis, Yandell & Giordano, 1993; Jordan, 2001; Newstead, Franklyn-Stokes & Armstead, 1996).

One of the final internal factors examined by researchers has been the absence or presence of moral and ethical justifications for involvement in acts of academic dishonesty (LaBeff et. al., 1990; McCabe, 1992; Storch et. al., 2002). Most of this research has focused on the early work of Sykes and Matza. Sykes and Matza (1957) developed and expanded a philosophy that is commonly referred to as drift or neutralization theory. They argued that individuals are better able to engage in deviant behaviors without injuring their non-deviant self-image when they are able to justify what would otherwise be viewed as deviant actions. These justifications are referred to as techniques of neutralization and they provide a means by which individuals can neutralize any guilt they might feel for engaging in deviant activities (Klockars, 1974; Minor, 1981; Storch, 2002; Sykes & Matza, 1957).

There are seven primary techniques of neutralization, of which four have dominated the research related to academic dishonesty: denial of responsibility, denial of injury, appeal to higher loyalties, and condemnation of the condemners (LaBeff et. al., 1990; McCabe, 1992). The denial of responsibility involves an assertion that factors beyond the individual's control are ultimately responsible for their deviant actions. As a result,

individuals are able to assert a claim that they should not be held responsible for their actions or for the results of their actions. The denial of injury involves a claim that no one was really injured as a result of the individual's actions. The underlying reasoning of individuals advancing this technique of neutralization is that since no one was hurt, there is no reason for concern regarding the individual's actions or behaviors. Condemnation of the condemners is a neutralization technique based on the assumption that those who might criticize ethically dubious actions have likely engaged in similar behaviors in the past. As a result, those who might stand in judgment of the individual can be labeled as hypocritical and easily ignored. This allows individuals to displace any feelings of guilt on their accusers, rather than having to accept personal responsibility. Finally, an appeal to higher loyalties involves the process by which individual escape guilt through claims that their actions were necessary in order to accomplish some higher purpose. Once it has been identified, the higher purpose can be used to justify a wide variety of deviant behaviors, including academic dishonesty.

Research has indicated that that neutralization or drift theory can accurately predict which students will engage in acts of academic dishonesty and which students will not (Haines et. al., 1986). In addition, studies indicate that neutralization theory can also help determine which students will be more likely to persist and continue to engage in academically deviant behavior across extended periods of time (LaBeff et al., 1990; McCabe, 1992; Storch, 2002). The research related to neutralization techniques appears to indicate that it is the ability to rationalize ethically questionable behavior that is associated with the greater propensity to cheat (Storch, 2002). If students can find a way



of justifying behavior that they would otherwise view as unacceptable, they may be able to engage in that behavior more easily.

### *External Factors*

Researchers have also examined the influence of a variety of external factors on the propensity of an individual to approve of, or engage in, acts of academic dishonesty. External factors are defined as those that are present in the individual's environment and involve issues over which the individual has little, if any, significant control. Researchers have identified a variety of external factors, including peer group influence, familial academic achievement, instructional attitudes and action, institutional policies and practices, and characteristics of the institutional setting. Collectively these factors appear to provide some additional insight into why some students engage in acts of academic dishonesty while others do not.

As is the case with some other types of socially undesirable behaviors, many have attempted to attribute academic dishonesty to negative peer group interactions. Advocates of this position argue that a child's peers exert a significant influence over his or her attitudes and behaviors. Research has indicated that peer group influence appears to be positively correlated with the propensity to engage in academic dishonesty (Bowers, 1964; Genereux & McLeod, 1995; McCabe & Trevino, 1993). In fact, McCabe and Trevino (1997) obtained results which indicated that student perception's of peer disapproval was the single most significant factor in predicting a decreased tendency to cheat. As an individual's peer group becomes more disapproving, their likelihood of involvement decreases. Conversely, as an individual's peers become more accepting of academic dishonesty, their likelihood of involvement increases. This assertion is

supported by research which has found that students who observe their peers cheating or who associate with cheating peers are significantly more likely to cheat themselves (Crown & Spiller, 1998; Genereux & McLeod, 1996; Mixon, 1996).

The extent, or lack thereof, of academic achievement in the student's family may also be related to cheating behaviors. Familial academic achievement appears to be inversely related to the likelihood of engaging in academic deviancy. A small body of research indicates that students of more highly educated parents tend to be less likely to cheat during their college careers than are students of less educated parents (Bowers, 1964; Kirkvliet, 1994). It is believed that these findings are the result of a number of factors. First, students from families with higher levels of education are more likely to be better prepared for college academically and are also likely to receive greater levels of familial commitment to the educational process. Secondly, since wealthier families have traditionally had more disposable income they are frequently better prepared to assist their children with the financial demands associated with a college education. It may also be that students of better educated families have greater intrinsic academic maturation.

Faculty members have also been examined in an attempt to determine how they might contribute to the problem of academic dishonesty. Research indicates that faculty members may play a key role in both the creation and prevention of academic dishonesty. Examinations or assignments that students view as being excessively difficult or unfair are likely to generate higher rates of cheating by freeing students from any moral inhibitions concerning their involvement (Ashworth et. al., 1997; Haines et. al., 1986; McCabe & Trevino, 1996). Genereux and McLeod (1995) obtained results which indicated that a lack of instructor vigilance also contributes to the prevalence of student

cheating. Students appear to associate a lack of instructional vigilance with a lack of instructional concern regarding student cheating. This belief appears to make some students feel that cheating is more justifiable or accepted.

Other researchers have found that situational factors which can be controlled by the instructor can contribute to student cheating rates. Administering exams in large lecture halls, failing to space students away from each other, a lack of adequate proctoring, and an unwillingness to use multiple versions of an exam have all been shown to increase rates of academic dishonesty (Davis et. al., 1992; Maramark & Maline, 1993). These factors appear to increase the likelihood of cheating because they are associated with a decreased threat of discovery, apprehension, and punishment. An instructor's general attitudes and beliefs also appear to be associated with the prevalence of academic dishonesty. Faculty members who are believed to have lax attitudes toward academic dishonesty or who appear to have little interest in the topic being taught tend to foster greater student involvement in acts of cheating (Ashworth et. al., 1997; McCabe & Trevino, 1996). Results such as these have led to increased calls for faculty members to clearly communicate their attitudes toward, and policies regarding, academic dishonesty to students.

Finally, a number of institutional contributions to the prevalence of academic dishonesty have been examined. The simple absence or presence of an institutional policy prohibiting academic dishonesty may have an influence on student cheating (Aaron, 1992; Crown & Spiller, 1998; Fass, 1990). Obviously, a lack of policy might be construed by students as a form of de facto institutional permission to cheat. In addition, the specific manner in which institutions define academic dishonesty may influence rates

of student involvement. Students who are confused as to which types of behaviors constitute academic dishonesty are more likely to engage in behaviors that are viewed as being ethically ambiguous (Barnett & Dalton, 1981; Ludeman, 1988; Singhal, 1982; Uhlig & Howers, 1967). If an act is not specifically designated as a type of academic dishonesty, students may make the assumption that the act is not prohibited. As a result, an overly narrow definition of academic dishonesty may provide students with additional opportunities to engage in acts of cheating.

Having clearly communicated, inclusive academic dishonesty policies, while important, does not alone appear to be sufficient to prevent academic dishonesty. An institutional willingness to enforce policies also appears to reduce the prevalence of cheating (Burke, 1997; Jendrek, 1989; Nuss, 1984; Roig & Ballew, 1994). Collectively, these findings indicate that educational institutions must follow a two-pronged approach in relation to the prevention of academic dishonesty. First, stringent standards must be created and clearly communicated. Second, these standards must be vigorously enforced after being created. Perhaps somewhat surprisingly, research has indicated that students do not oppose stringent penalties for cheating so long as the policies that regulate these behaviors are clear and the resultant punishments are evenly enforced (Ashworth et. al., 1997; McCabe & Trevino, 1996).

### *Delinquency and Cheating*

Efforts to understand, control, and prevent academic dishonesty have ultimately led to the application of criminological theories (Michaels & Miethe, 1989; Storch, 2002). The logic supporting the integration of criminological theories into the study of student cheating is based on the underlying idea that academic dishonesty is only one of many

forms of deviant behavior. As a result, theories aimed at explaining other types of deviant behavior, such as criminal involvement, are thought to be applicable. A number of researchers have identified a link between criminal types of activities and academic dishonesty. Bunn, Caudill, and Gropper (1992, pg. 198) conducted an economic evaluation of undergraduate cheating and noted that “It is easy to draw an analogy between cheating in the classroom and the crime of theft”. Other researchers have echoed these sentiments (Kerkvliet, 1994; Kerkvliet & Sigmund, 1999; Michaels & Miethe, 1989; Mixon, 1996; Tittle & Row, 1974). Collectively the work of these researchers has formed the base of what has become known as the economic theory of academic dishonesty.

This theory posits that there are a number of significant similarities between crime and academic dishonesty. Just as there are laws governing criminal behavior, there are also laws governing student cheating in the form of institutional policies, honor codes, and syllabus admonitions (Bunn et al., 1992; Kerkvliet, 1994; Kerkvliet & Sigmund, 1999; Mixon, 1996). Just as police officers enforce the law in society, there are enforcement agents in the classroom in the form of faculty members, proctors, and disapproving fellow students (Bunn et al., 1992; Kerkvliet, 1994; Kerkvliet & Sigmund, 1999; Mixon, 1996). Finally, just as criminals balance the benefit of committing a criminal act against the potential penalties, so to do students examine what is to be gained or lost when deciding to engage in an act of academic dishonesty (Bunn et. al, 1992; Kerkvliet, 1994; Kerkvliet & Sigmund,1999; Mixon, 1996).

### *Religiosity and Delinquency*

It is plausible to expect that research related to the relationship between religion and delinquency would be applicable to the relationship between religion and academic dishonesty. The study of this relationship began well over a century ago (Lombroso, 1911) and interest has not ceased since that time (Baeir & Wright, 2001). Contemporary research in this area began in earnest with Hirschi and Stark's (1969) landmark study entitled "Hellfire and Delinquency". This study was an empirical evaluation of Hirschi's (1969) Social Bond Theory, which is one of the most recognized and empirically tested versions of social control theory in current use (Vold & Bernard, 1988).

Social Bond Theory developed in response to prior theories which held that delinquent behavior was the result of abnormal cognitive development, genetic predisposition, or social environments that corrupt otherwise well meaning individuals. Hirschi (1969) argued that humans have a universal motivation to engage in delinquent behavior due to their hedonistic nature. Rather than attempting to understand why some individuals engage in delinquent behavior, it is better to examine why everyone does not. According to Hirschi (1969), individuals are able to avoid their natural inclinations to engage in deviant behaviors if they are able to develop ties, or bond, to conventional social institutions. Through these ties, individuals will be able to internalize social norms that mandate respect for society's rules and laws. Those individuals who do not develop ties to conventional society will be more likely to engage in a variety of antisocial behaviors.

There are several interrelated components of social bonds that Hirschi (1969) recognized. Attachment refers to the degree of consideration that an individual has for the opinions and expectations of others (Lanier & Henry, 2004). Commitment refers to

the amount an individual has invested in conventional behavior, or the amount they feel they would lose by engaging in delinquent activities (Lanier & Henry, 2004).

Involvement refers to the amount of time an individual devotes to conventional types of activities (Lanier & Henry, 2004). Belief refers to the final component of a social bond and the one that solidifies the other elements. This component refers to a fundamental belief in, and commitment to, conventional types of behaviors and actions (Lanier & Henry, 2004).

A number of conventional social institutions that influence the development of social bonds have been identified, including family, peers, school, and employers. One particular type of conventional social institution that has received significant attention is religion (Baier and Wright, 2001). Hirschi and Stark's (1969) "Hellfire and Delinquency" study found that there was no significant relationship between religious beliefs and criminal propensity among a large sample of high school students. The study generated considerable controversy among researchers and the public and was responsible for generating a large number of follow up studies. Some of these studies found that religion had a significant influence on criminal propensity (Albrecht, Chadwick, & Alcorn, 1977; Burkett & White, 1974; Cochran & Akers, 1989; Grasmick, Bursik, & Cochran, 1991; Higgins & Albrecht, 1977; Johnson, Marcos, & Bahr, 1987; Powell, 1997) while others did not (Benda & Corwyn, 1997; Evans, Cullen, Burton, Dunaway, Payne, & Kethineni, 1996; Gorsuch & McFarland, 1972; Jensen & Erickson, 1979; Krohn, Akers, Radosevich, & Lanza-Kaduce, 1982; McIntosh, Fitch, Wilson, & Nyberg, 1981; Ross, 1994; Sloane & Potvin, 1986).

Baier and Wright (2001) noted that after decades of intense research, the true nature of the religion-crime relationship was still unclear. As a result of the ongoing contention regarding this issue, researchers at the close of the 20<sup>th</sup> century turned their attention to trying to explain the differences that had been found in the research conducted up to that point in time. Some of the disparate results observed were attributed to methodological differences. These differences included variations in study design, sampling strategies, and sampling populations (Wells & Rankin, 1991). Others noted that differences in the way in which researchers had measured and operationalized religion was ultimately responsible for the vastly different findings that had been obtained (Benda, 1995). Many researchers supported this contention, arguing that religion is a multifaceted concept that must be measured along several different dimensions (Allport, 1966; Stark & Glock, 1968; Woodroof, 1985). As a result, studies which had measured religion along only a single dimension, such as church attendance, were largely dismissed as lacking both validity and reliability (Cochran, 1988; Higgins & Albrecht, 1977; Tittle & Welch, 1983; Welch, Tittle, & Petee, 1991).

Other researchers noted that geographic contexts influenced the significance of religious beliefs. The moral-community hypothesis holds that religion will only have a significant influence on human behavior in areas where it is integrated into the larger culture and accepted as a desirable basis for human actions, behaviors, and beliefs (Baier & Wright, 2001; Stark, 1996). As a result, geographic areas in which religion is a more important part of life and culture will tend to exhibit more valid research results than will areas that are more highly secularized. This explanation is believed to explain the original results obtained by Hirschi and Stark (1969) that suggested no significant



relationship. Their sample was drawn from a highly secularized region along the west coast of the United States where religion is not believed to have the cultural significance that it does in many, if not most, other areas. Some (Allport, 1966; Allport & Ross, 1967) have argued that these geographic differences only mask a larger, more significant underlying factor. More specifically, it has been argued that geographic regions vary in regard to the distribution of the religious orientation of their residents. As a result, the differences observed in prior research are really the result of differences in religious orientation, rather than any inherent differences in the regions themselves.

Other researchers have asserted that only certain types of crimes are influenced by an individual's religious beliefs. The type-of-crime hypothesis holds that religious beliefs will exert a stronger influence in situations where other social institutions are less influential in controlling human behavior. There will be fewer social and legal prohibitions against less serious types of criminal offenses and those offenses that are commonly referred to as "victimless" crimes. At the very least the prohibitions that do exist against these types of offenses will be less universally accepted. In these instances, religious beliefs will hold greater influence over an individual's behavior because other types of formal or informal social controls are either weak or absent. In other circumstances when other social controls exert a more pronounced influence, religious beliefs will tend to become less influential (Burkett & White, 1974).

When viewed collectively, studies of the relationship between religion and delinquency have tended to indicate that religion does exert a significant, albeit moderate influence on criminal propensity (Baeir & Wright, 2001). The strength of this relationship will likely be determined by a number of factors, including geography, type

of offense, and the type of methodology employed by researchers. Given the ample evidence that at least a moderate relationship exists between religion and criminal propensity, it is plausible that a similar relationship will exist between religion and other types of deviant behavior, such as academic dishonesty.

### *Religious Orientation*

There is strong theoretical and intuitive support for the contention that religious beliefs should exert a strong influence over the attitudes and behaviors of believers. Ideally, religion teaches adherents to be patient, kind, honest, caring, humble, and generous toward others. Christians specifically are taught that they should make every attempt to be more 'Christ-like' in the way they think, speak, behave, and act (Perrin, 2000). As a result, there is a widely held public assumption that religious beliefs should result in the manifestation of certain specific types of behavioral traits among the faithful. More specifically, it is widely believed that religious believers should be, among other things, more honest, law abiding, and benevolent than non-believers. There is a significant amount of theoretical support for these widely held public assumptions (Perrin, 2000).

Cognitive dissonance theory holds that individuals are motivated to behave in ways that are consistent with their beliefs and values. A failure to do so can result in a sense of unresolved dissonance that can become a source of personal angst and discomfort (Festinger, 1957). It is therefore reasonable to assume that individuals who have incorporated religious principles, such as honesty and piety, into their value system would be less likely to act in a manner inconsistent with these values. Differential association theory holds that individuals learn both pro-social and anti-social behaviors

through the favorable and unfavorable definitions or examples that are provided to them by others in their social environments (Sutherland, 1947). It is plausible that religious individuals would be more likely than non-religious individuals to be exposed to more frequent and more favorable instruction definitions regarding the value of following rules, abiding by the law, and avoiding ethically questionable behaviors. Durkheim (1947) argued that religion was one of many factors that could unite individuals into a socially integrated moral community. Thus, religion might logically be viewed as a social institution which results in a more cohesive community and the creation of individuals who were less likely to violate group norms, rules, and expectations. Finally, Hirschi (1969) advanced a social control theory based on the assumption that human behavior can only be controlled through the development of an investment in conformity. This investment in conformity is developed through the creation of strong ties or bonds to conventional, conforming, or law abiding institutions and individuals. It is reasonable to assume that religious individuals will have more opportunities to develop the strong ties necessary to bond them to conventional behavior and reduce their likelihood of engaging in deviant acts.

The strong theoretical support for the contention that religious beliefs influence human behavior has generated a plethora of research. Studies have indicated that religious beliefs influence voting behavior (Magleby, 1984), sexual relations (Thornton & Camburn, 1987; Libby, 1970), educational achievement (Darnell & Sherkat, 1997; Lehrer, 2004), marital decisions and relations (Chiswick & Lehrer, 1991), fertility rates (Heaton, 1986; Lehrer, 1996), economic achievement (Freeman, 1986; Lehrer, 2004), and divorce rates (Call & Heaton, 1997; Lehrer & Chiswick, 1993). However, despite several

decades of research, there continues to be widespread disagreement among researchers and scholars regarding the extent to which religious beliefs actually influence human behaviors and attitudes. This lack of agreement is likely the result of the inconsistent research results that have been obtained in the past (Perrin, 2000). As noted, some studies have found that religion has no influence on human behavior (Burkett, 1993; Ellis & Thompson, 1989) while others have found that religion has a dominant influence on human behavior (Chadwick & Top, 1993; Grasmick, et al., 1991).

One of the most commonly cited explanations for the disparate results obtained in prior research has been the inherent difficulty in objectively defining and measuring religion. Clearly, religion can mean different things to different people. As a result, religious beliefs may be a very significant factor for some followers, while being much less consequential for others. These problems have been exacerbated by the traditional tendency of researchers to use generalized self-report measures. While self-report studies offer a number of significant benefits when used in research of this nature, they also introduce a significant potential bias. Participants might consider themselves to be religious, and report themselves as such, simply because they feel it is socially acceptable for them to do so. In reality, religion may be a very minor influence on their lives, attitudes, and behaviors. If this were to occur frequently enough, it would help to explain the conflicting and somewhat counterintuitive results obtained through prior research.

In order to resolve this problem a number of researchers began searching for solutions. One of the leading researchers in the field, Gordon Allport, was instrumental in helping to refine and expand one possible solution; the concept of religious orientation. Allport began to examine this concept after obtaining research results which indicated that

Christians exhibited higher rates of prejudice toward others than did non-Christians (Allport & Kramer, 1946). Dissatisfied with these initial findings, Allport (1950) asserted that not all religion was equal and that there are several different types of religious individuals, based upon their internal orientations to religion (Allport, 1950; Allport, 1966; Allport & Ross, 1967). For some who profess to be religious, religion has little significant meaning or purpose and is instead viewed selfishly as a means to an end. To Allport (1950) these individuals manifested an extrinsic religious orientation that dictated using religion with an ulterior motive. Extrinsically religious individuals are likely to consider themselves to be religious and to report themselves as such during the course of a research study. However, religious principles and teachings would have little real meaning or influence on their lives and behaviors.

For others, religion has significant meaning and purpose and is viewed as one of the fundamental forces or directives guiding their lives. Allport (1950) asserted that these individuals exhibited an intrinsic religious orientation that mandated incorporating religious teachings as a part of the individual's lived experiences. Intrinsically religious individuals would certainly consider themselves to be religious and would obviously report themselves as such during the course of a research study. However, unlike their extrinsic counterparts, intrinsic individuals would strive to live their lives in accordance with their religious beliefs and principles. A failure to do so would likely be viewed as a critical fault or failure that must be remedied. Allport (1950) was also able to identify an indiscriminately anti-religious orientation for those individuals who were either atheistic or agnostic and an indiscriminately pro-religious orientation for those individuals manifesting both intrinsic and extrinsic traits.

Once Allport had identified these four dimensions of religious orientation, he was able to revise his initial research findings by noting that religious individuals in general are not more prejudiced than non-religious individuals. Instead, extrinsically motivated Christians were more likely to exhibit prejudiced attitudes than were Christians manifesting an intrinsic religious orientation (Allport & Ross, 1967). Perrin (2000, p. 535) aptly summarized these results by stating that “Since most churchgoers are extrinsics, the argument goes, it is not surprising that most studies find higher rates of prejudice among churchgoers.” Allport’s assertions led to a significant amount of additional research and scholarship regarding the intrinsic-extrinsic concept (Gorsuch & McPherson, 1989; Gorsuch & Venable, 1983; Hoge, 1972; King & Hunt, 1975; Kirkpatrick, 1989). Much of this research has supported Allport’s contention that intrinsic individuals are more likely than extrinsic individuals to act and behave in accordance with their religious principles. It should be noted that not everyone concurs with Allport’s assertions regarding the validity and applicability of the intrinsic-extrinsic concept (Batson, 1976). However, there is widespread agreement that religion is a complicated subject that is difficult to fully represent and comprehend with a single definition or label. Even those individuals who disagree with Allport have frequently attempted to create their own methods of identifying and differentiating more committed religious followers from their less committed counterparts.

Existing research indicates that a wide variety of personal, familial, institutional, contextual, and social factors influence rates of involvement in acts of academic dishonesty. In spite of the additional understanding about student cheating that has been generated as a result of existing research, academic dishonesty remains a significant

problem for the American system of higher education. The continued prevalence of academic dishonesty indicates that a complete understanding of all relevant contributing factors has not yet been achieved. One possible contributing factor that has been largely overlooked in the existing body of scholarship is religious orientation. The lack of knowledge is particularly troubling given that past research results have indicated religious orientation to have a strong influence on a variety of individual behaviors, beliefs, attitudes, and outlooks. It would seem logical then, that religious orientation might also contribute to student involvement in acts of academic dishonesty.

## CHAPTER 3

### Methods

#### *Introduction*

This study was developed in response to the perceived gaps that existed in the body of scholarship related to factors that influence student attitudes toward, and involvement in, acts of academic dishonesty. This is not to say that prior research in this area was not robust, but rather that it was not yet fully complete. Not all of the different cognitive, social, economic, psychological, and environmental factors associated with academic dishonesty had been identified and fully examined. One particular factor that had yet to receive sufficient attention is religious orientation. The primary purpose of this study is to determine if a student's religious orientation influenced his or her general attitudes toward academic dishonesty, involvement in acts of academic dishonesty, and perceptions regarding the opportunities available to engage in cheating. Few of these foci had been examined individually in earlier research and they had never been examined at the same time in the same study.

Four separate survey instruments were used to gather the data necessary for this study. Once the data were collected and cataloged into a statistical software database they were analyzed using a series of Multivariate Analysis of Variance (MANOVA) and Analysis of Variance (ANOVA) statistical tests. These statistical techniques were used in order to examine if the religious orientation of study participants had an influence on each of the three dependent variables of interest. The dependent variables of interest were attitudes toward acts of academic dishonesty, involvement in acts of academic dishonesty, and perceptions regarding the prevalence and availability of opportunities to engage in acts of



academic dishonesty. In each case, the independent variable of interest (one of the four categories determined by the Religiosity Scale) was analyzed against each of these dependent variables to determine if religious orientation resulted in significant variance. The results obtained provided additional insight into the factors that influenced and precipitated a student's choice to engage in cheating. Additionally, the intent of the study was to help spur further research and future discussion regarding an area of academic dishonesty that has been largely overlooked in the past.

#### *Rationale for Design*

This study used a series of anonymous, self-administered online surveys as its sole data gathering component. The decision to use a self-administered survey was based on the belief that this approach was most appropriate when attempting to gain information on sensitive topics or issues related to personal behavior (Couper & Stinson, 1999). Bradburn and Sudman (1979) suggested that anonymous questionnaires are the most desirable approach when dealing with sensitive topics because they increase the likelihood of receiving accurate information. If participants feel that their responses regarding controversial issues can be linked to them they may answer in a socially acceptable, but less accurate manner (Czaja, 1987). The lack of directly identifiable responses increases feelings of anonymity, thereby reducing participants' desires to be less than totally honest in their responses. This was an especially critical issue in this study, since the data collected pertained to religious orientation and academic dishonesty which are both personally sensitive issues. In addition, past research has indicated that anonymous questionnaires result in increased validity over other alternatives, such as face-to-face and telephone interviews (Dare & Cleland, 1994; Rossi, Wright, &

Anderson, 1983). Allowing participants to submit the survey in an online environment increased feelings of anonymity and helped yield more accurate results.

There are also a number of criticisms that have been associated with self-administered survey instruments. Some of the most common are that they have limited value with illiterate populations, result in elevated levels of missing data, and fail to give researchers the chance to follow up on participant responses by asking probing questions of clarification (Durant & Carey, 2000). The criticism regarding literacy was not a concern with the sampling population used in this study, all of whom were current students at a public institution of higher education that relied on competitive admission standards. Research (Edwards, Roberts, Clarke, DiGuisseppie, Pratap, Wentz, et al., 2002) also appears to indicate that the other commonly cited weaknesses of self-administered questionnaires can be minimized through the use of careful and focused data collection techniques, like those that were employed in this study. Finally, all of these concerns must be weighed against the more accurate and robust information that was obtained through the use of an approach that was better suited than the other available options to the sensitive topics included in this study (Boekeloo, Schiavo, Rabin, Conlon, Jordan, & Mundt, 1994).

### *Research Questions*

The following fundamental research questions drove this study's design and methodology.

#### *Research Question One*

Did religious orientation influence participant involvement in acts of academic dishonesty?

*Research Question Two*

Did religious orientation influence the general attitudes of participants toward academic dishonesty?

*Research Question Three*

Did religious orientation influence participant perceptions regarding the prevalence of cheating or the availability of opportunities to engage in acts of academic dishonesty?

*Null Hypotheses*

In an attempt to more fully investigate the research questions identified in the previous section, the following null hypotheses were employed in this study. The null hypotheses posited that no relationship existed between the different variables of interest that were examined.

**H<sub>0</sub>1:** Students manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty than would students manifesting an extrinsic religious orientation.

**H<sub>0</sub>2:** Students manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty than would students manifesting an indiscriminately pro-religious orientation.

**H<sub>0</sub>3:** Students manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty than would students manifesting an indiscriminately anti-religious orientation.

**H<sub>0</sub>4:** Students manifesting an intrinsic religious orientation would not have different rates of involvement in acts of academic dishonesty than would students

manifesting an extrinsic religious orientation.

**H<sub>0</sub>5:** Students manifesting an intrinsic religious orientation would not have different rates of involvement in acts of academic dishonesty than would students manifesting an indiscriminately pro-religious orientation.

**H<sub>0</sub>6:** Students manifesting an intrinsic religious orientation would not have different rates of involvement in acts of academic dishonesty than would students manifesting an indiscriminately anti-religious orientation.

**H<sub>0</sub>7:** Students manifesting an intrinsic religious orientation would not perceive that any differences existed in the availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an extrinsic religious orientation.

**H<sub>0</sub>8:** Students manifesting an intrinsic religious orientation would not perceive that any differences existed in the availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an indiscriminately pro-religious orientation.

**H<sub>0</sub>9:** Students manifesting an intrinsic religious orientation would not perceive that any differences existed in the availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an indiscriminately anti-religious orientation.

**Nonparametric Test:** Each of the variables associated with these null hypotheses were nominal. As a result, a series of Multivariate Analysis of Variance (MANOVA) and Analysis of Variance (ANOVA) statistical tests was used to examine the null hypotheses. Alternative analysis approaches were considered,

such as regression, but it was not the intent of this study to determine how attitudes or behaviors might change as religiosity changed, but only if a relationship of significant variance existed between each of the dependant variables and the independent variable. In addition, the religiosity scale employed in the design only allowed participants to be assigned to categories and did not provide a continuum of religiousness.

### *Study Participants*

The participants for this study were drawn from a major public university in the Midwestern United States, referred to as “Midwestern University”. In order to ensure that statistical significance could be determined using the types of analytical techniques employed in this study a sufficient sample size was pursued. Sufficiency in regard to anticipated sample size refers to providing the minimally required number of participants in each of the four religious orientation subgroups that collectively made up the independent variable of interest. In an attempt to overcome the non-response bias that is commonly associated with mail and online surveys, it was decided that 6000 students would initially asked to participate in this study. Given the geographic region where the data for this study were collected, it was feared that only a few participants could be found with an indiscriminately anti-religious orientation. As a result, the decision was made to include a fairly large number of student participants in the original sampling frame. It was hoped that the inclusion of a large number of participants in the initial sampling frame would help ensure that a sufficient number of indiscriminately anti-religious participants would ultimately be included in the final study.

Participants for the study were those who chose to respond to a survey sent to a sample of students attending “Midwestern University” in the summer 2009 semester. A large sample of students was initially selected in order to ensure that an economically, racially, ethnically, and religiously diverse group of participants were included in the study. While the use of a single educational institution did not allow the results obtained to be generalized to larger geographic regions, the sampling procedures employed were sufficient to provide for generalizations to the larger student body at the institution from which the sample was drawn and perhaps even to other similar types of educational institutions. It was anticipated that the participant group would be largely reflective of the institution’s total student population since they were solicited from this larger population. These beliefs proved to be warranted as the participant group was found to be reflective of the larger student body in most respects.

While the study participants were generally reflective of the larger student body, they did differ in at one key regard. Participants were selected from all undergraduate students, and therefore did not represent graduate or professional students, even though graduate and professional students comprised a small, but significant portion of students attending “Midwestern University” at the time the study was conducted.

#### *Instruments Employed*

The data gathering tools used in this study consisted of four separate existing survey instruments. Each of these survey instruments examined a different aspect of religious orientation or academic dishonesty. Each was used in its full, complete, unedited, and original version. The survey instruments were used separately in the past, but they had

never been used together at the same time and they had never been used in an attempt to determine if religious orientation had an influence on academic dishonesty.

The four survey instruments contained a total of 36 questions. The first instrument, the Perceived Opportunity Scale (McCabe & Trevino, 1997), consists of eight questions and measured participant perceptions regarding the prevalence of academic dishonesty and the acceptability of academic dishonesty at their home educational institution. The second instrument, the Attitudes Toward Academic Dishonesty Scale (Davis et al., 1992), consists of four questions and measured participant's general attitudes toward academic dishonesty. The third, the Academic Dishonesty Scale (McCabe & Trevino, 1997), consists of ten questions and was designed to measure how frequently participants engaged in acts of academic dishonesty. The fourth and final instrument, the Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989), consists of 14 questions and measured how participants differed in regard to their orientation toward religion. It does not provide an indication of the degree of "religiousness," but divides participants into four categories based on characteristics of religiosity.

Each of these survey instruments was selected in accordance with several key criteria. First, each was believed to be the most appropriate option for answering the research questions associated with this study. Secondly, each of the selected subscales was recognized as a standard in its respective area of scholarship (Bolin, 2004; Hill & Hood, 1999; Jackson, 2007). In instances when there was no clear consensus regarding the most commonly accepted subscale to be used, the advice of leading researchers in the particular field of interest was sought and followed (R.W. Hood, personal communication, February 10, 2008). Finally, the selected subscales all yielded

acceptable validity and reliability scores in their repeated use in previous studies.

Researchers have been able to successfully use these scales in the past when examining a variety of issues related to either academic dishonesty or religious orientation (Bolin, 2004; Brown & Choong, 2003; Callaway, 1998; Gorsuch & McPherson, 1989; Gorsuch & Venable, 1983; Jackson, 2007; Smyth & Davis, 2003; Thorpe, Pittenger, & Reed, 1999), but never both. Each of the instruments that was used in this study is identified and described in greater detail below.

#### *Perceived Opportunity Scale*

The full original version of the Perceived Opportunity Scale (McCabe & Trevino, 1997) was included in this study as the primary means of answering research question three and null hypotheses seven, eight, and nine ( $H_07$ ,  $H_08$ ,  $H_09$ ). This scale was originally developed by McCabe & Trevino (1997) who also developed the Academic Dishonesty Scale that was also in this study. However, unlike the Academic Dishonesty Scale, which examined actual involvement in acts of cheating, the Perceived Opportunity Scale examined perceptions regarding the opportunity to cheat and the acceptability of this behavior. More specifically, this scale examined participant perceptions related to the frequency with which cheating occurred at their educational institution, how acceptable they believed cheating to be among their fellow students, and the perceived likelihood of detection that they associated with engaging in acts of academic dishonesty (Bolin, 2004). The Perceived Opportunity Scale was made up of eight separate items, two (item one and item two) of which were reverse scored (see Appendix D).

A Likert-style answer scale was incorporated and participants were allowed to choose from five possible response categories; (1) strongly disagree, (2) disagree, (3) neutral, (4)



agree, and (5) strongly agree. Prior research indicated that the items on the Perceived Opportunity Scale were valid predictors of student perceptions of opportunity to engage in acts of academic dishonesty (Bolin, 2004). However, it should be noted that not all prior research supported the existence of a predictive relationship (McCabe & Trevino, 1997). Prior research (McCabe & Trevino, 1997; Bolin, 2004) has indicated acceptable reliability levels ( $\alpha=.77$ ,  $\alpha=.73$ ).

#### *Attitudes Toward Academic Dishonesty Scale*

The full original version of the Attitudes Toward Academic Dishonesty Scale (Davis et al., 1992) was included in this study as the primary means of answering research question one and null hypotheses one, two, and three ( $H_01$ ,  $H_02$ ,  $H_03$ ). This scale was included because it was capable of measuring general student attitudes toward academic dishonesty (Davis et al., 1992). More specifically, the scale gauged participant's moral viewpoint toward, and ethical understanding of, academically dishonest behavior (Davis et al., 1992). This was a critical aspect of the evaluation, as one of the research questions related to the influence that religious orientation had on general attitudes toward academic dishonesty. The Attitudes Toward Academic Dishonesty Scale was one of the most widely accepted instruments available at the time this research was conducted through which this type of research question could be addressed (see Appendix D).

Bolin (2004) received widespread attention for his use of the Attitudes Toward Academic Dishonesty Scale. However, the instrument itself was first developed and used by other researchers (Davis et al., 1992) who refined the scale over a period of several years (Jackson, 2007). The version of the scale used in Bolin's (2004) work is actually an adaptation of the original scale (Davis et al., 1992) which was considerably longer and

more involved. One of the many available forms of this instrument has previously been used in a wide variety of educational settings and environments, including public universities, private universities, and community colleges (Davis, et al, 1992; Bolin, 2004; Jackson, 2007). For purposes of this evaluation, the revised version used by Bolin (2004) was employed in order to reduce the number of items to which study participants had to respond and to avoid the inclusion of repetitive items.

The Attitudes Toward Academic Dishonesty Scale is composed of four items. Participants could choose from five possible Likert style response categories; (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. The revised version of the scale that was included in this study has shown acceptable reliability levels ( $\alpha=.75$ ) when used in prior research (Bolin, 2004). Reliability results obtained when using the original full version of the scale (Davis et al., 1992) are not included here, as a result of the substantial differences in the items contained in the two different versions of the scale.

#### *Academic Dishonesty Scale*

The full original version of the Academic Dishonesty Scale (McCabe & Trevino, 1997) was included in this study as the primary means of answering research question one and null hypotheses four, five, and six ( $H_04$ ,  $H_05$ ,  $H_06$ ). This particular scale was included in this evaluation because it provided a direct measure of student involvement in a variety of academically dishonest acts. The Academic Dishonesty Scale asked participants about their prior involvement in ten types of academic dishonesty. Some of the acts included in the scale are plagiarism, cheating on an exam, unauthorized collaboration, and gaining an unfair academic advantage (see Appendix D).

Study participants were asked to anonymously indicate how frequently they had engaged in each of the types of academic dishonesty listed in the questionnaire. The questions were accompanied by a Likert type response scale that provided participants with five possible choices. The available response categories were: (1) never, (2) once, (3) a few times, (4) several times, (5) many times. The Academic Dishonesty Scale used in this study has exhibited adequate levels of reliability ( $\alpha=.79$ ,  $\alpha=.83$ ) when used in prior studies (McCabe & Trevino, 1993; McCabe & Trevino, 1997).

#### *Religious Orientation Scale-Revised*

The full original version of the Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) was included in this study in order to create a multi-level categorical independent variable. Rather than answering any of the study's research questions or hypotheses, this scale's purpose was to divide the total population of study participants into one of four distinct religious orientation subcategories. More specifically, this scale was used to determine which participants were classified as having an intrinsic religious orientation, an extrinsic religious orientation, an indiscriminately pro-religious orientation, and an indiscriminately anti-religious orientation. This scale does not attempt to indicate the degree to which a person is religious, but each of these four subcategories represented a specific and exclusive internal orientation toward religion.

These four levels of the independent variable were the cornerstone of this study, as its purpose was to determine if participants differed in their behavior and attitudes about cheating based on their religious orientation. There are a total of 14 items included in the Religious Orientation Scale-Revised. There are eight intrinsic items (#1, #3, #4, #5, #7, #10, #12, #14) three of which are reverse scored (#3, #10, #14). There are six extrinsic

items (#2, #6, #8, #9, #11, #13) none of which is reverse scored. The indiscriminately pro-religious orientation and the indiscriminately anti-religious orientation are not represented by any specific items on the Religious Orientation Scale-Revised. Instead, these two religious orientations are indicated and represented by either high scores or low scores on both the intrinsic and extrinsic items.

Participants had the option of choosing from five separate Likert style response categories; (1) I strongly disagree, (2) I tend to disagree, (3) I'm not sure, (4) I tend to agree, and (5) I strongly agree. The score for the intrinsic and extrinsic scales were found by summing the individual scores on the eight intrinsic items and the six extrinsic items. The range of scores for the intrinsic items was 8-40 and the range of scores for the extrinsic items was 6-30. The larger combined range of scores for the indiscriminately pro-religious and indiscriminately anti-religious orientations was 14-70.

The Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) also includes two additional measures of the extrinsic religious orientation (Hill, 1999). The first of these measures examines a personally oriented aspect of the extrinsic orientation and the second examines a socially oriented aspect. These distinctions were not incorporated in the design of this study, because the intent of the research was not to distinguish between any of the more subtle levels of the four primary religious orientations (see Appendix D).

The Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) was the final result of extensive revisions of the Religious Orientation Scale that was originally developed by Allport and Ross (1967). The work of Allport and Ross (1967) served as a catalyst for much of the later research that was done regarding how individuals understand and approach religion (Burris, 1999). Allport and Ross (1967) expanded on

Allport's previous work (1950) by examining the nature of prejudice, and developed the ideas of intrinsic and extrinsic orientations toward religion. Since that time, many other researchers have examined how an individual's approach to religion might influence attitudes and behaviors and the underlying nature of the religious experience, using Allport's assessment. While the Religious Orientation Scale (Allport & Ross, 1967) became one of the most well known and commonly used religious orientation measurement tools, it is not without its critics.

One of the most commonly voiced criticisms of the original Religious Orientation Scale (Allport & Ross, 1967) relates to the inability to use the scale with younger participants and with individuals that have deficient educational backgrounds. Two major revisions (Gorsuch & McPherson, 1989; Gorsuch & Venable, 1983) of the original Religious Orientation Scale (Allport & Ross, 1967) were undertaken in the past several decades. These efforts culminated in the development of an age-universal version of the original scale created by Allport and Ross (1967) that is known as the Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989). This age-universal version was recognized as the preferred version at the time this research was conducted (R.W. Hood, personal communication, February 10, 2008). As a result, it was the age-universal version of the original Religious Orientation Scale that was used in this study.

Another common criticism of the Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) relates to its lack of validity with non-Christian religious adherents. Past research results (Batson & Schoenrade, 1991; Hill & Hood, 1999; Hoge, 1972) have indicated that these scales may not yield accurate results when administered to members of non-Christian faiths. While there is an ongoing debate regarding the validity of these

claims, the decision was eventually made not to include responses from non-Christian participants in the final analysis. This was not viewed as a critical limitation of the study's design given that there were very few participants from non-Christian faiths included in the final sampling frame. The institution from which the sample was drawn did not have a large base of non-Christian students in attendance when the study was conducted.

The Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) has been shown to have acceptable levels of reliability with members of Christian faiths in previous research efforts. The observed reliability levels have varied somewhat between the intrinsic and extrinsic items. Gorsuch and McPherson (1989) determined that the reliability estimates for the intrinsic items ( $\alpha=.83$ ) were somewhat higher than those that had been obtained ( $\alpha=.65$ ) for the extrinsic items. Reliability estimates of the personally and socially oriented aspects of the extrinsic religious orientation have typically been somewhat lower than those identified above. However, as previously noted, these distinctions will not be incorporated in the current evaluation.

#### *Study Procedures*

After obtaining approval to engage in research with human subjects from the Institutional Review Boards (IRB) at both the researcher's home institution (University of Missouri-St. Louis) and the institution where the data was gathered ("Midwestern University") the data gathering process began. The four different survey instruments were administered online through a commercial survey hosting site. A randomly selected group of 6,000 student email addresses were provided by "Midwestern University's" Office of Institutional Research. Once the list of email addresses had been generated,

students were emailed and asked to participate in the survey. In an attempt to decrease non-response bias, a reminder email was sent to those students who had not replied after one week. The survey hosting site used in this study allowed for the anonymous transmission of secondary follow up emails. The initial and follow up emails were sent to potential participants requesting their participation and prompting them to take the survey. The student emails included a link to the secure survey site where participants could submit their responses. All participant responses were encrypted during the transmission process to ensure participant anonymity. The introductory email to potential participants included a brief overview of the nature of the research project, the makeup of the subscales that were used, and the approximate time that it would take participant to finish the questionnaire. Pre-testing indicated that it would take participants approximately fifteen minutes to complete the online questionnaire, including the time needed to read the requisite informed consent materials and the questionnaire instructions. The average time required to complete the survey was actually much less than this in practice.

Prior to beginning the online survey, each participant was provided with a scripted informational statement (see Appendix A) that they were asked to read. This statement included information related to the nature of the research, the expectations of participants, the procedures used to protect the identity of participants, and the manner in which results would be disseminated. Only those students who were at least 18 years of age and who voluntarily agreed to participate in the survey were allowed to continue. A tally of the number of students who declined to participate after the first email and subsequent reminder email was kept in order to track non-response rates. Those students choosing to

participate were also asked to view a copy of the informed consent letter (see Appendix B). Finally, once all of the general information and informed consent documents had been provided, written instructions regarding the survey instruments were presented (see Appendix C). Once participants had an opportunity to view the survey instructions they were able to access the survey itself and submit their responses. Participant responses were kept in a secure password protected database after they were submitted.

After all participant surveys had been submitted and the results recorded, they were entered into an SPSS data file for further processing and analysis. In order to protect student confidentiality, no identifying information was submitted by participants or collected by the primary researcher. With the exception of the demographic information that participants provided, the principle investigator did not have access to any information regarding the study's participants. When disseminating the results of the research, no specific references were made to individual participants or to the name of the educational institution where the data was gathered, with the exception of the fictitious institutional name that was used. Once all of the surveys had been collected and entered, they were analyzed using the quantitative approaches that are described in the following section. Finally, the results of the analyses were identified, documented, examined, and recorded in subsequent chapters.

#### *Quantitative Analysis Employed*

The data collected were analyzed using both Multivariate Analysis of Variance (MANOVA) and Analysis of Variance (ANOVA) statistical procedures. Alternative analysis approaches, such as regression, were considered but ultimately rejected because it was not the purpose of the study to determine how propensity to cheat changed as



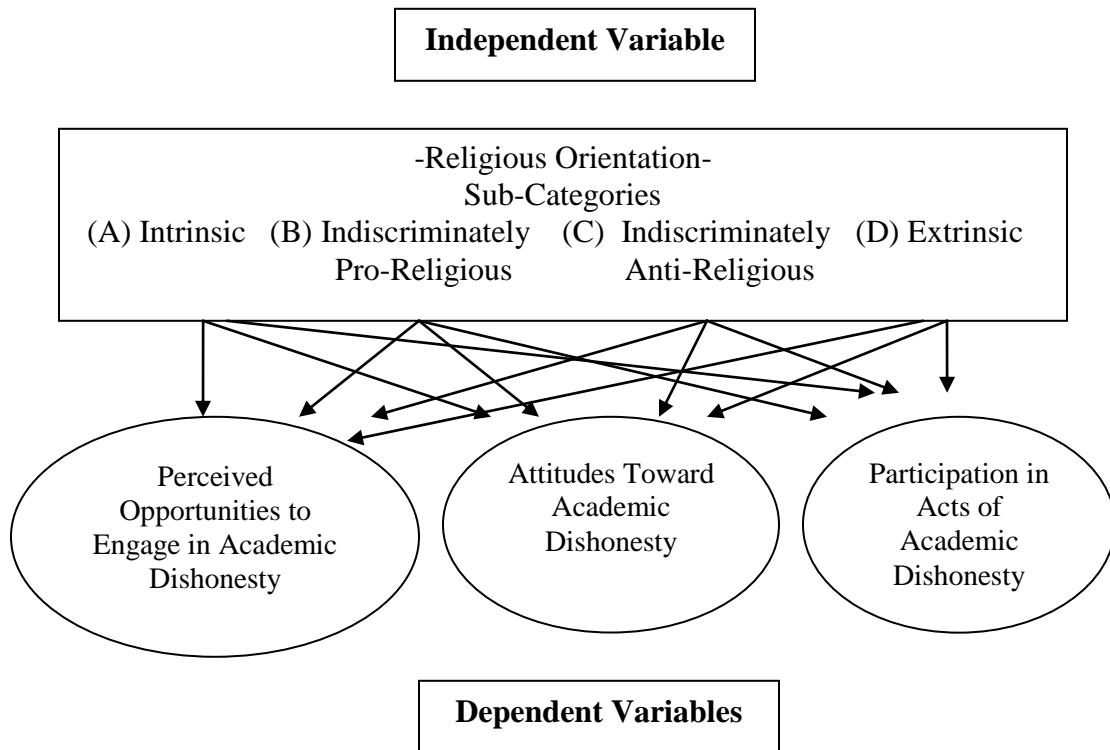
religiousness changed, but to determine if cheating attitudes and behaviors differed, based on categories of religiosity. Plus, the religiosity scale used in the study is designed only to assign respondents to categories and does not provide a continuum of religiousness. As a result, MANOVA procedures were selected because they are a particularly appropriate statistical tool for determining whether groups vary on two or more different dependent variables (Spicer, 2005; Tabachnick & Fidell, 2007; Gall, Gall, & Borg; 2003). For purposes of this study, differences in religious orientation created the four different subgroups of interest in the independent variable. Study participants were divided according to their scores on the Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) into four groups: extrinsic, intrinsic, indiscriminately pro-religious, and indiscriminately anti-religious. These groups were then compared to determine how they differed in regard to each of the dependent variables of interest. In this study, the dependent variables were attitudes toward academic dishonesty, perceptions related to the prevalence of academic dishonesty and the availability of opportunities to engage in academic dishonesty, and prior actual involvement in acts of academic dishonesty. The responses of each participant on the scales employed in this study yielded a score related to each of the three dependent variables of interest. This score is referred to as a vector and it represents the individual participant's collective score on each of the included dependent variables (Gall, Gall, & Borg, 2003). Likewise, each of the religious orientation subgroups had a collective mean score for the vector scores of their respective members. This score is referred to as a centroid and it is the equivalent of a vector score for an entire group, rather than for an individual participant (Gall, Gall, & Borg, 2003). The MANOVA procedure was used to determine if there was a statistically significant

difference between the centroid scores of the four primary groups of the independent variable.

The first step in the MANOVA analysis was to test for equality in the dispersions of the various groups included in the analysis (Tabachnick & Fidell, 2007). Box's test was used to evaluate the equality hypothesis. When a significant F test score was obtained for Box's test, the equality hypothesis was rejected and it was assumed that real differences existed between the groups of the independent variable. The next step in the analysis was to determine if there was a statistically significant difference between the group centroids. To accomplish this purpose the F value from the Wilks's lambda ( $\lambda$ ) test was used. This test was used because it was the suggested standard when using MANOVA if no significant data problems were present (Gall, Gall, & Borg, 2003; Spicer, 2005; Tabachnick & Fidell, 2007). There were no significant data problems encountered and as a result none of the commonly cited alternatives to Wilks's lambda was needed. In instances when a significant value was obtained using the Wilks's lambda test, it was assumed that there were significant differences between the centroid scores of the various groups included in the study. In other words, this result indicated that there were significant differences between the intrinsic, extrinsic, indiscriminately pro-religious, and indiscriminately anti-religious groups in regard to their scores on the three dependent variable scales employed in the study.

The final step in the analysis was to determine which of the dependent variables being measured were responsible for the between group differences (Gall, Gall, & Borg, 2003; Tabachnick, & Fidell; Spicer, 2005). Until this point, all that was known was that the groups differed from each other in regards to their scores on the dependent variables (see

Figure A) of interest. It was not clear which of the dependent variables was responsible for the significant differences observed. In order to solve this problem a series of one-way ANOVA's was performed on the dependent variables that exhibited statistical significance. The ANOVA analyses were used as a supplemental post-hoc statistical tool to determine the relative influence of each of the dependent variables that was being measured. In order to reduce the risk of obtaining the Type I error that is commonly associated with MANOVA and repeated ANOVA analyses, a Bonferroni adjustment was used when determining statistical significance (Tabachnick & Fidell, 2007). This adjustment involved dividing the original alpha level by the number of dependent variables being evaluated (or the number of ANOVAs being conducted). In the current evaluation the significance level of .05 was divided by three when running the MANOVA and ANOVA tests, yielding a new alpha level of .017. The results of the ANOVA analyses were used to determine which of the dependent variables were responsible for any statistically significant differences that were observed between the subgroups of the independent variable when the results of the MANOVA tests were performed.



*Figure A.* Diagram of proposed analysis. Independent variable: religious orientation. Levels of independent variable: intrinsic religious orientation, extrinsic religious orientation, indiscriminately pro-religious orientation, and indiscriminately anti-religious orientation. Dependent variables: perceived opportunity to engage in academic dishonesty, attitudes toward academic dishonesty, involvement in acts of academic dishonesty.

### *Summary*

This chapter has identified, described, and justified the design, methodology, and types of analyses that were employed in this study. Academic dishonesty is a critical issue for the American system of higher education. Unfortunately, one overlooked aspect of this critical issue is whether it is influenced by a student's religious orientation. This study attempted to learn more whether religious orientation has any influence on academic dishonesty. This study provided additional information to help fill the gap that has developed in the existing body of research related to this issue. To this end, a study-specific set of research instruments was used that incorporated several well-respected and commonly used existing measurement scales. The sampling procedures selected for this study ensured that an ample number of randomly selected research participants were included. Finally, the statistical techniques employed in the study were appropriate given the type of design, intent of the research, and number and type of variables that were employed.

The ensuing chapter will provide more detailed information about the results that were obtained from the statistical analyses that were conducted. These results are discussed in relation to the previously identified research questions and null hypotheses that guided the study. Once the results that were obtained from the study have been identified, described, and discussed a final concluding chapter provides a broad general overview and analysis of these results and some of their larger implications. This concluding chapter closes by providing some final thoughts and advancing some suggestions for future scholarship and research.

## CHAPTER 4

### Results and Discussion

#### *Introduction*

The primary purpose of this study is to help increase the existing body of knowledge pertaining to the factors that contribute to, and are associated with, academic dishonesty. This study is exploratory in nature because it examines a specific group of phenomena that have yet to be studied in earlier research. At the same time, the study is also confirmatory in that it examines academic dishonesty and religious orientation, both of which are topics that have received a great deal of attention in the existing body of scholarship. This chapter provides a broad general overview of the sampling strategies used in this study, a description of the study participants, a review of the types of data analysis that were employed, and an overview of the results obtained. Some of the initial assumptions associated with the current research were confirmed, while others were contradicted. The study was ultimately successful in achieving some of its stated objectives, but it was not able to accomplish all of them. As an exploratory study, the current research was able to answer many questions but it also managed to raise a number of additional issues that can best be addressed through future research efforts and will be outlined in the final chapter.

#### *Testing Instruments*

This study employed four pre-existing survey instruments that were each used in their original unaltered versions. The Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) was used to identify each participant's religious orientation and to assign participants to one of four religious orientation groups: intrinsic, extrinsic,

indiscriminately anti-religious, and indiscriminately pro-religious. The Perceived Opportunity Scale (McCabe & Trevino, 1997) was used to examine participants' perceptions of how frequently academic dishonesty occurs at their current educational institution and how many opportunities are available to engage in acts of academic dishonesty. The Attitudes Toward Academic Dishonesty Scale (Bolin, 2004) was used to examine participants' general attitudes toward academic dishonesty, including how accepting and permissive those attitudes were. The Academic Dishonesty Scale (McCabe & Trevino, 1997) was used to determine how frequently study participants engaged in a variety of types of academically dishonest behaviors.

The two sub-scales that are incorporated in the Religious Orientation Scale-Revised have exhibited good internal consistency when used in past research (Gorsuch & McPherson, 1989). In earlier studies (Gorsuch & McPherson, 1989), the items included in the intrinsic sub-scale exhibited somewhat higher internal consistency rates ( $\alpha=.83$ ) than did the items included in the extrinsic sub-scale ( $\alpha=.65$ ). In the current study, the intrinsic sub-scale again exhibited better internal consistency ( $\alpha=.84$ ) than did the extrinsic sub-scale, though in this study the internal consistency was measurably higher for the extrinsic sub-scale than when it has been used in prior research ( $\alpha=.78$ ). However, in the current study the internal consistency was measurably higher for the extrinsic sub-scale than when it has been used in prior research. In prior research (McCabe & Trevino, 1993; McCabe & Trevino, 1997), the revised version of the Academic Dishonesty Scale that was used in this study has exhibited good internal consistency ( $\alpha=.79, \alpha=.83$ ). In the current study, the instrument was again found to exhibit good internal consistency with a Chronbach alpha coefficient of .85. According

to Bolin (2004), the Attitudes Toward Academic Dishonesty Scale has exhibited good internal consistency when used in prior research ( $\alpha=.75$ ). The instrument yielded similar internal consistency rates in the current study ( $\alpha=.76$ ). Prior research (McCabe & Trevino, 1997; Bolin, 2004), indicated good internal consistency rates for the Perceived Opportunity Scale used in this study ( $\alpha=.77$ ,  $\alpha=.73$ ), a rate slightly higher than in the current study ( $\alpha=.72$ ), but still with findings within acceptable limits.

#### *Sample Size and Procedures*

This study employed a random stratified sampling strategy to select individuals for inclusion in the initial sampling frame. The participants were selected from all undergraduate students attending or enrolled in courses during the summer 2009 semester at a large Midwestern public research university, referred to in this study as “Midwestern University”. Prior to selecting participants, all graduate students attending “Midwestern University” were removed from the potential sampling pool. “Midwestern University” is a large public research university that is located in the suburbs of an urban metropolitan area in the south central United States. In addition to the other selection criteria that are described above, the individuals included in this study had to be at least 18 years of age to be included so that parental consent was not required.

Potential participants were contacted by email through their university-issued email accounts and asked to participate in an online survey. The email addresses for the selected participants were supplied by officials in the Office of Institutional Research at “Midwestern University”. Those students who were willing to participate in the study were provided with a survey link that was embedded in the text of the email. This link took potential participants to the online survey hosting site where they could read the



informed consent information and view, fill out, and submit the survey. The online survey hosting site stored all submitted surveys in a password protected, security encrypted, secure database until they could be downloaded and analyzed by the primary researcher.

A total of 6,000 students were randomly selected for inclusion in the initial sampling frame. Each of these students was sent an email asking them to participate in the study. Of the 6,000 emails initially sent, 55 were returned because the email address was no longer valid, the email could not be delivered to the intended recipient, or because the recipient had opted out of receiving emails from the online survey hosting site. As a result, only 5,945 emails eventually reached their intended target. Of these, 417 usable responses were eventually returned by study participants. This resulted in the survey having an overall response rate of slightly over 7 percent. It is believed that the response rate was somewhat lower than had initially been anticipated because many of the students did not use their institutionally issued email accounts on a regular basis since the survey was administered during a summer term.

#### *Descriptive Statistics for Participants*

The participants in this study were representative of the larger student population at the educational institution from which they were drawn (See Table 3). There were slightly more female participants ( $N=238$ ) than there were male participants ( $N=179$ ) (See Table 1). While the percentage of female participants (57%) was greater than the percentage of male participants (43%) this was in keeping with the overall percentages of male and female students at the institution from which the sample was drawn (See Table 3). Table 1 summarizes the distribution of study participants according to their gender.

*Table 1-Demographic Information for Participants (N=417)*

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Variable	<i>f</i>	%
Gender		
Female	238	57.1
Male	179	42.9
Total	417	100.0
Race/Ethnicity		
White	282	67.6
Black	52	12.5
Hispanic	49	11.8
Asian/Pacific Islander	14	3.4
American Indian/Alaskan Native	2	0.5
Other	18	4.3
Total	417	100.0
Class Standing		
Freshman	7	1.7
Sophomore	38	9.1
Junior	130	31.2
Senior	242	58.0
Total	417	100.0

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*Table 1 (continued) Demographic Information for Participants (N=417)*

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Variable	<i>f</i>	<i>P</i>
Grade Point Average		
0.00-1.00	2	0.5
1.01-2.00	11	2.6
2.01-3.00	140	33.6
3.01-4.00	264	63.3
Total	417	100.0
Hours Worked		
None/Unemployed	122	29.3
1-10 hours	23	5.5
11-20 hours	83	19.9
21-30 hours	96	23.0
31-39 hours	43	10.3
40 or more hours	50	12.0
Total	417	100.0
Religious Orientation		
Intrinsic	61	14.6
Extrinsic	87	20.9
Pro-religious	133	31.9
Anti-religious	136	32.6
Total	417	100.0

---

*Table 1 (continued) Demographic Information for Participants (N=417)*

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Variable	<i>f</i>	<i>P</i>
Greek Membership		
Yes	41	9.8
No	376	90.2
Total	417	100.0
Athletic Involvement		
Yes	46	11.0
No	371	89.0
Total	417	100.0
Children in Residence		
Yes	70	16.8
No	347	83.2
Total	417	100.0
First Generation Student		
Yes	96	23.0
No	321	77.0
Total	417	100.0

---

*Table 1 (continued) Demographic Information for Participants (N=417)*

Variable	<i>f</i>	<i>P</i>
Alcohol Consumption		
None	191	45.8
1-4 drinks	155	37.2
5-10 drinks	34	8.2
11-15 drinks	24	5.8
16 or more drinks	13	3.1
Total	417	100.0
Time Spent Socializing		
None	15	3.6
1-5 hours	145	34.8
6-10 hours	148	35.5
11-15 hours	57	13.7
16 or more hours	52	12.5
Total	417	100.0

Participants in this study varied in age from a minimum of 18 to a maximum of 51, with a mean participant age of 24 (See Table 2). No students under the age of 18 were allowed to participate due to the complications associated with trying to obtain parental consent when doing an online survey. There were no restrictions on the maximum age for study participants, but no individuals over the age of 51 made the decision to participate.

Data were also collected regarding the enrollment status of study participants. The minimum credit hour enrollment for study participants was zero and the maximum credit hour enrollment was 18 (See Table 2). The majority of the students included in this study were attending college on a part-time basis, which is to be expected given that the data were gathered during the course of a summer semester. The mean credit hour enrollment for study participants was 8.70 hours (See Table 2). Some study participants had made the decision to withdraw after having initially enrolled in summer courses. This explains why some participants included in the study reported that they were not enrolled in any credit hours. Table 2 summarizes the descriptive statistics and distribution of study participants in relation to their age and credit hour enrollment at the time the survey was conducted.

*Table 2-Age and Enrollment Descriptive Statistics for Participants (N=417)*

	<i>N</i>	Minimum	Maximum	<i>M</i>	<i>SD</i>
Participant Age	417	18	54	24.78	6.72
Credit Hour Enrollment	417	00	18	8.70	4.42
Valid N	417				

The racial demographics of the study participants were largely reflective of the total student population at the educational institution from which they were drawn (See Table 3). The majority (67.6%) of all study participants were white. However, significant proportions were either African American (12.5) or Hispanic (11.8%). In addition, Asian American and Pacific Islanders (3.4%) and American Indian and Alaskan

Natives (.5%) were also represented in the study, but made up a much smaller percentages. An additional category that was labeled “other” was made available to study participants and accounted for the remaining percentage (4.3%) of all study participants. Table 1 provides an overview of the racial distribution of the participants included in the study. The racial distribution of participants in this study was largely representative of the larger student population at the educational institution from which the sample was originally drawn.

*Table 3-Demographic Characteristics All Midwestern University Students (N=34,153*

Variable	<i>f</i>	<i>P</i>
Sex		
Female	19,330	56.6
Male	14,823	43.4
Total	34,153	100.0
Race/Ethnicity		
White	22,166	64.9
Black	4,303	12.6
Hispanic	3,825	11.2
Asian/Pacific	1,639	4.8
American Indian/Alaskan Native	273	0.8
Other	1,947	5.7
Total	34,153	100.0

The majority of participants in this study were either juniors or seniors (See Table 1). It is believed that this distribution is the result of gathering the data during the course of the summer semester when fewer underclassmen were willing to take courses. There is no evidence that the distribution is the result of any form of inherent respondent bias. The majority of study participants classified themselves as having obtained senior class standing (58.0%), followed by junior class standing (31.2%), sophomore class standing (9.1%), and freshman class standing (1.7%). Table 1 above provides an overview of the distribution of the class standings of study participants.

The majority of the participants included in this study appeared to have good grades and did not appear to be having significant academic problems (See Table 1). The vast majority of the study participants reported having a grade point average of between 3.01 and 4.00 (63.3%). The bulk of the remaining participants reported having a grade point average of between 2.01 and 3.00 (33.6%). A very small percentage of all participants reported having a grade point average of between 1.01 and 2.00 (2.6%) or between 0.00 and 1.00 (.5%). The distribution of grade point averages initially appears to be somewhat skewed and it is possible that these gaps may be attributable to the fact that the majority of students who took the survey were upper classmen. Table 1 above provides details on the grade point average distribution of the participants in the current study.

There was a great deal of variation in the employment status of study participants. While the majority (70.7%) was employed in at least some capacity, the number of hours that participants reported working each week varied greatly. Relatively few (12.0%) indicated that they were employed in a full-time capacity during the time period when they took the survey. In addition, a proportion of all participants (29.3%) indicated that



they were either unemployed or not working during the time period when they completed the survey. The remainder of the participants in this study (58.7%) indicated that they were employed, but only in a part-time capacity. Table 1 above summarizes the employment status of study participants and the average number of hours that they reported working each week.

There are two preferred methods for classifying participants using the Religious Orientation Scale-Revised (Burris, 1999). The first method is a mean-split approach that classifies participants based upon their individual mean scores on the extrinsic and intrinsic items included in the scale in comparison to the mean extrinsic and intrinsic scores of the sample as a whole (Burris, 1999). The second method is a scale-based median approach to classification which focuses on the theoretical mid-point of the scale itself (Burris, 1999). Using this method, the mean scores of participants on the extrinsic and intrinsic items included in the study are compared to the theoretical mid-point of the scale itself, rather than the actual mean scores obtained from any particular sample (Burris, 1999).

The benefit of the second method is that it allows for meaningful comparison across distinct samples that are taken at different times or in different locations (Burris, 1999). However, in this study the focus was on the behaviors and beliefs of the sample itself and there was no concern for comparison or replication with other groups of participants. For this reason, the religious orientation of participants in this study was determined using the mean-split approach to classification. The mean intrinsic score for participants in this study was 25.6, while the mean extrinsic score for study participants was 14.3. These scores were used to classify participants in regards to their religious orientation. Those

participants that had an above average mean score on both the intrinsic and extrinsic items were classified as being indiscriminately pro-religious. Those participants that had a below average mean score on both the intrinsic and extrinsic items were classified as being indiscriminately anti-religious. Those participants that had an above average mean score on the intrinsic items, but not on the extrinsic items, were classified as being intrinsic. Finally, those participants that had an above average mean score on the extrinsic items, but not on the intrinsic items, were classified as being extrinsic.

Collectively, the majority of the participants in this study (67.4%) were classified as having at least some level of positive orientation toward religion. However, a sizable percentage of participants (32.6%) were classified as having an anti-religious orientation, which is frequently associated with either atheism or agnosticism. Individuals manifesting an intrinsic religious orientation represented the single smallest religious orientation group in this study (14.6%). Individuals manifesting an indiscriminately anti-religious orientation represented the single largest religious orientation group in this study (32.6%). Individuals with an extrinsic religious orientation accounted for roughly one out of every five participants (20.9%) and those with an indiscriminately pro-religious orientation accounted for slightly less than one out of every three (31.9%). Table 1 provides a summary of the religious orientation characteristics of the participants in this study.

Study participants reported a variety of different social and recreational characteristics. Relatively small proportions of the study participants indicated that they either belonged to a fraternity or sorority (9.8%) or participated in intercollegiate or intramural athletics (11.0%). Most did not have children residing with them in their

primary residence (83.2%) and were not first-generation college students (77.0%). The majority of the study participants consumed alcohol (54.2%), but most (83.0%) reported consuming fewer than four drinks per week. Finally, while the vast majority (96.4%) reported spending at least some time socializing with friends each week, the majority (73.9%) spent 10 hours or less doing so. Table 1 provides a broad general overview of the social and recreational characteristics of study participants.

### *Results*

A one-way between-groups multivariate analysis of variance (MANOVA) was performed in order to investigate if differences in religious orientation had an effect on the dependent variables of interest. Three dependent variables of interest (attitudes towards academic dishonesty, involvement in acts of academic dishonesty, and perceptions regarding the prevalence of academic dishonesty) were incorporated in the analysis: perceived opportunity, attitudes toward academic dishonesty, and involvement in academic dishonesty. The independent variable of interest was religious orientation. The single independent variable was composed of four levels: intrinsic religious orientation, extrinsic religious orientation, indiscriminately anti-religious orientation, and indiscriminately pro-religious orientation. Preliminary assumption testing was conducted in an attempt to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity. No substantive violations of any of these items were noted so they were not anticipated to have an influence on outcomes of the analyses that were conducted. Any potential concerns regarding these issues were further allayed due to the number of cases that were in each of the independent variable categories. More specifically, an excess of 30 cases were

included in each and every one of the categories of the independent variable examined in this study. Cell sizes this large are believed to help the influence that any potential violations of normality or equality of variance might have had on the analyses that were conducted in this study (Pallant, 2007).

There was a statistically significant difference ( $p \leq .05$ ) between the categories of the religious orientation variable on the dependent variables,  $F(3, 413) = 4.50$ ,  $p = .000$ ; Wilks' Lambda = .90; partial eta squared = .03. Table 4 below provides an overview of the results of the multivariate tests that were conducted and the results that were obtained. These results indicate that there was a significant difference between the religious orientation categories on the dependent variables related to academic dishonesty.

*Table 4-Multivariate Tests*

Effect	Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.	<i>n</i> <sup>2</sup>
<b>Intercept</b>						
Pillai's Trace	.993	20153.295 <sup>a</sup>	3	411.000	.000	.993
Wilk's Lambda	.007	20153.295 <sup>a</sup>	3	411.000	.000	.993
Hotelling's Trace	147.104	20153.295 <sup>a</sup>	3	411.000	.000	.993
Roy's Largest Root	147.104	20153.295 <sup>a</sup>	3	411.000	.000	.993
<b>Religori<sup>c</sup></b>						
Pillai's Trace	.093	4.402	9	1239.000	.000	.031
Wilk's Lambda	.908	4.504	9	1000.417	.000*	.032
Hotelling's Trace	.101	4.578	9	1229.000	.000	.032
Roy's Largest Root	.091	12.482 <sup>b</sup>	3	413.000	.000	.083

Note:  $p \leq .05$ \*

a=exact statistic

b=The statistic is an upper bound on F that yields a lower bound on the significance level.

c=religori=religious orientation

As previously noted, there were three dependent variables of interest in this study (attitudes towards academic dishonesty, involvement in academic dishonesty, and perceptions regarding the prevalence of academic dishonesty). When the results from the analyses were considered separately, two of the dependent variables reached statistical significance, using a Bonferroni adjusted alpha level of .017 ( $p < .017$ ). The Bonferroni adjusted alpha level was incorporated in the study in an attempt to help reduce the likelihood of a Type I error occurring (Pallant, 2007). The Bonferroni adjustment was incorporated because it is viewed as being a widely accepted standard measure for helping reduce the likelihood of Type I error occurring (Pallant, 2007).

The first of the dependent variables to reach a level of statistical significance was attitudes toward academic dishonesty,  $F(3, 413) = 12.19$ ,  $p = .000$ , partial eta squared = .08. The second dependent variable to reach a level of statistical significance was involvement in academic dishonesty,  $F(3, 413) = 4.05$ ,  $p = .007$ , partial eta squared = .03. The third dependent variable examined in this study, perceptions regarding the prevalence of academic dishonesty, did not reach a level of statistical significance. Table 5 on the following page provides an overview of the results of the tests of between-subjects effects that were conducted. Those dependent variables that reached a level of statistical significance were then examined further in an attempt to determine where the statistically significant differences that were identified through the multivariate analyses that were conducted were located.

Table 5-Test of Between-Subjects Effects

Source	Dependent Variable	SS	df	MS	F	Sig.	$n^2$
Intercept	total atads	119262.811	1	119262.811	23251.004	.000	.982
	total pos	306616.585	1	306616.585	13523.106	.000	.970
	total ads	73925.451	1	73925.451	2963.802	.000	.878
religori	total atads	188.428	3	62.809	12.192	.000*	.081
	total pos	119.946	3	39.982	1.763	.154	.013
	total ads	303.112	3	101.037	4.051	.007*	.029
Error	total atads	2127.577	413	5.152			
	total pos	9364.169	413	22.674			
	total ads	10301.367	413	24.943			
Total	total atads	134239.000	417				
	total pos	348620.000	417				
	total ads	93912.000	417				
Corrected Total	total atads	2316.005	416				
	total pos	9484.115	416				
	total ads	10604.480	416				

Note:  $p \leq .05$ \*  
atads=attitudes toward academic dishonest scale  
pos=perceived opportunity scale  
ads=academic dishonesty scale

Since the independent variable of interest in this study had more than three levels, a series of univariate analyses was conducted (Pallant, 2007) in order to determine where the statistically significant differences identified through the multivariate analyses that were previously conducted were located. A series of one-way between-groups ANOVAs with post-hoc comparisons were conducted using the Tukey HSD test and a Bonferroni adjusted alpha level of .017 ( $p < .017$ ), indicated that for the Attitudes Toward Academic Dishonesty scale, the mean score for the intrinsic religious orientation group ( $M = 18.92$ ,  $SD = 1.56$ ) was significantly different from the mean scores of both the extrinsic religious orientation group ( $M = 16.77$ ,  $SD = 2.42$ ) and the indiscriminately anti-religious orientation group ( $M = 17.59$ ,  $SD = 2.36$ ). No statistically significant differences in the mean scores of the intrinsic religious orientation group and the indiscriminately pro-religious orientation group were found. Table 6 on the following page provides an overview of the results that were obtained from the multiple comparisons that were conducted as part of the one-way analysis of variance post-hoc tests.

The results of the post-hoc comparisons indicated a statistically significant difference between the mean scores of the intrinsic group and the mean scores of the extrinsic and indiscriminately anti-religious groups. However, these results did not indicate the strength of association between the specific variables of interest. In order to obtain this information, effect size for the statistically significant results that were obtained from the post-hoc comparisons was calculated by finding partial eta squared. The resulting partial eta squared value obtained from these calculations was .08. This partial eta squared value was interpreted using the guidelines proposed by Cohen (1988) which indicate that a partial eta squared value of .08 is considered to be a medium size effect.

Table 6-*Multiple Comparisons-Tukey HSD (Attitudes Toward Academic Dishonesty)*

Dependent Variable	(i) religious orientation	(j) religious orientation	mean difference (i-j)	Std. Error	Sig.	Lower Bound	Upper Bound
total atads	intrinsic	extrinsic	2.14792*	.37903	.000	1.1702	3.1256
		indiscriminately pro-religious	.79021	.35098	.111	-.1151	1.6956
		indiscriminately anti-religious	1.32244*	.34976	.001	.4202	2.2246
	extrinsic	intrinsic	-2.14792*	.37903	.000	-3.1256	-1.1702
		indiscriminately pro-religious	-1.35770*	.31296	.000	-2.1650	-.5504
		indiscriminately anti-religious	-.82547*	.31160	.042	-1.6292	-.0217
	indiscriminately pro-religious	intrinsic	-.79021	.35098	.111	-1.6596	.1151
		extrinsic	1.35770*	.31296	.000	.5504	2.1650
		indiscriminately anti-religious	.53223	.27679	.220	-.1818	1.2462
	indiscriminately anti-religious	intrinsic	-1.32244*	.34976	.001	-2.2246	-.4202
		extrinsic	.82547*	.31160	.042	.0217	1.6292
		indiscriminately pro-religious	-.53223	.27679	.220	-1.2462	.1818

Note: \*Mean difference is significant at the .05 level.



One-way analysis of variance post-hoc comparisons using the Tukey HSD test also indicated that for the Academic Dishonesty Scale, the mean score of the intrinsic religious orientation group ( $M=12.85$ ,  $SD=4.13$ ) was significantly different from the mean score for the extrinsic religious orientation group ( $M=15.26$ ,  $SD=5.75$ ). No significant differences were detected between the mean scores of the intrinsic religious orientation group and the indiscriminately pro-religious orientation group or the indiscriminately anti-religious orientation group on the Academic Dishonesty Scale. The relationship between the mean scores of the different religious orientation groups included in the study was not examined in relation to the Perceived Opportunity Scale because significant differences were not detected when the previous multivariate analyses were conducted.

In order to obtain information on the strength of association between the specific variables of interest on the Academic Dishonesty Scale, effect size was calculated by finding a partial eta squared value. The obtained value from these calculations was .03. This partial eta squared value was interpreted using the guidelines proposed by Cohen (1988) which indicate that a partial eta squared value of .03 is considered to be a small size effect. Table 7 on the following page provides an overview of the results of the multiple comparisons that were conducted as part of the one-way analysis of variance post-hoc tests that were conducted.

Table 7-Multiple Comparisons-Tukey HSD (Involvement in Academic Dishonesty)

Dependent Variable	(i) religious orientation	(j) religious orientation	mean difference (i-j)	Std. Error	Sig.	Lower Bound	Upper Bound
total ads	intrinsic	extrinsic	-2.41191*	.83402	.021	-4.5633	-.2605
		indiscriminately pro-religious	-.62123	.77229	.852	-2.6134	1.3709
		indiscriminately anti-religious	-1.77989	.76961	.097	-3.7651	.2053
	extrinsic	intrinsic	2.41191*	.83402	.021	.2605	4.5633
		indiscriminately pro-religious	1.79068*	.68865	.047	.0143	3.5671
		indiscriminately anti-religious	.63201	.68564	.793	-1.1366	2.4006
	indiscriminately pro-religious	intrinsic	.62123	.77229	.852	-1.3709	2.6134
		extrinsic	-1.79068*	.68865	.047	-3.5671	-.0143
		indiscriminately anti-religious	-1.15867	.60905	.229	-2.7297	.4124
	indiscriminately anti-religious	intrinsic	1.77989	.76961	.097	-.2053	3.7651
		extrinsic	-.63201	.68564	.793	-2.4006	1.1366
		indiscriminately pro-religious	1.15867	.60905	.229	-.4124	2.7297

Note: \*Mean difference is significant at the .05 level.

### *Summary of Findings*

After conducting a series of preliminary tests for normality, linearity, outliers, and multicollinearity, a series of one-way MANOVA and post-hoc ANOVAS was performed to determine if religious orientation had any effect on the three different dependent variables related to academic dishonesty. Summarized briefly, the analysis found that there was a statistically significant difference between the religious orientation groups on the dependent variables. More specifically, significant differences between the religious orientation groups were found to exist between two of the dependent variables included in this study; academic dishonesty and involvement in academic dishonesty. No statistically significant differences were observed in relation to the third dependent variable; perceived opportunity.

Since the independent variable in this study was composed of more than three levels, a series of post-hoc ANOVAS was conducted to determine where the significant differences observed through the multivariate analyses described above were located. These analyses revealed that in regards to the attitudes toward academic dishonesty scale, the mean score for the intrinsic group was significantly different than the mean scores of both the extrinsic and indiscriminately anti-religious group. The differences observed in this regard yielded a medium effect size. Additionally, these analyses revealed that in regards to the involvement in academic dishonesty scale, the mean score of the intrinsic group was significantly different than that of the extrinsic group. The differences observed in this case yielded a small effect size. Collectively, these findings would result in the rejection of some null hypotheses and the retention of others.

In the following section, some of the major research findings that were obtained during the course of this study are described in detail. More specifically, the null hypotheses that were either rejected or retained are examined in order to identify the standards that were used in rejecting or retaining each and the rationale that was employed when making decisions regarding retention or rejections. In addition, a brief discussion of some of the major conclusions that can be drawn from each rejected and retained hypothesis is provided. Chapter five will examine each of the null hypotheses in greater detail along with an extended discussion of the conclusions that may be able to be drawn from these hypotheses. Of the nine null hypotheses that were included in this study three (#1, #3, and #4) were rejected, resulting in the rejection of the associated null hypotheses, while six (#2, #5, #6, #7, #8, #9) were retained resulting in the acceptance of the associated alternative hypothesis. Prior to examining each of the hypotheses individually the research questions and null hypotheses will be reviewed briefly.

#### *Research Questions and Null Hypotheses*

As noted above, the research attempted to determine if an individual's religious orientation influenced their perceptions regarding the prevalence of academic dishonesty, their general attitudes concerning the acceptability of academic dishonesty, and their rates of participation in variety of academically dishonest acts. The following research questions drove this study's methodology, design, and analysis strategy.

##### *Research Question One*

Does religious orientation influence student involvement in acts of academic dishonesty?

*Research Question Two*

Does religious orientation influence general student attitudes toward acts of academic dishonesty?

*Research Question Three*

Does religious orientation influence student perceptions regarding the prevalence of academic dishonesty and the availability of opportunities to engage in acts of academic dishonesty?

In an attempt to more fully investigate these research questions, the following null hypotheses were employed. The null hypotheses posited that no relationship existed between the various variables of interest included in this study. The statistical analyses employed were used to test the validity, or lack thereof, of each null hypothesis, with each either rejected or retained based upon the results of the statistical analyses that were employed in the study.

**H<sub>0</sub>1:** Students manifesting an intrinsic religious orientation will not have different attitudes toward academic dishonesty when compared to students manifesting an extrinsic religious orientation.

**H<sub>0</sub>2:** Students manifesting an intrinsic religious orientation will not have different attitudes toward academic dishonesty when compared to students manifesting an indiscriminately pro-religious orientation.

**H<sub>0</sub>3:** Students manifesting an intrinsic religious orientation will not have different attitudes toward academic dishonesty when compared to students manifesting an indiscriminately anti-religious orientation.

**H<sub>0</sub>4:** Students manifesting an intrinsic religious orientation will not have different rates of involvement in acts of academic dishonesty when compared to students manifesting an extrinsic religious orientation.

**H<sub>0</sub>5:** Students manifesting an intrinsic religious orientation will not have different rates of involvement in acts of academic dishonesty when compared to students manifesting an indiscriminately pro-religious orientation.

**H<sub>0</sub>6:** Students manifesting an intrinsic religious orientation will not have different rates of involvement in acts of academic dishonesty when compared to students manifesting an indiscriminately anti-religious orientation.

**H<sub>0</sub>7:** Students manifesting an intrinsic religious orientation will not perceive that any differences exist in the prevalence or availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an extrinsic religious orientation.

**H<sub>0</sub>8:** Students manifesting an intrinsic religious orientation will not perceive that any differences exist in the prevalence or availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an indiscriminately pro-religious orientation.

**H<sub>0</sub>9:** Students manifesting an intrinsic religious orientation will not perceive that any differences exist in the prevalence or availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an indiscriminately anti-religious orientation.

## *Overview of Null Hypotheses*

### *Null Hypothesis #1*

The first null hypothesis posited that participants manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty when compared to students manifesting an extrinsic religious orientation. This null hypothesis was rejected. Results of the one-way MANOVA indicated that there was a statistically significant difference between the categories of the religious orientation variable on the dependent variables,  $F(3, 413) = 4.50, p = .000$ ; Wilks' Lambda = .90; partial eta squared = .03. When the results for the dependent variables were considered separately, the Attitudes Toward Academic Dishonesty variable was found to be statistically significant,  $F(3, 413) = 12.19, p = .000$ , partial eta squared = .08.

A series of one-way ANOVA's was conducted to examine which religious orientation groups varied significantly in regard to the Attitudes Toward Academic Dishonesty variable. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the intrinsic religious orientation group ( $M = 18.92, SD = 1.56$ ) was significantly different from the mean scores of the extrinsic religious orientation group ( $M = 16.77, SD = 2.42$ ). When partial eta squared was calculated for the Attitudes Toward Academic Dishonesty variable, a value of .08 was obtained which, according to Cohen (1988), is a medium size effect.

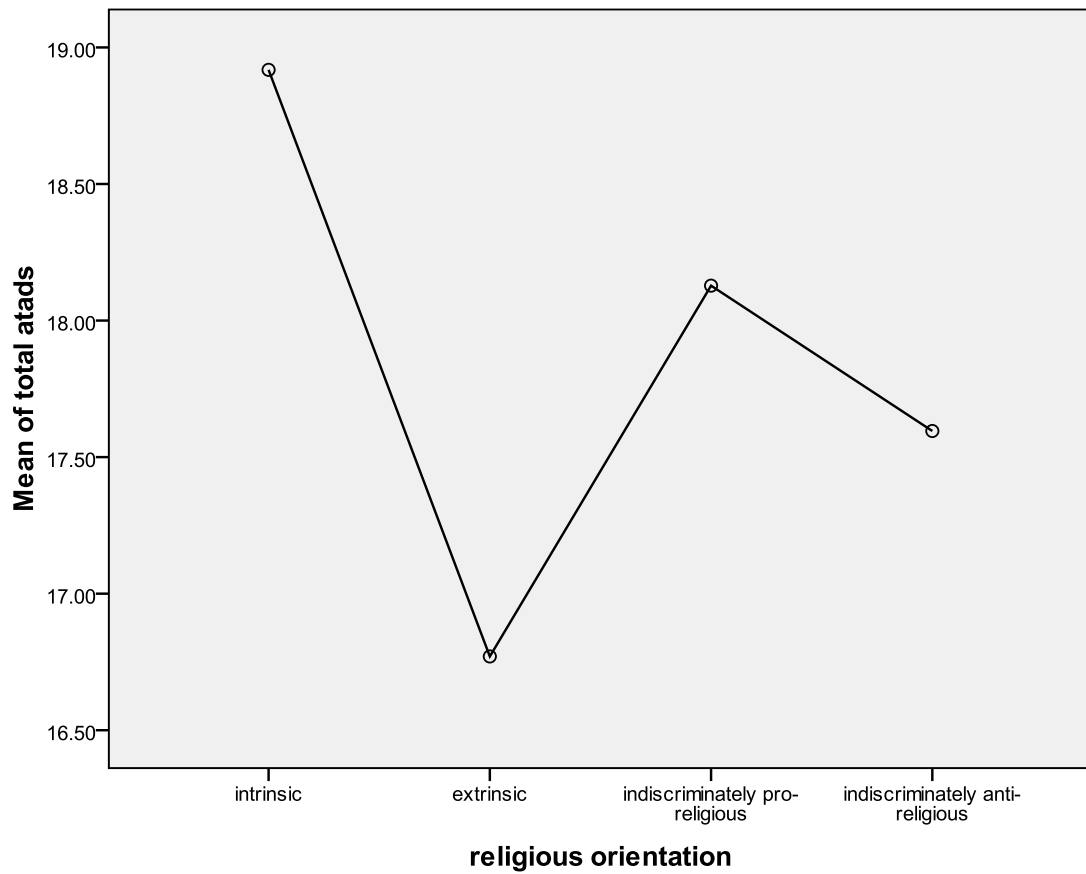
The extrinsic religious orientation group had a significantly lower mean score than did the intrinsic religious orientation group on the Attitudes Toward Academic Dishonesty Scale. Although it was anticipated that significant differences would be found between the intrinsic and extrinsic religious orientation groups on this variable prior to the

research being conducted, the degree or extent of the differences observed between these two religious orientation groups was not anticipated. Not only did the extrinsic group have lower scores than the intrinsic group, but this group exhibited the lowest scores on this scale of any of the groups included in this study. Figure B on the following page provides a graphic representation of the mean scores on the Attitudes Toward Academic Dishonesty Scale. At the same time, the intrinsic religious orientation group had the highest mean score of any group so that the scores of the intrinsic and extrinsic religious orientation groups on the attitudes toward academic dishonesty variable might best be viewed as extreme positions, minimum and maximum, along a common score continuum.

Higher scores on the Attitudes Toward Academic Dishonesty scale represent less accepting and less permissive attitudes toward academic dishonesty, while lower scores represent more accepting and more permissive attitudes. As a result, these scores indicate that collectively, individuals manifesting an intrinsic religious orientation reported having the least permissive and accepting attitudes toward academic dishonesty, while individuals manifesting an extrinsic religious orientation reported having the most permissive and accepting attitudes of the four groups evaluated. While there are a number of possible explanations for these findings, the most plausible, given the assumptions of Social Bond Theory, is that the superficial and weak attachment and commitment that extrinsic individuals manifest toward religion are reflected in similarly weak attachments to other types of social institutions, such as the education system. The weak attachment makes it easier for extrinsic individuals to violate the codes of conduct and expected standards of behavior associated with the educational process. This



explanation would support Allport's (1966) contention that extrinsic individuals lack any real commitment or adherence to the tenants of their religious faith.



*Figure B:* Graphical representation of the mean group scores on the Attitudes Toward Academic Dishonesty Scale for each religious orientation group included in the study's independent variable.

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Additionally, Allport (1966) notes that extrinsic individuals view religion in a very utilitarian manner and base their involvement in religion on some sort of perceived self-benefit. In other words, extrinsic individuals are involved in religion because doing so does something for them or provides them with something of value. The utilitarian outlook of extrinsic individuals may also help explain the results obtained in relation to Null Hypothesis One. When this utilitarian approach to social institutions is applied to the context of education, extrinsic individuals will be more likely to view assignments, courses, and degrees solely as a means to an end, rather than significant and worthwhile endeavors in and of themselves. This lack of fundamental commitment may result in the development of an attitude that supports using education in much the same manner that religion is used, to accomplish a specific objective or obtain a particular benefit. As a result, the rules that govern the educational process have little real meaning. For extrinsic individuals, the destination becomes more important than the journey itself.

#### *Null Hypothesis #2*

The second null hypothesis posited that students manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty when compared to students manifesting an indiscriminately pro-religious orientation. After examining the results of the analyses that were performed in this study, it was not possible to reject this null hypothesis and it was retained.

In order to determine which levels of the independent variable differed significantly in regards to the attitudes toward academic dishonesty variable, a series of one-way ANOVA's were conducted. Post-hoc comparisons using the Tukey HSD test indicated

that the mean score for the intrinsic religious orientation group ( $M = 18.92$ ,  $SD = 1.56$ ) was not significantly different from the mean scores of the indiscriminately pro-religious orientation group ( $M = 18.13$ ,  $SD = 2.34$ ). The indiscriminately pro-religious group did have slightly lower scores than the intrinsic group on the Attitudes Toward Academic Dishonesty Scale, but they were not large enough to reach a level of statistical significance.

Prior to conducting this research, it was anticipated that the indiscriminately pro-religious orientation group would have significantly more accepting and permissive attitudes toward academic dishonesty than would the intrinsic religious orientation group. There are a number of possible reasons why the anticipated results were not obtained. However, the most plausible explanation is that combined aspects of both an intrinsic and extrinsic orientation have a modifying effect on attitudes toward academic dishonesty that largely reflects the person's intrinsic sense of commitment. It must be remembered that unlike their intrinsic or extrinsic counterparts, individuals manifesting an indiscriminately pro-religious orientation exhibited aspects of both an intrinsic and an extrinsic orientation toward religion. In other words, they might best be viewed as occupying a more central position on the intrinsic-extrinsic scale. If extrinsic individuals use their religion and intrinsic individuals live their religion, indiscriminately pro-religious individuals both live and use their religion. Rather, than being oriented toward religion in one particular way, they may best be characterized as having a dualistic orientation.

This dualism would explain why individuals with a pro-religious orientation had scores on the attitudes toward academic dishonesty variable that were lower than their intrinsic counterparts, but not significantly so. The portion of their religious orientation

that was extrinsic in nature resulted in somewhat more pragmatic and accepting attitudes toward academic dishonesty, but these attitudes were kept in check by the portion of their religious beliefs that were intrinsic in nature. If it is true that the combination of both an intrinsic and extrinsic orientation toward religion results in a modifying or mellowing effect on attitudes toward academic dishonesty, we would expect to see this reflected in relation to the mean scores of those participants that exhibited just an extrinsic or just an intrinsic orientation. In the case of the current study, we would expect to see that individuals with an indiscriminately pro-religious orientation would have lower scores on the Attitudes Toward Academic Dishonesty Scale than individuals with an intrinsic religious orientation, but higher scores than those with an extrinsic religious orientation. This is exactly the relationship that we observe when we examine these results.

### *Null Hypothesis #3*

The third null hypothesis posited that students manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty when compared to students manifesting an indiscriminately anti-religious orientation. After examining the results of the analyses that were performed in this study, this null hypothesis was rejected. The post-hoc comparisons using the Tukey HSD test indicated that the mean score for the intrinsic religious orientation group of the independent variable ( $M = 18.92$ ,  $SD = 1.56$ ) was significantly different from the mean scores of the indiscriminately anti-religious orientation group ( $M = 17.59$ ,  $SD = 2.36$ ). When partial eta squared was calculated for the Attitudes Toward Academic Dishonesty variable a value of .08 was obtained which, according to Cohen (1988), is a medium size effect.

The indiscriminately anti-religious orientation group had a significantly lower score than the intrinsic group on the Attitudes Toward Academic Dishonesty scale. Prior to conducting this research, it was anticipated that this would be the case and the prediction was supported by the data obtained in this study. The actual mean score differences between the two groups were small, but they were still statistically significant.

While there are a number of possible explanations for these results, arguably the most plausible is that the lack of commitment to religious precepts manifested itself in an altered attitude toward the acceptability of academic dishonesty. Allport (1966) argued that intrinsic individuals are closely bound to, and strongly influenced by, the tenets of their religious beliefs. Typically, these religious beliefs reject outright the use of illicit or prohibited behaviors as a means of accomplishing desired goals or achieving intended objectives. Since indiscriminately anti-religious individuals lack the ties to religion that are held by intrinsic individuals, they are not as likely to be constrained by the beliefs and moral principles that are frequently associated with religious beliefs.

Critics could contend that individuals with an indiscriminately anti-religious orientation can certainly ascribe to a set of non-religiously based beliefs that would entail similar prohibitions on behaviors and attitudes to those that are held by religiously intrinsic individuals. This is a valid critique and one that may, at least partially, be reflected in the fact that the mean scores of the indiscriminately anti-religious orientation group ( $M = 17.59, SD = 2.36$ ) were significantly higher than those of the extrinsic religious orientation group ( $M = 16.77, SD = 2.42$ ). These results would indicate that those with a complete lack of commitment to religion have less permissive and accepting attitudes toward academic dishonesty than do those with a superficial or superfluous

commitment. These findings do tend to support the contention that it is possible for those that lack religious commitment to adhere to an alternative moral and ethical belief system that exerts a significant influence and control over their beliefs and behaviors. If this were not the case, indiscriminately anti-religious individuals would be expected to exhibit very similar attitudes toward academic dishonesty as would those with a very superficial and shallow commitment to their religious beliefs. However, this was not the case in this study.

Despite these findings, the results obtained in this study do indicate that there is something special about an individual's sincere commitment to religious beliefs and precepts. Sincere religious beliefs, at least insofar as they apply to academic dishonesty, cannot fully be accounted for by a comparable adherence to other types of non-religiously based belief systems. While the exact reason for these findings is not clear, it may have to do with the fact that social institutions and belief systems generate differing levels of intensity and attachment among those that are strongly bonded to them. While an attachment to a number of different belief systems and social institutions may have an influence on human attitudes and behaviors, some may exert more influence and control than others. It is noteworthy for example that this study is limited to those demonstrating intrinsic or extrinsic association to Christian beliefs and values, a belief system that is in most of its manifestations very punishment and reward based. Other belief systems may have revealed quite different results. In this study the Christian religion appeared to have an especially strong or significant influence on the attitudes of participants. It was not the intent of this research to investigate the relative magnitude of influence that is exerted on human beliefs and behaviors through an adherence to different types of belief systems or

social institutions, but this would be an excellent area for additional research in the future.

#### *Null Hypothesis #4*

The fourth null hypothesis posited that students manifesting an intrinsic religious orientation would not have different rates of involvement in acts of academic dishonesty when compared with students manifesting an extrinsic religious orientation. After examining the results of the analyses that were performed in this study, this null hypothesis was rejected.

The post-hoc comparisons using the Tukey HSD test indicated that the mean score for the intrinsic religious orientation group ( $M = 12.85$ ,  $SD = 4.13$ ) were significantly different from the mean scores of the extrinsic religious orientation group ( $M = 15.26$ ,  $SD = 5.75$ ). When partial eta squared was calculated for the Academic Dishonesty variable a value of .03 was obtained which, according to Cohen (1988), is a small effect.

The extrinsic religious orientation group had significantly higher scores than did the intrinsic religious orientation group on the Academic Dishonesty Scale. Prior to conducting the research, it was anticipated that these two groups would have significantly different scores on the involvement in academic dishonesty variable. Further, it was predicted that the extrinsic religious orientation group would have higher scores than the intrinsic religious orientation group on this scale. These predictions were both supported by the data.

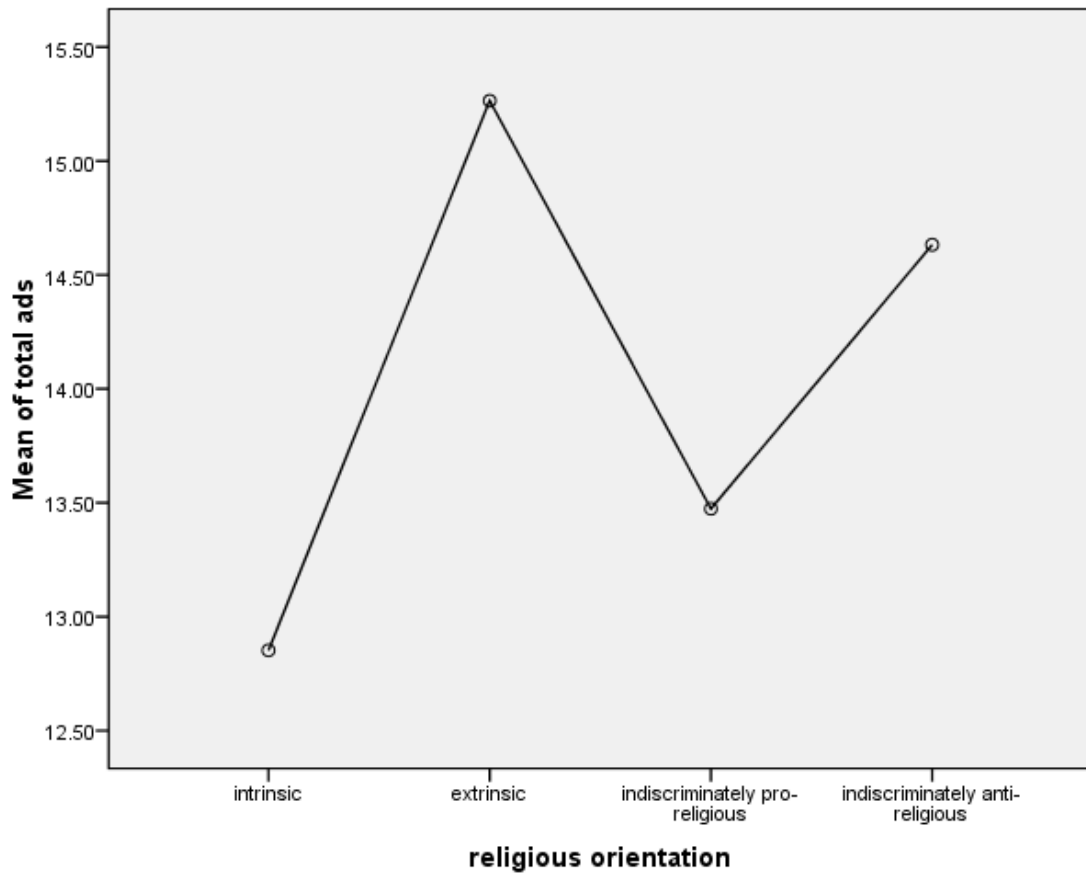
While there are a number of possible explanations for the results that were observed, arguably the most plausible is that a lack of attachment and sincere commitment to a set of religious beliefs and principles is representative of something larger and more

substantive. More specifically, this lack of attachment may be representative of a larger attitude and belief system that values superficial attachments and immediate gratification over long term commitments and investment in conformity. As Allport (1966) noted, individuals that manifest an extrinsic religious orientation use religion largely as a means to accomplish a particular end. Regardless of whether that end is friendship, comfort, career advancement, or marital pacification there is little real commitment to religious principles. It seems plausible then to expect that extrinsic individuals would be superficially attached in a similar manner to other types of social institutions, like education. This superficial level of attachment and commitment may make it easier to view educational institutions and educational processes as a means to an end. When viewed this way, academic dishonesty may quickly become a useful tool that can be employed to advance goals and achieve objectives, rather than a prohibited behavior that should be avoided.

This may also help explain why the extrinsic religious orientation group was the only one in this study to significantly differ from the intrinsic religious orientation group on the Academic Dishonesty Scale. Figure C on the following page provides a graphic representation of the mean scores of the religious orientation groups on the Academic Dishonesty Scale. None of the other religious or non-religious attitudes included in the study is characterized by having a similarly superficial and utilitarian orientation toward the institution of religion. It may seem plausible then that none of the other groups would have similarly shallow attitudes when it comes to other types of social institutions, like education. The indiscriminately pro-religious orientation group would be expected to exhibit attitudes and behaviors associated with an extrinsic orientation, but they would



also be balanced by their characteristics that are associated with the group's intrinsic orientation. The indiscriminately anti-religious orientation group, while not claiming allegiance to any particular religion, does not necessarily exhibit a similarly superficial commitment to alternative non-religiously based forms of ethical or moral systems or principles.



*Figure C:* Graphical representation of the mean scores on the Academic Dishonesty Scale for each religious orientation group included in the study's independent variable.

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Only the extrinsic group would be expected to demonstrate the type of superficial commitment and shallow adherence to institutional mores that would be associated with an increased likelihood of involvement in academic dishonesty.

*Null Hypothesis #5*

The fifth null hypothesis posited that students manifesting an intrinsic religious orientation would not have different rates of involvement in acts of academic dishonesty when compared to students manifesting an indiscriminately pro-religious orientation. After examining the results of the analyses that were performed in this study, it was not possible to reject this hypothesis and it was retained. As noted earlier, results of the one-way MANOVA indicated that there was a statistically significant difference between the categories of the religious orientation variable on the group of dependent variables,  $F(3, 413) = 4.50, p = .000$ ; Wilks' Lambda = .90; partial eta squared = .03. When the results for the dependent variables were considered separately, they indicated that there was a statistically significant difference between the various categories of the religious orientation variable and the involvement in academic dishonesty variable,  $F(3, 413) = 4.05, p = .007$ , partial eta squared = .03.

In order to determine which levels of the independent variable differed significantly in regards to the involvement in academic dishonesty variable, a series of one-way ANOVA's was conducted. However, post-hoc comparisons using the Tukey HSD test indicated that the mean score for the intrinsic religious orientation group of the independent variable ( $M = 12.85, SD = 4.13$ ) was not significantly different from the mean scores of the indiscriminately pro-religious orientation group ( $M = 13.47, SD = 4.05$ ). The indiscriminately pro-religious group did have slightly higher mean scores than

the intrinsic group on the Academic Dishonesty Scale, but they were not substantial enough to reach a level of statistical significance.

Higher scores on the Academic Dishonesty Scale indicate more frequent involvement in acts of academic dishonesty. As scores increase, individuals are reporting greater involvement in the various types of academic dishonesty that are described in the scale. It was anticipated that the indiscriminately pro-religious orientation group would have significantly higher scores on the Academic Dishonesty Scale when compared to the intrinsic religious orientation group. In spite of these initial assertions, the anticipated results were not obtained. There are a number of possible reasons for the findings, with perhaps the most plausible explanation being that the intrinsic aspect of the indiscriminately pro-religious orientation acts as a restraining influence on the extrinsic aspect of the orientation. It must be remembered that unlike their intrinsic or extrinsic counterparts, individuals manifesting an indiscriminately pro-religious orientation exhibit aspects of both an intrinsic and an extrinsic orientation toward religion.

As noted with the analysis of responses on the Attitudes Toward Academic Dishonesty scale, the extrinsic orientation involves a superficial and weak commitment to the tenets of the individual's religious beliefs. If these weak and superficial bonds extend to other aspects of the individuals moral and ethical belief system, it is likely that this could help explain why extrinsic individuals are more likely than other types of individuals to cheat. At the same time, the intrinsic religious orientation involves a profound and meaningful commitment to an individual's religious beliefs and principles. If these strong and sincere bonds to the individual's religion are evident in other areas of the individual's life, it is probable that they might help explain why intrinsic individuals

would be less likely to engage in behaviors, like cheating, that are viewed as deviant or dishonest. It appears that for the indiscriminately pro-religious individuals the intrinsic attributes mitigate for the extrinsic in most respects, explaining why they were more likely to be involved in acts of academic dishonesty than intrinsically religious individuals, but not significantly so.

#### *Null Hypothesis #6*

The sixth null hypothesis posited that students manifesting an intrinsic religious orientation would not have different rates of involvement in acts of academic dishonesty than would students manifesting an indiscriminately anti-religious orientation. After examining the results of the analyses that were performed in this study, it was not possible to reject this hypothesis and it was retained.

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the intrinsic religious orientation group ( $M = 12.85$ ,  $SD = 4.13$ ) was not significantly different from the mean score of the indiscriminately anti-religious orientation group ( $M = 14.63$ ,  $SD = 5.62$ ). The indiscriminately anti-religious group did exhibit a slightly higher mean score, but it was not substantial enough to reach a level of statistical significance. It was anticipated that the indiscriminately anti-religious orientation group would have significantly higher scores on the Academic Dishonesty Scale, when compared to the intrinsic religious orientation group. In spite of these initial assertions the anticipated results were not obtained. These results were especially surprising given that there were statistically significant differences between the intrinsic religious orientation group and the indiscriminately anti-religious orientation group on the attitudes

toward academic dishonesty scale. It was anticipated that these differences would be generalizable to the involvement in academic dishonesty variable as well.

There are a number of possible explanations why the anticipated results were not obtained. Arguably, the most plausible is that there are a variety of unique factors, other than religious orientation, that are responsible for determining whether indiscriminately anti-religious individuals engage in acts of academic dishonesty. This would help explain why the indiscriminately anti-religious orientation group did not manifest significantly higher scores on the Academic Dishonesty Scale as expected. In short, there were factors other than religion that were not accounted for by this study that acted to limit the involvement of the indiscriminately anti-religious orientation group in acts of academic dishonesty and were significant enough to ensure that the difference in academic dishonesty involvement between the intrinsic group and the indiscriminately anti-religious group did not achieve statistical significance.

In addition, it appears likely that there are some unique dynamics related to actual involvement in academic dishonesty that do not apply to attitudes toward academic dishonesty. These unidentified differences would help explain why the indiscriminately anti-religious orientation group was significantly different than the intrinsic orientation group on the attitudes toward academic dishonesty variable, but not on the involvement in academic dishonesty variable. This area of inquiry is intuitively appealing as it is likely that there are some substantial differences between thinking about academic dishonesty and engaging in acts of academic dishonesty that should be discovered. The differences may only have a limiting factor on some of the religious orientation groups that were included in this study and would also help explain why the extrinsic group was

found to be significantly different than the intrinsic group on both the attitudes toward academic dishonesty variable and the involvement in academic dishonesty variable, while the indiscriminately anti-religious orientation group exhibited significantly different scores on only one of the variables.

#### *Null Hypothesis #7*

The seventh null hypothesis posited that students manifesting an intrinsic religious orientation would not perceive that any differences exist in the availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an extrinsic religious orientation. After examining the results of the analyses that were performed in this study, it was not possible to reject this hypothesis and it was retained.

Prior to conducting this research, it was anticipated that the extrinsic religious orientation group would have higher scores than the intrinsic religious orientation group on the Perceived Opportunity Scale. Higher scores on this scale are thought to be an indication that participants perceive that academic dishonesty occurs more frequently and that there are more opportunities to engage in acts of academic dishonesty at their current educational institution. It was anticipated that extrinsic individuals would be more accepting of academic dishonesty and that this greater acceptance would be linked to beliefs that academic dishonesty is more prevalent and that opportunities to cheat are more prevalent. In spite of these initial assertions, the anticipated results were not obtained. In fact, there was no significant difference whatsoever between the various religious orientation groups in relation to their mean scores on the Perceived Opportunity Scale. These results were especially surprising given that there were statistically

significant differences between at least some of the religious orientation groups on the two other dependent variables that were examined in the study.

There are a number of potential explanations for why the anticipated results regarding the perceived opportunity variable were not observed. Arguably the most plausible is that the proposed connection between commitment to conforming social institutions, such as religion, and the attachment to the associated belief systems was not strongly related to an individual's perceptions regarding the prevalence of environmental phenomena, like academic dishonesty. For those in the extrinsic group, it was anticipated that a superficial attachment to their religious beliefs would result in a similarly shallow commitment to the ethical principles associated with other types of social institutions, like the higher education system and that this weak attachment would influence, and be reflected in, an individual's perceptions regarding how much academic dishonesty occurs and how many opportunities are available to engage in cheating. However, the results of this study do not support these assumptions. Instead, the intrinsic and extrinsic religious orientation groups had very similar attitudes regarding the prevalence of academic dishonesty and the availability of opportunities to cheat. These results indicate that judgments regarding the prevalence of academic dishonesty are more calculated, deliberate, and rational than had initially been anticipated. They are made without consideration for an individual's level of moral commitment or religious adherence and are largely based upon evidence that the individual believes to be both accurate and reliable. These judgments do not appear to be strongly influenced by the types of personal characteristics that were examined in this study and as a result, the predicted relationship was not observed.

### *Null Hypothesis #8*

The eighth null hypothesis posited that students manifesting an intrinsic religious orientation would not perceive that any differences exist in the availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an indiscriminately pro-religious orientation. After examining the results of the analyses that were performed in this study, it was not possible to reject this hypothesis and it was retained.

It was initially anticipated that the indiscriminately pro-religious orientation group would have higher scores than the intrinsic religious orientation group on the Perceived Opportunity Scale and that indiscriminately pro-religious individuals would be more accepting of academic dishonesty and, as a result, more convinced that academic dishonesty is more prevalent and that opportunities to cheat are more readily available. In spite of these initial assertions, the anticipated results were not observed. As noted with Null Hypothesis Seven, there was no significant difference whatsoever between the various religious orientation groups in relation to their mean scores on the Perceived Opportunity Scale. These results were especially surprising given that there were statistically significant differences between at least some of the religious orientation groups on the two other dependent variables examined in the study.

There are a number of potential explanations for why the anticipated results regarding the perceived opportunity variable were not observed. First, as noted in the discussion of Null Hypothesis Seven above, it is possible that the proposed connection between commitment to conforming social institutions, like religion, and an altered view of the prevalence of academic dishonesty was simply unfounded. However, in the case of Null



Hypothesis Eight there is an additional dynamic that also needs to be addressed. In this instance, individuals manifesting an indiscriminately pro-religious orientation are being examined and it must be remembered that these individuals manifest characteristics of both intrinsic and extrinsic religious orientations and that they score high on both aspects of the Religious Orientation Scale-Revised accordingly. It is possible that the intrinsic aspect of these individuals orientation to religion had a modifying or limiting effect that influenced the perceptions of participants in this religious orientation group. In other words, it is possible that the intrinsic aspect of these individuals religious orientation masked real differences in attitudes that would have otherwise been observed. Even if this is the case, it appears that, given the fact that neither of the other religious orientation groups exhibited significantly different scores on the Perceived Opportunity Scale, the intrinsic attributes of this group did not affect perceptions of opportunity to cheat.

*Null Hypothesis #9*

The ninth and final null hypothesis posited that students manifesting an intrinsic religious orientation would not perceive that any differences exist in the availability of opportunities to engage in acts of academic dishonesty when compared to students manifesting an indiscriminately anti-religious orientation. After examining the results of the analyses that were performed in this study, it was not possible to reject this hypothesis and it was retained.

It was anticipated that the indiscriminately anti-religious orientation group would have higher scores than the intrinsic religious orientation group on the Perceived Opportunity Scale and that this would be linked to beliefs that academic dishonesty is more prevalent and that opportunities to cheat are more prevalent. In spite of these initial assertions, the

anticipated results were not obtained. As with the other groups, there was no significant difference whatsoever between their mean scores on the Perceived Opportunity Scale. Here again, these results were surprising given that there were statistically significant differences between at least some of the religious orientation groups on the two other dependent variables that were examined in the study.

There are several potential explanations for why the anticipated results regarding the perceived opportunity variable were not observed as had been predicted. First, as noted in the discussion of Null Hypothesis Seven and Eight above, it is possible that the proposed relationship between an individual's commitment to conforming social institutions, like religion, and an altered view of the prevalence of academic dishonesty was simply unfounded. However, in the case of Null Hypothesis Nine there is an additional dynamic that also needs to be addressed. In this instance, individuals manifesting an indiscriminately anti-religious orientation are being examined in relation to those manifesting an intrinsic religious orientation. It must be remembered that indiscriminately anti-religious individuals theoretically lack any significant commitment to, or belief in, religion or religious principles. It was anticipated that this lack of commitment would be manifested in a less rigid commitment to ethical standards in a very broad and general sense and that this lack of commitment would in turn influence perceptions regarding the prevalence of academic dishonesty. It is possible, however, that indiscriminately anti-religious individuals simply exchanged an adherence to a religiously-based system of beliefs for an adherence to a non-religiously based code of conduct. In other words, it is possible that a rigid adherence to a set of morals and standard of conduct influenced both the intrinsic and indiscriminately anti-religious

orientation groups resulting in similar perceptions regarding the prevalence of academic dishonesty. This possibility would be more plausible if both the intrinsic and indiscriminately anti-religious orientation groups had varied significantly from the other religious orientation groups that were included in this study. However, that was not the case as none of the religious orientation groups included in the study exhibited any significant differences. The most reasonable explanation concerning Null Hypotheses Seven through Nine is that despite one's moral or ethical orientation, students are able to accurately assess and report levels of academic dishonesty in their institutions.

### *Conclusion*

The results of the analysis that were conducted during the course of this investigation supported some of the initial contentions that religious orientation would have a significant influence on the variables that were examined in relation to academic dishonesty. However, not all of the expected relationships were supported by the results. After examining the obtained results it was not possible to reject a number of the null hypotheses and they were retained. While the predicted relationship wasn't supported by the retained hypotheses, each of these hypotheses nonetheless provided some very valuable information regarding the phenomena that were at the heart of the investigation. The following and concluding chapter will provide not only a summary and overview of the study but will examine the significance of the null hypotheses that were ultimately rejected and will recommend further related areas for research.

## CHAPTER 5

### Summary and Discussion

#### *Introduction*

The intent of the final chapter is to provide a brief review of the methodology and findings of this study, to provide analysis for the findings, to clarify how the study contributes to the existing body of scholarship pertaining to religious orientation and academic dishonesty, and to identify recommendations for future research in related areas. Toward these ends, this chapter has been organized into several sections. The first section presents a broad general overview and review of the study's design and methodology. The second section provides an overview and discussion of the study's findings, including a detailed review of each of the study's null hypotheses that were ultimately rejected. The third section describes how the study's results contribute to an understanding of the theoretical models that underscored and guided this research. The fourth section illustrates how the study's findings contribute to the existing body of scholarship related to academic dishonesty and religious orientation. The fifth section provides a discussion of the need for additional research and will identify areas for future scholarship. The sixth and concluding section provides a brief summary of the study and some concluding remarks.

#### *Study Overview and Review*

The purpose of this study was to provide additional insight into a topic of critical importance for the American system of higher education, namely academic dishonesty. This is not to say that research regarding this topic is lacking. To the contrary, research regarding academic dishonesty has been extensive and robust (Whitley, 1998). However,

much of this research has focused on the characteristics associated with academic dishonesty and the types of measures that might best deter would be cheaters. Much less empirical theory-based research has been done regarding the underlying causes of academic dishonesty. Given the widespread prevalence of this phenomenon in the American system of higher education, it is apparent that this is a critical issue. What is perhaps more surprising is that rates of academic dishonesty have not decreased substantially in the face of decades of research. This study was conducted with the intent of contributing to this area of scholarship by examining how religiosity might contribute to our understanding of academic dishonesty and why students cheat, as explained in the context of Hirschi's Social Bond Theory.

One of the social institutions most commonly associated with Social Bond Theory is religion and it was this social institution that was selected for inclusion in this study. More specifically, this research examined whether an individual's religious orientation influenced his or her perceptions regarding the prevalence of academic dishonesty, general attitudes regarding the acceptability of academic dishonesty, and rates of participation in acts of academic dishonesty. The research is based upon the premise that expanding our understanding of why academic dishonesty occurs is a necessary step toward ultimately reducing the prevalence of cheating. However, the study also goes beyond merely examining the theoretical basis for understanding academic dishonesty and provides additional insight into the existing body of scholarship pertaining to whether religious orientation influences human attitudes and behaviors.

The study employed an online survey that was administered to a large sample ( $N=417$ ) of undergraduate college students, randomly selected from all students attending a large

public university during the summer 2009 semester. The students were contacted through their university email accounts and asked to participate in the study, with those willing to participate provided with a link to an online survey-hosting site where they could anonymously submit their survey responses to a password protected and security encrypted database. Those individuals willing to participate were asked a series of demographic questions regarding their age, employment status, socioeconomic status, and a variety of other items. The demographic data indicated that the study's participants were largely representative of the entire student population at the educational institution from which the sample was drawn. As a result, participants were relatively diverse in regards to factors such as their gender, race, age, and academic major.

The online survey utilized was composed of four separate pre-existing survey instruments, each of which was administered in its original, unaltered format. The Religious Orientation Scale-Revised (Gorsuch & McPherson, 1989) was used to differentiate study participants based upon religious orientation. This scale resulted in participants being assigned to one of four different religious orientation groups or four levels within the independent variable. A mean-split approach was used to assign participants to one of the four groups, based upon their mean scores on the scale's intrinsic and extrinsic items.

These four religious orientation groups were then compared to see if they differed in regard to the items on the remaining three scales, all of which examined a different aspect of academic dishonesty. The Perceived Opportunity Scale (McCabe & Trevino, 1997) was used to measure participant perceptions regarding how prevalent cheating is at their educational institution. The Attitudes Toward Academic Dishonesty Scale (Davis et. al.,

1992) was used to gauge general student attitudes regarding the acceptability, or lack thereof, of academic dishonesty. Finally, the Academic Dishonesty Scale (McCabe & Trevino, 1997) was used to determine how often participants actually engaged in a variety of different types of academically dishonest behaviors. Each of these scales provided a mean score for individual participants and for each religious orientation group as a whole. The mean scores of the four religious orientation groups were then compared using a series of one-way MANOVA and one-way ANOVA analyses.

As noted in chapter four, of the nine null hypotheses that were examined in this study six were not found to be significant and were therefore retained. More specifically, no significant differences were found to exist between the religious orientation groups and the perceived opportunity dependent variable. The analyses further revealed that the mean score for the intrinsic group was not significantly different than the mean score of the indiscriminately pro-religious group in regards to the attitudes toward academic dishonesty scale and the mean score of the intrinsic group was not significantly different than those of the indiscriminately anti-religious and indiscriminately pro-religious groups on the involvement in academic dishonesty scale.

The remaining three null hypotheses were found to be significant and were therefore rejected. More specifically, significant differences between the religious orientation groups were found to exist on two of the dependent variables included in this study, attitudes toward academic dishonesty and involvement in academic dishonesty. The analyses further revealed that the mean score for the intrinsic group was significantly different than the mean scores of both the extrinsic and indiscriminately anti-religious group in regards to the attitudes toward academic dishonesty scale and that the mean

score of the intrinsic group was significantly different than that of the extrinsic group in regards to the involvement in academic dishonesty scale. Collectively, these differences resulted in three of the null hypotheses that were originally advanced being rejected and the associated alternative hypotheses being retained.

Each of these nine null hypotheses was briefly examined in chapter four, along with some potential explanations regarding why they were or were not found to be significant. In the following section, the major findings that can be drawn and extrapolated from both the null hypotheses that were retained and those that were rejected will be examined and discussed. This discussion will provide a complete analysis of the individual and collective conclusions that can be drawn from the results that were obtained in this study. In addition, an overview of the theoretical applications of these findings will be advanced and some suggestions for future research regarding the issues associated with this study will be identified.

### *Major Findings*

The first null hypothesis posited that participants manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty when compared to students manifesting an extrinsic religious orientation. This null hypothesis was rejected after analysis results indicated that there was a statistically significant difference between the religious orientation group and the attitudes toward academic dishonesty dependent variable. More specifically, analyses revealed that the scores of the intrinsic religious orientation group were significantly different than the scores of the extrinsic religious orientation group.



The extrinsic religious orientation group exhibited lower scores on the Attitudes Toward Academic Dishonesty Scale than did the intrinsic religious orientation group. In fact, the extrinsic group exhibited the lowest scores on this scale of any of the groups included in this study. At the same time, the intrinsic religious orientation group exhibited the highest scores of any of the religious orientation groups included in this study. In essence, the scores of the intrinsic and extrinsic religious orientation groups represented minimum (extrinsic religious orientation group) and maximum (intrinsic religious orientation group) scores on the attitudes toward academic dishonesty scale score continuum. This is an important finding as higher scores on the Attitudes Toward Academic Dishonesty Scale represent less accepting and less permissive attitudes toward academic dishonesty while lower scores represent more accepting and more permissive attitudes.

When evaluated with score implications in mind, the results indicate that individuals manifesting an intrinsic religious orientation exhibited the least permissive and accepting attitudes toward academic dishonesty of any of the religious orientation groups examined in this study. On the other hand, individuals manifesting an extrinsic religious orientation exhibited the most permissive and most accepting attitudes towards academic dishonesty. There are a number of potential explanations for these findings in relation to the attitudes towards academic dishonesty variable. However, the most plausible, given the assumptions of Social Bond Theory, is that the superficial and weak attachment and commitment that extrinsic individuals felt toward religion were reflected in similarly weak attachments to other types of social institutions, such as the education system. The weak attachment experienced by the extrinsic group appears to have made it easier for

extrinsic individuals to condone attitudes and beliefs that ran contrary to the officially recognized and sanctioned codes of conduct and standards of behavior associated with the educational process. This explanation would certainly provide support for Allport's (1966) contention that individuals who are strongly bound to conforming social institutions are less likely to view deviant behavior as being acceptable or desirable. In the extrinsic group examined in this study the lack of any real commitment or adherence to religious tenants appears to have been indicative or representative of a larger lack of bonding to socially conforming social institutions.

These results may also be indicative of another significant finding. Allport (1966) believed that extrinsic individuals viewed religion in a very utilitarian manner and based their involvement in religion on some sort of perceived self-benefit. In other words, extrinsic individuals are involved in religion because they believe that doing so does something for them or provides them with something of value. Extrinsic individuals might be said to exhibit a utilitarian approach to religion where they base their affiliation on a cost-benefit analysis. If this type of utilitarian outlook is represented in other areas of an extrinsic individual's life it may help explain other types of decisions or attitudes towards other types of social institutions. In this instance, the utilitarian outlook of extrinsic individuals may explain how these individuals perceive and relate to the higher education social institution.

When this utilitarian approach to religion is applied to the context of education extrinsic individuals may be more likely to view their participation through the same cost-benefit lens that they used to explain and justify their involvement in religion. As a result, extrinsic individuals are more likely to view components of the educational

process, such as assignments, courses, and degrees as a means to an end, rather than significant and worthwhile endeavors in and of themselves. This lack of fundamental commitment to the basic principles and standards of the educational process may result in the development of an attitude that supports using education in much the same manner that religion is used, to accomplish a specific objective or obtain a particular benefit. As a result, the rules that govern the educational process have little real meaning or purpose for extrinsically oriented individuals. In the end, extrinsic individuals tend to view the final destination as being more important than the journey itself.

The third null hypothesis examined in this study posited that students manifesting an intrinsic religious orientation would not have different attitudes toward academic dishonesty when compared to students manifesting an indiscriminately anti-religious orientation. This null hypothesis was rejected after analysis results indicated that there was a statistically significant difference between the religious orientation groups and the attitudes toward academic dishonesty dependent variable. More specifically, analyses revealed that the scores of the intrinsic religious orientation group were significantly different than the scores of the indiscriminately anti-religious orientation group. More specifically, the study results indicated that indiscriminately anti-religious orientation group had significantly lower scores than the intrinsic group on the Attitudes Toward Academic Dishonesty scale. As noted above, higher scores on this scale indicate less accepting and permissive attitudes towards academic dishonesty. As a result, the indiscriminately anti-religious orientation group exhibited more accepting and more permissive attitudes toward academic dishonesty than did the intrinsic religious orientation group.

While there are a number of possible explanations for these results regarding participant attitudes towards academic dishonesty, arguably the most plausible is that the lack of commitment to religious precepts manifested itself in an altered attitude toward the acceptability of academic deviant behaviors. Allport (1966) argued that intrinsic individuals are closely bound to, and strongly influenced by, the tenets of their religious beliefs. Typically, these religious beliefs reject outright the use of tactics that are viewed as being illicit or engaging in behaviors that are specifically prohibited as a means of accomplishing desired goals or achieving intended objectives. This would explain why intrinsically oriented participants held the least accepting attitudes towards cheating. However, indiscriminately anti-religious individuals lack the ties to religion that are held by intrinsic individuals. As a result, they are not as likely to be constrained by the precepts and principles that are frequently associated with religious beliefs.

Critics of this position might contend that individuals with an indiscriminately anti-religious orientation could certainly ascribe to a set of non-religiously based beliefs and principles that would entail similar prohibitions on deviant behaviors and attitudes to those that are held by religiously intrinsic individuals. This is a valid critique and one that may be reflected, to at least a certain degree, in the comparative scores of the religious orientation groups on the attitudes towards academic dishonesty variable. The scores of the indiscriminately anti-religious orientation group were higher than those of the extrinsic religious orientation group. These results would tend to indicate that those with a complete lack of commitment to religion have less permissive and accepting attitudes toward academic dishonesty than do those with a superficial or superfluous commitment. These findings do tend to support the contention that it is possible for those

that lack religious commitment to adhere to an alternative moral and ethical belief system that exerts a significant influence and control over their beliefs and behaviors. If this were not the case, indiscriminately anti-religious individuals would be expected to exhibit very similar scores toward academic dishonesty as would those with an extrinsic orientation. However, this was not the case in this study as those with an indiscriminately anti-religious orientation scored higher than those with an extrinsic orientation.

Despite these findings, the results obtained in this study also provide an indication that there is something special or unique about an individual's sincere commitment to religious beliefs and precepts. Sincere religious beliefs, at least insofar as they apply to academic dishonesty, cannot fully be accounted for by a comparable adherence to other types of non-religiously based belief systems. This assertion is supported by the fact that those with an intrinsic religious orientation scored higher than did those with an indiscriminately anti-religious orientation. While the exact reason for these findings is not clear, it is thought that it may have to do with the fact that social institutions and belief systems generate differing levels of intensity and attachment among those that are strongly bonded to them. In other words, attachment to a number of different belief systems and social institutions may have an influence on human attitudes and behaviors, but some simply exert more influence and control than others. For the intrinsically oriented individuals in this study, religion appeared to be one of these institutions. Perhaps it is the intrinsically oriented belief that behavior will be rewarded or punished after their death that resulted in higher levels of attachment to religion.

One final issue should be noted in regards to the findings pertaining to attitudes towards academic dishonesty. More specifically, it should be noted that this study was limited to those individuals demonstrating intrinsic or extrinsic association to Christian religions and Christian religious beliefs and values. Other religions or religious belief systems may be based upon different principles and may therefore have revealed different results from those that were obtained in this study. It is possible that the especially strong attachment to religion that was manifested among intrinsically oriented individuals in this study may not have been paralleled in adherents to other types of religions. It was not the intent of this research to investigate the relative magnitude of influence that is exerted on human beliefs and behaviors through an adherence to different types of religions, but this would be an excellent area for additional research in the future.

The fourth null hypothesis examined in this study posited that students manifesting an intrinsic religious orientation would not have different rates of involvement in acts of academic dishonesty when compared to students manifesting an extrinsic religious orientation. This null hypothesis was rejected after results of the analyses indicated that there was a statistically significant difference between the religious orientation groups and the involvement in academic dishonesty dependent variable. More specifically, analyses revealed that the scores of the intrinsic religious orientation group were significantly different than the scores of the extrinsic religious orientation group. A further examination of the results obtained in this study indicates that members of the extrinsic religious orientation group had significantly higher scores on the Academic Dishonesty Scale than did the intrinsic religious orientation group. Higher scores on the Academic Dishonesty Scale indicate more frequent involvement in acts of academic

dishonesty. As a result, the extrinsic religious orientation group indicated more frequent involvement in acts of academic dishonesty than did the intrinsic religious orientation group. Prior to conducting this research, it was believed that there would be significant differences between the extrinsic and intrinsic orientation groups on this scale and that the extrinsic group would have higher scores than the intrinsic group. The results that were obtained provided support for both of these initial predictions.

While there are a number of possible explanations for the results that were obtained in regards to involvement in academic involvement, arguably the most plausible is that a lack of attachment and sincere commitment to a set of religious beliefs and principles is representative of something larger and more substantive in an individual's behavior. More specifically, this lack of attachment may be representative of a larger attitude and belief system that values superficial attachments and immediate gratification over long term commitments and investment in conformity. As Allport (1966) noted, individuals that manifest an extrinsic religious orientation use religion as a means to accomplish some form of egocentric objective. Regardless of whether that end is friendship, comfort, career advancement, or marital pacification there is ultimately little real commitment to underlying religious principles and beliefs. Given this superficial level of commitment to religious beliefs, it seems plausible that extrinsic individuals might exhibit similarly weak and superficial attachments to other types of social institutions, like education. This superficial level of attachment and commitment may make it easier to view educational institutions and educational processes as a means to an end. When viewed this way, academic dishonesty may quickly become a useful tool that can be employed to advance

self-centered goals and achieve egocentric objectives, rather than a prohibited behavior that should be avoided.

This may also help explain why the extrinsic religious orientation group was the only group in this study to significantly differ from the intrinsic religious orientation group on the Academic Dishonesty Scale. None of the other religious or non-religious orientations that were examined in the study were characterized by having a similar utilitarian orientation toward the social institution of religion. It may seem plausible then that none of the other groups would have a similar type of utilitarian orientation when it comes to other types of social institutions, like education. The indiscriminately pro-religious orientation group would be expected to exhibit attitudes and behaviors associated with an extrinsic orientation, but these characteristics would also be balanced out by the group's attitudes and behaviors associated with an intrinsic religious orientation. The indiscriminately anti-religious orientation group, while not claiming allegiance to any particular religion, does not necessarily have to exhibit a similarly superficial and utilitarian commitment to other alternative types of non-religiously based forms of ethical or moral belief systems. As a result, only the extrinsic group would be expected to demonstrate a utilitarian orientation toward religion. Further, the extrinsic group would also be the only group that might be expected to manifest a superficial commitment and shallow adherence to the organizational standards and exceptions of other types of social institutions, like the higher education system. In turn, this may also help explain why those with an extrinsic religious orientation were the only individuals involved in this study that were associated with an increased likelihood of involvement in acts of academic dishonesty.



### *Theoretical Implications*

This study examined the influence that religious orientation had on academic dishonesty from a theoretical framework that was based on Hirschi's Social Bond Theory (Hirschi, 1969). This theory posits that individuals with strong bonds or attachments to conforming social institutions will be less likely to engage in socially deviant forms of behavior than will those without these attachments (Hirschi, 1969). One type of social institution that has received a great deal of attention in the existing body of Social Bond research is religion (Baier & Wright, 2001). While some of Hirschi's own research (Hirschi & Stark, 1969) failed to find a significant correlation between religious beliefs and delinquent behavior, other research (Baier & Wright, 2001) has found that religion is associated with a decreases propensity for deviant behavior. The concept of religious orientation offers at least one explanation for the disparate results that have been observed in this regard.

Allport's (1966) concept of religious orientation holds that classifications such as religious and non-religious are overly simplistic when doing research involving human behavior. Instead, it is an individual's orientation toward religion that is the controlling factor. Many people can claim to be religious or can provide indicators that they are religious, such as church membership or church attendance, but in reality religion may have very different meaning and importance for each of these individuals. Intrinsic individuals, who are committed to their religious beliefs and attempt to live in accordance with them, are more likely to be controlled and guided by them. At the same time, it is doubtful that extrinsic individuals who see religion as an ornament and manifest a shallow and superficial commitment to religious principles will be strongly influenced by

their religious beliefs. Integrating Allport's (1966) concept of religious orientation with Hirshci's (1969) concept of social bonding can help explain why divergent research results regarding religion's influence on deviant behavior have been obtained in the past. Past research that has not found a relationship between religion and deviant behavior may have failed to fully account for the divergent nature of religious orientation and the differing importance that religion has on the lives of individuals.

This synthesis can provide an opportunity to examine the influence that religion can have as a socially bonding influence from a new perspective. If we acknowledge that an extrinsic religious view is not "bonding" we might expect only those individuals with an intrinsic orientation toward religion to be less likely to engage in deviant types of social behaviors. There would be no reason to expect those individuals manifesting an extrinsic religious orientation to exhibit any significant reductions in their involvement in deviant activities. This research attempted to evaluate exactly this type of relationship by examining how religious orientation influenced attitudes toward and involvement in acts of academic dishonesty.

The results of this study provided support for Hirshchi's (1969) Social Bond Theory in that those individuals who were more strongly bonded or attached to the social institution of religion, intrinsically religious respondents, had less accepting and permissive attitudes toward academic dishonesty. At the same time, those individuals with an extrinsic orientation who had the most superficial attachment to religion exhibited the most accepting and permissive attitudes. These findings were further strengthened by results which indicated that participants exhibiting an indiscriminately pro-religious orientation were also less accepting in attitudes toward cheating. This

would indicate that the intrinsic elements of their orientation still affected social bonding. An indiscriminately anti-religious orientation, demonstrating no commitment or attachment to religion at all, made individuals significantly more likely than intrinsic individuals, to have permissive and accepting attitudes toward academic dishonesty. It is noteworthy, however, that these individuals were less permissive than were extrinsic individuals, suggesting that an alternative ethical or moral bonding agent may be at work.

The results concerning involvement in acts of academic deviance also provided support for Hirschi's Social Bond Theory (Hirschi, 1969), though not as strongly as those described above that related to attitudes toward academic dishonesty. Again, those with an intrinsic orientation toward religion were the least likely to engage in academically dishonest behaviors, while those with an extrinsic orientation were the most likely. However, support in this regard is tempered by the fact that significant differences did not exist between the intrinsic religious orientation group and the indiscriminately anti-religious orientation group. If attachment to religion acted as a strong social bonding influence, it would have been expected that significant differences would extend to this relationship as well. This further suggests that for the indiscriminately anti-religious group, other moral guides may be in effect.

Collectively, the results of this study indicate support for Hirschi's Social Bond Theory (Hirschi, 1969) and its application in the realm of academic dishonesty. Further, contrary to Hirschi's own research (Hirschi & Stark, 1969), the results of this study indicate that religion can act as a conforming social institution, at least in relation to academic dishonesty. However, it should be noted that the support generated by this study for Hirschi's Social Bond Theory (Hirschi, 1969) was stronger in relation to

general attitudes toward academic dishonesty than it was in regard to actual involvement in academic dishonesty.

### *Contributions to Existing Scholarship*

This study contributed to the existing body of scholarship related to academic dishonesty and religious orientation in a number of important ways and this section examines contributions related to each. The existing body of scholarship pertaining to academic dishonesty, while robust, is still far from complete. Recent research continues to indicate that academic dishonesty is a significant problem in the American system of higher education (Jackson, 2007). If our understanding of the causes and dynamics of academic dishonesty were total and complete, significant reductions in prevalence rates would most certainly have been observed. This, however, has not been the case. Given the ongoing importance of the issue to the American system of higher education, it is imperative that research continue in an attempt to increase our understanding of why cheating occurs and how it can best be prevented.

This research has contributed to this body of knowledge in a number of ways. First, the study indicates that student perceptions regarding the prevalence of academic dishonesty are relatively uniform in spite of major differences in a student's adherence to religious beliefs and principles. This appears to indicate that students make judgments regarding how much academic dishonesty occurs and how available opportunities are to engage in acts of academic dishonesty irrespective of larger religious and moral beliefs. Instead, students appear to form perceptions regarding the prevalence of academic dishonesty based upon judgments that are more rational and informed. A variety of other

factors, such as personal observations and the accounts of fellow students, appear to be more influential than religious and moral constraints in this regard.

This is an important finding that may have wide ranging implications for institutional efforts aimed at altering student perceptions regarding the prevalence, or lack thereof, of academic dishonesty. Efforts aimed at changing student perceptions regarding the prevalence of academic dishonesty that are based upon appeals to moral or ethical beliefs are not likely to yield tangible benefits. Instead, preventative efforts may need to become more visible and conspicuous in order to begin altering student perceptions. As such, institutions and faculty alike would need to provide more tangible examples of their efforts to identify and control students in regards to academically dishonest acts. These efforts would provide students with clear examples that the institution is actively attempting to identify cheaters and reduce the prevalence of academic dishonesty. As these efforts take root, they may begin to provide students with an altered perception which holds that more is being done to prevent cheating than to provide students with opportunities to engage in such behavior. In turn, this may alter the nature of student discussions about the relative prevalence of academic dishonesty by changing the focus from how much cheating occurs to how hard the institution is trying to control cheating. The results of this study indicate that preventative efforts that are both more visible and more punitive may be worth considering.

Second, the research indicated that only the extrinsic religious orientation group varied significantly from the intrinsic religious orientation group when it came to academic dishonesty participation rates. Individuals in the extrinsic religious orientation group engaged in significantly more acts of academic dishonesty than did the members of

the intrinsic religious orientation group, while students in the other two groups responded much more like the intrinsic group. These findings indicate that there was something unique about the extrinsic religious orientation group in regards to their engagement in acts of cheating. This may indicate that the differences observed were a result of how the extrinsic group's utilitarian approach to religion is reflected in other areas of their lives. If this is true, it could logically be expected that student's with a utilitarian approach to education would be more likely to engage in acts of academic dishonesty than those without this orientation. Ultimately, these findings would provide support for the development of contextual approaches to preventing academic dishonesty. Such approaches would need to be tailored to a specific type of audience, rather than being applied proactively or retroactively to all students as has typically been the case in the past. For example, preventative measures based upon appeals to a sense of right or morality are likely to fail with this group, while measures based on greater vigilance by faculty or more severe punishment may be effective since they address pragmatic reasons not to cheat.

Finally, the results of this research indicate that religious orientation influences general attitudes toward academic dishonesty. More specifically, religious orientation influences attitudes regarding the acceptability and permissibility of academic dishonesty. Individuals with extrinsic and indiscriminately anti-religious orientations exhibited more permissive and accepting attitudes toward academic dishonesty than did participants with an intrinsic religious orientation or an intrinsic/extrinsic view. This appears to indicate that individuals with a sincere commitment to their religious principles and beliefs are less likely to view cheating as being morally acceptable.

Perhaps most importantly, the results of this study indicated that as a group extrinsic individuals had the lowest score on the Attitudes Toward Academic Dishonesty Scale which represents the most permissive and accepting attitudes toward cheating. The least permissive and accepting attitudes were held by those individuals in the intrinsic religious orientation group and intrinsic/extrinsic individuals were similarly critical.

Indiscriminately anti-religious individuals exhibited mean group scores that fell between these two extremes. This strongly supports the contention that individuals with a utilitarian orientation toward religion manifest a similarly utilitarian attitude toward other social institutions, like the education system, and that individuals who claim not to be religious may have other constraining social bonds that make them less permissive than the extrinsically religious. As previously noted, these results underscore the need for preventative efforts to be contextualized, tailored, and specifically targeted toward different types of student populations. Traditional approaches toward preventing academic dishonesty may do very little to dissuade those who have a utilitarian view of the educational process.

Instead, efforts aimed at reducing the prevalence of academic dishonesty may need to focus on breaking down the utilitarian attitudes that students bring with them to the classroom environment or to tie reasons not to cheat to consequences that can pragmatically be viewed as additional considerations. Once this task has been accomplished, the results of this study indicate that subsequent efforts to change attitudes toward academic dishonesty are likely to become increasingly successful. As students begin to see that there is more to the educational process than using degrees and certificates to advance their own professional or personal goals, it becomes increasingly

difficult for them to justify using illicit means to obtain these objectives. Or, assuming that modification of attitudes is unlikely, efforts need to be undertaken to demonstrate the “lack of utility” in cheating and consequences associated with cheating that the student sees as undesirable.

The existing body of research related to how religious orientation influences human behavior can be traced to the groundbreaking work of Gordon Allport that was conducted during the mid 20<sup>th</sup> century (Nielsen, 1995). Arguably, the most defining feature of that research was the advancement and refinement of the concept of religious orientation. Since that time, a great deal of research has been done examining how an individual’s religious orientation influences behaviors and attitudes (Nielsen, 1995). However, little research has been done that applies the concept of religious orientation to the phenomena of academic dishonesty. As a result, this research has helped to contribute to scholarship in this area in a number of important ways.

First, the study’s findings did not support the contention that an individual’s religious orientation has an impact on their perceptions of the prevalence of academic dishonesty. Instead, in spite of vastly different orientations toward religion, the study participants gave remarkably similar accounts concerning the prevalence of academic dishonesty at the educational institution from which the sample was drawn. This is somewhat surprising given that religious orientation did appear to have a substantial influence on the other aspects of academic dishonesty that were evaluated in this study. For whatever reason, the influence of religious orientation that was exhibited in other areas simply could not be extended to perceptions regarding the prevalence and availability of academic dishonesty. There appeared to be some form of unidentified



mitigating factor that precluded religious orientation from exerting an influence in this regard.

Secondly, this study supported Allport's (1950, 1966) and Allport and Ross's (1967) contentions that an individual's religious orientation exerted an influence over their attitudes toward the acceptability of morally questionable behaviors. Allport (1966) specifically applied his research to the relationship between religious orientation and the acceptability of prejudicial beliefs and attitudes, finding that intrinsically motivated individuals were less prejudiced and less accepting of prejudicial beliefs than were extrinsic individuals. If religious orientation is thought to have a robust influence on general human attitudes, it would certainly be expected to exhibit a similar influence on human attitudes toward other types of morally and ethically prohibited behaviors, such as academic dishonesty. This study strongly supported the contention that religious orientation does have a robust influence on human attitudes and that Allport's (1966) findings can be extended to the realm of academic dishonesty.

Individuals in the extrinsic religious orientation group were found to have significantly more accepting and permissive attitudes toward cheating than were participants in the intrinsic religious orientation group. Further, participants in the extrinsic religious orientation group were found to have the most permissive and accepting attitudes toward academic dishonesty of any of the religious orientation groups included in the study. At the same time, the intrinsic religious orientation group exhibited the least permissive and accepting attitudes toward cheating of any of the religious orientation groups included in the study. This is exactly the type of relationship that would be predicted by Allport's (1966) prior research and it provides strong support

for the contention that a sincere devotion to religious principles exerts control over an individual's attitudes toward morally questionable behaviors.

Finally, this study provided limited support for the belief that religious orientation can exert an influence over actual human behavior, in this instance cheating. The results of this study indicated that individuals in the extrinsic religious orientation group exhibited significantly higher rates of involvement in acts of academic dishonesty than did those in the intrinsic religious orientation group. However, the applicability of these findings is somewhat limited by the fact that the statistically significant differences that were observed did not extend to either the indiscriminately anti-religious or the indiscriminately pro-religious groups in the study. As a result, it appears that this study indicated that extrinsic religious orientation is a stronger predictor of cheating than is intrinsic religious orientation a predictor of academic honesty.

It is also worth noting that the findings of this study suggest that research that evaluated a student's perceived "religiousness" against his or her inclination to cheat may be misleading if the scale assessing religiousness does not differentiate between intrinsic and extrinsic religiosity. As this study indicates, students who are extrinsically religious are utilitarian about their use of religion, and may indicate high religious involvement on a non-differentiated scale of religiousness. As a result, a non-differentiated religious response might appear much like a non-religious response when asked about cheating behavior or attitudes about academic dishonesty. The same may be true of other attitudes and behaviors. It therefore becomes critical as religious orientation is analyzed for its potential influences on behavior and attitudes that a clear distinction be made between intrinsic and extrinsic religiosity.

### *Recommendations for Future Research*

This research was successful in achieving some of its intended objectives, but failed to achieve others. In the process, it shed new light on an old topic and also helped identify a number of areas in which additional research is both desirable and necessary. While the research suggested in this section was outside the scope of the current investigation, future researchers are encouraged to look to these areas to advance knowledge and provide additional insight and understanding.

1. This study examined how religious orientation influenced student attitudes and behaviors in regards to academic dishonesty. While the insights provided were significant, the study did not examine how the instructional medium employed might result in differential responses. Distance learning has become a critical issue for the American system of higher education. It is possible the religious orientation would have a different influence on student attitudes, perceptions, and rates of involvement in academic dishonesty if a distinction were made regarding whether the cheating occurred in a traditional face-to-face classroom or online.
2. This study examined students on only one campus and it is possible that there were geographical or regional variations that were responsible for the result obtained. It would be highly desirable to replicate this study using participants from multiple education institutions in different geographical locations. Confirmatory results would tend to discount the existence of regional variations, while contradictory ones would tend to support its existence.

3. This study focused solely on students attending a large public research university that is located in a highly populated metropolitan area. It is possible that the results observed would be different if the study were replicated using other types of educational institutions. For example, private universities, baccalaureate institutions, or community colleges might have unique characteristics and dynamics that would result in significantly different findings. It would be beneficial if this study were replicated using different types of educational institutions in an attempt to determine if the institutional setting influences how religious orientation interacts with student attitudes toward, perceptions of, and involvement in acts of academic dishonesty.
4. This study focused exclusively on undergraduate students. It is possible that religious orientation would have a different influence on graduate students. While this study did not address this issue, it would be useful if future researchers would examine it in an attempt to determine if there are variations in how religious orientation influences graduate and undergraduate students.
5. This study focused entirely on the influence that one particular conforming social institution, namely the Christian religion, had on attitudes toward and involvement in acts of academic dishonesty. The information obtained relevant to this particular social institution was very valuable. However, one issue that repeatedly arose during the course of this study was the degree to which an attachment to other types of social

institutions would influence student attitudes and behaviors concerning academic dishonesty. Future researchers are encouraged to examine how an adherence and commitment to other types of social institutions or other religious belief systems compares to an adherence to the Christian religion in regards to academic dishonesty. Additionally, it would be interesting to determine the relative magnitude and importance that an adherence to each different type of social institutions has on student attitudes, behaviors, and participation rates in regards to academic dishonesty.

6. A recurring question that arose during the course of this study pertained to the degree to which indiscriminately anti-religious individuals adhered to non-religiously based moral codes and ethical belief systems. It was possible that such an adherence could explain some of the findings obtained and may indicate if other important findings were masked, making them hard to detect. Future researchers could resolve these issues by examining the degree to which indiscriminately anti-religious students adhere to alternative non-religious belief systems and whether these alternative belief systems control behavior and attitudes in the same way, and to the same extent, that an adherence to religious principles does.
7. This research did not differentiate between those participants who manifested an adherence to religious principles based upon the specific religious denomination they claimed. It is possible that there may have been some undetected differences between the intrinsic, extrinsic, and indiscriminately pro-religious participants based upon which specific

religious denomination they belong to. This is one of the most intriguing questions that this study did not answer. Are Catholics more strongly influenced by their religious orientation than Lutherans or are more evangelical Christians more strongly influenced than those belonging to the historically mainstream groups? Future researchers could provide additional insight on this issue by including controls that account for specific denominational influences as they pertain to the larger issue of religious orientation and its influence on academic dishonesty.

8. Finally, one of the final questions left unanswered by this study pertains to why intrinsic individuals exhibited the least accepting and permissive attitudes toward academic dishonesty. The results of the study indicated that there is something special about religious attachment, at least related to this particular variable, but the exact reason why this is the case is unclear. Future researchers are encouraged to examine if religious orientation exhibits similarly strong influences over students in other educational institutions and if so why this is the case. The unique aspects of religious orientation that help explain the differences observed in this regard may shed additional light that will help expand our understanding of both academic dishonesty and how religion influences human attitudes and behaviors.

#### *Summary and Conclusions*

Academic dishonesty remains a critical issue that threatens to undermine the very fabric of the American system of higher education. Students that are able to secure

undeserved academic credentials waste finite resources, reflect poorly on the academic institutions they represent, and are unprepared to enter the workforce. As a result, reducing the prevalence and severity of academic dishonesty remains one of the critical challenges facing the American system of higher education as it enters a new century. This study examined a previously unexamined aspect of academic dishonesty, namely how a student's religious orientation influences their attitudes toward cheating and their involvement in acts of academic dishonesty. The findings that were obtained from this research were able to provide new insight and also identified new areas for future research. Along the way, this study underscored how complicated and involved student decisions to engage in academic dishonesty really are.

This study indicated that some aspects of a student's decision to engage in academic dishonesty are more reasoned and calculated than had been anticipated. At the same time, the study also indicated that many factors contribute to students' decisions to cheat and that these factors may interact with each other in complicated ways. It appeared clear that a student's religious orientation can have an influence on decisions and attitudes related to academic dishonesty and that religion can act as a conforming social institution in this regard. However, it was also equally clear that general religious orientation was far from being a controlling or defining factor. One of the strongest findings to emerge from this study pertained to the influence that utilitarian orientations had on human behavior related to academic dishonesty, even when it is utilitarian religiosity. The results of this study suggest that students with a utilitarian orientation to education have more permissive and accepting attitudes toward cheating and are the most likely to engage in academic dishonesty. This study also indicates that efforts aimed at preventing

academic dishonesty must be contextualized and tailored toward specific student populations. Ultimately, the true benefit of this study may be that it indicated there is still a great deal to learn about the causes of academic dishonesty and that in doing so it demonstrated the need for more and better research in the future. The American system of higher education and the students, faculty members, and social institutions that rely upon this system demand nothing more and deserve nothing less.



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Appendix A  
Letter of Introduction/Explanation

Good Morning/Afternoon:

You have been asked to participate in a doctoral research study being conducted by Jason Jolicoeur, a doctoral candidate in the School of Education at the University of Missouri-St. Louis. This doctoral dissertation research project focuses on factors that effect student attitudes toward academic dishonesty. The study involves gathering information from a randomly selected group of undergraduate students at “Midwestern University”. The data that is gather will be used to help complete the primary investigators doctoral dissertation and to advance the body of knowledge regarding academic dishonesty.

You are being asked to complete a brief anonymous questionnaire that will take approximately fifteen minutes to complete. While you are under no obligation to complete the survey, your participation would be greatly appreciated. All of your responses will be kept strictly confidential and will not be revealed to anyone in any manner. There will be no identifying marks or numbers on the survey that you turn in which could be used to specifically identify you. The only information included in the doctoral dissertation regarding the survey will indicate that the data was collected at the “Midwestern University”. No one will ever be able to identify you or the responses that you provide.

If you agree to participate you will be asked to honestly answer each of the questions on the questionnaire to the best of your ability. Once you have finished the questionnaire you responses will be recorded in a secure database. None of your current, past, or future instructors will ever be given any access to any of the submitted responses. If you choose to participate you will b able to view and print a copy of an informed consent letter that provides additional details on the study and your participation in it. This letter also provides professional contact information for the principal investigator should you have any questions or concerns in the future.

## Appendix B

### Informed Consent Letter



#### Student Researcher

Jason R. Jolicoeur  
Telephone: 304-367-4784  
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#### College of Education

8001 Natural Bridge Road  
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### Information Letter for Participation in Research Activities

Title: Hellfire and Academic Dishonesty: The Influence of Religious Orientation on Academic Dishonesty.

HSC Approval Number: \_\_\_\_\_

Principal Investigator **Jason R. Jolicoeur** PI's Phone Number **304-367-4784**

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#### **Why am I being asked to participate?**

You have been asked to participate in a study regarding factors associated with academic dishonesty. This study is being conducted by Jason R. Jolicoeur in partial fulfillment of the requirements for his doctorate degree in Education at the University of Missouri-St. Louis. A randomly selected group of undergraduate students from your current educational institution are being asked to participate in this research study. In order to protect your anonymity your educational institution will be referred to as "Midwestern University". You have been selected because you are an undergraduate student attending "Midwestern University". Please read this informed consent letter and contact the principle investigator with any questions that you have regarding your participation in this research project. Your participation in this project, while greatly appreciated, is entirely voluntary and you are under no obligation to do so. Participation, or lack of participation, in this research project will not have any influence, positive or negative, on your standing or relationship with your current educational institution or in any of the courses that you are taking with this institution. If you decide to participate, your confidentiality will be ensured. No one will ever be able to identify the responses that you give during the course of this study.

#### **What is the purpose of this research?**

This research will examine how a variety of factors influence student attitudes toward, and involvement in, several different types of academically dishonest behaviors.

#### **What procedures are involved?**

Those who agree to participate will be asked to complete a brief anonymous online questionnaire. The questionnaire will consist of approximately fifty questions and will take approximately 15

minutes to complete. The completed questionnaires responses will be kept in a secure password protected database that can only be accessed and viewed by the principle investigator. This database itself will be kept on a computer in a locked office on a secure campus location and no one will have access to this office when the principle investigator leaves the campus. None of your past, current, or future instructors will ever be able to view the responses that you provide during the course of your participation in this study.

### **What are the potential risks and discomforts?**

The known risks associated with participation in this research project are minimal. Among the minimal possible risk factors are:

- **A loss of time in order to complete the questionnaire.**  
It is anticipated that students will lose between 15 minutes of time when completing the anonymous questionnaire.
- **Potential for possible discomfort from answering sensitive questions.**  
The identity of all participants will be kept strictly confidential. A number of protective factors have been built into the current research projects design. As a result, there is no risk of retribution related to having a participants responses be identified by others. However, some of the questions do ask about sensitive types of topics regarding attitudes toward and involvement in acts of academic dishonesty. Some participants may feel a slightly uncomfortable when answering questions regarding topics of this nature. If any participants believe that this presents an unwarranted or unwelcome risk, they are reminded that their participation is completely voluntary.

### **Are there benefits to taking part in the research?**

There are no direct benefits related to your participation in this research project. However, your participation will help provide additional insight and understanding of an issue of significant importance to the American system of higher education. The final results may have a number of benefits for current and future higher education students, faculty members, and institutions.

### **Will I be told about new information that may affect my decision to participate?**

In the unlikely event that additional information regarding the risks or benefits of participating comes to light you will be informed accordingly.

### **What about privacy and confidentiality?**

Your privacy and confidentiality will be maintained during the course of the research project and after the research project has concluded. All responses will be anonymous and there will be no way for anyone to identify your individual responses. No individual names will be used in the written summary of the research project, beyond noting the fictional name of the educational institution from which the sample was drawn.

The questionnaires will be completed online with only the principle investigator being able to access and view submitted responses. No one, including your past, present, and current instructors will be able to view your responses. When the questionnaires are completed they will be placed in a secured database that can only be accessed by the principal investigator.



Afterwards the questionnaires will be kept in the principle investigator's secured office in a secure password protected database that can only be accessed by the principle investigator.

**What are the costs for participating in this research?**

There are no direct costs associated with participation in the current research project.

**Will I be paid for my participation in this research?**

No payments, gifts, or other tangible benefits will be made available to participants in the current research project.

**Can I withdraw or be removed from the study?**

Your participation in this research project is voluntary. You can decide not to participate or to quit participating at any time. There will be no adverse consequences or penalties to anyone who does not wish to participate or decides not to participate after initially consenting to do so.

**Who should I contact if I have questions?**

The principle investigator for this study is Jason R. Jolicoeur. He can be contacted by phone at (304) 534-1867 or by email at Jason\_Jolicoeur@uttyler.edu

**What are my rights as a research subject?**

If you have any questions about your rights as a research subject or need assistance to make contact with the researcher, you may call the Chairperson of the University of Missouri-St. Louis Institutional Review Board at (314) 516-5897.

**Please note:** While your participation in the current study is greatly appreciated it is entirely voluntary and you are under no obligation to do so. It is recommended that you keep a copy of this letter for your records.

## Appendix C

### Instructional Script

Prior to beginning the survey I would like to provide you with some basic instructions for the questionnaire that you are about to complete. The questionnaire itself consists of fifty one questions. One section will ask you some basic demographic questions that will be used during the course of the current study. This information cannot in any way be used to identify you or link you to your responses. The remaining sections will consist of four separate survey subscales that will ask you a variety of different questions related to academic dishonesty and religious orientation. There are no right or wrong answers to the questions included in the questionnaire. You are only asked to answer each of the questions honestly and to the best of your abilities. Please remember that your confidentiality will be ensured and that no one will be able to determine how you have answered any of the questions. In the demographic section you are asked to write in or check the appropriate answer. In the remaining questions a scale will be employed from which you can select the most appropriate response. Please click on the most appropriate response in the corresponding answer section. If you have any questions please feel free to contact the primary investigator at the number provided in the informed consent document. If you do not have any questions and are willing to participate please proceed forward to complete the survey questions. Thank you very much for your willingness to participate.

## Appendix D

### Perceived Opportunity Scale

Please indicate the extent to which you agree or disagree with the following statements by circling the number in the appropriate column.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
#1. Plagiarism and cheating on tests occur frequently at this school.	1	2	3	4	5
#2. I have personally observed another student cheating on a test many times at this school.	1	2	3	4	5
#3. My closest friend would strongly disapprove if he/she found out I had cheated in a course.	1	2	3	4	5
#4. A typical student at this school would strongly disapprove if he/she found out I had cheated in a course.	1	2	3	4	5
#5. A typical student at this school would report someone who had cheated on a test.	1	2	3	4	5
#6. The penalties for academic dishonesty at this school are severe.	1	2	3	4	5
#7. The faculty at this institution understand the policies on academic dishonesty.	1	2	3	4	5
#8. The faculty at this institution support the policies on academic dishonesty.	1	2	3	4	5

### Attitudes Toward Academic Dishonesty Scale

Please indicate the extent to which you agree or disagree with the following statements by circling the number in the appropriate column.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
#1. It is wrong to cheat.	1	2	3	4	5
#2. Students should go ahead and cheat if they know they can get away with it.	1	2	3	4	5
#3. Students should try to cheat even if the chances of getting away with it are very slim.	1	2	3	4	5
#4. I would let another student cheat off my test if he or she asked.	1	2	3	4	5

### Academic Dishonesty Scale

Please indicate the number of times you have engaged in each of the following activities during college by circling the number in the appropriate column.	Not Even One Time	Once	A Few Times	Several Times	Many Times
#1. Copied material and turned it in as your own work.	1	2	3	4	5
#2. Used unfair methods to learn what was on a test before it was given.	1	2	3	4	5
#3. Copied a few sentences of material from a published source without giving the author credit.	1	2	3	4	5
#4. Helped someone else cheat on a test.	1	2	3	4	5
#5. Collaborated on an assignment when the Instructor asked for individual work.	1	2	3	4	5
#6. Copied from another student during a test.	1	2	3	4	5
#7. Turned in work done by someone else.	1	2	3	4	5
#8. Received substantial help on an individual assignment without the instructor's permission.	1	2	3	4	5
#9. Cheated on a test in any way.	1	2	3	4	5
#10. Used a textbook or notes on a test without the instructor's permission.	1	2	3	4	5

### Religious Orientation Scale-Revised

Please indicate the extent to which you agree or disagree with the following statements by circling the number in the appropriate column.	I Strongly Disagree	I Tend to Disagree	I'm Not Sure	I Tend to Agree	I Strongly Agree
#1. I enjoy reading about my religion.	1	2	3	4	5
#2. I go to church because it helps me to make friends.	1	2	3	4	5
#2. It doesn't much matter what I believe so long as I am good.	1	2	3	4	5
#4. It is important to me to spend time in private thought and prayer.	1	2	3	4	5
#5. I have often had a strong sense of God's presence.	1	2	3	4	5
#6. I pray mainly to gain relief and protection.	1	2	3	4	5
#7. I try hard to live all my life according to my religious beliefs.	1	2	3	4	5
#8. What religion offers me most is comfort in times of trouble and sorrow.	1	2	3	4	5
#9. Prayer is for peace and happiness.	1	2	3	4	5
#10. Although I am religious, I don't let it affect my daily life.	1	2	3	4	5
#11. I go to church mostly to spend time with my friends.	1	2	3	4	5
#12. My whole approach to life is based on my religion.	1	2	3	4	5
#13. I go to church mainly because I enjoy seeing people I know there.	1	2	3	4	5
#14. Although I believe in my religion, many other things are more important in life.	1	2	3	4	5

## Demographic Items

- (D1) What is your current age: \_\_\_\_\_
- (D2) What is your current class standing:  
\_\_\_\_\_ freshman    \_\_\_\_\_ sophomore    \_\_\_\_\_ junior    \_\_\_\_\_ senior    \_\_\_\_\_ graduate student
- (D3) What is your gender: \_\_\_\_\_ male    \_\_\_\_\_ female
- (D4) What is your race: \_\_\_\_\_ white (non-Hispanic)  
\_\_\_\_\_ black (non-Hispanic)  
\_\_\_\_\_ Hispanic  
\_\_\_\_\_ Asian or Pacific Islander  
\_\_\_\_\_ American Indian/Alaskan Native  
\_\_\_\_\_ other (please indicate)
- (D5) Do you currently belong to a fraternity or sorority: \_\_\_\_\_ yes    \_\_\_\_\_ no
- (D6) Do you currently participate in any intercollegiate or intramural athletic programs: \_\_\_\_\_ yes    \_\_\_\_\_ no
- (D7) On average, how many hours do you currently work each week:  
\_\_\_\_\_ none (unemployed)    \_\_\_\_\_ 1-10    \_\_\_\_\_ 11-20    \_\_\_\_\_ 21-30    \_\_\_\_\_ 30 or more
- (D8) On average, how many hours do you currently spend socializing with friends each week:  
\_\_\_\_\_ none    \_\_\_\_\_ 1-10    \_\_\_\_\_ 11-20    \_\_\_\_\_ 21-30    \_\_\_\_\_ 31 or more
- (D9) On average, how many alcoholic beverages do you consume each week:  
\_\_\_\_\_ none    \_\_\_\_\_ 1-4    \_\_\_\_\_ 5-10    \_\_\_\_\_ 11-15    \_\_\_\_\_ 16 or more
- (D10) What is your current major (please enter "none" if undecided): \_\_\_\_\_
- (D11) Are you the first individual in your family to attend college: \_\_\_\_\_ yes    \_\_\_\_\_ no
- (D12) What is your current cumulative grade point average (please estimate as precisely as possible if not sure):  
\_\_\_\_\_ 0.00-1.00    \_\_\_\_\_ 1.01-2.00    \_\_\_\_\_ 2.01-3.00    \_\_\_\_\_ 3.01-4.00
- (D13) Which of the following most accurately describes your current level of satisfaction with your existing grade point average:  
\_\_\_\_\_ very dissatisfied    \_\_\_\_\_ somewhat dissatisfied    \_\_\_\_\_ neutral    \_\_\_\_\_ satisfied    \_\_\_\_\_ very satisfied
- (D14) How many credit hours are you currently enrolled in: \_\_\_\_\_
- (D15) Do you have children who currently reside with you: \_\_\_\_\_ yes    \_\_\_\_\_ no