

RATIONALIZING THE DECISION TO CHEAT: AN EMPIRICAL ANALYSIS TO
DETERMINE WHETHER SOCIAL RATIONAL ORIENTATION CAN PREDICT
ACADEMIC DISHONESTY

by

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ABSTRACT

Academic dishonesty is a wide-spread issue that plagues educational institutions, including those in higher education. The purpose of higher education is to increase knowledge and foster learning within students who are willing to put forth the effort necessary to earn a degree. However, students that take short cuts in their learning are not only undermining their learning experience, but are potentially putting others at risk in their profession. Due to the negative implications of cheating, researchers are trying to uncover the characteristics that encompass a typical cheater. While numerous variables have been tested to determine their effects on cheating behaviors, discrepancies exist that suggest inconclusive results. Previous literature yielded no studies on the relationship between social rational orientation and academic dishonesty. This study tested if there was a correlation between social rational action orientations and the likelihood of engaging in academically dishonest acts. The relationship between course value and academic dishonesty was also examined overall and within each rational orientation group. This study found that rational orientation and perceived course value predicted the likelihood of engaging in academically dishonest acts.

Keywords: Cheating, Education, Social Rational Orientation

1. INTRODUCTION

Academic dishonesty plagues every educational institution. Research has found that cheating, a form of academic dishonesty, in higher education has reached grand proportions (McCabe, Butterfield and Trevino 2006). A survey conducted by Hensley, Kirkpatrick and Burgoon (2013) found that more than 50 percent of the students they surveyed engaged in cheating behaviors six months prior to completing the survey. This finding is in agreement with Schmelkin et al. (2008), who reported that most studies conducted at the college level have discovered academic dishonesty rates above 50 percent. Research conducted in prior decades found that cheating was normalized among college students. According to the Carnegie Council Report (1979), students felt that certain forms of cheating were essential to obtain desired grades, and a study conducted by Baird (1980) found that over 75 percent of students felt that cheating was a normal behavior in life. Swift and Nonis (1998) discovered that cheating is rarely a single occurrence: students who engaged in cheating behaviors usually participated in multiple cheating practices.

Academic dishonesty is a behavior that affects more than just the student who committed the act. The other students are affected by grade inflation from the student who cheated receiving a higher grade than what he or she deserved. The professor is affected because he or she did not appropriately reprimand the behavior. Finally, cheating to get ahead without obtaining new knowledge ultimately hinders the purpose of higher education (Sadler 2007). A cheating culture is created within higher education as students continue to seek out cheating as a means to increase their grade (Crittenden, Hanna and Peterson 2009). While academic dishonesty is thought to only affect the student during

his or her college career, this behavior has societal implications: a student who has cheated in college may not be qualified for his or her profession (Gulli, Kohler and Patriquin 2007).

Previous studies have tried to profile student cheaters in order to create interventions geared towards these specific students (Eastman, Eastman and Iyer 2008; Finn and Frone 2004; Hensley et al. 2013). Other studies have identified an academic ethic within some students, which decreases the probability of cheating (Pino and Smith 2003, 2004; Rau and Durand 2000). Further studies have tried to locate resources that a professor could use to decrease the rate of cheating, such as explicitly discussing the institutional honor code (Bing et al. 2012). While some of these studies have been successful in identifying patterns in cheating, a standardized, easily implemented intervention has not been developed successfully. In addition, these studies do not explain whether students cheat in all of their courses or in certain courses.

Understanding how students rationalize or value a course can aid in uncovering why students engage in academic dishonesty. Interventions can be created to adjust the rationalization process and how a student values a course compared to inherent traits that cannot be altered. Max Weber (1968) theorized that social rational action orientations can predict how an individual will act in a situation. In addition, perceived course value has been found to correlate with deep cognitive strategies that decrease the likelihood to engage in cheating practices (Anderman, Griesinger and Westerfield 1998; Floyd, Harrington and Santiago 2009; Norton et al. 2001).

This study will determine if certain social rational action orientations can predict the likelihood of engaging in academically dishonest acts within a course. Furthermore,

this study will explore if perceived course value has an additional impact within social rational action orientation on the likelihood of engaging in academically dishonest acts. The sections that follow are a brief literature review, the proposed methods, results, and discussion.

2. LITERATURE REVIEW

Academic Dishonesty

Academic dishonesty takes many forms within the educational arena. Cheating behaviors can include unauthorized collaboration with a peer on an assignment, falsifying a bibliography, copying another student while taking an exam or bringing unauthorized notes to an exam (Finn and Frone 2004:115). Students are becoming creative in the ways that they cheat in order to minimize the probability of detection while maximizing their grade benefit, and advances in technology have created advanced forms of performing academically dishonest acts. Students are able to create Facebook pages dedicated to unauthorized collaboration with peers and use text messaging to contact their peers during an exam. With most smartphones able to connect to the internet in a matter of seconds, students can search for answers during examinations (Johnson and Martin 2005). In addition, the internet can provide students with papers to purchase and sources where students can copy and paste sections that are applicable to their assignment (Boehm, Justice and Weeks 2009; Ma, Wan and Lu 2008).

Higher education institutions have clear definitions of academic dishonesty, but some forms of cheating are not perceived as dishonest acts to students. *Passive academic dishonest behaviors* include discussing exam content to another student who has not taken the exam yet, using test banks to study, and assisting another student without enhancing one's own grade (Anitsal, Anitsal and Elmore 2009:19; Calabrese and Cochran 1990; Hensley et al. 2013). On the other hand, *active academic dishonest behaviors* include submitting a paper written by someone else, using cell phones to distribute answers and questions, taking pictures of the exam, and having another student

take the exam (Anitsal et al. 2009:19; Hensley et al. 2013). Students were able to classify behavior under active dishonesty as cheating, but assumed that behavior classified as passive dishonesty was not cheating (Anitsal et al. 2009:23). Carpenter et al. (2006) found that over 90 percent of students reported that copying another student's exam was cheating, but less than 20 percent reported copying text from a book for an assignment as cheating (185). In addition, Roig (1997) discovered that more than 50 percent of students were not able to define plagiarism and what acts were considered plagiarism. Students are less likely to participate in active dishonest acts they view as severe, while still engaging in passive dishonest acts, such as submitting the same paper in two different classes (Craig, Federici and Buehler 2010; Yardley et al. 2009). It is clear from these studies that students are unaware of what acts are considered cheating and perform academically dishonest acts with the notion that they are not unethical.

In the search to find a student cheater profile, researchers have analyzed gender, classification, major, grade point average (GPA), and Greek membership. Determining whether gender is a significant predictor of academic dishonesty has been debated vigorously. Numerous studies have found that male students cheated more than their female peers (Buckley, Wiese, and Harvey 1998; Chapman and Lupton 2004; Davis et al. 1992; Genereux and McLeod 1995; McCabe and Trevino 1997; Michaels and Miethe 1989; Newstead, Franklyn-Stokes and Armstead 1996; Rakovski and Levy 2007; Tang and Zuo 1997). Males reported cheating in numerous courses, on various types of assessments, and using a variety of methods to cheat more than females (Baird 1980:519). Hensley et al. (2013) found that male students were more likely to plagiarize and create false excuses for failing to complete an assignment. Males cheating more than

their female counterparts may be explained by their tendency to be more lenient on the classification of academically dishonest behaviors (Jurdi, Hage and Chow 2012). While the literature suggests a gender difference, other studies did not find a significant gender difference for cheating (Allmon, Page, and Roberts 2000; Anderman et al. 1998; Fisher 1970; Franklyn-Stokes and Newstead 1995; Kisamore, Stone, and Jawahar 2007; Stevens and Stevens 1987; Vitro and Schoer 1972; Yardley et al. 2009). With mixed results, it cannot be concluded that a gender difference exists for students who cheat: it remains an open question.

College classification has been another ambiguous variable in previous research. Various researchers have found that lowerclassmen - freshmen and sophomores - have a greater propensity to cheat compared to upperclassmen - juniors and seniors (Allmon et al. 2000; Bowers 1964; Haines et al. 1986; McCabe and Trevino 1997; Newstead et al. 1996; Park 2003; Straw 2002). However, Pino and Smith (2003) and Tang and Zuo (1997) revealed that older students had higher rates of cheating. While classification may not be able to predict who cheats, certain majors may overwhelm the cheating market. Baird (1980) uncovered that business majors cheated more on exams compared to liberal arts and education majors, while Eastman et al. (2008) discovered that nonbusiness students engaged in academically dishonest acts more frequently than business students. Other investigations have found that academically dishonest acts were frequent among students majoring in science, technology, engineering, math, or business (Marsden, Carroll and Neill 2005; Newstead et al. 1996; Williams, Nathanson and Pualhus 2010). The previous literature again demonstrates the difficulty in isolating a specific student profile of cheaters.

While the literature has been inconclusive with respect to classification and major in predicting cheating behaviors, the research does converge when discussing GPA and Greek membership. Previous analyses have established that students with lower GPAs are more likely to engage in cheating behaviors in order to increase their overall grade (Hensley et al. 2013; Straw 2002). This finding has been supported for religiously affiliated colleges (Yardley et al. 2009), small colleges (Graham, Monday and O'Brien 1994), and large public colleges (Graham et al. 1994; McCabe and Trevino 1997; Yardley et al. 2009). Finn and Frone (2004) found a moderating effect that students with low GPAs who have a strong sense of belonging to their school are less likely to cheat, suggesting that it is not just low standing that motivates cheating. Researchers testing the effects of Greek membership are in agreement that members or pledges of a Greek organization were more likely to have cheated in their courses compared to non-members or non-pledges (Baird 1980; McCabe and Trevino 1997; Park 2003; Pino and Smith 2003; Straw 2002). From the previous literature, it is apparent that GPA and Greek membership can be used as predictors for academic dishonesty.

Another influence on cheating behavior is the perceived cheating habits among peers. As students witness their peers cheating more frequently and not being reprimanded, a cheating culture emerges that normalizes and legitimizes the act of academic dishonesty (Jurdi et al. 2012; McCabe and Trevino 1993). Jordan (2001) observed that perceived cheating on campus increased when a student had cheated in the past compared to non-cheaters. Perceived cheating by peers has a strong effect on students' decision to cheat (McCabe and Trevino 1997; McCabe et al. 2006). With this perception, cheaters justified their actions to a greater extent with the notion that

‘everybody is doing it.’ Along with peer cheating, peers approving of academic dishonestly also were associated with cheating at universities (McCabe and Trevino 1997).

Academic dishonesty is also affected by whether or not a student has an academic ethic. The academic ethic is considered a learned behavior where students place “their studies above leisure activities; study on a daily basis or near-daily basis; and study in a disciplined, intense, and sober fashion” (Rau and Durand 2000:23). The four key dimensions that comprise an academic ethic are “academic locus of control, class attendance, resistance of partying and drinking, and rejections of the GPA perspective” (Pino and Smith 2003: 491). Jurdi et al. (2012) found that students who had an academic ethic were stricter on their definitions of what was considered academic dishonest behaviors. As a result of having an academic ethic, students usually had higher GPAs, which decreased their likelihood of engaging in academically dishonest acts (Pino and Smith 2003).

Rationality

While demographic characteristics have been a primary source of determining the average student cheater, researchers have failed to consider understanding the rationale behind cheating. In order to understand how a student rationalizes cheating, the process of rationalization must be explained first. Rationalization is a process described by Max Weber (1968) that resulted from the creation of bureaucratic rule. In the Western world, with the creation of modernity, capitalism and bureaucracy, the power of tradition was replaced with standardization (Lippmann and Aldrich 2003). During this transition, life that was originally motivated around ethics and religion became rationally oriented and

detached from the value sphere (Gronow 1988). The rationalization of the action spheres are not based on the rationalization of the value sphere but rather in the increasing distance from these values (Hedoin 2009:176). The modern world became disenchanted in which the mysteries and magic of the world were replaced with a rationalized understanding of life (LaPierre 2013); there are no longer incalculable mysterious forces in the world, however one can still master everything through calculation (Weber 1948:139). The process of rationalization led to practices that were based on efficiency rather than traditional customs (Lippmann and Aldrich 2003). Weber argued that rationalization destroys cultural values in order to make society function efficiently based on calculation much like a mechanical apparatus (Gronow 1988). The superiority granted to the bureaucratic system due to its efficiencies, Weber argued, would result in domination over human life to the extent that humans would be enclosed inside an iron cage for eternity (Lippmann and Aldrich 2003). This iron cage would eliminate human variation and autonomy in support of universal regulations and standards. From this process of rationalization, Weber distinguished between two types of social action: value rational action and instrumental rational action.

Weber differentiates between value rational and instrumental rational action based on the social actor's intention. He contends that the intentions for value and instrumental rational action are mutually exclusive with the former committing to a binding conviction and the later committing to calculability (Oakes 2003). Weber (1968) describes value rational action as "determined by a conscious belief in the value for its own sake of some ethical, aesthetic, religious, or other form of behavior, independently of its prospects of success" (24). An example of a pure value rational orientation is an actor who acts

towards the perceived requirements of personal loyalty, honor, or duty regardless of the costs that are incurred (Benhabib 1981:365). Value and instrumental rational action both choose rational means; however, the ends for value rational are authorized by a value system, thus they are not independently chosen by the actor based on calculation (Takayama 1998). Value rationality operates under an overarching value which “reflects the desire to achieve motivational integrity” (Levine 1981:12).

Instead of performing actions that are governed by an absolute value system, instrumental rational action accepts the realities in life and determines the most efficient means to react to the difficulties they present (Kalberg 1980). Instrumental rational action is grounded upon the assessment of costs and benefits incurred to the actor. Included within this assessment is comparing the different means to accomplish an end and the consequences associated with each mean (Oakes 2003). An example of a pure instrumental rational actor is one who is completely systematic and who only acts upon the calculation of all variables relevant to their objective (Oakes 2003:38). Weber (1968) describes instrumental rational action as

...when the end, the means, and the secondary results are all rationally taken into account and weighed. This involves rational consideration of alternative means to an end, of the relations of the end to the secondary consequences, and finally of the relative importance of different possible ends (26).

Thus, an actor with an instrumental rational orientation chooses both means and ends based on rationality or calculation (Weber 1968:24). Levine (1981) describes instrumental rationality as operating according to technical efficiency and attaining goals with extremely sufficient means.

The majority of students in higher education have grown up in a rationalized world and cannot imagine a world differently. The rationalized world seems innate instead of socially constructed to students since they have only occupied this world system (Lippmann and Aldrich 2003:134). While the world is increasingly rationalized, individuals still act in a value rational manner depending on their morals and values. Numerous studies have found that the decision to engage in academic dishonesty rests within the student's personal value system (Allmon et al. 2000; McNicholas and Zimmerer 1985; Rawwas, Al-Khatib, and Vitell 2004; Rawwas and Isakson 2000). A component of a student's personal value system includes the importance of an academic ethic (Allmon et al. 2000; Pino and Smith 2003). Students who value learning or mastering a subject are more likely to act in a value rational manner and continue their efforts to learn without performing cognitive short cuts in order to obtain a desired grade (Jordan 2001). A study conducted of middle school students found that cheating was negatively correlated with goals of mastery compared to performance goals (Anderman et al. 1998). Newstead's et al. (1996) study of UK college students discovered that students who attended college in order to attain a better job or increase their financial standing reported significantly higher rates of cheating compared to those who attended college for personal development. Students who attend college in order to learn for the sole purpose of becoming knowledgeable, have a value rational orientation and are less likely to engage in cheating practices.

Nevertheless, this rationalized world system has negatively affected students during their college career. Students are defining higher education as a consumer-driven marketplace for social advancement where college is an economic transaction rather than

a learning experience (Delucchi and Korgen 2002; Flacks and Thomas 1998; Larabee 1997; McMillan and Cheney 1996). With this view, students hold cheating as acceptable since it has the potential to raise their grade point averages resulting in increasing their competitiveness within the job market (Bunn, Caudill and Gropper 1992). Performativity defined as “the capacity to deliver outputs at the lowest costs, replaces truth as the yardstick of knowledge” is becoming the dominate criteria for measuring worth within academia (Crook, Pakulski and Waters 1992:31). Students who engage in academic dishonesty make a conscious decision based on their assessment that the benefits of cheating are greater than the costs of being caught (Williams and Hosek 2003). Students who are motivated by grades or career opportunities rather than learning the course material are more likely to act in an instrumental rational way and perform academically dishonest acts in order to obtain desired grades (Jordan 2001). Delucchi and Korgen’s (2002) study of sociology majors revealed that these students did not hold a value rational orientation towards education. These students did not have a commitment to learning for the sake of attaining new knowledge and only performed the minimum amount of effort necessary to graduate. The purpose of grades as an assessment tool can become distorted when students are able to manipulate this instrument with cheating practices for the sole purpose of increasing their competitiveness in the job market (Fairchild and Crage 2014).

Course Value

Course value is the perceived value a student places on a course. In order for a student to value a course, the course must be interesting, meaningful, challenging but achievable, important, relevant, and fulfilling (Boyanton 2011:228). Hulleman (2007) found course value to be correlated to the perceived usefulness and importance of the

material to the student's life; the course is also perceived to be enjoyable and fun. Course value is directly related to how devoted and serious a student takes his or her learning and is associated with performance and motivation within the course (Boyanton 2011:228).

Perceived course value can encourage student engagement, which can lead to deep learning (Floyd et al. 2009:183). Floyd et al. (2009) observed that perceived course value was negatively correlated with using surface learning strategies. Surface learning strategies are a survival technique where the student engages in strategies that use minimal effort in order to pass the course rather than learning the material. Students who used surface learning strategies were more likely to endorse and engage in academic dishonesty compared to those who used deep cognitive processing strategies (Anderman et al. 1998; Norton et al. 2001). Floyd et al. (2009) further ascertain that students will have an overall positive learning experience when they are engaged in a course and perceive the value to be high. Due to course value becoming a new research topic, there are only a few studies that have created instruments to measure course value and the effects course value has on learning outcomes.

The preceding discussion has examined possible variables that can be used to predict the probability of a student engaging in academic dishonesty. However, there exist multiple inconsistencies for most of the variables that have been used to predict cheating behaviors. This suggests that a student cheater profile may not exist and cannot be used to predict which students in a course are going to cheat. This thesis proposes that instead of testing variables that describe the student as a way to create a cheating student profile, researchers should consider looking into a student's reasons for cheating in certain courses. This could be accomplished by uncovering a student's rational social

action based on how he or she values a course in order to predict the likelihood of cheating. The first hypothesis of this study is

H_1 : Students who are value rationally orientated are less likely to cheat compared to students who are instrumental rationally orientated. The second hypothesis is

H_2 : Students who are instrumental rationally orientated are more likely to cheat when they perceive a course be of low value compared to a course that is perceived as high value.

3. GAP IN THE LITERATURE

Academic dishonesty is a wide-spread issue that plagues educational institutions, including those in higher education. The purpose of higher education is to increase knowledge and foster learning within students who are willing to put forth the effort necessary to earn a degree. However, with students taking short cuts in their learning, they are not only undermining their learning experience, they are potentially putting others at risk in their profession. Due to the negative implications of cheating, researchers are trying to uncover what characteristics encompass a typical cheater in order to create awareness and target these potential offenders. While numerous variables have been tested to determine their effects on cheating behaviors, discrepancies exist that suggest inconclusive results. Instead of focusing on uncovering a cheater profile, researchers have yet to test if a student's social action based on their perceived course value can affect the probability of academically dishonest acts. Understanding if different social rational action orientations can increase the likelihood of cheating can help institutions in creating interventions to encourage a positive learning environment rather than an economic transaction where efficiency is valued over knowledge. Social rational action can have a strong effect, since it aids students in assessing which action to undertake. This study will test if there is a correlation between social rational action orientations and the likelihood of cheating and if perceived course value within each social rational orientation can further impact the likelihood of academic dishonesty. If a connection is discovered, further research is encouraged to determine what factors can affect different social action orientations in order to create an intervention that discourages cheating behaviors.

4. METHODS

Procedure and Sample

The proposed method for testing the relationship between social rational action orientations and academic dishonesty is with a survey instrument. This instrument contained 39 questions and took respondents an average of 15 minutes to complete. This project IRB # EXP2014Q391808F was approved by the Texas State IRB on 12/8/2014. A copy of the survey can be found in Appendix A. The survey was distributed during a class period and respondents were instructed to place their completed survey in a secure box that was located at the front of the room. The survey structure began with eight vignettes that manipulated course value, eight questions to measure a student's rational orientation, and seven demographic questions. This study used a convenience sample of 357 undergraduate students attending Texas State University during the spring 2015 semester. The survey was administered in the beginning of the spring semester, specifically during the second week, to six different courses. The different classes included a computer course in Agriculture, and five courses in Business, three beginning computer courses, a finance course, and a statistics course.

Variables

Basic demographic variables were included in this study to determine if there are overarching characteristics that increase the probability of academic dishonesty. Demographic variables include classification, gender, college that encompasses student's major, age, ethnicity, self-reported GPA, and whether a student is currently a member or pledging to a sorority or fraternity. These variables have all been used in previous studies

and this research will determine if they are significantly predict the likelihood of cheating within this sample.

Questions from Pino and Smith (2003) measuring the academic ethic were utilized within this survey, specifically questions concerning the anti GPA perspective ($\alpha=0.66$). The questions referring to the anti GPA perspective were used to measure a student's overall social rational orientation towards instrumental rational. Questions measuring the anti GPA perspective were answered on a Likert scale from 1 indicating strongly disagree to 5 indicating strongly agree. The questions included "I avoid teachers who are tough graders," "It is a smart move to drop a course if the teacher turns out to be a tough grader," "It is wise to drop a class if there is a lot of work to do, even if the class seems interesting." In addition to the anti GPA perspective questions, this survey used the question "I would rather learn little in a course and get an A than learn a lot and get a C." These statements are indicative of an individual who is instrumental rational because he or she is more concerned with the potential for grade success than intellectual gains.

To measure a student's overall social rational orientation towards value rational, additional questions were used from Pino and Smith (2009) and Pino, Martinez-Ramos and Smith (2012). These questions were answered on the same Likert scale from 1 to 5 and included "I will take an interesting course even though I may not receive a good grade," "I seek out courses that involve a lot of reading, writing, and independent thought," "It is very important for me to work on improving my intellectual skills even if this does not bring direct improvements in my academic performance," and "I prefer to take intellectually demanding courses even when few students earn A's in them." These

statements are indicative of a value rational orientation because they are focused on increasing knowledge for the sake of learning rather than for a desired grade.

Since cheating behaviors are a sensitive topic and may lead to social desirability bias, vignettes were created to test if a character having a specific social rational orientation will lead to academic dishonesty. Vignettes are short stories about a person or social situation which contain precise details of what are thought to be important for the decision making process of the respondent (Alexander and Becker 1978:94). Vignettes create distance between the character and the respondent which can decrease the biasing effect since respondents are answering questions based on hypothetical situations rather than from a personal experience (Bendelow 1993; Finch 1987; Hughes and Huby 2002). While vignettes are not measuring actual behavior, several studies have found that vignette responses reflect how an individual would act in reality (Carlson 1996; Kim and Hunter 1993; Rahman 1996). Vignettes were manipulated to create two different situations: either the character in the vignette perceived the course to have a high value or low value. Previous studies did not utilize vignettes to measure perceived course value, thus original vignettes were created to measure if perceived course value impacted the likelihood to cheat (Boyanton 2011; Hulleman 2007). Eight original vignettes were created with half depicting high course value and the other half depicting low course value. The vignettes were randomly ordered and can be found in Appendix A. High perceived course value was produced in the vignettes by the character taking pleasure in learning the course material, stating that the course was interesting or that the course benefited the character in increasing their intellectual skills. Low perceived course value was invented in the vignettes by the character stating that the course was a waste of time,

the course did not benefit their major or professional career or that the course was required for their major, but did not benefit them. All the characters in both situations decided to partake in academically dishonest acts without specifically stating that the characters were cheating. The word cheating may invoke strong emotions within students, since they are aware that this behavior is not acceptable within the university. Instead, each vignette character participates in cheating practices that are common within higher education, such as purchasing a paper online, copying off a peer, and copying and pasting from sources without proper citation, without using the word “cheating.” After each vignette, students were asked how likely the typical college student is to perform this same action, how justified the character is performing this action and how likely they were to perform the same action if they were in the same situation. Responses to the vignette’s questions were answered on a Likert scale from 1 indicating very likely or completely justified to 5 indicating very unlikely or completely unjustified. These questions were designed to measure the likelihood of academic dishonesty with perceived course value manipulated to determine if course value had an additional impacted on the likelihood to cheat.

Analytical Procedures

To test the relationship between social rational orientation and academic dishonesty, univariate, bivariate, cluster, and multivariate analyses were utilized. The univariate analysis included conducting frequency tables for all the demographic variables. Bivariate analyses included conducting Pearson’s r correlation coefficients between the demographic variables and conducting independent and dependent t-tests between the social rational orientation and perceived course value scores. Cluster analysis

was used to create a dichotomous variable for social rational orientation to determine which orientation each student belonged to. Multivariate analysis included using Ordinary Least Squares regression to determine which demographic variables are significant predictors of social rational orientation.

5. RESULTS

Univariate Analyses

A frequency table for all the demographic variables can be found in Table 1. The gender composition of the sample was close to representing the undergraduate population at Texas State University with 52 percent females, 47.7 percent males, and 0.3 percent classified as a gender other than female and male. Majority of the respondents were located in the 18 to 20 and the 21 to 23 age brackets with 59 percent and 29.1 percent respectively. Most of the respondents identified as White/Caucasian with 55.8 percent and Hispanic/Latino with 27.6 percent. Only 9.3 percent of respondents identified as African American/Black. This sample of undergraduate students comprised of 17.9 percent Freshmen, 28.4 percent Sophomores, 32.4 percent Juniors, and 21.3 percent Seniors. The classification distribution is not representative of Texas State University since Freshmen and Seniors were under sampled and Sophomores and Juniors were over sampled. A majority of the students sampled, 79.3 percent, had their majors located under the college of Business Administration. Students from the college of Applied Arts comprised 11.4 percent of the sample and 3.1 percent of the sample were students from the college of Health Professions. Over 90 percent of respondents had a self-reported GPA between 2.5 and 4.00 inclusively. A majority of students, 37.1 percent, had a self-reported GPA between 3.00 and 3.49 inclusively. A third of respondents, 30.3 percent, responded with having a self-reported GPA between 2.50 and 2.99, while one fifth of respondents stated that they had a self-reported GPA between 3.5 and 4.00, 23.4 percent precisely. Of the students sampled, only 18.5 percent answered that they were

Table 1: Frequency Tables for Demographic Variables (N = 357)

Variable	Frequency	Percent
Gender		
Male	167	47.7
Female	182	52.0
Other	1	.3
	350	
Age		
18-20	207	59.0
21-23	102	29.1
24-26	22	6.3
27-29	7	2.0
30+	13	3.7
	351	
Ethnicity		
White/Caucasian	192	55.8
African Am./Black	32	9.3
Am. Indian/Native Am.	4	1.2
Asian Am./Asian/Pacific Islander	8	2.3
Hispanic/Latino	95	27.6
Multiracial/Multiethnic	9	2.6
Other	4	1.2
	344	
Classification		
Freshman	63	17.9
Sophomore	100	28.4
Junior	114	32.4
Senior	75	21.3
	352	
College Major Located		
Applied Arts	40	11.4
Business Admin.	279	79.3
Education	5	1.4
Fine Arts and Communication	2	.6
Health Professions	11	3.1
Liberal Arts	6	1.7
Science and Engineering	4	1.1
University College	5	1.4
	352	
Self-Reported GPA		
3.5-4.00	82	23.4
3.0-3.49	130	37.1
2.5-2.99	106	30.3
2.0-2.49	22	6.3
1.5-1.99	6	1.7
<1.5	2	.6
N/A	2	.6
	350	
Greek Membership/Pledge		
Yes	65	18.5
No	286	81.5
	351	

currently members or pledging a Greek fraternity or sorority, while 81.5 percent responded with no association with a Greek organization.

Bivariate Analyses

In order for a student to be assigned a social rational orientation, an orientation score must be created. Exploratory factor analysis was utilized to ensure that the eight questions created to measure a student's rational orientation were correctly measuring only two constructs, value and instrumental. The scree plot elbowed at two components and the Varimax with Kaiser Normalization rotation converging in three iterations. The factor loadings confirmed that questions designed to measure value rational orientation loaded together and that questions designed to measure instrumental rational orientation also loaded together. The four questions measuring instrumental orientation were then reverse coded so that all eight questions were on the same continuum with instrumental orientated answers representing a 1 and value orientated answers representing a 5 on a Likert scale. An orientation score was created from the eight questions by adding the responses from each question together and creating a continuous variable. The orientation score is a reliable measure of social rational orientation ($\alpha = .67$) with a mean of 23.13 and a standard deviation of 4.43. A correlation matrix was created between orientation score and the demographic variables (see Table 2). Greek membership was the only demographic variable significantly correlated with orientation score (Pearson's $r = .193$, $p = .000$). This positive correlation indicates that if an individual is not associated with a Greek organization, their orientation score increases to become more value orientated. With regard to self-reported GPA, Ethnicity is significantly negatively correlated with GPA (Pearson's $r = -.150$, $p = .005$). When ethnicity was recoded into

Table 2: Correlation Matrix Between Social Rational Orientation Score and Demographic Variables

	Orientation Score	GPA	Greek	Age	Ethnicity	Gender	College Major	Classification
Orientation Score	1	-.001	.193***	.080	-.018	-.054	-.012	.072
GPA		1	.019	-.046	-.150**	.100	-.066	-.010
Greek			1	.149**	.036	.009	.025	.136*
Age				1	-.060	.029	-.062	.568***
Ethnicity					1	.011	.061	.083
Gender						1	.019	.000
College Major							1	-.058
Classification								1

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

dummy variables, White/Caucasian (Pearson's $r = .154$, $p = .004$) and Hispanic/Latino (Pearson's $r = -.197$, $p = .000$) were the only ethnicities that were significantly correlated with self-reported GPA. Both classification and age are positively and significantly correlated with Greek membership. As a student gets older, they are less likely to be affiliated with a Greek organization and as their classification increases, they are less likely to be affiliated with a Greek organization. Also, as one would naturally expect, classification is significantly and positively correlated with age, illustrating that as a student's classification increases, his or her age increases.

Assigning students to a social rational orientation is necessary to test the hypotheses of this paper. Cluster analysis (K-means cluster in SPSS) was used on the orientation score to form two clusters. A variable was created that distinguished the higher cluster as a student who is value orientated and the lower cluster as a student who is instrumental orientated. The mean orientation score of the higher cluster, value orientation, was 4.03 and the standard deviation was .83. The mean of the lower cluster, instrumental orientation, was 3.49 and the standard deviation was .94. Using independent t-tests, it was confirmed that the higher cluster had significantly higher scores for each of

Table 3: Potential Cheating Score Means, Standard Deviations, and Standard Errors for Social Rational Orientation and Perceived Course Value

	N	Mean	Standard Deviation	Standard Error
Overall				
Value Rational	138	4.03	.83	.07
Instrumental Rational	195	3.49	.94	.07
Low Course Value	356	3.81	1.03	.05
High Course Value	356	3.63	.95	.05

Table 4: Independent T-Test for Social Rational Orientation

Potential Cheating	Value Rational	Instrumental Rational	t
	4.03	3.49	5.450***

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

the variables that encompassed the orientation score. The cluster analysis divided the sample into two orientation groups with 138 students in the value orientation group and 195 students in the instrumental orientation group. The likelihood to cheat in hypothetical situations - referred to in this study as *potential cheating scores* was created by averaging the Likert scale responses for each respondent from the question of whether the respondent would perform the same action as the character if in the same situation from each of the eight vignettes. The variable was designed so that a higher potential cheating score implied a lower likelihood to engage in academically dishonest acts. The potential cheating score means, standard deviations and standard errors for the overall sample, as well as each social rational orientation and each level of perceived course value can be found in table 3. The potential cheating scores for value and instrumental orientations were compared using an independent t-test to determine if there was a significant difference between the orientations (see Table 4). According to the independent t-test, there is a significant difference in the likelihood to cheat in hypothetical situations between value and instrumental rational individuals. Value orientated individuals had a

Table 5: Dependent T-Test for Perceived Course Value

Potential Cheating	Low Value	High Value	t
	3.81	3.63	5.035***

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

potential cheating score of 4.03 representing a response of somewhat unlikely, while the instrumental orientated individuals had a potential cheating score of 3.49 representing a response between neither likely or unlikely and somewhat unlikely. This finding supports my first hypothesis that students who are value orientated are less likely to engage in academic dishonesty compared to instrumental oriented students.

A potential cheating score was created based on the vignette responses to the perceived low value and high value courses. This score was created by averaging the Likert scale responses for each respondent from the question of whether the respondent would perform the same action as the character if in the same situation from the four perceived low value vignettes and for the four perceived high value vignettes. The cheating scores for the perceived low and high value vignettes were compared using a dependent t-test to determine if there is a significant difference between perceived low and high course value (see Table 5). The dependent t-test reveals that there is a significant difference between the potential cheating score for perceived low and high value courses. The perceived low value course had a potential cheating score of 3.81, while the perceived high value course had a potential cheating score of 3.63, both representing a response between neither likely or unlikely and somewhat unlikely. This finding indicates that potential cheating scores between perceived low and high course

Table 6: Potential Cheating Score Means, Standard Deviations, and Standard Errors for Social Rational Orientation-Course Value Pairings

	N	Mean	Standard Deviation	Standard Error
VOLV	138	4.12	.92	.08
VOHV	138	3.94	.86	.07
IOLV	195	3.57	1.05	.08
IOHV	195	3.40	.96	.07

Table 7: T-Tests Between Social Rational Orientation and Perceived Course Value

	VOHV	IOLV	IOHV
VOLV	3.536**	5.013***	6.877***
VOHV		3.557***	5.262***
IOLV			3.317**

* p < .05

** p < .01

*** p < .001

value are significantly different with courses perceived as high value more likely to have students engage in academic dishonesty.

To test the second hypothesis, a potential cheating score for each orientation and perceived course value pairing had to be created. Since there are two orientations, value and instrumental, and two levels of perceived course value, low and high, a total of four groups were created, Value Orient-Low Course Value (VOLV), Value Orient-High Course Value (VOHV), Instrumental Orient-Low Course Value (IOLV), and Instrumental Orient-High Course Value (IOHV). With every student classified as value orientated or instrumental orientated, each student had potential cheating scores in two of the groups. For example, if a student was value orientated, they would have a score for VOLV and VOHV. Using the potential cheating scores created for the distinction between perceived low and high course value above, the scores were recycled and placed in the corresponding social rational orientation-course value pairing based on the student's orientation. The potential cheating score means, standard deviations and standard errors for each social rational orientation-course value pairings can be found in

Table 8: Regression with Social Rational Orientation Score as the Dependent Variable
(n = 330)

Variable	Beta	SE	t	Model F	R-Squared
Constant	21.322	.568	37.531***	12.670***	.037
Greek Membership (1=no, 0=yes)	2.231	.627	3.559***		

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

table 6. It can be observed that a course that is perceived to be of high value for both orientations has a lower potential cheating score illustrating that students are more likely to engage in cheating practices. To compare the likelihood of cheating between the four social rational orientation-course value groups, independent and dependent t-tests were used (see Table 7). It is apparent that perceived course value within each orientation does significantly impact the likelihood to cheat with all students more likely to cheat in courses perceived as high value. The second hypothesis was not supported since instrumental rational students were more likely to engage in academic dishonest acts when they perceived the course as high value instead of low value.

Multivariate Analyses

Regression analysis was employed to determine if any demographic variables can predict a student's orientation score. Greek membership was the only significant predictor of orientation score (see Table 8). When other demographic variables were added to the model, the change in the F statistic was not significant and the slopes of the other demographic variables were not significant. The regression equation suggests that a student's orientation score will decrease becoming more instrumental orientated when he or she is affiliated with a Greek organization.

6. DISCUSSION

This study investigated the effects of social rational orientation and perceived course value on the likelihood of academic dishonesty in hypothetical situations among undergraduates. It was found that social rational orientation predicted the likelihood to engage in cheating practices with value orientated students less likely to cheat compared to instrumental orientated students. This finding is supported by numerous studies that have found the decision to cheat lies within students' personal value system (Allmon et al. 2000; McNicholas and Zimmerer 1985; Rawwas et al. 2004; Rawwas and Isakson 2000). Weber (1968) defines value rational action as "determined by a conscious belief in the value for its own sake of some ethical, aesthetic, religious, or other form of behavior, independently of its prospects of success" (24). Value rational orientated individuals are concerned with learning for the sake of education not for the prospects of obtaining high grades. On the other hand, instrumental rational orientated individuals are concerned with the most efficient means to obtain high grades that will further assist them in their professional goals (Bunn et al. 1992; Jordan 2001). Instrumental rational orientated individuals assess the benefits of cheating with the consequences of being caught when making the decision to engage in academic dishonesty (Williams and Hosek 2003).

Level of perceived course value was also measured to determine if course value impacted the likelihood to cheat. When testing the likelihood of academic dishonesty purely based on perceived course value, the results signified that level of perceived course value affected the likelihood to engage in academic dishonesty. Contrary to the findings of Anderman et al. (1998), Floyd et al. (2009), and Norton et al. (2001), courses perceived as high value increased the likelihood to engage in academic dishonesty. This

finding may be explained with Boyanton's (2011) ascertain that course value is directly related to how serious a student takes his or her learning. Students may feel the need to engage in academic dishonesty because the course is of high value to them. Furthermore, students may not evaluate the consequences of getting caught cheating worth the benefit of a high grade when they perceive the course to be of low value. Perceived course value was also measured within each social rational orientation to determine if social rational orientation solely predicted academic dishonesty or if course value had an additional effect on the likelihood to cheat. The parametric analysis suggested that perceived course value does have an effect within social rational with students more likely to cheat in hypothetical situations they perceive as having a high course value. While value rational students are less likely to engage in cheating compared to instrumental rational students, all students are more likely engage in cheating practices when they perceive the course to be of high value.

To add to the discussion of which demographic variables can predict academic dishonesty, this study found that the only variable that significantly predicted orientation score was Greek membership. This suggests that the demographics of a student do not predict a student's social rational orientation. This finding corresponds with the studies that did not find a gender difference of students who cheated (Allmon et al. 2000; Anderman et al. 1998; Fisher 1970; Franklyn-Stokes and Newstead 1995; Kisamore et al. 2007; Stevens and Stevens 1987; Vitro and Schoer 1972; Yardley et al. 2009). In addition, it was found that Greek membership reduced a student's social rational orientation score making them more instrumental rational orientated and therefore more likely to engage in academic dishonesty. This discovery matches previous research that

Greek membership or pledges are more likely to have cheated compared to students who are not affiliated with Greek organizations (Baird 1980; McCabe and Trevino 1997; Park 2003; Pino and Smith 2003; Straw 2002). Prior research has suggested that Greek organizations can provide an environment where a cheating culture is acceptable and transferred (Cloward 1959; Harp and Taietz 1966; McCabe and Trevino 1997; Merton 1957; Stannard and Bowers 1970). Fraternities and sororities are structures that supply accessible resources to their members that expedite cheating practices (McCabe and Trevino 1997).

This study had various limitations that involved the sample. This study employed convenience sampling that was not representative of Texas State University, thus it is not generalizable. The study did not employ random sampling throughout the entire campus of Texas State University and resulted in Business Administrative students comprising the majority of the sample. Future studies should focus on ensuring that the sample is representative of undergraduate students.

Despite the above limitations, this study provided additional variables to aid in predicting academic dishonesty rather than focusing on demographic variables that have inconclusive results. Social rational orientation predicted cheating behaviors as expected and thus can be used to further research on preventing cheating practices in higher education. Perceived course value was also found to predict the likelihood of cheating in hypothetical situations. This study emphasized how students rationalize their decision to cheat rather than inherent traits that cannot be altered. Using inherent traits to try and explain the decision to cheat not only targets specific students, but can create bias and discrimination towards those students. Education is meant to be the equalizer for those

who are discriminated in society, not another avenue to further engage in discriminatory behavior toward individuals. Thus future researchers should focus on how students are socialized to determine possible factors that can be intervened to instill value rational ideals.

Future research should be conducted on the relationship between social rational orientation and academic dishonesty to establish reliability and validity. Additional analyses on how rational orientation can be influenced by socialization of students should also be considered. With this information, practitioners may be able to further understand the rationalization process of whether to cheat with different programs offered to freshman students. Research should also focus on what factors influence rational orientation, if rational orientation is situational, and if rational orientation can be manipulated with an intervention. If rational orientation is situational and not concrete, interventions can be created to encourage value rational behaviors compared to calculable instrumental rational behaviors within courses. Instead of concentrating on cheating in general, more studies should focus on the difference between types of cheating, collaborative versus individualistic cheating practices, and how these practices may alter the decision process to cheat. Classroom contexts should also be considered when conducting research on academic dishonesty, i.e. classroom atmosphere, perceived intelligence of the professor, and professor demographics. Future studies should utilize different methods to test the relationship between course value and academic dishonesty to establish a reliable and valid result. This study only used key words to manipulate course value, but future studies should determine what factors can lead to particular evaluations of course value, i.e. topic, assigned readings, presentation by the professor,

and the like. Also, the criterion that determines whether or not a course is considered valuable to a student may depend on that student's social rational orientation. Future researchers should determine if all students value the same way or if their orientation interacts with their valuing decision.

APPENDIX SECTION

APPENDIX A: Survey

Survey on College Students' Perceptions

You are being asked to be part of a research project. We are trying to learn more about college students' perceptions. If you agree to be part of this research, we will ask you to take a survey of about 40 questions. It should take about 30 minutes to finish the survey. The research is being conducted by Megan Krou of Texas State University, mk1262@txstate.edu. The thesis chair is Dr. Nathan Pino of Texas State University, np11@txstate.edu (512-245-8229).

We do not think that there are any serious risks to you.

You may choose not to answer any question(s) for any reason.

There are no direct benefits to you for participating in this research. However, society may benefit from the results. You will not receive anything for participating.

The surveys are confidential; we are not recording your name. We will keep the surveys in a locked file cabinet at Texas State University for three years and then we will destroy the surveys. Only the researcher, Megan Krou, will have access to the surveys.

This project IRB # EXP2014Q391808F was approved by the Texas State IRB on 12/8/2014. Pertinent questions or concerns about the research, research participants' rights, and/or research-related injuries to participants should be directed to the IRB chair, Dr. Jon Lasser (512-245-3413 - lasser@txstate.edu) and to Becky Northcut, Director, Research Integrity & Compliance (512-245-2314 - bnorthcut@txstate.edu).

Your participation is voluntary, and refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

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Many of these questions involve your background and experiences. All of the information provided in this survey will be kept confidential and be used for statistical purposes only. Please circle the appropriate letter choice in the questionnaire below.

Thank you for your assistance.

Please read each scenario and answer the questions that follow that best represents your opinion.

Bob feels that his statistics course is irrelevant and will not benefit his future career. Bob decides to hang out with his friends rather than study for his statistics exam. Bob's friend Mariah agrees to take pictures of the statistics exam since her section is before Bob's. Bob receives the pictures from Mariah and uses this information to study for the exam. Bob is able to make an A on the exam with the pictures from Mariah.

1. How likely is a typical college student to perform the same action as Bob?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely
2. How justified is Bob's action?
 - a. Completely justified
 - b. Somewhat justified
 - c. Neither justified or unjustified
 - d. Somewhat unjustified
 - e. Completely unjustified
3. If you were in the same situation as Bob, how likely are you to perform the same action?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely

Annabelle knows she needs to pass 3880 because it is a prerequisite for all of her major courses. Passing this course is important because if she fails, her graduation will be delayed. She decides to copy her friend's answers to the take-home exam in order for her to pass the course. She assumes the professor will not know that their answers are similar because last semester two students turned in the same exam and the professor did not notice.

4. How likely is a typical college student to perform the same action as Annabelle?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely
5. How justified is Annabelle's action?
 - a. Completely justified
 - b. Somewhat justified
 - c. Neither justified or unjustified
 - d. Somewhat unjustified
 - e. Completely unjustified
6. If you were in the same situation as Annabelle, how likely are you to perform the same action?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely

Jessica decides to take 3290 as an elective because it sounds interesting. The class is challenging, but if she works hard, she is able to make A's. She enjoys learning new information in the course and is always deeply engaged during class discussions. The final project is worth 50% of the final grade. With her other classes, she does not have enough time to dedicate to this course in order to make the desired grade. One of Jessica's friends took the course last semester and completed the same project. She decides to copy her friend's project and changes some of the sections in order to meet this semester's requirements, which differed somewhat from last semester's. Jessica made an A on her project and passed the course.

7. How likely is a typical college student to perform the same action as Jessica?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely
8. How justified is Jessica's action?
 - a. Completely justified
 - b. Somewhat justified
 - c. Neither justified or unjustified
 - d. Somewhat unjustified
 - e. Completely unjustified
9. If you were in the same situation as Jessica, how likely are you to perform the same action?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely

Chris knows future employers will look at his transcript for what grade he earned in 4375, one of the last classes in his major he must take in order to graduate. Chris decides to hang out with his friends on Thursday night instead of writing a paper that is due Friday. Chris gets home at midnight and starts to work on his paper. He soon becomes tired and would rather sleep than complete his paper. This paper is worth 40% of the overall course grade and without earning an A, he may not get his dream job. Chris is able to find a paper on the internet covering the same topic he is writing about. Chris decides to copy the paper he found on the internet and changes the wording of sentences here and there. Chris made an A on the paper. Because Chris earned an A in the course, he was offered a position at his dream job.

10. How likely is a typical college student to perform the same action as Chris?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely
11. How justified is Chris's action?
 - a. Completely justified
 - b. Somewhat justified
 - c. Neither justified or unjustified
 - d. Somewhat unjustified
 - e. Completely unjustified
12. If you were in the same situation as Chris, how likely are you to perform the same action?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely

Archie is enrolled in 4714 which is a required course for his major. He really enjoys learning the material and knows he can use what he learned in the future. It takes him about 10 hours a week to fully understand the material. He only has 2 hours to study for the final exam which would normally take him 10 hours. Because Archie did not have enough time to study, he takes notes with him to the exam even though the exam is not open-notes. He hides the notes on the floor so when he moves his backpack, he can read the notes. Archie was certain his grade would improve by using his notes.

13. How likely is a typical college student to perform the same action as Archie?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely
14. How justified is Archie's action?
 - a. Completely justified
 - b. Somewhat justified
 - c. Neither justified or unjustified
 - d. Somewhat unjustified
 - e. Completely unjustified
15. If you were in the same situation as Archie, how likely are you to perform the same action?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely

Dana enjoys taking her music class, which is an elective. While she skips her boring classes, she makes sure to attend every class period of music (this class is at 8 am). This class is meaningful to her to the point where she is thinking about retaking the course, not to make a better grade, but so that she can increase her knowledge and understanding of the material. She has a quiz in 2 days, but between work and school, she does not have enough time to study to make a desired grade. In order not to fail the quiz, Dana writes the answers to the questions she does not know on her arm and hides them with her sweater. She made a C on her quiz using her notes.

16. How likely is a typical college student to perform the same action as Dana?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely
17. How justified is Dana's action?
 - a. Completely justified
 - b. Somewhat justified
 - c. Neither justified or unjustified
 - d. Somewhat unjustified
 - e. Completely unjustified
18. If you were in the same situation as Dana, how likely are you to perform the same action?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely

John has an assignment due in 2 days for his History class. He constantly questions how learning history from 1800 will benefit his future career. He believes this class is a waste of time because the professor reads directly from the book and the PowerPoint slides word-for-word. John attends a Greek organization meeting and does not get home until 10 pm. John does not have enough time to complete his assignment to his professor's expectations, however he knows that there have been numerous articles written about the subject. John copies different paragraphs from different websites and articles and pastes them into one document without citing them. He changes the vocabulary to make it seem like he wrote it. John received an A on the assignment and praise from his professor.

19. How likely is a typical college student to perform the same action as John?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely
20. How justified is John's action?
 - a. Completely justified
 - b. Somewhat justified
 - c. Neither justified or unjustified
 - d. Somewhat unjustified
 - e. Completely unjustified
21. If you were in the same situation as John, how likely are you to perform the same action?
 - a. Very likely
 - b. Somewhat likely
 - c. Neither likely or unlikely
 - d. Somewhat unlikely
 - e. Very unlikely

Amber decides to take a study skills course to better her study habits. This class is not required for her degree, but she thinks it will benefit her in her other classes. The course material is interesting and she can see the relevance of each lesson to her other classes and her future career. She used a skill learned in this class in another class and it increased her grade from a B to an A. She has an assignment in her study skills course that is due tomorrow, but she does not have enough time to complete it because she is completing other assignments. Amber decides to work with Alex to complete the assignment even though the professor said collaboration was not allowed. With 8 questions on the assignment, Amber and Alex each complete 4 questions and exchange the answers. Amber and Alex were able to earn a B on the assignment.

22. How likely is a typical college student to perform the same action as Amber?
- Very likely
 - Somewhat likely
 - Neither likely or unlikely
 - Somewhat unlikely
 - Very unlikely
23. How justified is Amber's action?
- Completely justified
 - Somewhat justified
 - Neither justified or unjustified
 - Somewhat unjustified
 - Completely unjustified
24. If you were in the same situation as Amber, how likely are you to perform the same action?
- Very likely
 - Somewhat likely
 - Neither likely or unlikely
 - Somewhat unlikely
 - Very unlikely

Please indicate how much you agree or disagree with the following statements by circling the number the best fits your level of (dis)agreement.

1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree.

	SD	D	N	A	SA
25. I avoid teachers who are tough graders.	1	2	3	4	5
26. I will take an interesting course even though I may not receive a good grade.	1	2	3	4	5
27. It is a smart move to drop a course if the teacher turns out to be a tough grader.	1	2	3	4	5
28. I seek out courses that involve a lot of reading, writing, and independent thought.	1	2	3	4	5
29. I would rather learn little in a course and get an A than learn a lot and get a C.	1	2	3	4	5
30. It is very important for me to work on improving my intellectual skills even if this does not bring direct improvements in my academic performance.	1	2	3	4	5
31. I prefer to take intellectually demanding courses even when few students earn A's in them.	1	2	3	4	5
32. It is wise to drop a class if there is a lot of work to do, even if the class seems interesting.	1	2	3	4	5

33. What is your current classification?

- a. Freshman
- b. Sophomore
- c. Junior
- d. Senior
- e. Other

34. What college is your major located under?

- a. Applied Arts
- b. Business Administration
- c. Education
- d. Fine Arts and Communication
- e. Health Professions
- f. Liberal Arts
- g. Science and Engineering
- h. University College

35. What is your college cumulative grade point average (GPA)?
- a. 3.50 – 4.0
 - b. 3.0 – 3.49
 - c. 2.5 – 2.99
 - d. 2.0 – 2.49
 - e. 1.5 – 1.99
 - f. Less than 1.5
 - g. First semester Freshman- No GPA
36. What gender best describes you?
- a. Male
 - b. Female
 - c. Other
37. What ethnicity best describes you?
- a. White/Caucasian
 - b. African American/Black
 - c. American Indian/Native American
 - d. Asian American/Asian/Pacific Islander
 - e. Hispanic/Latino
 - f. Multiracial/Multiethnic
 - g. Other
38. What is your current age?
- a. 18 – 20
 - b. 21 - 23
 - c. 24 – 26
 - d. 27 – 29
 - e. 30+
39. Are you a member or currently pledging a social fraternity or sorority?
- a. Yes
 - b. No

APPENDIX B: Additional Tables

Table 9: Frequency Tables of Response to How Likely a Respondent is to Perform the Same Action if in the Same Situation for Each Vignette

	Frequency	Percent
Vignette 1: Bob		
Very likely	33	9.3
Somewhat likely	61	17.1
Neither likely or unlikely	47	13.2
Somewhat unlikely	56	15.7
Very unlikely	159	44.7
	356	
Vignette 2: Annabelle		
Very likely	25	7.0
Somewhat likely	84	23.6
Neither likely or unlikely	66	18.5
Somewhat unlikely	65	18.3
Very unlikely	116	32.6
	356	
Vignette 3: Jessica		
Very likely	40	11.3
Somewhat likely	72	20.3
Neither likely or unlikely	72	20.3
Somewhat unlikely	65	18.3
Very unlikely	106	29.9
	355	
Vignette 4: Chris		
Very likely	16	4.5
Somewhat likely	39	11.0
Neither likely or unlikely	40	11.3
Somewhat unlikely	59	16.7
Very unlikely	200	56.5
	354	
Vignette 5: Archie		
Very likely	11	3.1
Somewhat likely	21	5.9
Neither likely or unlikely	33	9.3
Somewhat unlikely	74	20.9
Very unlikely	215	60.7
	354	
Vignette 6: Dana		
Very likely	9	2.5
Somewhat likely	41	11.6
Neither likely or unlikely	40	11.3
Somewhat unlikely	64	18.1
Very unlikely	199	56.4
	353	

Table 9-Continued

	Frequency	Percent
Vignette 7: John		
Very likely	14	4.0
Somewhat likely	43	12.2
Neither likely or unlikely	47	13.4
Somewhat unlikely	75	21.3
Very unlikely	173	49.1
	352	
Vignette 8: Amber		
Very likely	64	18.2
Somewhat likely	127	36.2
Neither likely or unlikely	56	16.0
Somewhat unlikely	43	12.3
Very unlikely	61	17.4
	351	

REFERENCES

- Alexander, Cheryl S. and Henry J. Becker. 1978. "The use of Vignettes in Survey Research." *Public Opinion Quarterly* 42(1):93-104.
- Allmon, Dean, Diana Page, and Ralph Roberts. 2000. "Determinants of perceptions of cheating: Ethical orientation, personality and demographics." *Journal of Business Ethics* 23(4):411-422.
- Anderman, Eric, Tripp Griesinger, and Gloria Westerfield. 1998. "Motivation and cheating during early adolescence." *Journal of Educational Psychology* 90(1):84-93.
- Anitsal, Ismet, M. Meral Anitsal and Robert Elmore. 2009. "Academic Dishonesty and Intention to Cheat: A Model on Active Versus Passive Academic Dishonesty as Perceived by Business Students." *Academy of Entrepreneurship Journal* 15(2):17-26.
- Baird, John. 1980. "Current Trends in College Cheating." *Psychology in the Schools* 17:515-522.
- Bendelow, Gillian. 1993. "Using visual imagery to explore gendered notions of pain." Pp. 212-228 in *Researching Sensitive Topics*, edited by Clair M. Renzetti and Raymond M. Lee. London: Sage.
- Benhabib, Seyla. 1981. "Rationality and Social Action: Critical Reflections on Weber's Methodological Writings." *Philosophical Forum* 12(4):356-374.
- Bing, Mark, H. Kristl Davison, Scott Vitell, Anthony Ammeter, Bart Garner and Milorad Novicevic. 2012. "An Experimental Investigation of an Interactive Model of Academic Cheating among Business School Students." *Academy of Management Learning & Education* 11(1):28-48.
- Boehm, Pamela, Madeline Justice, and Sandy Weeks. 2009. "Promoting Academic Integrity in Higher Education." *Community College Enterprise* 15(1):45-61.
- Bowers, William. 1964. *Student Dishonesty and Its Control in College*. New York, NY: Bureau of Applied Social Research, Columbia University.
- Boyanton, Dengting. 2011. "Mutual Value Theory: A Grounded Theory of Classroom Learning." *International Journal of Learning* 18(1):219-232.
- Buckley, M. Ronald, Danielle Wiese, and Michael Harvey. 1998. "An Investigation Into the Dimensions of Unethical Behavior." *Journal of Education for Business* 73(5):284-290.

- Bunn, Douglas, Steven Caudill, and Daniel Gropper. 1992. "Crime in the Classroom: An Economic Analysis of Undergraduate Cheating Behavior." *Journal of Economic Education* 23:197-207.
- Calabrese, Raymond and John Cochran. 1990. "The relationship of alienation to cheating among a sample of American adolescents." *Journal of Research and Development in Education* 23:65-72.
- Carlson, Bonnie. 1996. "Dating Violence: student beliefs about consequences." *Journal of Interpersonal Violence* 11(1):3-18.
- Carnegie Council on Policy Studies in Higher Education. 1979. *Fair practices in higher education: Rights and responsibilities of students and their colleges in a period of intensified competition for enrollments*. San Francisco: Jossey-Bass.
- Carpenter, Donald, Trevor Harding, Cynthia Finelli, Susan Montgomery, and Honor Passow. 2006. "Engineering student's perceptions of and attitudes towards cheating." *Journal of Engineering Education* 95(3):181-194.
- Chapman, Kenneth and Robert Lupton. 2004. "Academic Dishonesty in a Global Educational Market: A Comparison of Hong Kong and American University Business Students." *The International Journal of Educational Management* 18(7):425-435.
- Cloward, Richard. 1959. "Illegitimate Means, Anomie, and Deviant Behavior." *American Sociological Review* 24(2):164-176.
- Craig, Paul, Elizabeth Federici, and Marianne Buehler. 2010. "Instructing Students in Academic Integrity." *Journal of College Science Teaching* 40(2):50-55.
- Crittenden, Victoria, Richard Hanna, and Robert Peterson. 2009. "The cheating culture: A global societal phenomenon." *Business Horizons* 4:337-346.
- Crook, Stephen, Jan Pakulski, and Malcolm Waters. 1992. *Postmodernization: Change in Advanced Society*. London: Sage.
- Davis, Stephen, Cathy Grover, Angela Becker, and Loretta McGregor. 1992. "Academic dishonesty: Prevalence, determinants, techniques, and punishments." *Teaching Psychology* 19:16-20.
- Delucchi, Michael and Kathleen Korgen. 2002. "We're the customer-we pay the tuition": Student consumerism among undergraduate sociology majors." *Teaching sociology* 30(1):100-107.
- Eastman, Kevin L., Jacqueline K. Eastman and Rajesh Iyer. 2008. "Academic Dishonesty: An Exploratory Study Examining Whether Insurance Students are Different from Other College Students." *Risk Management & Insurance Review* 11(1):209-226.

- Fairchild, Emily and Suzanna Crage. 2014. "Beyond the debates: measuring and specifying student consumerism." *Sociological spectrum* 34(5):403-420.
- Finch, Janet. 1987. "The vignette technique in survey research." *Sociology* 21:105-114.
- Finn, Kristin and Michael Frone 2004. "Academic Performance and Cheating: Moderating Role of School Identification and Self-Efficacy." *Journal of Educational Research* 97(3):115-122.
- Fisher, Constance. 1970. "Levels of cheating under conditions of informative appeal to honesty, public affirmation of value, and threats of punishment." *The Journal of Educational Research* 64(1):12-16.
- Flacks, Richard and Scott Thomas. 1998. "Among Affluent Students, a Culture of Disengagement." *Chronicle of Higher Education* 45(14):A48.
- Floyd, Kevin, Susan Harrington and Julie Santiago. 2009. "The Effect of Engagement and Perceived Course Value on Deep and Surface Learning Strategies." *Informing Science* 12:181-190.
- Franklyn-Stokes, Arlene and Stephen Newstead. 1995. "Undergraduate cheating: Who does what and why?" *Studies in Higher Education* 20(2):159-172.
- Genereux, Randy and Beverly McLeod. 1995. "Circumstances surrounding cheating: A questionnaire study of college students." *Research in Higher Education* 36(6):687-704.
- Graham, Melody, Jennifer Monday, and Kimberly O'Brien. 1994. "Cheating at Small Colleges: An Examination of Student and Faculty Attitudes and Behaviors." *Journal of College Student Development* 35(4):255-260.
- Gronow, Jukka. 1988. "The Element of Irrationality: Max Weber's Diagnosis of Modern Culture." *Acta Sociologica (Taylor & Francis Ltd)* 31(4):319-331.
- Gulli, Cathy, Nicholas Kohler, and Martin Patriquin. 2007. "The Great University Cheating Scandal." *Maclean's* 120(5):32-36.
- Haines, Valerie, George Diekhoff, Emily Labeff, and Robert Clark. 1986. "College cheating: Immaturity, lack of commitment, and the neutralizing attitude." *Research in Higher Education* 25:342-354.
- Harp, John and Phillip Taietz. 1966. "Academic Integrity and Social Structure: A Study Of Cheating Among College Students." *Social Problems* 13(4):365-373.
- Hedoin, Cyril. 2009. "Weber and Veblen on the Rationalization Process." *Journal of Economic Issues (M.E.Sharpe Inc.)* 43(1):167-187.

- Hensley, L.C., K.M. Kirkpatrick, and J.M. Burgoon. 2013. "Relation of gender, course enrollment, and grades to distinct forms of academic dishonesty." *Teaching in Higher Education* 18(8):895-907.
- Hughes, Rhidian and Meg Huby. 2002. "The Application of Vignettes in Social and Nursing Research." *Journal of Advanced Nursing* 37(4):382-386.
- Hulleman, Chris. 2007. "The role of utility value in the development of interest and achievement." PhD dissertation, Department of Psychology, University of Wisconsin-Madison.
- Johnson, Susan and Malissa Martin. 2005. "Academic Dishonesty: A New Twist to an Old Problem." *Athletic Therapy Today* 10(4):48-50.
- Jordan, Augustus E. 2001. "College Student Cheating: The Role of Motivation, Perceived Norms, Attitudes, and Knowledge of Institutional Policy." *Ethics & Behavior* 11(3):233-247.
- Jurdi, Rozzet, H. Sam Hage and Henry Chow. 2012. "What Behaviours do Students Consider Academically Dishonest? Findings from a Survey of Canadian Undergraduate Students." *Social Psychology of Education* 15(1):1-23.
- Kalberg, Stephen. 1980. "Max Weber's Types of Rationality: Cornerstones for the Analysis of Rationalization Processes in History." *American Journal of Sociology* 85(5):1145-1179.
- Kim, Min-Sun and John Hunter. 1993. "Relationships among attitudes, behavioral intentions, and behavior: A meta-analysis of past research, Part 2." *Communication Research* 20(3):331-364.
- Kisamore, Jennifer, Thomas Stone, and I. M. Jawahar. 2007. "Academic integrity: The relationship between individual and situational factors on misconduct contemplations." *Journal of Business Ethics* 75:381-394.
- LaPierre, Patrick. 2013. "Max Weber and American Political Modernity." *Intellectual History Review* 23(2):225-242.
- Larabee, David. 1997. *How to Succeed in School without Really Trying: The Credentials Race in American Education*. New Haven: Yale University Press.
- Levine, Donald N. 1981. "Rationality and Freedom: Weber and Beyond." *Sociological Inquiry* 51(1):5-25.
- Lippmann, Stephen and Howard Aldrich. 2003. "The Rationalization of Everything? Using Ritzer's McDonaldization Thesis to Teach Weber." *Teaching Sociology* 31(2):134-145.

- Ma, Hongyan, Guofang Wan, and Eric Yong Lu. 2008. "Digital Cheating and Plagiarism in Schools." *Theory into Practice* 47(3):197-203.
- Marsden, Helen, Marie Carroll, and James Neill. 2005. "Who Cheats at University? A Self-Report Study of Dishonest Academic Behaviours in a Sample of Australian University Students." *Australian Journal of Psychology* 57(1):1-10.
- McCabe, Donald and Linda Trevino. 1993. "Academic Dishonesty: Honor Codes and Other Contextual Influences." *Journal of Higher Education* 64:520-538.
- McCabe, Donald and Linda Trevino. 1997. "Individual and contextual influences on academic dishonesty: A multicampus investigation." *Research in Higher Education* 38(3):379-396.
- McCabe, Donald, Kenneth Butterfield, and Linda Trevino. 2006. "Academic dishonesty in graduate business programs: Prevalence, causes, and proposed action." *Academy of Management Learning and Education* 5(3):294-305.
- McMillan, Jill and Geogre Cheney. 1996. "The Student as Consumer: The Implications and Limitations of a Metaphor." *Communication Education* 45:1-15.
- McNichols, Charles and Thomas Zimmerer. 1985. "Situational ethics: An empirical study of differentiators of students' attitudes." *Journal of Business Ethics* 4(3):175-180.
- Merton, Robert. 1957. *Social Theory and Social Structure*. New York: Free Press.
- Michaels, James and Terance Miethe. 1989. "Applying theories of deviance to academic cheating." *Social Science Quarterly* 70:870-885.
- Newstead, Stephen, Arlene Franklyn-Stokes, and Penny Armstead. 1996. "Individual Differences in Student Cheating." *Journal of Educational Psychology* 88(2):229-241.
- Norton, Lin, Alice Tilley, Stephen Newstead, and Arlene Franklyn-Stokes. 2001. "The pressures of assessment in undergraduate courses and their effect on student behaviours." *Assessment & Evaluation in Higher Educaion* 26(3):269-284.
- Oakes, Guy. 2003. "Max Weber on Value Rationality and Value Spheres." *Journal of Classical Sociology* 3(1):27-45.
- Park, Chris. 2003. "In Other (People's) Words: Plagiarism by University Students – Literature and Lessons." *Assessment & Evaluation in Higher Education* 28(5):471-488.
- Pino, Nathan and William L. Smith. 2003. "College Students and Academic Dishonesty." *College Student Journal* 37(4):490-500.

- Pino, Nathan and William Smith. 2004. "African American Students, the Academic Ethic, and GPA." *Journal of Black Studies* 35 (1): 113-131.
- Pino, Nathan and William Smith. 2009. "Academic Dishonesty, Alcohol and Marijuana Use, and the Transition to College." *Sociological Imagination* 45(2):62-74.
- Pino, Nathan, Gloria Martinez-Ramos and William Smith. 2012. "Latinos, the Academic Ethic, and the Transition to College." *Journal of Latinos and Education* 11(1):17-31.
- Rahman, Nalia. 1996. "Caregivers' sensitivity to conflict: the use of vignette methodology." *Journal of Elder Abuse and Neglect* 8:35-47.
- Rakovski, Carter and Elliott Levy. 2007. "Academic dishonesty: Perceptions of business students." *College Student Journal* 41(2):466-481.
- Rau, William and Ann Durand. 2000. "The academic ethic, and college grades: does hard work help students to "make the grade"?" *Sociology of Education* 73(1): 19-38.
- Rawwas, Mohammed and Hans Isakson. 2000. "Ethics of tomorrow's business managers: The influence of personal beliefs and values, individual characteristics, and situational factors." *Journal of Education of Business* 75(6):321-330.
- Rawwas, Mohammed, Jamal Al-Khatib, and Scott Vitell. 2004. "Academic dishonesty: A cross-cultural comparison of US and Chinese marketing students." *Journal of Marketing Education* 26(1):89-100.
- Roig, Miguel. 1997. "Can undergraduate students determine whether text has been plagiarized?" *Psychological Record* 47(1):113-122.
- Sadler, Brook. 2007. "The wrongs of plagiarism: Ten quick arguments." *Teaching Philosophy* 30(3):283-291.
- Schmelkin, Liora, Kim Gilbert, Karin Spencer, Holly Pincus, and Rebecca Silva. 2008. "A Multidimensional Scaling of College Students' Perceptions of Academic Dishonesty." *The Journal of Higher Education* 79(5):587-607.
- Stannard, Charles and William Bowers. 1970. "The College Fraternity as an Opportunity Structure For Meeting Academic Demands." *Social Problems* 17(3):371-390.
- Stevens, George and Faith Stevens. 1987. "Ethical inclinations of tomorrow's managers revisited: How and why students cheat." *Journal of Education of Business* 63:24-29.
- Straw, Deborah. 2002. "The Plagiarism of Generation 'Why Not'?" *Community College Week* 14(24):4-7.

- Swift, Cathy and Sarath Nonis. 1998. "When No One Is Watching: Cheating Behaviors on Projects and Assignments." *Marketing Education Review* 8(1):27-36.
- Takayama, K. Peter. 1998. "Rationalization of State and Society: A Weberian View of Early Japan." *Sociology of Religion* 59(1):65-88.
- Tang, Shengming and Jiping Zuo. 1997. "Profile of College Examination Cheaters." *College Student Journal* 31(3):340-347.
- Vitro, Frank and Lowell Schoer. 1972. "The effects of probability of test success, test importance, and risk of detection on the incidence of cheating." *Journal of School Psychology* 10(3):269-277.
- Weber, Max. 1948. *From Max Weber Essays in Sociology* edited by H.H. Gertz and C. Wright Mills. London: Routledge and Keegan Paul.
- Weber, Max. 1968. *Economy and Society*. Totowa, NJ: Bedminster.
- Williams, Kevin, Craig Nathanson, and Delroy Paulhus. 2010. "Identifying and Profiling Scholastic Cheaters: Their Personality, Cognitive Ability, and Motivation." *Journal of Experimental Psychology* 16:293-307.
- Williams, Melanie and William Hosek. 2003. "Strategies for Reducing Academic Dishonesty." *Journal of Legal Studies Education* 21:87.
- Yardley, Jennifer, Melanie Rodriguez, Scott Bates, and Johnathan Nelson. 2009. "True Confessions? Alumni's Retrospective Reports on Undergraduate Cheating Behaviors." *Ethics & Behavior* 19(1):1-14.