12-2015

The Relationship Between Ethical Regard and Academic Misconduct Among College Students

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The Relationship Between Ethical Regard and Academic Misconduct Among College Students

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A dissertation

presented to

the faculty of the Department of Educational Leadership & Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education in Educational Leadership

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by

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December 2015

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Keywords: academic misconduct, academic dishonesty, cheating, college students, ethics, Millennial students

ABSTRACT

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A correlational quantitative research project was conducted at a large public research institution in the Southeast to investigate the relationship between ethical regard and academic dishonesty among undergraduate college students. An online survey was completed by 273 undergraduates. Participant engagement in cheating behaviors established a Propensity To Cheat (PTC) score, which was then analyzed in conjunction with student characteristics, ethical self-perception, ethical ideology, and perception of cheating behaviors. Data were analyzed using ANOVAs, independent *t* tests, correlations, and descriptive statistics.

Findings indicate that students aged 22-23 were significantly more likely to cheat than students in other age ranges; Millennials were significantly more likely to cheat than non-Millennials. No significant difference existed between PTC compared by gender or academic classification. When given a response set of 11 behaviors commonly defined as academic misconduct, the majority of students indicated agreement that the identified behavior is a cheating behavior.

The behavior most commonly perceived as cheating was copying from a classmate's exam or permitting copying by a classmate (99.3% agreement). The behavior least likely to be perceived as cheating was seeking exam content from a peer who had taken the exam (55.7% agreement); students cited this cheating behavior as the most commonly committed (46.5%). A correlational

analysis was conducted for each of the 11 cheating behaviors; results indicate that in 8 of the 11 behaviors, students were less likely to engage in the specific behavior if they perceived the behavior as cheating. Overall, 77.3% of respondents reported cheating, and 30.8% reported 4 or more cheating behaviors.

The study is significant because few researchers have evaluated academic misconduct through the lens of ethical ideology. Therefore, this study contributes to the existing literature related to academic integrity among college students by employing ethical ideology as a conceptual framework to examine cheating behaviors and prevalence. In the analyses students who exhibit absolutist ideologies are significantly less likely to cheat than students with subjectivist ideologies. Furthermore, higher ethical self-perception scores significantly correlate to a lower PTC.

DEDICATION

This study is dedicated to the important men in my life.

I dedicate my work here to my father, J.D. Walker, deceased, who would have been so proud that his little girl was a doctor, and who would have shared that fact with everyone with whom he came in contact, from the mailman to the unsuspecting telemarketer.

I also dedicate this study to my husband, Martin, who is the person other than myself who is most happy that I am finally finished with this program. Thank you for your patience, your support, and your love.

Lastly, and most importantly, I dedicate this pursuit to my sons, Evan and Ryan. You more than anyone are responsible for my completing this degree because I refused to quit while you were watching. Life rewards perseverance and determination, and I wanted to model those behaviors for you. You never asked *if* I was going to finish but *when* I was going to finish. For that and a million other reasons—and for no reason at all because none is necessary—I love you absolutely and completely.

ACKNOWLEDGEMENTS

I could not have completed this dissertation or this program without the help and encouragement of several individuals. I am particularly indebted to my dissertation chair Dr. Bethany Flora for her guidance and support as well as her enthusiasm for my research project. I also offer my heartfelt appreciation to the other members of my dissertation committee, Dr. Donald Good, Dr. Jasmine Renner, and Dr. Ramona Williams. Your service and advice have been invaluable to me during this process.

I am also deeply grateful to my friends and colleagues at Motlow State Community College who provided encouragement throughout this process. Thank you for your support and your belief in me.

Lastly, I offer my most sincere thanks to my ETSU classmates. Together we comprised the first cohort of this online program. We have shared our setbacks, disappointments, goals, and accomplishments over the past 4 years. I feel as if I have gotten to know you well even though we have only communicated online. You more than anyone understand the sacrifice and determination that was necessary to complete this program. Your support and encouragement helped make my dream of earning a doctorate come to fruition. Thank you for sharing this journey and for helping carry the load.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

LIST OF FIGURES

Figure Page

CHAPTER 1

INTRODUCTION

Academic misconduct is an epidemic in educational systems in this country (Stephens & Wangaard, 2013). College students are exposed to academically dishonest behaviors well before entering college (Aaron & Roche, 2013). The pressure on high school students to be accepted into elite universities can lead to environments where cheating is accepted. Dishonest habits developed in high school are then perpetuated at colleges and universities (McCabe, Butterfield, & Treviño, 2012).

Academic misconduct is a term used to cover a broad range of cheating behaviors including plagiarism, buying or downloading essays or research papers from an internet source, copying a peer's homework, working collaboratively when independent work is required, copying from a classmate during an exam, using unauthorized notes during an exam, studying from an old copy of an exam, and seeking information about exam content from a peer (Burrus, McGoldrick, Schuhmann, 2007; Mullens, 2000; SUNY Empire State College, n.d.). Students who put forth little effort related to coursework will exert tremendous effort to cheat (Young, 2012). Academic misconduct has become more sophisticated with improvements in technology and Internet access (Aaron & Roche, 2013). Hundreds of websites exist for the sole purpose of helping students become better at cheating. As McKibban (2013) stated, "It appears academic misconduct has become a business, providing income to those who are masters of the art" (p. 378).

Academic misconduct is common among colleges and universities in the United States. Although levels of significance and frequency vary, most research related to academic

misconduct reports that a majority of students cheated at some point during college (Hensley, Kirkpatrick, & Burgoon, 2013; McCabe et al., 2012). More than two thirds of college students admitted to having engaged in cheating during the previous year (McCabe et al., 2012). Academic misconduct is such an integral part of the collegiate experience for many students that "cheating comes almost as naturally as breathing…[I]t's an academic skill almost as important as reading, writing, and math" (Moffatt, 1990, p. 2).

Researchers have found that campus culture impacts cheating (O'Neill & Pfeiffer, 2012). Of all the cultural factors that contribute to cheating, the most common factor cited in the literature was witnessing a peer cheat (McCabe et al., 2012). Students who observed other students cheat perceived cheating as a viable alternative for studying or completing coursework. Students who believed that peers cheated or had witnessed peers cheating were more likely to engage in academic misconduct than students who did not believe that peers cheated or had not witnessed peer cheating (Krueger, 2014). Additionally, the competitive nature of certain classes or programs encouraged cheating (Woith, Jenkins, & Kerber, 2012). The combination of observed peer behavior and competition among students contribute to a student perception that cheating is necessary to level the playing field (McCabe et al., 2012; Owunwanne, Rustagi, & Dada, 2010).

However, faculty and administrators may not perceive cheating to be a serious problem because so few students are caught cheating and, therefore, little effort is expended to expose or sanction cheating (Brown, Weible, & Olmosk, 2010). When faculty members do not establish parameters for acceptable academic behavior and do not consistently punish unacceptable behavior, students may respond to this ambiguous situation by cheating. Students who were caught cheating frequently pleaded ignorance, arguing that similar behavior was commonly and

publicly engaged in by themselves and other students without comment or interference from faculty members. This implied permissiveness caused the students to contend that their actions did not constitute cheating (Beasley, 2014). Moreover, students who did not perceive their actions as cheating were more likely to engage in academic misconduct (Lau, Caracciolo, Roddenberry, & Scroggins, 2011). Thus, many students perceive cheating to be acceptable behavior, and the behavior is reinforced when faculty and university officials cannot or do not take active measures to reduce cheating.

Rather than deterring cheating, several employees at the University of North Carolina in Chapel Hill (UNC) actively engaged in an elaborate scheme to undermine academic integrity. One university employee, operating with the knowledge and participation of several other university employees, devised and perpetuated a scheme to artificially inflate the GPAs of certain students. In 2011 university officials uncovered this scheme in which academically under-prepared students, 47.4% of whom were student athletes, received As or Bs for classes that had no faculty involvement and required little effort from students (Wainstein, Jay, & Kubowski, 2014). During an 18-year span over 3,100 students enrolled in courses that included no instruction and required only a single paper. The scheme was initiated and managed by an administrative assistant who assigned high grades regardless of the quality of work submitted. For 329 students athletes, the grades received in these courses raised the students' GPA to the 2.0 threshold required to maintain academic eligibility for athletics. Although these courses were not developed or taught by faculty, at least three faculty members were aware of the scheme and helped facilitate it (Wainstein et al., 2014).

Even though peer behavior, cultural influences, and active or passive permissiveness on the part of university personnel have emerged from the literature as influences on cheating

behavior, the reasons why an individual student cheats may not be fully explored or understood even by the student. Nevertheless, the most common reason cited for cheating was student desire to get ahead (Olafson, Schraw, Nadelson, Nadelson, & Kehrwald, 2013; Simkin & McLeod, 2010). This finding suggested that academic misconduct is perceived as an internal strategy for advancement rather than a reaction to situational or environmental influences (Simkin & McLeod, 2010). Other reasons that students cited for cheating included an inability to do the work, a lack of understanding as to what constituted cheating, and a perception that the class was not worth the effort required to study (Olafson et al., 2013).

Although students offered myriad reasons and rationalizations for cheating, one notable omission from the explanations was a lack of personal ethics. On the contrary, most students professed a high ethical regard. Lau et al. (2011) reported that 89.87% of students surveyed considered personal ethics very important. Nevertheless, Martin, Rao, and Sloan (2009) found that students with high scores on integrity and responsibility indicators were significantly more likely to engage in plagiarism than students with lower scores for integrity and responsibility. Thus, a strong sense of personal ethics did not prevent students from cheating.

In an attempt to further understand and explain academic misconduct, researchers have analyzed student characteristics. Although a consensus does not exist, many researchers contended that a disproportionate number of students who cheat are male and lowerclassmen (Jurdi, Hage, & Chow, 2012; Lau & Haug, 2011; Şendağ, Duran, & Fraser, 2012) with less mature reasoning skills (Diekhoff et al., 1996; Warinda & Muchenje, 2013) and, among students who had been sanctioned for cheating, have lower GPAs (Olafson et al., 2013). Also, students majoring in business (Curasi, 2013; Lau & Haug, 2011) and nursing (McCabe, 2009) as well as online students (King, Guyette, & Piotrowski, 2009; Mastin, Peszka, & Lilly, 2009) are more

likely to have engaged in academic misconduct.

One variable that is not correlated to cheating behavior is the type of educational institution attended. Cheating is common among all types of institutions, from community colleges to the most prestigious and selective universities. An incident at Harvard garnered national attention in 2012 when approximately 70 Harvard students were forced to sit out for 2 semesters after being caught cheating on a take-home final (Pérez-Peña, 2013). Harvard has since instituted an honor code in an attempt to emphasize academic integrity (Harvard College's Honor Code, May 7, 2014). Likewise, in 2013 an incident at Barnard College, a college for women at Columbia University, also attracted media attention. In spite of the college honor code, students in one particular class allegedly collaborated on quizzes and resorted to bribery in an attempt to improve grades in a course that already had a reputation for being easy (Aaron & Roche, 2013). Moreover, Yale has seen the annual number of cheating allegations reported triple in 3 years. In a 2010 study conducted at Yale a majority of over 600 students surveyed had witnessed cheating at Yale (Burt, 2010).

Statement of the Problem

The majority of students have committed academic misconduct at some point during college (Hensley et al., 2013), and more than two thirds of college students admit to having engaged in academic misconduct during the past year (McCabe et al., 2012). Student perception of personal ethics does not appear to lessen the frequency of cheating behaviors (Lau et al., 2011; Martin et al., 2009). More research is needed to explore the intriguing relationship between academic misconduct and personal ethics.

Although much has been written about academic misconduct, few in-depth studies have

examined academic misconduct through the lens of ethical regard. Therefore, the purpose of this quantitative correlational study is to explore relationships between ethical regard and propensity to engage in academic misconduct.

Research Questions

The following research questions will guide this study:

1. Is there a significant difference in Propensity to Cheat (PTC) compared by student characteristics?
2. Is there a significant relationship between PTC and ethical self-perception?
3. Is there a significant difference in PTC compared by ethical ideology?
4. What behaviors do students most commonly perceive to be cheating?
5. In what cheating behaviors do students most commonly engage?
6. Is there a significant relationship between perceiving an act as cheating and engaging in the act?

Significance of the Study

Despite concerted research efforts on the topic of academic misconduct, conflicting results continue to be reported (Hughes & McCabe, 2006; Jordan, 2011; Martin et al., 2009). Still, the subject remains relevant as many researchers predict that students who practice unethical behaviors in college will take those habits on to the workplace, ultimately becoming doctors, nurses, lawyers, teachers, and business leaders who lack an ethical foundation (Henning et al., 2013; Lawson, 2004; Nonis & Swift, 2001).

Within the research related to academic misconduct, four commonly explored variables

related to student characteristics have generated conflicting findings. The first variable is age. Some researchers have concluded that students who cheat tend to be younger (Allmon, Page & Roberts, 2000; McCabe & Treviño, 1997; Nonis & Swift, 2001). However, other researchers disagreed, finding no significant relationship between age and participation in academic misconduct (Culwin, 2006; Shaw, 2004), and that age was not a significant predictor of student understanding of academic integrity (Louder & Schmidt, 2013). Other scholars concluded that the rate of cheating increased with age (Teixeira & Rocha, 2008). The current study will contribute to the literature by including an investigation of the relationship between age and academic misconduct.

A second student characteristic variable related to academic misconduct is generation. Most current college students, those between the ages of 18 and 35, are Millennials. Millennial students have grown up in a competitive, technological environment, resulting in academic experiences that are markedly different from those of previous generations (Howe & Strauss, 2007). Millennials tend to be collaborative (Black, 2010) and enjoy group work (Yahr & Schimmel, 2013). Millennials also typically exhibit a postmodern or emergent value orientation that differs from the traditional or modern perspective of many faculty (Gross, 2011). Individual accomplishment, paramount to the traditional or modern value orientation, is of less importance to the collaborative Millennials. Additionally, the traditional definitions of academic misconduct and the accusations of unethical behavior are incongruent with the Millennial student perspective (Gross, 2011). Most generational research has compared current students to students who attended college during previous generations (Black, 2010; Yahr, 2013). The current study includes a comparison of Millennials to Baby Boomers and Generation X students who are presently undergraduate students.

The third student characteristic variable related to academic misconduct that has generated conflicting results is gender. Most researchers have concluded that males are more likely to cheat than females (Hensley et al., 2013; Hughes & McCabe, 2006; Jurdi et al., 2012; Lau & Haug, 2011; McKibban, 2013; Nonis & Swift, 2001; Salleh, Alias, Hamid, & Yusoff, 2013). However, other scholars found no significant link between gender and academic misconduct (Culwin, 2006; Jordan, 2001; Olafson, Schraw, & Kehrwald, 2014; Wotring, 2007). The current study includes an investigation of the relationship between gender and academic misconduct.

The fourth student characteristic variable that has garnered inconsistent results related to academic dishonesty is academic classification. Some researchers have concluded that freshmen were more likely to cheat than upperclassmen (Hughes & McCabe, 2006; Şendağ et al., 2012). Other scholars disagreed, positing that upperclassmen were more likely than freshmen to have engaged in academic misconduct (Josien & Broderick, 2013; Michaels & Miethe, 1989; Moffatt, 1990; Pino & Smith, 2003). The current study includes an exploration into the possible link between academic classification and cheating.

In addition to studying the characteristics of students who cheat, the current study also presents an examination of PTC in relationship to student ethical regard. For purposes of this study ethical regard is a construct composed of two measures: (1) ethical ideology based on Forsyth's (1980) Ethics Position Questionnaire (EPQ), and (2) ethical self-perception scores. Ethical regard as defined in this study is a unique construct that presents a new framework for analyzing academic misconduct.

Definitions of Terms

The definitions of terms used in this study are provided as follows:

Academic dishonesty refers to any unauthorized activity that gives one student an unearned advantage over others including purchasing or downloading an essay or term paper from an online source, plagiarizing or copying the work of others without proper citation, impersonating another student to take an exam, copying the work of other students, using cheat notes on an exam, falsifying lab results, padding bibliographies, collaborating on assignments when individual work was required, and providing false excuses to obtain an extension of a deadline (Burrus et al., 2007; Mullens, 2000; SUNY Empire State College, n.d.). For purposes of this study the terms academic dishonesty, academic misconduct, and cheating are used interchangeably.

Ethic is defined as the domain of morality and moral philosophy that refers to the understanding and justification of moral principles and belief systems in an ambitious attempt to analyze concepts such as right and wrong or good and evil (Pojman, 2006).

Ethical regard refers to self-reported perceptions of personal ethics. Ethical regard encompasses ethical ideology, as defined Forsyth's (1980) EPQ, and ethical self-perception, determined using student responses to a quantitative research instrument created and employed in the present study.

Machiavellianism is acting in accordance with the principles demonstrated by Machiavelli whereby political expediency is valued above morality, and self-interest is promoted through craftiness, duplicity, and cunning (Webster & McKechnie, 1983).

Millennials are a generation of students who were born in the early 1980s and entered college as traditional freshmen beginning in the year 2000 (Howe & Strauss, 2007).

Propensity to Cheat (PTC) as defined in this study is measured by the number of different self-reported cheating methods in which a student has engaged. Scores can range from 0 to 11 and are determined using student responses to a quantitative research instrument created and employed in the present study.

Limitations and Delimitations

This study is bounded by inherent limitations and delimitations. Limitations are potential weaknesses in the study that are beyond the control of the researcher (Simon & Goes, 2013). The primary limitation of the current study is the use of self-reported data that can lead to inaccurate or biased results. Despite this limitation self-reported data are commonly used in educational research and are considered reliable (Pike, 2011). In the present study self-reported data provided the greatest understanding of how undergraduate students perceive their own cheating behaviors and those of peers.

Delimitations refer to intentional limitations of size and scope that form the boundaries of the study (Simon & Goes, 2013). Two delimitations exist within the current study. The first relates to the collection of valid and reliable data. In the current study an online survey instrument was used to gather data. Included in the instrument were two elements designed to measure ethics: (1) an original set of questions devised to gauge ethical self-perception, and (2) Forsyth's (1980) EPQ. Validity of the original questions were established with a peer review of the instrument during the 2015 spring semester. Reliability was established by calculating Cronbach's alpha, which is reported in Chapter 4. Forsyth's EPQ has been widely used in ethics research (Hastings & Finegan, 2011) and has been found to be valid (MacKewn & VanVuren, 2007) and reliable (Davis, Andersen, & Curtis, 2001).

The second delimitation of this study is the sample. This study was confined to undergraduate students at a single large public research institution in the Southeast. It is possible that a broader sample would generate more nuanced results related to student cheating behaviors; however, the unique culture within institutions could limit the generalizeablity of findings (McCabe, 2005). Therefore, it was important to conduct the present study with a single sample.

Overview of the Study

This study is presented in five chapters. Chapter 1 included an introduction to the topic, statement of the problem, list of research questions, significance of the study, definitions of terms, explanation of limitations and delimitations, and overview of the study. Chapter 2 presents a review of the relevant literature including the prevalence and relevance of academic misconduct, a conceptual framework that applies the elements of the business fraud model to academic misconduct, discussion of factors that deter academic misconduct, and the relationship between ethics and academic misconduct. Chapter 3 provides the research design, variables addressed in the study, research questions and null hypotheses, survey instrument, data collection procedures, and a summary of the statistical analyses to be performed. Chapter 4 contains the research findings along with a discussion of the acceptance or rejection of null hypotheses. Chapter 5 presents a summary of the results of the study, conclusions from the findings, and implications for policy, practice, and future research.

CHAPTER 2

LITERATURE REVIEW

Academic misconduct captured the attention of educators in 1964 when Bowers, in the first major study of the subject, found that 75% of the 5,422 college students surveyed admitted to cheating at least once during college. Numerous scholars have since addressed the issue of academic misconduct, a topic that became even more relevant in recent decades given the ease of Internet-based cheating. The purpose of this literature review is to discuss the major themes that have evolved from 50 years of research in the area of academic dishonesty. Included in the literature review is research related to perceptions of Millennial students and academic misconduct. The terms academic misconduct, academic dishonesty, and cheating are used synonymously throughout this chapter; each refers to a student seeking an unfair advantage by submitting work that was not the exclusive product of the student's own efforts.

The Prevalence and Relevance of Academic Misconduct

Virtually every college struggles with the issue of academic misconduct. Some institutions have capitulated, adopting a "don't ask, don't tell" policy (Damast, 2007). Cheating has become commonplace. As one student stated, "I can't recall a time that I passed up the opportunity to cheat. Not for any other reason than I am lazy and do not like to do work. I try to put forth the least amount of effort possible" (Stone, Jawahar, & Kisamore, 2009, p. 234).

Although differences exist between researchers related to the percentages of students who cheat, a substantial amount of research indicates that over 65% of college students have cheated at some point (Klein, Levenburg, McKendall, & Mothersell, 2007; McCabe, 1992, 1997;

Owings, 2002). More than half (57.19%) of students participating in one study had engaged in academic misconduct during the preceding 6 months (Hensley et al., 2013). Furthermore, the rate of reported cheating could be even higher because students did not always understand what behaviors constituted cheating and, consequently, may have underreported cheating (Burrus et al., 2007).

Academic misconduct is not unique to the United States. High rates of cheating have been reported in Botswana and Zambia (69%) (Akakandelwa, Jain, & Wamundila, 2013); Korea (69%) (Ledesma, 2011); Taiwan (62%) (Lin & Wen, 2007); New Zealand (91%) (Henning et al., 2013); Canada (83%) (Genereux & McLeod, 1995); Australia (80%) (Maslen, 2003); Spain (80%), and Portugal (62%) (Teixeira & Rocha, 2008). A higher proportion of international students studying in the United States committed academic misconduct (Beasley, 2014). Thus, the majority of college students in the United States and abroad are engaged in academic misconduct. A large majority (92%) of students surveyed admitted to cheating or knew someone who had cheated (Jones, 2011). Although 41% of these students abstained from cheating due to personal ethics, only 33% vowed to never engage in Internet plagiarism, highlighting a common misunderstanding among students about the acts that constitute cheating (Jones, 2011).

Most researchers categorize students dichotomously: cheaters or noncheaters. Students who have cheated even once during the research period are classified as cheaters. That research period might have been a semester, a year, or an entire college career. Thus, care should be taken when interpreting research results. The vast majority of students—even those who have admitted to cheating—did not cheat habitually (Moffatt, 1990). Many researchers (e.g., Diekhoff et al., 1996; Hensley et al., 2013; Jones, 2011) did not distinguish between a student who engaged in a single act of academic dishonesty and one who cheated habitually. Thus,

frequency and types of cheating behaviors are important variables to consider in the interpretation of research studies. In a study of more than 6,000 students 19% admitted to five or more incidents of cheating (McCabe, 1992). Likewise, slightly less than 15% of students surveyed employed multiple cheating methods and strategically engaged in academic dishonesty (Josien & Broderick, 2013). In classifying high-frequency cheating behaviors, only 8.6% of students who cheated committed 75% of all reported cheating incidents (Jordan, 2001). Thus, a close examination of the existing empirical studies related to cheating indicates that most students are committed to a high standard of academic integrity.

The most common forms of cheating vary by study. Some scholars cited cheating on a test as the most common form of academic misconduct (Hensley et al., 2013; Josien & Broderick, 2013; Salleh et al., 2013). Others posited that the most common form of cheating was plagiarism (Akakandelwa et al., 2013; Krueger, 2014; McCabe, 1992), obtaining exam content in advance (Krueger, 2014), and working collaboratively when individual effort was required (O'Neill & Pfeiffer, 2012).

Differing Views of Cheating Behaviors

Faculty members and students possess differing perceptions of the behaviors that constitute cheating. A common theme identified in the literature is that students do not understand the practices that constitute cheating, resulting in unintentional cheating. Only 23% of students surveyed understood when it is necessary to reference or cite sources (Power, 2009). Additionally, the number of students who reported cheating increased by 14% after being informed of behaviors that constitute cheating (Burrus et al., 2007).

Faculty members were much more likely than students to classify certain behaviors such

as asking peers about exam content as cheating (Derting, 1997). Only 42% of students perceived that discussing a take-home test with a peer constituted cheating (Burrus et al., 2007). Students were also less likely to characterize plagiarism as cheating. Approximately 50% of students surveyed could not identify examples of obvious plagiarism (Roig, 1997). Additionally, many students did not consider certain behaviors such as working collectively on individual assignments or studying from an old copy of an exam to be cheating (Burrus et al., 2007). Students who did not recognize specific acts as cheating were more likely to engage in academic dishonesty (Anitsal, Anitsal, & Elmore, 2009). However, faculty members and students generally agreed that more blatant behaviors such as stealing an exam key constituted cheating (Derting, 1997). The more blatant an act of academic dishonesty, the less likely students were to engage in that act (O'Neill & Pfeiffer, 2012). Yet, a small percentage of students perceived that blatant acts such as using forbidden notes during an exam did not constitute cheating. One student stated that such behavior was "just using available resources" (Arhin, 2009, p. 20). Another perceived cheating as a form of collaboration, a skill that is valuable in the business world (Aaron & Roche, 2013).

However, not all students condone academic misconduct. Many students value academic integrity and desire to see a stronger institutional response to academic misconduct. In one study members of this student minority expressed such sentiments as "Cheating is never acceptable," and "I abhor it!" (Aaron & Roche, 2013, p. 186).

The literature illustrates that faculty members and students define cheating very differently. Researchers suggested that educating students on common cheating behaviors is a first step toward reducing academic misconduct on college campuses. In addition to the academic implications of cheating, researchers have also studied the workplace implications of

academic dishonesty, which are discussed next.

Workplace Relevance of Academic Misconduct

As one student stated, "If you will cheat at school, you will cheat at anything" (Stone et al., 2009, p. 236). A parallel exists between academic misconduct and unethical behavior in the workplace. In a study of 1,051 students from six different campuses, students who engaged in academic misconduct in college were more inclined to participate in dishonest behaviors in the workplace (Nonis & Swift, 2001). Likewise, students in a New Zealand study who engaged in collusion and copying were also more likely to endorse, in a hypothetical scenario, the actions of a doctor stealing a drug to benefit a patient (Henning et al., 2013). Other researchers have identified links between academic dishonesty and unethical workplace behavior. Students who cheated in college were more likely to lie on employment applications and were more amenable to ethical compromises in the workplace that could lead to personal rewards or career advancement (Lawson, 2004). In a survey of engineering students 63.6% of students who had engaged in academic misconduct admitted to violating workplace policies while only 37.5% of students with no history of academic misconduct violated workplace policies (Harding, Carpenter, Finelli, & Passow, 2004). Furthermore, engaging in ethical violations at work significantly influenced cheating intentions when those employees returned to college on a part-time basis (Hsiao & Yang, 2011). Conversely, employees who are least likely to engage in dishonest workplace behavior are those who attended a college with an effective honor code and who work for an organization that has a strong code of ethics (McCabe, Treviño, & Butterfield, 2001). Thus, the literature indicates that unethical behavior in college predicts unethical behavior in the workplace and vice-versa. However, fewer definitive conclusions have been

drawn from studying the characteristics of students who cheat. A review of the literature related to student characteristics is presented next.

Student Characteristics

Numerous scholars have studied the characteristics of students who cheat. The most common student characteristics examined in the literature are gender and age. Additionally, recent studies of Millennial students have examined unique characteristics associated with generational differences.

Gender

Research on gender as a factor related to academic misconduct has yielded contradictory results. For example, several scholars found male students to be less ethical and more inclined to cheat than female students (Hensley et al., 2013; Hughes & McCabe, 2006; Jurdi et al., 2012; Lau & Haug, 2011; McKibban, 2013; Nonis & Swift, 2001; Salleh et al., 2013). Yet, other scholars disagreed, concluding that gender is not a determinant of cheating (Diekhoff et al., 1996; Jordan, 2001; Olafson et al., 2014; Wotring, 2007). Conversely, Martin et al. (2009) found that women were more likely than men to commit plagiarism. In a study of Zimbabwe students male part-time students were less tolerant of academic dishonesty than female students or full-time male students. The male part-time students, all of whom were employed, tended to be more mature than the full-time students in the same age range (Warinda & Muchenje, 2013).

Age, Academic Classification, & Generation

Researchers generally agreed that students who engaged in cheating were more likely to

be younger (McCabe, & Treviño, 1997; Nonis & Swift, 2001) and lower classmen (Hughes & McCabe, 2006; Şendağ et al., 2012). Freshmen perpetuated dishonest habits learned in high school, thereby emphasizing the need to educate students on the importance of academic integrity at the college level (Şendağ et al., 2012). However, other scholars found that seniors have had more opportunities to cheat and were more likely than freshmen to have cheated (Josien & Broderick, 2013; Michaels & Miethe, 1989; Moffatt, 1990; Pino & Smith, 2003).

Researchers have shown a particular interest in the academic integrity of Millennial students. Younger Millennials, those entering college in 2010 or later, have never known a world without the Internet, video games, or cell phones. Millennials perceive the use technology as the most defining characteristic of the generation (Pew, 2010). These students are more affluent (Howe & Strauss, 2007), more indulged (Jones, 2012), and more entitled (Twenge, 2014) than previous generations. As a result of social networking, Millennials stay connected with hundreds of friends (Howe & Strauss, 2007). These students are team-oriented, socializing and studying in groups (Howe & Strauss, 2007). Therefore, Millennials entered college with high levels of experience in collaboration. These resourceful and inventive Millennial students were particularly disinclined to view collaboration and peer assistance as cheating (Arhin, 2009). Millennials demonstrated a postmodern value orientation that is different from prior generations and often markedly different from the traditional perspective held by most college professors. Although Millennial students did not share professors' strict interpretation of academic codes, these students also did not share the racist, sexist, and homophobic beliefs that existed among older generations. Even though these students' perspectives were different from other generations, that difference did not necessarily translate into a lack of integrity (Gross, 2011).

To relate to the Millennial student, educators must reevaluate basic tenets like right or

wrong and truthfulness, abstract concepts that mean little to the goal-oriented, performance-driven student (Gross, 2011). These students have been "groomed to be successful, clever, and above all calculating" (Blum, 2009, p. 106). Millennials are collaborative learners who are accustomed to constant stimulation and are bored in a traditional classroom (Black, 2010). These students exhibit poor class attendance yet expect excellent grades for minimal effort (Worley, 2011). In spite of these negative depictions, Millennial students are individuals: Researchers, professors, and administrators alike should resist generational labeling as fervently as any other stereotype (Singham, 2009).

Other Variables

Exploring other variables beyond student characteristics, students who cheated tended to exhibit less mature moral reasoning than students who did not cheat (Pulvers & Diekhoff, 1999) and had lower GPAs (Burrus et al., 2007). Students caught in the act of cheating have significantly lower GPAs than students who confessed to cheating but were not caught (Olafson et al., 2013). Members of fraternities or sororities and athletes were also more prone to cheating (Burrus et al., 2007).

Additionally, several scholars have found that students enrolled in online classes were more likely to have engaged in academic misconduct (King et al., 2009; Mastin et al., 2009) as were students majoring in business (Bowers, 1964; Curasi, 2013; Lau & Haug, 2011; McCabe, 1997; McCabe, Butterfield, & Treviño, 2006). Business students expressed a belief that honesty was incompatible with business success (Lawson, 2004). However, other researchers disagreed, reporting that nonbusiness majors had a higher rate of cheating than business majors (Simkin & McLeod, 2010). In another study that explored major as a variable related to cheating, students

enrolled in accelerated Bachelor of Science in Nursing programs self-reported the highest rates of academic misconduct (McCabe, 2009).

Personality Traits of Students Who Cheat

Moving beyond student characteristics and the variables of course type, majors, and moral reasoning levels, scholars have identified a relationship between academic integrity and personality traits. Specifically the personality traits of neuroticism, extroversion, and conscientiousness have been evaluated. Neurotic individuals exhibited more ethical perceptions than did survey participants who were not neurotic. Additionally, extroversion was not found to be positively associated with academic integrity. Conscientiousness was positively associated with academic integrity (Bratton & Strittmatter, 2013).

Other research has focused on narcissism and academic dishonesty. Narcissism was found to be relatively common; approximately 25% of respondents to a narcissism index exhibited narcissistic attitudes (Menon & Sharland, 2011). Very high rates of certain narcissistic trends have also been noted among Millennial students (Twenge & Campbell, 2009). Furthermore, narcissism was positively associated with a sense of entitlement by students, and narcissism coupled with a sense of entitlement was predictive of exploitative attitudes. However, of these three variables only exploitative attitudes were found to be statistically significant predictors of academic dishonesty. Thus, narcissism and a sense of entitlement were only indirectly related to academic dishonesty (Menon & Sharland, 2011). Other facets of narcissism found to be related to academic dishonesty were the desire for power, exhibitionism, and elevated self-concept. A significant relationship existed between exhibitionism and academic misconduct, indicating that exhibitionists were willing to resort to cheating as a means

of feigning academic superiority. Exhibitionists also reported less guilt associated with cheating than did other students. The power and elevated self-concept aspects of narcissism were not found to be significant predictors of academic dishonesty (Brunell, Staats, Barden, & Hupp, 2010).

Conversely, certain other personality traits were negatively correlated with academic dishonesty. Students who scored high in bravery, honesty, and empathy reported fewer instances of cheating and experienced greater guilt associated with cheating than other students (Staats, Hupp, Wallace, & Gresley, 2009). Also, students with higher levels of self-confidence were less likely to engage in academic misconduct (Hulsart & McCarthy, 2009).

In addition to numerous personality traits that have been evaluated in relation to academic misconduct, researchers have also compared academic dishonesty to fraud. The elements of the business fraud model provide a theoretical framework for evaluating academic misconduct.

Theoretical Framework: Cheating as Fraud

Academic dishonesty is analogous to academic fraud; thus, the business fraud model can be applied to academic dishonesty (Becker, Connolly, Lentz, & Morrison, 2006). Incentive, rationalization, and opportunity—the three elements of the business fraud model—are discussed extensively in the literature related to cheating. Each of these elements is discussed below.

Incentive

The most common reason for academic misconduct cited by 43% of students who admitted to cheating was to receive a higher grade (Olafson et al., 2013). Cheating to get ahead

suggested that underlying motivational forces were better predictors of cheating than situational or environmental factors (Simkin & McLeod, 2010). Additionally, in a controlled experiment conducted twice in a semester students were twice as likely to cheat near the end of the term with course grades looming than earlier in the semester (Mastin et al., 2009). Students with extrinsic motivations such as maintaining a high GPA or earning a promotion were tempted to cheat because those students valued course outcomes rather than course learning (Jordan, 2001). Students who depersonalized cheating by blaming extrinsic motives were more likely to make a habit of cheating (Derting, 1997).

Incentives for academic misconduct differed for students who had been caught and sanctioned for cheating. Only 19% of students sanctioned for cheating engaged in academic misconduct in order to earn a higher grade (Olafson et al., 2013). The most common reason cited by sanctioned students was ignorance of the consequences for getting caught, followed by ignorance of behaviors that constituted academic misconduct (Beasley, 2014). Failure to understand institutional policy on academic integrity was not a significant contributor to academic dishonesty among students who admitted to cheating (Derting, 1997). Students caught cheating also indicated a variety of other reasons for academic dishonesty such as the class was not worth the effort required to study (Olafson et al., 2013).

The second most common reason cited by 24% of students who self-reported cheating was a perceived inability to do the required work (Olafson et al., 2013). However, this result contradicted Derting (1997), who found that neither course difficulty or helping out a friend were significant contributors to cheating. Conversely, McKibban (2013) found that students who perceived course content as easy and unchallenging were more likely to have engaged in academic misconduct. The more difficult a course was perceived to be, the less likely students

were to employ cheating behaviors. Additionally, as course workload increased, cheating on exams decreased (McKibban, 2013).

Another factor that contributes to cheating is the perceived merit of the assignment. Students who were interested in the course content and found assignments meaningful were less likely to cheat (Steininger, Johnson, & Kirts, 1964), whereas students who perceived assignments as irrelevant, trivial, or boring were more inclined toward academic misconduct (Cole & Kiss, 2000; Owunwanne et al., 2010; Pulvers & Diekhoff, 1999). Students with low mastery motivation (those lacking a strong desire to learn the material) were more likely to perceive academic misconduct as the easiest means of completing the course (Jordan, 2001). Academic dishonesty was not significantly correlated with student perception of the quality of the course or the instructor (McKibban, 2013).

Rationalizations

Students offered rationalizations and excuses for academic dishonesty in order to maintain ethical self-concepts and minimize the guilt associated with cheating. Rationalizations allowed students to accept responsibility for cheating behaviors while denying the seriousness of those behaviors. Conversely, excuses permitted students to recognize the seriousness of the act while denying responsibility (Alt, 2014).

One rationalization for cheating cited repeatedly in the literature was peer behavior. When a peer cheated, other students learned from that behavior, and cheating became perceived as acceptable (McCabe & Treviño, 1993). Academic misconduct was most prevalent among students who considered cheating to be acceptable (Menon & Sharland, 2011). A social multiplier is created in which students who were influenced to cheat as a result of peer behavior

subsequently enticed other students to cheat. On average, each student engaged in academic misconduct influenced cheating behavior in approximately three other students (Carrell, Malmstrom, & West, 2008). Seeing peers cheat impacted the decision to cheat more than one's own moral attitudes or neutralizing behaviors (O'Rourke et al., 2010). Otherwise honest students who saw others cheating were enticed to cheat in order to level the playing field (McCabe et al., 2001).

Similar to rationalizations, neutralizing techniques are means of justifying cheating behavior. Neutralizing techniques may moderate the incompatibility between unethical actions and ethical beliefs (Stephens & Nicholson, 2008). Neutralization theory attempts to explain the process by which individuals rationalize violations of laws or ethics as acceptable (Sykes & Matza, 1957). Students who engaged in academic dishonesty commonly employed four different neutralization techniques: denial of responsibility, denial of injury, condemnation of the condemners, and appeal to higher loyalties (pp. 667-669). A strong positive correlation existed between neutralization behaviors and academic dishonesty. However, researchers disagreed on the most commonly used neutralization techniques. According to Curasi (2013) condemnation of the condemners was the neutralization technique most strongly associated with academic misconduct. Students engaged in condemnation of the condemners by blaming instructors, who were perceived as indifferent to student learning and tolerant of academic dishonesty. The following statement is an example of condemning the condemners: "There was no clear, precise grading rubric for how the movie assignment would be assessed. Therefore, the opportunity to cheat on this assignment was practically being waved in front of our faces" (p. 157). However, according to Olafson et al. (2013) students sanctioned for cheating most frequently used the denial of responsibility technique (45%), whereas students who admitted to cheating most

commonly engaged in denial of injury (40%). Condemnation of the condemners was also common among the students surveyed by Olafson et al. (2013), employed by 25% of the students sanctioned for cheating and 21% of the students who self-reported cheating.

Opportunity

Technological advancements have made cheating easier and more prolific (McGregor & Stuebs, 2012). Infinite online resources coupled with students' lack of understanding about citing sources have led to an increase in plagiarism. Students can purchase customized essays and research papers from among the hundreds of online providers (Owings, 2002).

Furthermore, students who cheated did not anticipate getting caught. Only 15% of students surveyed indicated the perception that the chance of students getting caught cheating was greater than 25% (Burrus et al., 2007). These student perceptions were supported in the research; in this same survey 71% of students who responded had witnessed cheating, yet only 20% of those respondents had witnessed a student get caught cheating. Likewise, in a study in which 54% of students admitted to cheating, only 1% of the cheating students were caught (Haines, Diekhoff, LaBeff, & Clark, 1986). In many instances students who were caught cheating received only mild punishment or no punishment at all (Thakker & Weisfeld-Spolter, 2012). Thus, the risk of perceived negative consequences for getting caught was not sufficient to dissuade cheating.

Faculty members are integral in achieving a culture of academic integrity. Yet only 40% to 49% of faculty members surveyed would report an observed instance of cheating (Coren, 2011; Derting, 1997; McCabe & Pavela, 2004). Only 10% of faculty surveyed claimed to report all cheating incidents (Aaron & Roche, 2013). Although the most common reason cited by

faculty members who ignored cheating was insufficient evidence, faculty also mentioned the triviality of the cheating, a lack of time, a lack of support from administrators, and simply not wanting to deal with the situation (Coren, 2011). These issues were exacerbated for nontenured faculty who did not want to become involved in a cheating controversy. Additionally, institutions often left issues of academic misconduct up to individual faculty members. Yet, inconsistencies and violations of institutional policies could have resulted in legal problems (Hamlin, Barczyk, Powell, & Frost, 2013). Furthermore, faculty members who did not take action to punish cheating sent an implicit message to students that academic integrity was not valued. These faculty members then earned a reputation on campus for tolerating academic dishonesty, and cheating became common in classes taught by these faculty members (McCabe et al., 2001).

Researchers agreed that faculty must model academic integrity, and some students wanted faculty members to be more vigilant in this regard. One student complained that instructors spent exam time reading the newspaper instead of monitoring students, thereby giving students ample opportunities to cheat. Most students argued that the responsibility for curtailing cheating fell to instructors, not to students. Few students were interested in policing or reporting other students, but students who had reported cheating were particularly displeased when the instructor did not address the cheating (Thakkar & Weisfeld-Spolter, 2012). One student spoke of being threatened when asked to facilitate cheating on an exam. The student contacted the professor, who failed to address the issue. The student ultimately dropped the class and changed majors (Aaron & Roche, 2013). Another student shared this indictment:

> I noticed students cheating last semester and continuously tried to report it. I called the professor during office hours (he was never there), I called him at home (I left messages with his wife, which were never returned), and I send e-mails (which were never replied to). (McCabe et al., 2006, pp. 301-302)

Factors That Deter Academic Misconduct

In spite of the pervasiveness of cheating, educational institutions have taken steps to promote a culture of academic integrity. Within the literature three common responses of institutions have emerged: instituting honor codes, consistently sanctioning students caught cheating, and developing an effective mechanism for faculty members to report cheating. Each of these strategies is discussed below.

Honor Codes

Formalized honor codes can be powerful tools for encouraging academic integrity on campus, and many campuses have instituted honor codes. Students who expressed a commitment to an honor code were less likely to have engaged in academic misconduct (Dix, Emery, & Le, 2014).

However, other scholars remain unconvinced of the merit of honor codes (Derting, 1997). Only 40% of faculty members and students surveyed agreed that having an honor code actually reduced the amount of cheating (Jordan, 2001). Merely printing an honor code in a college catalog that few students read had little effect; rather, the most impactful honor codes were ingrained in the campus culture (O'Neill & Pfeiffer, 2012). Taking an online academic integrity tutorial had no effect on academic misconduct behaviors (Şendağ et al., 2012) nor did signing a pledge of honesty (Mastin et al., 2009).

Honor codes were most effective when student rewards such as self-proctored exams were emphasized rather than student punishment for code violations (McCabe et al., 2001). However, as more educational institutions have implemented honor codes, changes to traditional honor codes have emerged. Modified honor codes typically do not relinquish the proctoring of

exams by faculty members but do provide for meaningful student involvement in and commitment to a process of ensuring academic integrity. Student involvement in the development of policies that promote academic integrity reduced academic dishonesty more effectively than sanctioning students who cheat (Boehm, Justice, & Weeks, 2009). However, honor codes typically include a statement that students report any observed violations of the honor code. Students expressed fears of making enemies of other students or being responsible for getting another student expelled (McCabe, Treviño, & Butterfield, 1999). Only 23% to 26% of students surveyed were willing to report another student who cheated; another 39% to 40% were unsure (Aaron & Roche, 2013; Lau et al., 2011).

One strength of a modified honor code was the student honor committee, which promoted a culture of academic integrity and served as a peer tribunal for investigating alleged instances of academic misconduct (McCabe & Pavela, 2004). A benefit of these student committees was the ability to have an impact on the campus culture relatively quickly. These student-driven initiatives have shown potential for positively impacting student expectations and behaviors related to academic integrity (McCabe & Pavela, 2004).

Punishment for Cheating

In spite of the high rates of cheating reported in the literature, relatively few students are sanctioned for cheating. In a survey of business school deans 95.3% reported that three or fewer students were suspended or expelled during the previous year for academic dishonesty (Brown et al., 2010). The failure of educators to detect and sanction cheating has serious repercussions: Students perceive that academic honesty is not valued while faculty and administrators grossly underestimate the prevalence of cheating. Only about 5% of the business school deans surveyed

perceived cheating to be a serious problem (Brown et al., 2010).

Faculty members and students frequently disagreed on the appropriate punishment for students caught cheating. Generally speaking, faculty members favored stricter punishment than did students. Faculty members stated that students caught cheating should fail the course, whereas most students considered a failing grade on the assignment to be sufficient punishment (Derting, 1997). Other students, few of whom admitted to cheating, expressed frustration with the lack of punishment administered to students caught cheating multiple times. Exasperated by a system that placed honest students at a disadvantage, these students claimed that faculty members did not take cheating seriously but instead chose to ignore cheating even after the same student was caught repeatedly (Thakker & Weisfeld-Spolter, 2012).

Fueling support for stricter punishment is the consensus that perceived punishment is related not only to cheating tendencies but also to student characterization of certain behaviors as cheating. Students were less likely to cheat if anticipated punishment for getting caught was perceived as severe, moderate, or unknown. If anticipated punishment was mild or nonexistent, students were more likely to have engaged in cheating but less likely to have perceived the behavior as cheating. The absence of significant punishment for students who collaborated on homework, for example, might have led those students to believe that such behavior did not constitute cheating (Burrus et al., 2007; Stone et al., 2009). However, punishment for cheating can be severe at some institutions. At the University of Virginia, which has an honor code, serious violations of that code have led to expulsions (McCabe & Treviño, 1993). In 2013 approximately 70 Harvard students were forced to sit out for 2 semesters after being caught cheating on a take-home final (Pérez-Peña, 2013). Some institutions permanently expel students for a single violation of the honor code (Chace, 2012).

Faculty as a Deterring Factor

Faculty members have the ultimate responsibility for maintaining academic integrity in the classroom. Most researchers agreed that any real progress relative to cheating in the college classroom would require that faculty be more vigilant and proactive in catching and punishing cheating. The most commonly cited reason for not cheating was avoiding punishment (Miller, Shoptaugh, & Wooldridge, 2011). Additionally, students expressed a perception that faculty members are the most important contributors to ethics education (Lau & Haug, 2011). As Diekhoff et al. (1996) stated, "It is unlikely that students will become more mature or that peers will become more reactive to cheating without salient university intervention" (p. 501). However, merely attaching a university policy regarding academic misconduct to a course syllabus was not found to be effective in deterring cheating (Staats & Hupp, 2012).

Empirical research has shown that students are more likely to cheat when assignments are perceived to be trivial or boring (Owunwanne et al., 2010; Pulvers & Diekhoff, 1999). Therefore, faculty members can promote student integrity while minimizing opportunities for cheating by employing more creative forms of assessment such as team projects or reflective journals (McGee, 2013).

Faculty can set the tone for ethical behavior at the beginning of the semester by administering one of several instruments that help students to identify stage of moral development and orientation toward ethical behavior (McGee, 2013). Additionally, faculty should clearly define cheating for students, emphasize the importance of academic integrity, and employ effective classroom management techniques (Boehm et al., 2009). Otherwise honest students sometimes resorted to cheating when an assignment was unclear or the underlying course content was confusing. Faculty members could reduce these acts of desperation by

focusing on student learning and being available to answer questions. As one student said, "Educators need to pay more attention to the motives for cheating and less to the act itself. Cheating is a symptom of disinterest or dissatisfaction… Educators ought to invest…resources in engaging students…" (MaCabe & Pavela, 2004, p. 12). Thus, faculty can dramatically influence student behavior by effectively managing the learning environment.

Ethics of Academic Misconduct

Even though cheating is relatively common, both students who cheated and those who did not cheat overwhelmingly concurred that cheating in college is not justified (Jordan, 2001). Yet, even students with a strong sense of ethics sometimes resorted to unethical behavior. Research related to the influence of ethics on academic misconduct is summarized below.

Ethical Ideology

Forsyth's (1980) ideological typology categorized individuals based on perceptions of idealism and relativism. Four ethical ideologies emerged from this comparison: situationist, subjectivist, absolutist, and exceptionist. Differences in ethical ideology had no significant impact on student perceptions of academic dishonesty (Allmon et al., 2000). In two experiments based on Forsyth's (1980) ideological typology researchers found that individuals with differing ethical ideologies did not behave significantly differently when tempted to cheat (Forsyth & Berger, 1982). However, among those who participated in the experiments (n=33 and n=47), the degree of postcheating remorse and personal recriminations varied among the differing ideologies. Absolutists and to a lesser degree subjectivists reported decreased values of self-worth as the rate of cheating increased. The rate of cheating by subjectivists was also

significantly correlated to fear of getting caught. Situationists experienced both satisfaction and remorse after cheating, but exceptionists reported increased satisfaction as the rate of cheating increased (Forsyth, 1980; Forsyth & Berger, 1982). Thus, even though differing ethical ideologies did not correlate to behavioral differences, postbehavior moral dissonance did vary by ideology.

Ethical Self-Perceptions of Students Who Cheat

A majority of medical students surveyed expressed a belief that cheating is morally wrong; nevertheless, 72% of those same students admitted to cheating on exams (Semerci, 2006). In another study 36% of survey respondents admitted to obtaining exam content prior to taking the exam, but only 4% considered such actions to be ethical (Krueger, 2014). Over 99% of nursing students surveyed stated that academic misbehavior relative to patient care was unethical (McCrink, 2010). Similarly, 85% of students expressed belief that cheating was unethical and dishonest and 58% admitted to feeling guilty after cheating (Singhal, 1982).

However, students did not always perceive classroom misconduct as unethical. As one student said, "I never feel guilty about cheating. I feel I have high moral reasoning and ethical values and I do not feel they are compromised in cheating on college exams" (Moffatt, 1990, p. 15). Cheating is so common that many students experienced no moral misgivings related to cheating (Bates, Davies, Murphy, & Bone, 2005). Less than 50% of biology students surveyed attributed academic misconduct to a lack of morals or ethics (Derting, 1997). In another study 83% of students surveyed claimed to be honest even though 53% of those same students admitted to cheating (Burrus et al., 2007). Likewise, in a qualitative study of nursing students all 11 students interviewed described themselves as honest students who did not cheat, yet all but

two were habitually cheating (Wideman, 2011). Students with high moral reasoning cheat as much as those with lower moral reasoning (Cummings, Maddux, Harlow, & Dyas, 2002).

A dissonance exists between ethical self-perceptions and cheating tendencies. Some students employed situational ethics when contemplating academic dishonesty (Derting, 1997; McCabe, 2005; McKibban, 2013), meaning that the level of ethics appropriate for a situation depended on the situation itself. For example, a medical student might have no ethical qualms about academic cheating and yet have high standards for professional ethics and patient care (Derting, 1997).

Ethics Training

Studies of the effectiveness of teaching ethics at the college level have yielded mixed results. Teaching ethics in the college classroom is appropriate given that college students are sufficiently mature to grasp the real-world consequences of unethical actions (Lau et al., 2011). Glenn (1992) concluded that students were less likely to cheat after having completed a business ethics course. However, Bloodgood, Turnley, and Mudrack (2010) disagreed, finding that student views on academic misconduct were not on average significantly influenced by a business ethics course. Other researchers similarly found that ethics education had no impact on student behaviors (Simha, Armstrong, & Albert, 2012). Conversely, students with strong Machiavellianism tendencies were more accepting of passive cheating after having taken an ethics course (Bloodgood et al., 2010). Thus, even though ethics education has an intuitive appeal, the effectiveness of ethics education in decreasing academic misconduct is not clearly supported by empirical research findings.

Chapter Summary

In sum, the literature emphasizes that academic misconduct is a common occurrence on college campuses. Although statistics vary most researchers concluded that the majority of college students have cheated at some point. However, most students did not cheat habitually (McCabe, 1992; Moffatt, 1990; Josien & Broderick, 2013; Jordan, 2001), and a minority of students have not cheated and profess not to do so (Jones, 2011). Researchers have reported various student characteristics (Allmon et al., 2000; Hensley et al., 2013; Louder & Schmidt, 2013; Pino & Smith, 2003; Şendağ et al., 2012; Wotring, 2007) and different personality styles among students who cheat (Bratton & Strittmatter, 2013; Brunell et al., 2010; Menon & Sharland, 2011). Students are more prone to engage in academic misconduct if cheating is perceived to be common and acceptable to peers (McCabe & Treviño, 1997; Megehee & Spake, 2008; Menon & Sharland, 2011). Although students who cheat are individuals with differing motivations, many resort to academic misconduct to improve grades or as a result of a perceived inability to complete course requirements (Olafson et al., 2013). Students rationalize cheating behaviors to avoid disharmony between actions and beliefs (McCrink, 2010). Additionally, students engage in neutralization techniques, shifting the responsibility for unethical conduct to faculty (Curasi, 2013; Olafson et al., 2013). Faculty can promote student integrity by effectively managing the learning environment and addressing instances of cheating appropriately (McCabe & Pavela, 2004). Although students agreed that cheating in college was not justified (Jordan, 2001), even students with a strong sense of ethics have engaged in academic misconduct (Lau et al., 2011; Martin et al., 2009).

CHAPTER 3

RESEARCH METHOD

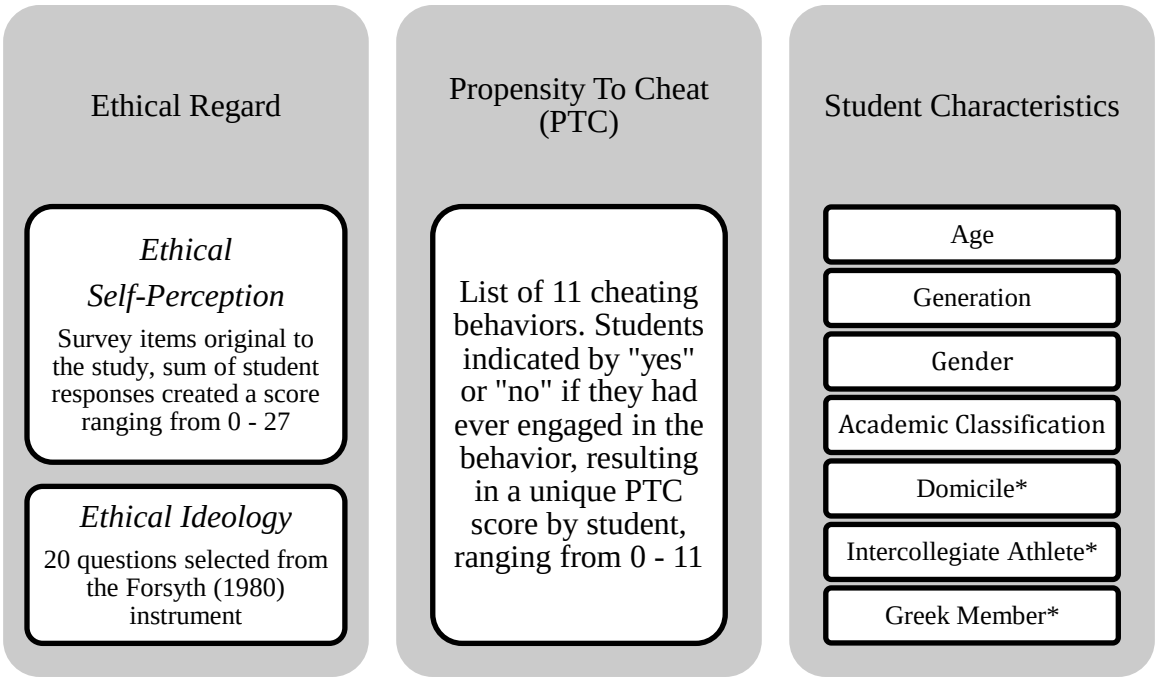
The purpose of this quantitative correlational study is to explore the relationships between student ethical regard and academic misconduct. Quantitative research can offer explanations relative to the occurrence of an event such as cheating and the probability of that event under certain conditions (Smeyers, 2008). Additionally, quantitative research is appropriate for examining relationships between variables (Creswell, 2014) such as ethical regard and academic misconduct. Thus, quantitative research is appropriate for this study.

For purposes of this study ethical regard includes two components: (1) ethical self-concept, which was measured by self-reported perceptions of personal ethics using survey items designed by the researcher and (2) ethical ideology, which was determined using the Forsyth (1980) EPQ. Ethical ideology is framed by predispositions toward ethical idealism and ethical relativism. Ethical idealism and ethical relativism are opposing constructs that undergird Forsyth's (1980) ethical position theory (EPS). EPS addresses personal moral philosophies that dictate the actions and beliefs of an individual (Forsyth & O'Boyle, 2011). This construct of ethical regard was compared to student PTC.

Additionally, student characteristic information was collected and analyzed. Student perceptions of cheating behaviors, the degree to which students engage in cheating behaviors, and the relationships between perceptions and engagement are also reported.

A quantitative correlational analysis was used to explore the relationships between student ethical regard and PTC. An advantage of correlational analysis is the ability to evaluate the relationships between multiple variables (McMillan & Schumacher, 2010). Ethical regard,

which encompasses ethical self-perception and ethical ideology, and PTC, which includes recognition of cheating behaviors and participation in cheating behaviors, were measured by student responses to an online questionnaire. The use of online questionnaires enables the efficient and economical collection of data within short timeframes (Lefever, Dal, & Matthíasdóttir, 2007). Figure 1 depicts the constructs of the study.



*Due to low response rates for these items [International (*n*=10), Athlete (*n*=3) and Greek (*n*=19)], these student characteristics were excluded from statistical analysis.

Figure 1. Conceptual framework

Research Questions and Null Hypotheses

To frame the current study the following research questions are posed. Null hypotheses are presented for questions 1, 2, 3, and 6, which generated inferential statistics. Questions 4 and 5 generated descriptive statistics only.

1. Is there a significant difference in PTC compared by student characteristics?

   H_o1_a: There is no significant difference in PTC compared by age.

H_o1_b: There is no significant difference in PTC compared by generation.

H_o1_c: There is no significant difference in PTC compared by gender.

H_o1_d: There is no significant difference in PTC compared by academic classification (freshman, sophomore, etc.).

2. Is there a significant relationship between PTC and ethical self-perception?

   H_o2: There is no significant relationship between PTC and ethical self-perception.

3. Is there a significant difference in PTC compared by ethical ideology?

   H_o3: There is no significant difference in PTC compared by ethical ideology.

4. What behaviors do students most commonly perceive to be cheating?
5. In what cheating behaviors do students most commonly engage?
6. Is there a significant relationship between perceiving an act as cheating and engaging in the act?

   H_o6: There is no significant relationship between perceiving an act as cheating and engaging in the act.

Sample

This quantitative study was developed using nonprobability sampling method. The population for this study was undergraduate students in the state where the study was conducted. The sample was undergraduates at a large public research institution in the Southeast.

During the spring 2015 semester 10,623 undergraduates were enrolled at the participating institution. All undergraduate students received an email request to participate in this research study. The email included a link to an online questionnaire. Consent was given by students who participated in the study.

Instrumentation

The survey for this study included questions from Forsyth's (1980) EPQ that are designed to elicit personal moral philosophies. Student responses to a series of questions gauging varying levels of ethical idealism and ethical relativism resulted in an ideology score for each respondent. Student scores were classified as either high or low for both idealism and relativism by comparing scores to means for idealism and relativism established by Forsyth's research on 30,230 respondents (Forsyth, n.d.). The four possible combinations of high and low scores for idealism and relativism yield the following classifications: situationists, absolutists, subjectivists, or exceptionists. Figure 2 illustrates the relationship between idealism and relativism as exhibited in each of the ethical ideologies.

Relativism - the degree to which an individual rejects society's moral rules

Idealism - a belief that doing the right thing leads to positive outcomes	**High**	**Low**
High	**Situationists** - reject moral rules in favor of individual decisions driven by circumstances	**Absolutists** - moral perfectionists who believe that following moral laws will always lead to the best possible outcomes
Low	**Subjectivists** - make decisions based on personal values rather than societal or universal moral principles	**Exceptionists** - utilitarians who believe in moral absolutes but who recognize exceptions to these standards

Figure 2. Taxonomy of ethical ideologies

The survey questionnaire included 41 questions and five categories. Multiple-item surveys are less vulnerable to random measurement errors and have better content validity than

shorter surveys (Gogol et al., 2014). The study questionnaire solicted data on student characteristics, ethical self-perception, ethical ideology, perception of academic dishonesty, and participation in academic dishonesty.

The survey included an introductory section that provided instructions to students along with an assurance that responses were anonymous. The consent form was included in the email message whereby students were told that clicking on the survey link provided consent for the study. Students were also advised that upon completion of the survey a link would be available to register for one of four incentives of a $50 Amazon gift card. Registration for the gift card in no way compromised anonymity.

The study questionnaire contained four sections and various question formats. The first section consisted of multiple-choice student characteristic questions relative to age, gender, academic classification, international status, sorority or fraternity membership, and athletic participation. The next section included three original questions designed to gauge ethical self-perceptions. The third section of the questionnaire was Forsyth's (1980) EPQ, which is presented as 20 questions that measure ethical ideology. In keeping with the original Forsyth instrument, the response option for this section was a 9-point Likert scale designed to gauge levels of agreement or disagreement with a statement. A *Completely Disagree* response was given a value of 1 whereas a *Completely Agree* response was assigned a value of 9. The Likert scale questions also include a *Neither Disagree Nor Agree* option, allowing respondents to remain neutral. The neutral response was assigned a value of 5. The last section of the survey consisted of a two-part question that asked students to indicate whether each item on a list of behaviors constituted academic misconduct and to indicate whether the student had engaged in each of those behaviors during college. This question provided for the response options of *Yes*

or *No* for each part.

Surveys that were submitted substantially incomplete were excluded from statistical analyses. Specifically, students who did not respond to all of the ethical self-perception questions (section two) or to all of the questions that established the PTC score (section four) were excluded. Respondents who did not complete the student characteristic questions were excluded from analysis relative to those variables but were otherwise included for statistical evaluation. Additionally, students who neglected to answer one of the 20 EPQ questions were included in the statistical analyses if their ideological classification was unaffected by the missing question. For example, a student who indicated strong agreement to 9 of 10 questions measuring idealism could be categorized as high in idealism even though one question was left unanswered. Conversely, students who did not answer all of the EPQ questions and whose scores were not as extreme as in the example above were excluded from statistical analyses because idealogical classification could not be determined. A copy of the survey instrument is presented in Appendix A.

To improve instrument validity, the questionnaire was reviewed prior to distribution by students enrolled in a graduate level research class. The review tested the clarity of instructions, time required for completion, and functionality of the online survey procedure, thereby aiding the construct and content validity of the instrument. Feedback from the review was considered as the final survey instrument was developed.

Instrument reliability was measured using Cronbach's alpha. Reliability of Forsyth's (1980) instrument was previously reported using Cronbach's alpha values ranging from .73 to .84 (Forsyth, n.d.). Cronbach's alpha scores of .70 or higher are acceptable (Vogt, 2007). The internal consistency score of the current study using Cronbach's alpha was .76. Responses to

survey questions on cheating engagement were reverse scored when calculating Cronbach's alpha so that higher scores corresponded to higher ethical perceptions.

Data Collection

Before data collection began, permission to conduct research was obtained from the Institutional Review Board (IRB) of the researcher's university as well as the IRB of the participating university. IRB protocol as well as ethical principles established by the American Educational Research Association and the American Psychological Association must be adhered to when conducting research on human subjects. These principles include full disclosure, voluntary participation, informed consent, no harm or risk to participants, and privacy (McMillan & Schumacher, 2010). An email accompanying the survey instrument informed students of the purpose of the study, stated that participation was voluntary, and assured the anonymity of responses. Researchers have a responsibility to minimize harm to human participants, yet most studies have some degree of risk (McMillan & Schumacher, 2010). Asking a student to reflect on past incidences of cheating could cause discomfort for the student.

The survey was prepared and administered using SurveyMonkey. The participating institution granted permission to conduct research and to use the university email distribution system. All students enrolled during the spring 2015 semester at the participating institution received an email requesting participation in the study. The email included a link to the survey and emphasized the anonymity of survey responses.

Data Analyses

Table 1 summarizes the research questions and related statistical methodology.

Table 1.

Research Questions and Related Statistical Methodology

Research Question	Data Type Generated	Analysis/Test	Coding
1. Is there a significant difference in PTC compared by student characteristics?	Independent Variable = student characteristic (ordinal or nominal); Dependent Variable = PTC (interval)		
a. Is there a significant difference in PTC compared by age?	ordinal	ANOVA	Students will be grouped based on age brackets. 18 to 19 = 1 20 to 21 = 2
b. Is there a significant difference in PTC compared by generation?	ordinal	*t* test (independent)	Students will be grouped into generational categories based on age. Millennials = 1 Non-Millennials = 2
c. Is there a significant difference in PTC compared by gender?	nominal	*t* test (independent)	Males = 0 Females = 1
d. Is there a significant difference in PTC compared by academic classification?	ordinal	ANOVA	Freshmen = 1 Sophomores = 2 Juniors = 3 Seniors = 4
2. Is there a significant relationship between PTC and ethical self-perceptions?	Independent Variable = level of ethical self-perception (interval); Dependent Variable = PTC (interval)	Correlation	Ethical self-perception was calculated using responses to survey questions. PTC was calculated based on responses to RQ 5.
3. Is there a significant difference in PTC compared by ethical ideology?	Independent Variable = ethical ideology (nominal); Dependent Variable = PTC (interval)	ANOVA	Students were grouped into categories based on EPQ responses. Situationist = 1 Absolutist = 2 Subjectivists = 3 Exceptionists = 4

Table 1 (continued)

Research Question	Data Type Generated	Analysis/Test	Coding
4. What behaviors do students most commonly perceive to be cheating?	nominal	Descriptive Analysis	Students responded to a series of yes/no questions. Yes = 1 No = 0
5. In what cheating behaviors do students most commonly engage?	nominal	Descriptive Analysis	Students responded to a series of yes/no questions. Yes = 1 No = 0
6. Is there a significant relationship between perceiving an act as cheating and engaging in the act?	Independent Variable = perception of act (nominal); Dependent Variable = engagement in act (nominal)	Correlation	Data derived from RQs 4 (perception) & 5 (engagement).

When data collection was complete, survey results were analyzed using SPSS data analysis software. Research question 1 was an analysis of PTC (the dependent variable that generated interval data) relative to student characteristics (the independent variable that yielded ordinal or nominal data). Independent *t* tests and ANOVAs are appropriate for this combination of variables (Stat Consulting Group, n.d.). The age ranges provided by respondents were used to group students into generational categories as follows: Millennials (18-35 years), Generation X (36-50 years), and Baby Boomers (51-69 years) (Pew, 2010). Due to the low response rate of students over age 35, Generation X and Baby Boomers were combined into a single category for comparison to Millennials. Research question 2 was used to determine whether a significant relationship existed between ethical self-perception, the independent variable, and PTC, the dependent variable. The survey responses provided interval data for each of these variables, and the relationship between the variables was evaluated using correlational analysis. Research

question 3 was used to determine whether a significant difference existed between PTC, the dependent variable, and students of differing ethical ideologies, the independent variable. PTC generated interval data while ideological categorization generated nominal data. This combination of variables was evaluated using ANOVA.

Additionally, the survey asked students to indicate whether or not each item from a list of behaviors constituted cheating. Students were also asked to indicate any instances of personal engagement in these behaviors. The number of behaviors where students admitted to engaging established the PTC measure, which was analyzed in conjunction with other variables discussed in the research questions. Research question 6 was used to determine whether a significant relationship existed between the perception of an act as cheating, the independent variable, and engagement in the act, the dependent variable. The survey responses to research questions 4 and 5 provided nominal data for each of these variables, and the relationship between the variables was evaluated using correlational analysis. Results garnered from the statistical analyses are discussed in Chapter 4.

CHAPTER 4

FINDINGS

The purpose of this quantitative correlational study is to explore relationships between ethical regard and propensity to engage in academic misconduct. Student characteristics that might be associated with PTC were also evaluated. Furthermore, descriptive data were collected to ascertain which behaviors students perceived to be cheating and the prevalence of student engagement in those behaviors. Correlations were then calculated between the perceptions of behaviors as cheating and the engagement in those behaviors.

The statistical procedures conducted for each research question were selected as appropriate for the type of data generated. Procedures included analysis of variance (ANOVA), independent *t* tests, and correlations. Descriptive statistics were also analyzed as appropriate. Chapter 4 provides a summary of survey results for the research questions and null hypotheses.

Survey Respondents

Data for the study were gathered using an online survey instrument administered by SurveyMonkey. The population for the study was all undergraduate students at a large public research institution in the Southeast. Participants were solicited through email. Because the university email distribution list does not distinguish between graduate and undergraduate students, the email was sent to all students enrolled during the spring 2015 semester at the participating institution. A total of 13,480 students received the email. To establish participant eligibility the first survey item was a required question to determine if the respondent was an undergraduate student and at least 18 years old. Respondents who answered no were

immediately disqualified and unable to proceed to the survey. Responses that were unusable due to incompleteness were also excluded from analysis. A total of 425 students accessed the survey. The total number of usable responses was 273, which represents approximately 2.6% of undergraduates enrolled during the spring 2015 semester. Table 2 summarizes the student characteristic information provided by the respondents.

Table 2.

Respondent Student Characteristic Information

Age	Frequency	% of responses
18 - 19	66	24.4%
20 - 21	73	26.9%
22 - 23	43	15.9%
24 - 25	23	8.5%
26 - 35	36	13.3%
36 - 50	21	7.7%
51 - 69	9	3.3%
over 69	0	0.0%
no response	2	
Total	273	100.0%

Generation	Frequency	% of responses
Millennials	241	88.9%
Generation X	21**	7.7%
Baby Boomers	9**	3.3%
no response	2	
Total	273	100.0%

Gender	Frequency	% of responses
Females	193	70.7%
Males	80	29.3%
Total	273	100.0%

Class	Frequency	% of responses
Freshman	55	20.4%
Sophomore	38	14.1%
Junior	71	26.3%
Senior	106	39.3%
no response	3	
Total	273	100.0%

Int'l Student	Frequency	% of responses
Yes	10*	3.7%
No	261	96.3%
no response	2	
Total	263	100.0%

Athlete	Frequency	% of responses
Yes	3*	1.1%
No	269	98.5%
no response	1	
Total	273	100.0%

Greek Affiliation	Frequency	% of responses
Yes	19*	7.0%
No	254	93.0%
Total	273	100.0%

*Due to the low number of respondents who met these criteria, these student characteristics were excluded from statistical analysis.

** Due to the low number of respondents who met these criteria, Generation X and Baby Boomers were combined into a single category for statistical comparison to Millennials.

Analyses of Research Questions

Research data were organized using Microsoft Excel and analyzed using SPSS. A level of significance, or alpha, of .05 was used for data analyses. Findings related to each of the research questions are presented below.

Research Question #1

Is there a significant difference in PTC compared by student characteristics? Four null hypotheses were generated in relation to research question 1.

H_o1_a: There is no significant difference in PTC compared by age. A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between student age and PTC. The independent variable, age, included seven age ranges: 18-19, 20-21, 22-23, 24-25, 26-35, 36-50, and 51-69. Because most undergraduates are less than 25 years old, smaller age ranges were used on the younger end of the scale to capture potential differences in PTC among traditional-aged college students. The dependent variable was PTC. The PTC score was calculated based on students' self-professed history of engaging in academic misconduct while in college. Scores could range from 0 to 11 with higher scores indicating engagement in a greater number of cheating methods. The ANOVA was significant, $F(6, 264) = 4.03$, $p = .001$. Consequently, the null hypothesis was rejected. The strength of the relationship between age and PTC as assessed by η^2 was moderate, with age accounting for 8.4% of the variance of the dependent variable.

Because the relationship between age and PTC was significant, follow-up tests were conducted to evaluate pairwise differences among the means. Levene's test of equality of error variances was significant; thus, equal variances were not assumed. Post-hoc comparisons,

therefore, were conducted using Dunnett's *C* test, which does not assume equal variances among the age ranges. There was a significant difference in the means of the 22-23 age range when compared to the 18-19 age range, the 26-35 age range, the 36-50 age range, and the 51-69 age range. There was no significant difference in the means of the 22-23 age range and the 20-21 age range or the 24-25 age range, nor were there significant differences between any of the other pairwise comparisons. The 22-23 age range showed a significantly greater PTC in comparison to the 18-19 age range, the 26-35 age range, the 36-50 age range, and the 51-69 age range. The means and standard deviations for PTC as a function of age are presented in Table 3.

Table 3.

Means, Standard Deviations, and Populations of Age Ranges

Age Range	*M*	*SD*	N
18-19	2.08	2.018	66
20-21	2.86	2.311	73
22-23	3.42	2.217	43
24-25	3.00	2.730	23
26-35	1.83	1.935	36
36-50	1.67	1.623	21
51-69	1.11	1.269	9
Total			271*

*Students who did not provide age data were excluded from this analysis.

H_o1_b: There is no significant difference in PTC compared by generation. Due to the low number of responses from Generation X (ages 36-50, *n*=21), and Baby Boomers (ages 51-69, *n*=9), these two generations were combined into a category called non-Millennials for statistical comparison to Millennials (ages 18-35). Students were categorized into one of these generations using the age data provided by the students. Students younger than 18 were excluded from the survey, and no respondents were older than 69 years. An independent *t* test

was conducted to evaluate the relationship between generation and PTC. The independent variable, generation, consisted of two groups: Millennials and non-Millennials. The dependent variable was PTC. The test for unequal variances was significant, $t(46.61) = 3.52$, $p = .001$. Therefore, the null hypothesis was rejected. Millennials demonstrated a significantly greater PTC than did non-Millennials. The means and standard deviations for the generational groupings are summarized in Table 4.

Table 4.

Means, Standard Deviations, and Populations of Generations

Generation	*M*	*SD*	N
Millennials	2.61	2.262	241
Non-Millennials	1.50	1.526	30
Total			271*

*Students who did not provide age data were excluded from this analysis.

H_o1_c: There is no significant difference in PTC compared by gender. An independent *t* test was conducted to evaluate the relationship between gender and PTC. The test for unequal variances was not significant, $t(129.93) = .836$, $p = .41$. Therefore, the null hypothesis was retained. There is no significant difference in PTC compared by gender. The means and standard deviations for males and females are shown in Table 5.

Table 5.

Means, Standard Deviations, and Populations of Gender

Gender	*M*	*SD*	N
Males	2.31	2.262	80
Females	2.58	1.623	193
Total			273

H_o1_d: There is no significant difference in PTC compared by academic classification (freshman, sophomore, etc.). A one-way ANOVA was conducted to analyze the relationship between academic classification and PTC. The independent variable, academic classification, consisted of four categories: freshman, sophomore, junior, and senior. The dependent variable was PTC. The ANOVA was not significant, $F(3, 266) = 1.96$, $p = .12$. Therefore, the null hypothesis was retained. There is no significant difference in PTC as compared by academic classification. The means and standard deviations for the academic classifications are summarized in Table 6.

Table 6.

Means, Standard Deviations, and Population of Academic Classifications

Academic Class	*M*	*SD*	N
Freshmen	1.89	2.006	55
Sophomores	2.84	2.488	38
Juniors	2.73	2.274	71
Seniors	2.53	2.170	106
Total			270*

*Students who did not provide academic classification data were excluded from this analysis.

Research Question #2

Is there a significant relationship between PTC and ethical self-perception? The related null hypothesis states that there is no significant relationship between PTC and ethical self-perception. A correlation coefficient was computed between the ethical self-perception variable and the PTC variable. The ethical self-perception scores were calculated by summing the responses to three questions on the survey questionnaire where students were asked to evaluate personal ethics. The highest possible score was 27. Table 7 displays a frequency distribution of

the ethical self-perception scores.

The results of the analysis revealed a strong negative relationship between ethical self-perception and PTC and a statistically significant correlation, $r(272) = -.24$, $p < .001$. Therefore, the null hypothesis was rejected. In general, the results indicated that students with higher ethical self-perception scores tended to have lower PTC scores. The means and standard deviations for ethical self-perception and PTC are shown in Table 8.

Table 7.

Frequency Distribution of Ethical Self-Perception Scores

Score	Frequency	Percent	Cumulative Percent
<11	0	0.0%	0.0%
11	1	0.4%	0.4%
14	1	0.4%	0.7%
15	1	0.4%	1.1%
17	1	0.4%	1.5%
18	1	0.4%	1.8%
19	3	1.1%	2.9%
20	11	4.0%	7.0%
21	16	5.9%	12.8%
22	20	7.3%	20.1%
23	25	9.2%	29.3%
24	60	22.0%	51.3%
25	41	15.0%	66.3%
26	22	8.1%	74.4%
27	70	25.6%	100.0%
Total	273	100.0%	

Table 8.

Means, Standard Deviations, and Populations of Ethical Self-Perception Scores & PTC Scores

	M	*SD*	N
Ethical Self-Perception	24.29	2.479	273
PTC	2.50	2.220	273

Research Question #3

Is there a significant difference in PTC compared by ethical ideology? The null hypothesis associated with research question 3 states that there is no significant difference in PTC compared by ethical ideology. Ethical ideology was calculated using responses to 20 questions from the Forsyth (1980) EPQ. Ten Likert response format questions measured idealism, and 10 survey questions measured relativism. Scores on these two sets of questions were summed and compared to Forsyth's (n.d.) mean scores for idealism and relativism. Respondents were then categorized into one of the four ethical ideologies—situationist, absolutist, subjectivist, or exceptionist—that emerged from the four possible combinations of high and low scores for idealism and relativism (see Figure 2).

A one-way ANOVA was conducted to evaluate the relationship between ethical ideology and PTC. The independent variable was ethical ideology, and the dependent variable was PTC. The ANOVA was significant, $F(3, 269) = 3.76$, $p = .01$. Therefore, the null hypothesis was rejected. The strength of the relationship between ethical ideology and PTC was weak as measured by η^2 with ethical ideology accounting for 4% of the variance of the dependent variable.

Follow-up tests were conducted to evaluate pairwise differences among the means. Because equal variances were not assumed, Dunnett's *C* test was used for post-hoc comparisons. There was a significant difference between the means of the absolutists and the subjectivists, but there was no significant difference between the means of any other combination of ethical ideologies. Absolutists were significantly less likely to have engaged in academic misconduct than were subjectivists. The means, standard deviations, and populations of each of the ethical ideologies are presented in Table 9.

Table 9.

Means, Standard Deviations, and Populations of Ethical Ideology

Ideology	*M*	*SD*	*N*	*Percentage*
Situationists	2.56	2.311	122	44.7%
Absolutists	2.05	1.798	77	28.2%
Subjectivists	3.31	2.485	49	17.9%
Exceptionists	2.00	2.021	25	9.2%
Totals			273	100.0%

Research Question #4

What behaviors do students most commonly perceive to be cheating? The study questionnaire asked respondents to indicate whether 11 specific acts constituted cheating by answering yes or no to each item. Each of the acts is frequently included in definitions of cheating found in the literature. Table 10 displays the ranked frequencies and percentages of items identified as cheating.

Table 10.

Behaviors Most Commonly Perceived as Cheating by Students

Rank	*Behavior*	*Students who perceived item as cheating (n=273)*	
		Frequency	*Percentage*
1	Copying from a classmate's exam or allowing a classmate to copy while the instructor is not looking.	271	99.3%
2	Stealing an advance copy of an exam.	269	98.5%
3	Texting exam questions or sending pictures of exam questions to a friend, seeking to obtain or provide help during the exam.	267	97.8%
4	Using notes without permission on an exam.	264	96.7%
5	Copying information from a book, journal, or website without citing the source as a reference.	257	94.1%
6	Studying from an advance copy of an exam obtained by a classmate.	235	86.1%
7	Copying a classmate's homework or permitting copying by a classmate.	234	85.7%
8	Working with classmates on an out-of-class assignment even though the instructor prohibited working together.	222	81.3%
9	Giving a false excuse to convince an instructor to extend a deadline.	187	68.5%
10	Summarizing information from a book, journal, or website without citing the source as a reference.	185	67.8%
11	Trying to find out what was on an exam from a classmate who took the exam early.	152	55.7%

Research Question #5

In what cheating behaviors do students most commonly engage? The study questionnaire asked respondents to indicate whether they had engaged in 11 items commonly considered to be cheating while in college by answering yes or no for each item. Table 11 displays the ranked frequencies and percentages of students who have engaged in these 11 items.

Table 11.

Most Common Cheating Behaviors

Rank	*Behavior*	*Students who engaged in behavior (n=273)*	
		Frequency	*Percentage*
1	Trying to find out what was on an exam from a classmate who took the exam early.	127	46.5%
2	Copying a classmate's homework or permitting copying by a classmate.	115	42.1%
3	Summarizing information from a book, journal, or website without citing the source as a reference.	112	41.0%
4	Working with classmates on an out-of-class assignment even though the instructor prohibited working together.	102	37.4%
5	Copying from a classmate's exam or allowing a classmate to copy while the instructor is not looking.	52	19.0%
6	Giving a false excuse to convince an instructor to extend a deadline.	41	15.0%
7	Using notes without permission on an exam.	39	14.3%
8	Studying from an advance copy of an exam obtained by a classmate.	35	12.8%
9	Copying information from a book, journal, or website without citing the source as a reference.	33	12.1%
10	Texting exam questions or sending pictures of exam questions to a friend, seeking to obtain or provide help during the exam.	24	8.8%
11	Stealing an advance copy of an exam.	3	1.1%

Additionally, the number of different methods of cheating in which each respondent had engaged was calculated from data collected relative to survey question 5. The number of cheating methods engaged in per student is summarized in Table 12.

Table 12.

Frequencies & Percentages of Engagement in Multiple Cheating Methods

Number of Cheating Methods Engaged In Per Student (n=273)	*Frequency*	*Percentage*	*Cumulative Percentage*
> 9	0	0.0%	0.0%
9	1	0.4%	0.4%
8	7	2.6%	2.9%
7	9	3.3%	6.2%
6	16	5.9%	12.1%
5	21	7.7%	19.8%
4	30	11.0%	30.8%
3	35	12.8%	43.6%
2	38	13.9%	57.5%
1	54	19.8%	77.3%
0	62	22.7%	100.0%

Research Question #6

Is there a significant relationship between perceiving an act as cheating and engaging in the act? The related null hypothesis states that there is no significant relationship between perceiving an act as cheating and engaging in the act. A correlation coefficient was computed between the perception of a behavior as cheating and engagement in that behavior. The correlation coefficient was computed separately for each of the 11 cheating behaviors listed in the study questionnaire.

For survey item 31, the analysis revealed a strong negative relationship between the perception that using notes without permission on an exam was cheating and engaging in the behavior. The correlation was statistically significant, $r(272) = -.22$, $p < .001$; therefore, the null

hypothesis for item 31 was rejected. This result indicates that the more likely students were to believe that using unpermitted notes on an exam constituted cheating, the less likely students were to engage in the behavior. Students responded affirmatively that this behavior constituted cheating at a rate of 96.7%, and 14.3% of respondents admitted to cheating in this way.

Item 32 addressed stealing an advance copy of an exam. The vast majority of students, 98.5%, indicated that this behavior was cheating, and only three students admitted to engaging in this behavior. This low response rate is insufficient for meaningful statistical analysis.

The analysis of item 33 showed a strong negative relationship between the perception that studying from an advance copy of an exam was cheating and engagement in the behavior. The correlation was statistically significant, $r(272) = -.38$, $p < .001$; thus, the null hypothesis for item 33 was rejected. Generally speaking, students who believed that studying from an advance copy of an exam was cheating were less likely to engage in the behavior. An 86.1% majority of respondents perceived this behavior to be cheating, and 12.8% admitted to engaging in this behavior.

Item 34 asked about texting exam questions or sending pictures of exam questions to a friend in order to obtain or provide help during an exam. Correlational analysis revealed a strong negative relationship between the perception of this activity as cheating and participation in the activity. The correlation was statistically significant, $r(272) = -.22$, $p < .001$; therefore, the null hypothesis for item 34 was rejected. This result indicates that the more likely students were to perceive that sending text messages or pictures of exam questions to peers in order to obtain or provide help constituted cheating, the less likely those students were to participate in the behavior. Most students, 97.8%, believed this behavior to be cheating, and 8.8% of students had engaged in this behavior during college.

Item 35 addressed copying information from a book, journal, or website without citing the source. Correlational analysis revealed a strong negative relationship between the perception that this behavior was cheating and engagement in the behavior. The correlation was statistically significant, $r(272) = -.24$, $p < .001$; hence, the null hypothesis for item 35 was rejected. In general, the more likely students were to perceive copying information from another source without citation as cheating, the less likely they were to engage in the behavior. Students responded that this behavior constituted cheating at a rate of 94.1%, while 12.1% of respondents had engaged in this behavior.

Item 36 addressed summarizing information from a book, journal, or website without citing the source as a reference. A 67.8% majority of students believed that this behavior was cheating, yet 41% of students participated in the behavior. The correlational analysis between the belief that this activity constituted cheating and participation in the activity showed a strong negative relationship and a statistically significant correlation, $r(272) = -.41$, $p < .001$. Therefore, the null hypothesis for item 36 was rejected. Generally speaking, students who perceived that summarizing information from another source without citation constituted cheating were less likely to engage in the behavior.

A correlational analysis of item 37 revealed a weak negative relationship between student belief that copying an exam or permitting copying constituted cheating and student engagement in the behavior. The correlation was not significant, $r(272) = -.07$, $p = .27$; consequently, the null hypothesis for item 37 was retained. This result indicates that students who perceived copying or permitting copying during an exam to be cheating were not necessarily less inclined to engage in the behavior. With an affirmative response of 99.3%, this behavior was the item most commonly perceived as cheating among respondents. The rate of engagement in this

activity was 19%.

For item 38, the correlational analysis showed a weak negative relationship between the perception that unpermitted collaboration with peers constituted cheating and engagement in the behavior. The correlation was not significant, $r(272) = -.12$, $p = .06$; thus, the null hypothesis for item 38 was retained. In general, the belief that defying instructors by working with others on out-of-class assignments was cheating did not dissuade respondents from engaging in the behavior. An 81.3% majority of students perceived this behavior to be cheating, and 37.4% of students admitted to engaging in this behavior.

A correlational analysis of item 39 revealed a strong negative relationship between the perception that trying to obtain exam content from a classmate constituted cheating and engagement in the behavior. The correlation was significant, $r(272) = -.45$, $p < .001$; therefore, the null hypothesis for item 39 was rejected. This result indicates that students who perceived that seeking information from a peer about exam content was cheating were less likely to engage in the behavior. A 55.7% majority of students perceived this behavior as cheating, and 46.5% of students admitted to having engaged in this behavior. Of all of the survey items this behavior was least likely to be perceived as cheating, and this was the behavior in which students most commonly engaged.

The analysis of item 40 showed a strong negative relationship between the belief that giving false excuses to obtain extra time was cheating and participation in the behavior. The correlation was significant, $r(272) = -.16$, $p = .01$; consequently, the null hypothesis for item 40 was rejected. Generally speaking, students who perceived as cheating the act of lying to instructors in order to gain extra time were less likely to engage in the behavior. Most respondents, 68.5%, perceived this behavior as cheating, and 15% of respondents admitted to

having engaged in this behavior.

A correlation analysis of item 41 revealed a strong negative relationship between the belief that copying homework or permitting copying constituted cheating and engagement in the behavior. The correlation was significant, $r(272) = -.13$, $p = .03$; therefore, the null hypothesis for item 41 was rejected. This result indicates that students who perceived copying homework to be cheating were less likely to participate in the activity. Respondents agreed at a rate of 85.7% that copying homework constituted cheating, and 42.1% of respondents admitted to having participated in the behavior.

Table 13 presents a summary of the percentages of students who believed that each survey item constituted cheating along with the percentages who had engaged in each behavior. Table 13 also provides the means and standard deviation of each survey item as well as summary results of the correlational analyses.

Table 13.

Percentages of Perceptions and Engagement in Cheating Behaviors, Descriptive Statistics, & Correlation Results

Item #	*Description*	*% Perceived Behavior As Cheating*	*Perception (n=273)*		*% Engaged in Behavior*	*Engagement (n=273)*		*Correlation Significant at .05 Level**
			Mean	*St. Dev.*		*Mean*	*St. Dev.*	
31	Using notes without permission on an exam.	96.7%	0.97	0.18	14.3%	0.14	0.35	Yes $r(272) = -.22$, $p < .001$
32	Stealing an advance copy of an exam.	98.5%	0.99	0.12	1.1%	0.01	0.10	N/A**
33	Studying from an advance copy of an exam obtained by a classmate.	86.1%	0.86	0.35	12.8%	0.13	0.34	Yes $r(272) = -.38$, $p < .001$
34	Texting exam questions or sending pictures of exam questions to a friend, seeking to obtain or provide help during the exam.	97.8%	0.98	0.15	8.8%	0.09	0.28	Yes $r(272) = -.22$, $p < .001$
35	Copying information from a book, journal, or website without citing the source as a reference.	94.1%	0.94	0.24	12.1%	0.12	0.33	Yes $r(272) = -.24$, $p < .001$
36	Summarizing information from a book, journal, or website without citing the source as a reference.	67.8%	0.68	0.47	41.0%	0.41	0.49	Yes $r(272) = -.41$, $p < .001$
37	Copying from a classmate's exam or allowing a classmate to copy while the instructor is not looking.	99.3%	0.99	0.09	19.0%	0.19	0.39	No $r(272) = -.07$, $p = .27$
38	Working with classmates on an out-of-class assignment even though the instructor prohibited working together.	81.3%	0.81	0.39	37.4%	0.37	0.49	No $r(272) = -.12$, $p = .06$
39	Trying to find out what was on an exam from a classmate who took the exam early.	55.7%	0.56	0.50	46.5%	0.47	0.50	Yes $r(272) = -.45$, $p < .001$
40	Giving a false excuse to convince an instructor to extend a deadline.	68.5%	0.68	0.47	15.0%	0.15	0.36	Yes $r(272) = -.16$, $p = .01$
41	Copying a classmate's homework or permitting copying by a classmate.	85.7%	0.89	0.66	42.1%	0.42	0.50	Yes $r(272) = -.13$, $p = .03$

*Other than item 41, all items that were significant at the .05 level were also significant at the .01 level.
**The rate of engagement reported for this behavior was insufficient for statistical analysis.

Chapter Summary

This chapter contains the results of analytical procedures performed on data collected using an online survey. This survey was administered to undergraduate students at a large public research university in the Southeast during the 2015 spring semester. A total of 273 usable responses were collected. The data collection was driven by six research questions and seven null hypotheses. Discussions of the findings along with summaries, conclusions, and recommendations are presented in Chapter 5.

CHAPTER 5

DISCUSSION OF FINDINGS, SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this quantitative correlational study is to explore relationships between ethical regard and propensity to engage in academic misconduct. The study also included an evaluation of certain student characteristics that might contribute to PTC. Additionally, data were collected to ascertain which acts students perceived to be cheating and which of those acts students most commonly committed. Furthermore, the study included analyses of the relationships between perceptions of acts as cheating and engagement in those acts. Chapter 5 presents a discussion of research findings; a summary; conclusions; and recommendations for policy, practice, and future research. The discussion of findings and summary are based on the data analyses from Chapter 4.

Discussion of Findings

An online questionnaire was distributed to all undergraduate students at a large public research institution in the Southeast. The survey was administered using SurveyMonkey. This questionnaire yielded 273 usable responses. Specific findings are presented in Chapter 4.

Research Question #1

Is there a significant difference in PTC compared by student characteristics?

PTC was analyzed in terms of student age, generation, gender, and academic classification.

A one-way ANOVA was conducted to evaluate the relationship between student age and PTC. The ANOVA was significant, and follow-up tests were performed using Dunnett's *C* to evaluate pairwise comparisons. These tests indicated that students in the 22-23 age range were

significantly more likely to engage in academic misconduct than students in the 18-19 age range, the 26-35 age range, the 36-50 age range, and the 51-69 age range. There was no significant difference in PTC between the 22-23 age range and the 20-21 or 24-25 age ranges, nor were there significant differences between any of the other pairwise comparisons.

Many researchers have found that students who cheat tend to be younger (Hughes & McCabe, 2006; Jurdi et al., 2012; Lau & Haug, 2011; Nonis & Swift, 2001; Şendağ et al., 2012). However, in the current study, students were asked to indicate whether they had engaged in any of 11 cheating behaviors at any point during college. Older students are more likely than younger students to have engaged in academic misconduct while in college as result of having had more opportunities, assuming that increased age corresponds to a longer college tenure.

Traditional college seniors are likely to fall into the 22-23 age range. Nevertheless, a one-way ANOVA conducted on PTC relative to academic classification was not significant; there was no significant difference in PTC compared by academic classification. Thus, the students in the 22-23 age range who were more likely than most other age groups to have cheated are not necessarily seniors. Perhaps students in the 22-23 age range were more likely to have cheated because they have been unsuccessful completing a course of study, or perhaps they have been unsuccessful completing a course of study because of the tendency to cheat.

Student PTC was also analyzed by generation using an independent *t* test. Students were classified as either Millennials (ages 18-35) or non-Millennials (ages 36-69) using the age ranges provided by the respondents. Students younger than 18 years were excluded from the study, and no respondents were older than 69 years. The *t* test was significant. In general, the Millennials were significantly more likely to cheat than the non-Millennials. This finding is in keeping with the literature in which Millennials were found to have been well versed in collaboration and peer

assistance (Arhin, 2009) and to have value orientations that differ from those of older generations (Gross, 2011).

The current study showed no significant difference in PTC as compared by gender. This conclusion supports the work of some researchers (Diekhoff et al., 1996; Jordan, 2001; Wotring, 2007) and contradicts the work of many others who have found male students more likely than females to engage in academic misconduct (Hensley et al., 2013; Hughes & McCabe, 2006; Jurdi et al., 2012; Lau & Haug, 2011; McKibban, 2013; Nonis & Swift, 2001; Salleh et al., 2013). Thus, definitive conclusions on the role of gender as a contributor to academic misconduct remain elusive.

Research Question #2

Is there a significant relationship between PTC and ethical self-perception?

A correlation coefficient was computed between PTC, which was quantified using student history of cheating behaviors, and ethical self-perception, which was calculated by summing the scores of three questions that asked students to perform an ethical self-assessment. The correlation coefficient was significant at the .01 level, indicating that the higher the ethical self-perception score, the less likely students were to have engaged in academic misconduct. Even though the mean of the ethical self-perception scores were relatively high at 24.29 (out of a possible score of 27), higher scores were associated with a lower PTC.

These results add to the literature in two ways. First, 74.4% of students perceived themselves as less than highly ethical, which would be reflected in a perfect ethical self-perception score of 27 (see Table 7). Second, the results appear to indicate that students in general viewed academic misconduct as an ethical compromise. This interpretation is contrary

to the literature in which researchers claimed that students experienced no moral misgivings relative to academic misconduct (Bates et al., 2005; Burrus et al., 2007; Derting, 1997; Wideman, 2011).

Research Question #3

Is there a significant difference in PTC compared by ethical ideology?

Based on responses to 20 questions from the Forsyth (1980) EPQ that measured idealism and relativism, students were categorized into one of four ethical ideologies. The four ideologies—situationist, absolutist, subjectivist, or exceptionist—emerged from the four possible combinations of high and low scores for idealism and relativism (see Figure 2).

A one-way ANOVA was conducted to evaluate the relationship between ethical ideology and PTC. The ANOVA was significant, and pairwise comparisons were made using Dunnett's *C* test. The pairwise comparisons indicated a significant difference between the means of the absolutists and subjectivists in that absolutists were significantly less likely to have engaged in academic misconduct than were subjectivists. No other pairwise comparisons were statistically significant.

Absolutists and subjectivists are opposites on both the relativism and idealism spectrums. Absolutists score high in idealism and low in relativism, whereas subjectivists score low in idealism and high in relativism. Absolutists are moral perfectionists who believe that following moral laws will always lead to the best possible outcomes. Conversely, subjectivists make decisions based on personal values rather than societal or universal moral principles (Forsyth, n.d., 1980). The finding that absolutists were less likely to have cheated than subjectivists is in keeping with absolutists' adherence to societal mores and to society's characterization of

academic misconduct as unethical. Subjectivists, however, are more morally skeptical (Forsyth, 1980). Subjectivists would be more likely to evaluate academic dishonesty based on personal advantages and disadvantages rather than on societal judgment of morals. Fear of being caught and punished might prevent a subjectivist from cheating, but a subjectivist would be unlikely to consider cheating an ethical compromise. The current findings contradict the experimental results of Forsyth and Berger (1982) who found no significant difference in cheating behavior among the differing ideologies. However, the sample size of the current study (n=273) is considerably larger than the samples from the Forsyth and Berger experiments (n=33 and n=47). Also, the current study was based on cheating behavior that spanned a college career, whereas the Forsyth and Berger study focused on isolated experiments in which students were encouraged to cheat. The current study makes a meaningful contribution to the literature in that it complements the research of Forsyth and Berger by measuring academic dishonesty in a natural setting over an extended period of time and by adding a measure of ethical self-perception. Educators who seek to reduce academic dishonesty should be aware of the influence of differing ethical ideologies on student behavior.

Research Question #4

What behaviors do students most commonly perceive to be cheating?

Survey respondents were asked to indicate whether each of 11 items constituted cheating. Each of these items is frequently cited in the literature as cheating behavior. All 11 items were identified as cheating by a majority of respondents. Table 10 ranks in order the 11 items most commonly perceived as cheating. Even though a majority of students indicated that all items were cheating, 44.3% did not consider one item, trying to find out what was on an exam from a

classmate, to be cheating. Almost one third of respondents did not consider summarizing previously published content without citing the source to be cheating. Furthermore, a small minority did not consider the most blatant acts such as stealing an advance copy of an exam or copying from a classmate on an exam to be cheating. This lack of consensus that these overt acts constitute cheating supports the conclusion of Arhin (2009). To combat this misinformation instructors should clearly define for students the behaviors that constitute cheating.

Research Question #5

In what cheating behaviors do students most commonly engage?

Table 11 ranks the cheating behaviors from the survey in order of student participation. The most common cheating behavior among respondents is trying to find out what was on an exam from a classmate who had already taken the exam. This behavior was engaged in by 46.5% of respondents. The percentage of respondents who had participated in this behavior approximates the percentage of respondents who did not perceive the behavior to be cheating (44.3%). The second most common act of academic misconduct was copying homework, which was committed by 42.1% of respondents. Students may consider this a minor breach of academic integrity, but over 85% of respondents identified the act as cheating. The third most common cheating behavior committed by 41% of respondents was summarizing previously published content without citing the source; 32.2% of students did not perceive this act to be cheating. Fewer than 20% of respondents admitted to engaging in the seven most blatant forms of academic misconduct such as cheating on exams or overt plagiarism.

Research Question #6

Is there a significant relationship between perceiving an act as cheating and engaging in the act? Data collected in conjunction with research questions 4 and 5 enabled the calculation of correlation coefficients between student belief that each of the 11 specified behaviors constituted cheating and the degree to which the student engaged in those behaviors. The results of those 11 independent correlation coefficient calculations are presented in Table 13. For all but 3 of the 11 cheating behaviors, the correlation coefficients between perception and engagement were significant at the .05 alpha level. Generally speaking, for these eight behaviors, as student perception that the behavior was cheating increased, the rate at which students engaged in that behavior decreased.

Conversely, the correlation between perception and engagement was not significant for perception and engagement at the .05 level for two of the behaviors: (1) copying a classmate's exam or permitting copying and (2) working with classmates on out-of-class assignments even though the instructor prohibited collaboration. In general, perceiving each of these two behaviors as cheating did not significantly deter student participation in the behaviors. On the contrary, copying a classmate's exam or permitting copying was the behavior most recognized as cheating with an affirmative perception rate of 99.3%, yet 19% of respondents admitted to engaging in the behavior.

One item, stealing an advance copy of the exam, was perceived as cheating by 98.5% of respondents, and only three respondents admitted to engaging in that behavior. However, this very small sample size of student engagement prohibits meaningful statistical analysis.

Extent of Habitual Cheating

Data collected for research question 5 also permitted analysis of the degree to which habitual cheating was taking place at the participating institution. The survey did not ask students to specify the number of times a particular act of cheating had been committed. However, the survey data did provide the number of different cheating methods engaged in by each respondent, and this information is summarized in Table 12. Consistent with results commonly reported in the literature, 77.3% of respondents admitted to having engaged in academic misconduct while in college. Of this number 19.8% had engaged in only one type of cheating behavior during college. However, 30.8% of respondents seem to have made cheating a habit, engaging in four or more types of cheating behaviors. This rate of pervasive academic misconduct, while not unusual across educational institutions, nevertheless indicates that current practices addressing academic misconduct are not working effectively.

Summary

The purpose of this quantitative correlational study is to explore the relationships between student ethical regard and academic misconduct. To accomplish this purpose an online survey was administered during the spring semester of 2015 at a large public research institution in the Southeast, eliciting 273 usable responses. A copy of the survey appears in Appendix A. Six research questions guided the development and administration of the survey. Respondents provided student characteristic information. Additionally, respondents answered Likert response format questions that identified an ideological classification and established an ethical self-perception score for each respondent. Respondents indicated whether they perceived 11 specific behaviors as cheating and whether they had engaged in each of those 11 behaviors. The degree

of participation in the 11 cheating behaviors for each respondent established the PTC score.

Based on student responses statistical analyses were performed to address the research questions. Data collected for the research questions were analyzed using ANOVAs, independent *t* tests, correlations, and descriptive statistics. Three of the research questions focused on factors that might contribute to PTC, which was measured by prior engagement in cheating behaviors. The study found that students aged 22-23 were more likely to engage in academic misconduct than students aged 18-19, 26-35, 36-50, or 51-69. Similarly, Millennials (aged 18-35) were more likely to engage in academic misconduct that non-Millennials (aged 36-69). However, the study found no significant difference in PTC compared by gender or academic classification.

The study findings indicate that higher ethical self-perception scores significantly correlate to a lower PTC. Also, students who exhibited an absolutist ideology were significantly less likely to engage in academic misconduct than students with a subjectivist ideology.

A majority of students perceived that all 11 specified behaviors constituted cheating. The behavior most commonly perceived as cheating was copying from a classmate's exam or permitting copying on an exam. This behavior was perceived as cheating by 99.3% of respondents. The behavior least likely to be perceived as cheating was trying to find out what was on an exam from a classmate who had taken the exam, perceived as cheating by 55.7% of students. With a participation rate of 46.5%, this was also the behavior that was most commonly engaged in by respondents. The study findings demonstrate that for eight of 11 cheating behaviors, students were less likely to engage in behaviors that they perceived to be cheating.

The survey also provided data about the pervasiveness of academic misconduct. With 77.3% of respondents admitting to engaging in academic misconduct while in college and 30.8% participating in four or more types of cheating behaviors, academic misconduct was

unquestionably widespread at the participating institution, as it is at most educational institutions.

Conclusions

The literature includes countless studies that have documented high rates of academic misconduct at educational institutions in the United States and abroad, and this study contributes to that body of research. However, beyond agreeing that cheating is common, little consensus exists among researchers. For example, some scholars have found that students who cheat are more likely to be male freshmen. Other researchers have found that athletes, fraternity members, business majors, or online students are more likely to cheat. Still other studies, including this one, reported no links between PTC and gender or academic classification. Thus, students who cheat cannot be defined by student characteristics. Furthermore, even if student characteristics could help predict which students would cheat, that information would serve little purpose in addressing the overall problem of academic dishonesty. Male freshmen fraternity members, for example, cannot be stereotyped as cheaters and consequently treated differently from other students.

Students will continue to cheat as long as cheating helps achieve goals. The high rates of cheating that are reported in the literature indicate that most educational institutions do not have an effective strategy for preventing academic misconduct. Furthermore, very few students who cheat are caught and sanctioned. Lack of effective prevention or detection strategies on the part of institutions fosters an environment of academic dishonesty. Cheating behavior is multiplied when otherwise honest students see peers cheat and subsequently turn to cheating themselves to remain academically competitive.

As indicated by the results of this study and supported by numerous other scholars,

relatively few students complete college without engaging in academic misconduct at some point. However, some students do not cheat because of personal ethics. This study showed that students with an absolutist ideology were less inclined to cheat than those with a subjectivist ideology. Additional research with a larger population is needed to confirm the veracity of these results.

Recommendations for Policy, Practice, and Future Research

Policy Recommendations

Educators at most institutions in the U.S. have failed to adequately address the issue of academic misconduct. Although a policy forbidding cheating and threatening punishment might appear in a student handbook, students ignore policy that is not enforced. Administrators and faculty underestimate the rate of cheating because most students who cheat are not caught; consequently, educators may not perceive a problem with policy enforcement. Nevertheless, most students cheat undeterred.

Administrators, faculty, and students need to work together to develop an academic integrity policy that is appropriate for the unique culture of each campus. Honor codes have been effective at improving academic integrity at many institutions, particularly when students are involved in the development and implementation of the honor code. Honor codes educate students on the behaviors that constitute academic misconduct. Codes should also specify punishment for breaches, protocol for faculty to report cheating, and procedures for student appeals. The International Center for Academic Integrity (ICAI) provides a model code of academic integrity on its website (Pavella, 1997).

Instituting an honor code will not eliminate cheating. However, the benefits of instigating an honor code would exceed the costs at most institutions. Perceived peer behavior influences student decisions. Students who see peers promoting academic integrity may be less likely to cheat. Students who model academic integrity may initiate a cultural shift whereby integrity becomes the campus standard and academic dishonesty becomes the exception.

Practice Recommendations

Students engage in academic misconduct in part because cheating provides an efficient and effective alternative to studying and completing coursework. Educators who are concerned about the proliferation of academic dishonesty need to take active measures to reduce cheating.

Students who cheat often do so without fear of reprisal. This must change. Students who are caught cheating should be punished without exception according to institutional policy. Failure to sanction students caught cheating sends the message that cheating is acceptable, and academic misconduct becomes even more pervasive.

Changes in assessment techniques can also reduce academic dishonesty. Faculty should avoid administering multiple-choice exams in large classrooms without adequate supervision. Alternatively, faculty can create multiple versions of the same exam by scrambling the presentation of questions. Faculty should also update exams each semester to circumvent students who obtain old exams from former students. If possible, forms of assessment should shift from objective exams to more personalized or experiential assignments. However, certain subjects are not easily assessed through unconventional means, and creating and grading unique assignments can be unduly burdensome on instructors who may have hundreds of students per semester. Nevertheless, in order to facilitate meaningful improvements in academic integrity,

faculty must lead the way. In most institutions cheating works, and students will continue to cheat as long as the benefits outweigh the risks.

Future Research

The analyses and findings of this study were based on 273 responses to an online survey distributed to all undergraduate students at a large public research institution in the Southeast during the spring semester of 2015. This response rate represents approximately 2.6% of the undergraduate population. Although the sample is of sufficient size for meaningful statistical analysis, additional research on a larger sample size is recommended to extrapolate the results to a larger population.

Also, the current study quantified PTC based on how many different methods of cheating behaviors undergraduate students had engaged in during college. Measuring cheating behavior over an entire college career was an intentional choice made to obtain a comprehensive rate of cheating at the participating institution. Furthermore, graduate students were specifically excluded from the study because some graduate students may have cheated as undergraduates but not have cheated during graduate school. That distinction would have been lost under the constructs of the current study. However, additional research can gain meaningful information by limiting the time frame for cheating behaviors to those committed during the current semester or the current academic year. Also, the entire study could be replicated, comparing the results of undergraduates to those of graduate students.

The impetus of this study was to gain insight about student ethical regard and academic dishonesty. According to the literature and to the results of the current study even students with high ethical self-perceptions engage in academic dishonesty. This study showed that absolutists

were less likely to cheat than were subjectivists. Additional research is recommended to delve further into other ethical constructs and theories of other ethicists relative to academic misconduct.

Lastly, the current study is quantitative. A qualitative study is recommended to gain further insight into the ethical perceptions of students who engage in academic misconduct, particularly those who cheat habitually.

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APPENDICES

Appendix A—Survey Instrument

This survey is intended only for undergraduates who are at least 18 years old. You are being asked to participate in a survey of college students' ethical perceptions and practices. The survey includes questions designed to gauge your ethical perspective as well as questions related to academic dishonesty. This survey is the basis for a doctoral dissertation. Your response is anonymous, and you may omit any question(s) that you choose not to answer other than Question 1, which confirms your eligibility for the study. However, incomplete responses may not be used for research purposes. The survey should take less than 10 minutes. After completing the survey, you will have the opportunity to access a link where you can register for a $50 Amazon gift card. Your registration will in no way be linked to your responses or in any way compromise the anonymity of your responses. Thank you for your participation.

1. Are you at least 18 years old and an undergraduate?
   - Yes
   - No

2. What is your age?
   - 18 –19
   - 20 – 21
   - 22 – 23
   - 24 – 25
   - 26 – 35
   - 36 – 50
   - 51 – 69
   - older than 69

3. What is your gender?
   - Female
   - Male

4. What is your academic classification?
   - Freshman
   - Sophomore
   - Junior
   - Senior

5. Are you an international student?
   - Yes
   - No

6. Are you currently an active member of a social fraternity or sorority?
   - Yes
   - No

7. Are you a student athlete of a university-sponsored intercollegiate sports team?
   - o Yes
   - o No

For the following items, please indicate your level of agreement with each statement.

	Completely Disagree	Largely Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree Nor Agree	Slightly Agree	Moderately Agree	Largely Agree	Completely Agree
8. I am a highly ethical and honest person.	o	o	o	o	o	o	o	o	o
9. Most people who know me would describe me as highly ethical and honest.	o	o	o	o	o	o	o	o	o
10. It is important for me to behave ethically in every situation.	o	o	o	o	o	o	o	o	o

For the following items, please indicate your level of agreement with each statement.

	Completely Disagree	Largely Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree Nor Agree	Slightly Agree	Moderately Agree	Largely Agree	Completely Agree
11. People should make certain that their actions never intentionally harm another even to a small degree.	o	o	o	o	o	o	o	o	o
12. Risks to another should never be tolerated, irrespective of how small the risks might be.	o	o	o	o	o	o	o	o	o
13. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.	o	o	o	o	o	o	o	o	o
14. One should never psychologically or physically harm another person.	o	o	o	o	o	o	o	o	o
15. One should not perform an action that might in any way threaten the dignity and welfare of another individual.	o	o	o	o	o	o	o	o	o

For the following items, please indicate your level of agreement with each statement.

	Completely Disagree	Largely Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree Nor Agree	Slightly Agree	Moderately Agree	Largely Agree	Completely Agree
16. If an action could harm an innocent other, then it should not be done.	o	o	o	o	o	o	o	o	o
17. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.	o	o	o	o	o	o	o	o	o
18. The dignity and welfare of the people should be the most important concern in any society.	o	o	o	o	o	o	o	o	o
19. It is never necessary to sacrifice the welfare of others.	o	o	o	o	o	o	o	o	o
20. Moral behaviors are actions that closely match ideals of the most "perfect" action.	o	o	o	o	o	o	o	o	o

For the following items, please indicate your level of agreement with each statement.

	Completely Disagree	Largely Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree Nor Agree	Slightly Agree	Moderately Agree	Largely Agree	Completely Agree
21. Moral standards are simply personal rules that indicate how a person should behave and are not to be applied in making judgments of others.	o	o	o	o	o	o	o	o	o
22. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual rules.	o	o	o	o	o	o	o	o	o
23. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.	o	o	o	o	o	o	o	o	o
24. No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.	o	o	o	o	o	o	o	o	o
25. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.	o	o	o	o	o	o	o	o	o

For the following items, please indicate your level of agreement with each statement.

	Completely Disagree	Largely Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree Nor Agree	Slightly Agree	Moderately Agree	Largely Agree	Completely Agree
26. There are no ethical principles that are so important that they should be part of any code of ethics.	o	o	o	o	o	o	o	o	o
27. What is ethical varies from one situation and society to another.	o	o	o	o	o	o	o	o	o
28. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.	o	o	o	o	o	o	o	o	o
29. Different types of morality cannot be compared as to "rightness."	o	o	o	o	o	o	o	o	o
30. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.	o	o	o	o	o	o	o	o	o

For each of the following items, please indicate whether or not you think this behavior constitutes cheating by answering "Yes" or "No" to the question *Is this behavior cheating?* Then also indicate whether or not you have engaged in this activity at any time while in college by answering "Yes" or "No" to the question *Have you engaged in this activity in college?*

	Is this behavior cheating?		Have you engaged in this activity in college?	
31. Using notes or crib sheets without permission on an exam.	O Yes	O No	O Yes	O No
32. Stealing an advance copy of an exam.	O Yes	O No	O Yes	O No
33. Studying from an advance copy of an exam obtained by a classmate.	O Yes	O No	O Yes	O No
34. Texting exam questions or sending pictures of exam questions to a friend, seeking to obtain or provide help during the exam.	O Yes	O No	O Yes	O No
35. Copying information from a book, journal, or website without citing the source as a reference.	O Yes	O No	O Yes	O No
36. Summarizing in your own words information from a book, journal, or website without citing the source as a reference.	O Yes	O No	O Yes	O No
37. Copying from a classmate's exam or allowing a classmate to copy from your exam while the instructor is not looking.	O Yes	O No	O Yes	O No
38. Working with classmates on an out-of-class assignment even though the instructor prohibited working together.	O Yes	O No	O Yes	O No
39. Trying to find out what was on an exam from a classmate who took the exam early.	O Yes	O No	O Yes	O No
40. Giving a false excuse to convince an instructor to extend a deadline.	O Yes	O No	O Yes	O No
41. Copying a classmate's homework or permitting a classmate to copy your homework.	O Yes	O No	O Yes	O No

Appendix B – IRB Approval Letter

EAST TENNESSEE STATE UNIVERSITY
Office for the Protection of Human Research Subjects • Box 70565 • Johnson City, Tennessee 37614-1707
Phone: (423) 439-6053 Fax: (423) 439-6060

IRB APPROVAL – Initial Exempt

April 17, 2015

Susan Dickey
629 Maxwell Mountain Road
Huntland, TN 37345

RE: The Relationship Between Ethical Regard and Academic Misconduct Among College Students
IRB#: c0415.14e
ORSPA#: n/a

On **April 16, 2015**, an exempt approval was granted in accordance with 45 CFR 46. 101(b)(). It is understood this project will be conducted in full accordance with all applicable sections of the IRB Policies. No continuing review is required. The exempt approval will be reported to the convened board on the next agenda.

- xform New Protocol Submission; Email Script (stamped approved 4/16/2015); Survey; Prize Survey; Bibliography; CV

Projects involving Mountain States Health Alliance must also be approved by MSHA following IRB approval prior to initiating the study.

Unanticipated Problems Involving Risks to Subjects or Others must be reported to the IRB (and VA R&D if applicable) within 10 working days.

Proposed changes in approved research cannot be initiated without IRB review and approval. The only exception to this rule is that a change can be made prior to IRB approval when necessary to eliminate apparent immediate hazards to the research subjects [21 CFR 56.108 (a)(4)]. In such a case, the IRB must be promptly informed of the change following its implementation (within 10 working days) on Form 109 (www.etsu.edu/irb). The IRB will review the change to determine that it is consistent with ensuring the subject's continued welfare.

Sincerely,
Stacey Williams, Ph.D., Chair
ETSU Campus IRB

Accredited since December 2005

VITA

SUSAN DICKEY

Education:	Ed. D.	Educational Leadership & Policy Analysis East Tennessee State University Johnson City, TN 2015
	Masters	Master of Science in Management University of Alabama, Huntsville Huntsville, AL 1990
	Bachelors	Bachelor of Business Administration University of Memphis Memphis, TN 1986
Professional Credential:	CPA (inactive)	Tennessee Certificate # 12081
Professional Experience:	Associate Professor	Motlow State Community College Tullahoma, TN 1993 - Present
	Staff Accountant	Beason, Cutter, & Nalley, CPAs Huntsville, AL 1990 - 1993