Journal of Business Ethics (2009) 86:199–209
DOI 10.1007/s10551-008-9843-8

The Impact of Anti-Intellectualism Attitudes and Academic Self-Efficacy on Business Students' Perceptions of Cheating

Rafik Z. Elias

ABSTRACT. College cheating represents a major ethical problem facing students and educators, especially in colleges of business. The current study surveys 666 business students in three universities to examine potential determinants of cheating perceptions. Anti-intellectualism refers to a student's negative view of the value and importance of intellectual pursuits and critical thinking. Academic self-efficacy refers to a student's belief in one's ability to accomplish an academic task. As hypothesized, students high in anti-intellectualism attitudes and those with low academic self-efficacy were least likely to perceive college cheating as unethical. Considering that college cheating has been found as a predictor of workplace cheating, the results urge business instructors to reduce anti-intellectualism among students and to encourage them to put forth their best efforts. The results also serve employers by focusing attention on these two psychological variables during the hiring and promotion processes.

KEY WORDS: cheating, business students, anti-intellectualism, self-efficacy

Rafik Z. Elias is a Professor of Accounting at California State University, Los Angeles. He received his DBA in accounting from Louisiana Tech University and he is a CPA. His research has been published in Advances in Accounting, Journal of Business Ethics, Journal of Education for Business, Managerial Auditing Journal, Advances in Public Interest Accounting, Journal of Business Disciplines, Journal of the Academy of Business Education *and many national and regional conference proceedings. His research interests are in the areas of Auditing, Accounting Education and Ethics.*

Introduction

The phenomenon of college cheating represents an ethical problem facing administrators, instructors and students. Research has pointed to an increase in the prevalence of cheating. A recent study by Smyth and Davis (2004) found that 74% of college students had observed cheating and 45% admitted to cheating. Studies also indicated that cheating in college is a strong predictor of cheating in the workplace (Lawson, 2004). Klein et al. (2007) warned instructors and employers about such a relationship when the researchers found that business students had more lax attitudes regarding cheating compared to other college students. Considering that the business world is often shaken by very significant instances of unethical behavior, it is important to study the perceptions of business students regarding college cheating and the determinants of such perceptions.

The current study examines business students' perceptions of cheating in and out of the classroom. Kisamore et al. (2007) noted that psychological variables, in general, have not received enough attention in the college cheating literature compared to demographic variables. This study helps to fill this void by examining two psychological variables: Anti-intellectualism, and academic self-efficacy. Anti-intellectualism attitudes refer to an interest in recipe learning and memorization as well as a lack of interest, and sometimes disrespect, for the ideals of higher education like critical thinking and hypothetical inquiry (Shaffer, 1981). Research found that anti-intellectualism could have several negative consequences for college students, such as poor performance and academic adjustment (Hook, 2004). The current study tests whether it might be

related to college cheating. Academic self-efficacy refers to a student's belief in success in an academic task based on one's performance competence (Wood and Locke, 1987). Students with low academic self-efficacy are in danger of failing their classes and withdrawing from several courses. The current study tests whether such a variable might be related to students' perceptions of cheating. The study is useful to instructors as they attempt to curtail students' cheating in and out of the classroom and to employers who should hire and promote more ethical employees.

This article is organized as follows: Following this introduction is a literature review of the numerous studies conducted on college cheating, with a particular emphasis on business students, and a review of the limited research on anti-intellectualism and academic self-efficacy. This will be followed by an explanation of the study's research method and sample selection. Finally, the results are presented along with conclusions and possible consequences for academic institutions and employers.

Literature review

Cheating in college

College cheating is not a new phenomenon. Early research showed that 66% of undergraduate students engaged in at least one act of cheating, such as plagiarism or turning in someone else's work (Bowers, 1964). However, the incidence of cheating seems to be increasing on college campuses and several researchers claimed it had reached epidemic proportions (e.g., Davis et al., 1992). Whitley (1998) reviewed 46 studies investigating the prevalence of cheating and found the percentages of students admitting to cheating ranging from 9% to 95% across different samples, with the average being 70.4%.

This increase in college students' cheating represents a major challenge for administrators, students and employers. For example, with inflated grades due to cheating, employers may make wrong hiring decisions and employ students who earned their high grades through cheating and even worse, students with lax moral values. Research shows that cheating is an enduring trait. Davis and Ludvigson (1995) found that 70% of college students who admitted to cheating started doing so in high school. Previous research also found a strong relationship between college cheating and future cheating. Such students are more likely to shoplift (Beck and Ajzen, 1991), cheat on income taxes (Fass, 1990), and engage in unethical workplace behavior (Sims, 1993).

The latter relationship between cheating in college and unethical workplace behavior has focused research attention on business students' cheating. Many studies compared business students' cheating behavior with those of other disciplines. The overall conclusion is that business students cheated more often than other students and were less likely to disapprove of it (McCabe, 1997) and that they had more lax attitudes on what constituted cheating (Klein et al., 2007). Lawson (2004) also showed that business students who admitted to cheating were more likely to accept unethical workplace behavior. With the prevalence of corporate fraud like Enron, occurring at the highest level of management, and numerous employee fraud scandals constantly discovered by auditors, research on college cheating becomes increasingly important. Such research has examined possible antecedents of cheating in an attempt to curtail such behavior.

Determinants of college cheating

Research on causes of college cheating found three major categories of determinants: demographic, situational and personal. Karabenick and Scrull (1978) conducted an early study on the influence of demographics on cheating and found no differences between male and female students in the likelihood of cheating. However, Barnes (1975) and more recently Iyer and Eastman (2006) found that male students were more likely to cheat compared to females. Iyer and Eastman (2006) also reported that students who belonged to Greek organizations would cheat more often than others. Graham et al. (1994) found that younger students cheated more often than older (nontraditional) students. However, more recent research like Premeaux (2005), reported that students who are working full-time and married students were more likely to cheat. These latest findings were rationalized by Klein et al. (2007) as the students' reaction to the workplace's "get it done at all costs" environment. Sims (1995) found that the difference between faculty and students in cheating

perception narrows as students become seniors, leading to the conclusion that students perceive cheating more unethical close to graduation. Crown and Spiller (1998) reviewed 14 studies on the demographic determinants of college cheating and found that students with lower GPAs cheated more. The current study, therefore, continues this line of research and examines demographic factors as determinants of cheating perceptions among business students.

Little research has examined selected major as a predictor of cheating. Chapman et al. (2004) found that marketing students were more likely to cheat compared to other business majors. Since previous studies reached mixed conclusions, the following hypothesis is tested in the null form:

H1: There are no differences in business students' perceptions of cheating based on gender, age, major, class grade and overall GPA.

Regarding situational factors, Houston (1976) found that students appeared to cheat more often in large crowded classrooms, where instructors used multiple-choice exams. In a meta-analysis of the antecedents of cheating, Whitley (1998) found that decreased surveillance, increased test importance and difficulty, close seating arrangements and grading on a curve were all important situational determinants of cheating.

The psychology of cheating

Chapman et al. (2004) found that individual and psychological variables were the most important, yet the least researched, determinants of college cheating. Rettinger and Jordan (2005) reported that higher-grade orientation was positively related to self-reported cheating, and that more religiosity was associated with less cheating. Williams and Hosek (2003) stressed that students were rational and that they decided to cheat when they perceived the benefits of cheating outweighing the risks. Davis and Ludvigson (1995) found that students with a fear of failure, alienation, and those under peer or family pressure were more likely to cheat compared to other students. Pino and Smith (2003) referred to an ''academic ethic'' variable and argued that students possessing such ethic were less likely to cheat. Antion and Michael (1983) noted that students with higher anxiety cheated more often than other students. Perry et al. (1990) found a strong relationship between students' personality type and cheating. Students with a Type A personality, characterized by aggression, impatience and competition, were more likely to cheat compared with other students. Iyer and Eastman (2006) also found that students with low self-esteem would cheat more often than other students. Kisamore et al. (2007) found that students with an integrity culture were least likely to cheat. The current study examines two psychological variables that have not been specifically investigated as to their relationship to college cheating: Anti-intellectualism and academic self-efficacy.

Anti-intellectualism attitudes

The concept of anti-intellectualism was first introduced by Hofstadter (1963). In his critique of the intellectual character of American culture, he described anti-intellectualism as a discrete social phenomenon. In an anti-intellectual culture, most students will be anti-intellectual and so will most teachers and most employers. Those individuals whose particular combination of experiences leads them to value intellectual pursuits will represent a minority (Hofstadter, 1963). Shaffer (1981) defined the attitude of anti-intellectualism in college as a preference for learning that is fact-oriented, memorized, pragmatic and routine. It entails a lack of interest in, and sometimes disrespect for, intellectual and theoretical pursuits, as well as critical thinking and hypothetical inquiry. Long (1996) explored the rise of anti-intellectualism in American culture and noted the negative portrayal of academics in Hollywood that stemmed from glorifying the person possessing ''practical'' knowledge and the realization that a degree no longer guaranteed success, or even a job. This concept has been explained by Wacquant (1996) as the ''unquestioned supremacy of economic over cultural capital in American society.'' Berube (1996) further examined the origins of the negative perception toward academics. He argued that the media feeding frenzy about political correctness, public confusion about academic work and distrust of tenure were all factors leading to anti-intellectualism.

Consequences of anti-intellectualism in the college environment

The concept of anti-intellectualism has only been recently introduced in the psychology and education literature. However, early research points to its powerful consequences in the college environment. Eigenberger and Sealander (2001) found that high anti-intellectualism led students to assimilate academic information by rote techniques and surface-level learning, rather than adopting a learning style that was deep and meaning-oriented. They also found that anti-intellectualism was negatively related to critical thinking behavior. Hook (2004) also found that students with an anti-intellectual attitude had difficulty adjusting to college, and were less attached to their institutions. Such students were at higher risk for poor academic adjustment, including underachievement and attrition.

Based on the limited research already conducted on anti-intellectualism, the current study examines the relationship between anti-intellectualism and the perception of cheating in college. The study investigates the likelihood that anti-intellectual students, motivated by their lack of interest in intellectual pursuits, would be less likely to perceive cheating as unethical, in order to achieve their ultimate objective, namely the attainment of a grade and eventually a degree. The following hypothesis is tested in the null form:

H2: There is no relationship between anti-intellectualism and perception of cheating ethics among business students.

Academic self-efficacy

Bandura (1977) defined self-efficacy as a self-evaluation of one's competence to successfully execute a course of action necessary to reach desired outcomes. Research has investigated the consequences of self-efficacy. Chemers et al. (2001) noted that each external environmental demand is viewed as a ''threat'' or a ''challenge'' and that individuals with high self-efficacy were more likely to evaluate such demands as challenges and less as threats. Therefore, persons with low self-efficacy are more likely to be stressed (Torres and Solberg, 2001). This relationship was also confirmed by Zajacova et al. (2005). Bandura (1986) also argued that high perceived self-efficacy depended on confidence that with appropriate tools and training, tasks can be managed. Individuals with high self-efficacy are motivated to succeed due to their self-confidence while those with low self-efficacy visualize scenarios that undermine performances by dwelling on things that can go wrong (Bandura, 1986). Locke et al. (1984) also found that individuals with low self-efficacy selected easier goals when subjects were free to set their own goals.

Pajares (1996) argued that self-efficacy was a multidimensional construct that varied according to the domain of demands, and therefore, must be evaluated at a level specific to the outcome domain. That entails studying academic self-efficacy in an education environment, rather than general self-efficacy. Academic self-efficacy, therefore, refers to a student's confidence in one's ability to carry out such academic tasks as preparing for exams and writing essays (Zajacova et al., 2005). An extensive body of research showed that academic self-efficacy was positively related to grades in college and persistence (Multon et al., 1991). Torres and Solberg (2001) found a positive association between academic self-efficacy and the number of hours students spent studying. Chemers et al. (2001) found a significant positive relationship between freshmen college students' academic self-efficacy and their adjustment to college and in their response to the demands of college life. Students' sense of class belonging was also positively associated with their academic self-efficacy (Freeman et al., 2007). In addition, students' academic self-efficacy affected their choice of major. For example, students with low self-efficacy changed major often during their college years (Elias and Loomis, 2000).

Ethical consequences of academic self-efficacy

Very little research has investigated the potential relationship between self-efficacy in general and ethics. Kuo et al. (2007) found a moderate relationship between the ethics of guarding personal private information and self-efficacy among computer professionals. Female computer professionals exhibited a higher level of self-efficacy than males for the protection of personal privacy information. Research investigating academic self-efficacy and ethics is lacking. The current study examines the relationship between academic self-efficacy and

cheating perceptions among business students. Angell (2006) reported that students with high academic self-efficacy learned for pleasure and satisfaction and were reinforced by feeling intelligent. Therefore, it is reasonable to theorize that such students would perceive cheating as more unethical compared to their counterparts with lower academic self-efficacy. The following hypothesis is tested in the null form:

H3: There is no relationship between the level of academic self-efficacy and the perception of cheating ethics among business students.

Research method

Sampling

The sample for this study consisted of business students in three AACSB-accredited universities located in the West, Mountains and Northeastern U.S. Many different sections of introductory and upper-level business classes were surveyed as well as graduate classes over a one-year period. Overall, a total of 692 students participated in the survey. These voluntary surveys were administered at the end of the semester and students were assured of confidentiality. After eliminating surveys with missing answers, the useable sample consisted of 666 students.

Measures

The survey consisted of a demographic section and several scales. In order to measure students' perceptions of cheating, the questionnaire developed by Allmon et al. (2000) was used. It consisted of nine statements and respondents indicated their agreement or disagreement with each statement on a seven-point scale ranging from 1 (always acceptable) to 7 (always unacceptable). The questionnaire asked students about their perception of the ethics of several activities that would be considered cheating, both inside and outside the classroom. Higher scores indicated a more negative perception of cheating as represented by these activities. Swift and Nonis (1998) found that the level of cheating was higher on projects than on exams and that students viewed the ethics of cheating differently inside and outside the classroom. Therefore, the questionnaire contained examples of cheating in the classroom like cheating on exams and not reporting an instructor's math error as well cheating outside the classroom like plagiarism and submitting a friend's work as one's own project. Allmon et al. (2000) validated the scale and found it correlated with idealism, relativism and personality type. Two distinct factors emerged for cheating inside and outside the classroom.

In order to measure anti-intellectualism, the scale developed by Eigenberger and Sealander (2001) was used. The scale consisted of 25 statements, such as ''I do not like taking courses that are not directly related to my goals after graduation'' and ''The main problems in life require clear and direct answers, not intellectual theorizing.'' Each respondent records one's agreement with each statement on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). A higher score indicates a higher level of anti-intellectualism. The authors presented evidence of survey validity by showing correlation with similar constructs, such as dogmatism, and openness to ideas and a lack of correlation with social desirability. The scale was also used by Hook (2004) in his study regarding adjustment to college.

Academic self-efficacy was measured using the scale developed by Chemers et al. (2001) based on Bandura's (1997) work regarding self efficacy. The scale consisted of eight statements, such as ''I know how to take notes in my college classes'' and ''I am very capable at succeeding at the university.'' The scale was tailored by Leach et al. (2003) to fit college-level work. The respondents' answers ranged from 1 (definitely not true of me) to 7 (definitely true of me). Higher scores indicate higher academic self-efficacy.

Scale testing

In order to use the previous measures, reliability must be determined. This refers to the degree that the measure provides consistent results. Cooper and Emory (1995) explained that reliable instruments were robust and worked well at different times under different conditions. The previous measures' reliability was retested using the Cronbach's Alpha technique. In the current study, the cheating survey

by Allmon et al. (2000) had reliability ranging from .65 to .89. Eigenberger and Sealander (2001) reported their reliability at .91 and in the current study it was found to be .89. Finally, Chemers et al. (2001) tested their academic self-efficacy scale and found its reliability to be .81. In the current study, it was .84. With such high Cronbach Alpha coefficients on all scales, they can be used with reasonable confidence that they are measuring the underlying constructs (Cooper and Emory, 1995).

Statistical analyses

Before analyzing the data, it was important to determine if there were different characteristics among students in the three universities sampled. A comparison of the means on all scales yielded no significant differences between the three groups of students. In order to analyze the impact of demographics on cheating (H1), Analysis of Variance (ANOVA) was used with cheating in and outside the classroom being the dependent variables (in separate analyses) and demographic factors being the independent variables. Pairwise comparison of the means was used as a follow-up test for the significant demographic variables. In order to test H2 and H3 and examine the relationship between college cheating, anti-intellectualism, academic self-efficacy and GPA, correlation analysis was used. Pearson (product moment) coefficients were obtained. Correlation coefficients reveal the magnitude and the direction of relationships but do not measure causality (Cooper and Emory, 1995).

Study results

Table I presents the sample characteristics. The sample was about evenly divided between males and females. There were more traditional-age students (defined as 25 years old or younger) compared to nontraditional students (defined as over 25 years old). In addition, there were more accounting majors compared to other majors, followed by management, marketing, finance, MIS, general business, economics, and undeclared majors. There were also 38 nonbusiness majors. Most of the students were juniors and seniors, followed by sophomores and freshmen. That was an expected distribution since many freshmen do not take business classes in order to focus on completing their general education requirements. There were also 84 MBA students.

Overall, students viewed cheating outside the classroom as more unethical than cheating in class (Mean 5.69 compared to 5.30, respectively). In both situations, students viewed cheating as slightly to moderately unacceptable. However, the standard deviations of 1.08 and 1.02 are large indicating significant differences of opinion among the students on the perception of cheating inside and outside the classroom.

In general, students were neutral in their anti-intellectualism with an average score of 3.84 out of 7.00. In addition, students had an overall moderate level of academic self-efficacy (mean 5.07 out of 7.00). In this case, the standard deviation was also large, indicating that students' self-efficacy varied significantly. The average GPA for all students was 3.07 using a 4.00 scale.

Cheating in the classroom and cheating outside the classroom were analyzed separately, since students perceived a significant difference between both types of cheating. The results are presented in Table II.

The results indicated a significant impact of gender, class grade and major on the ethical perception of cheating in the classroom. No significant differences were found due to age. Female students viewed cheating in the classroom as slightly more unethical compared to males (mean 5.39 compared to mean 5.16, respectively, with a significance of $p = .09$). Graduate students viewed cheating in the classroom as most unethical (mean 5.65), followed by juniors (mean 5.32) and seniors (mean 5.24) with $p = .04$). Sophomore (mean 5.17) and freshmen students (mean 5.12) viewed such activities as least unethical. MIS and nonbusiness majors viewed cheating in the classroom as most unethical (mean 5.69), followed by nonbusiness majors (mean 5.62) and accounting majors (mean 5.45) with a significance level of $p = .001$). Economics majors viewed such activities as least unethical (mean 4.54) followed by general business majors (mean 4.98).

Regarding cheating outside the classroom, only age and major were significant determinants of students' ethical perceptions. Nontraditional students viewed such activities as more unethical (mean 5.77) compared to traditional students (mean 5.48) with a significance of $p = .04$. Nonbusiness majors viewed

TABLE I

Sample characteristics and means ($N = 666$)

	N	Major	*N*
Gender			
Males	330	Accounting	152
Females	336	Finance	89
Age		Economics	30
Traditional (25 or <)	421	Management	115
Nontraditional (>25)	245	Marketing	98
Grade		MIS	69
Freshman	38	General Business	46
Sophomore	91	Undeclared	29
Junior	269	Nonbusiness	38
Senior	184		
Graduate	84		

Variable	Mean	SD
Cheating in class	5.30	1.08
Cheating outside class	5.69	1.02
Anti-intellectualism	3.84	.80
Academic self-efficacy	5.07	1.09
GPA	3.07	.44

Cheating in class: 1 = always acceptable; 7 = always unacceptable.
Cheating outside class: 1 = always acceptable; 7 = always unacceptable.
Anti-intellectualism: 1 = strongly disagree; 7 = strongly agree *(higher scores indicate higher anti-intellectualism)*.
Academic self-efficacy: 1 = Definitely not true of me; 7 = definitely true of me (*higher scores indicate higher academic self-efficacy*).

such activities as most unethical (mean 6.03), followed by accounting (mean 5.85) and management majors (mean 5.84) with a significance level of $p = .001$. Economics majors viewed them as least unethical (mean 5.32), followed by marketing majors (mean 5.38).

The results of H2 and H3 testing using correlation analyses are presented in Table III.

There was a strong positive relationship between the perception of cheating in and outside the classroom. That indicates that students who viewed cheating inside the classroom as unethical had a similar opinion regarding cheating outside the classroom. There was a significant inverse relationship between anti-intellectualism and perception of cheating in and outside the classroom. Students who scored high on anti-intellectualism were less likely to view cheating in and outside the classroom as unethical. In addition, students who scored high on academic self-efficacy were more likely to view cheating inside and outside the classroom as unethical. Therefore, H2 and H3 were supported. It is also interesting to note the inverse relationship between anti-intellectualism and academic self-efficacy. Regarding GPA, academic performance was not related to cheating in class but was significantly related to cheating outside the classroom. Students with higher GPA perceived cheating outside the classroom as more unethical compared to other students. They were also less likely to be anti-intellectual and were more likely to have higher academic self-efficacy.

Discussion and implications

The current study examined the impact of demographics on business students' perceptions of cheating. It also established a relationship between anti-intel-

TABLE II

The impact of demographics on perceptions of cheating

	Means	Major	Means
Panel A: Cheating in the classroom ($F = 1.33$; $p < .05$; $R^2 = .20$)			
Gender		Accounting	5.45***
Males	5.16*	Finance	5.06
Females	5.39*	Economics	4.54
Grade		Management	5.39
Freshman	5.12	Marketing	5.02
Sophomore	5.17	MIS	5.69***
Junior	5.32**	General Business	4.98
Senior	5.24**	Undeclared	5.48***
Graduate	5.65**	Nonbusiness	5.62***
Panel B: Outside cheating ($F = 1.22$, $p < .05$; $R^2 = .17$)			
Age		Accounting	5.85***
Traditional	5.48**	Finance	5.49
Nontraditional	5.77**	Economics	5.32
		Management	5.84***
		Marketing	5.38
		MIS	5.72
		General Business	5.63
		Undeclared	5.57
		Nonbusiness	6.03***

Cheating in class: 1 = always acceptable; 7 = always unacceptable.
Cheating outside class: 1 = always acceptable; 7 = always unacceptable.
***Significant at the .01 level.
**Significant at the .05 level.
*Significant at the .10 level.

TABLE III

The relationship between cheating, anti-intellectualism, academic self-efficacy and GPA

	Incheat	OUTcheat	Anti-intell.	Self-effic.	GPA
Incheat		.69***	−.24***	.12***	.05
OUTcheat			−.27***	.21***	.07**
Anti-intell.				−.32***	−.06**
Self-effic.					.30***

***significant at the .01 level.
**significant at the .05 level.

lectualism and academic self-efficacy and the ethical perception of cheating.

Contrary to previous research by Nonis and Swift (1998), business students viewed cheating outside the classroom to be slightly more unethical than cheating in class. This difference can be due to the proliferation of internet sites where students can plagiarize papers, and also to the increased frequency of outside projects assigned by instructors. Students today use the internet and library databases much more often to complete homework projects and papers. With such expansion of projects, students are beginning to view questionable out-of-class behavior as unethical. The current study found a gender dif-

ference regarding perception of cheating, but only for cheating inside the classroom, where females viewed it as more unethical than males. Also, graduate students viewed cheating inside the classroom as more unethical and freshmen and sophomores viewed it as least unethical. Nontraditional students were more likely to perceive cheating outside the classroom as more unethical compared to younger and traditional students. These results are consistent with the previous findings of numerous studies (e.g., Iyer and Eastman 2006) that showed that younger and traditional students were more likely to cheat compared to older and nontraditional students. In addition, consistent with previous research (e.g., McCabe, 1997) nonbusiness and undeclared majors viewed cheating in and outside the classroom as more unethical than business majors. However, since the sample consisted of only 38 nonbusiness majors and 29 undeclared majors, more research is needed to confirm these findings.

Among business majors, it was comforting that accounting and management majors were among those that viewed cheating in class and outside class as more unethical compared to economics majors, for example, since accounting and management majors are future auditors and corporate managers. However, more research is needed to investigate if the current study's findings regarding economics majors can be replicated and any possible interpretation. Students with high academic performance, as operationalized by GPA, were more likely to perceive all forms of cheating as unethical. Such students did not feel the need to cheat to achieve high grades.

Regarding anti-intellectualism, the results were somewhat troubling. In the three universities sampled, students scored average in their anti-intellectual attitudes. Although these results would not be as troubling in the general population, since preliminary research (e.g., Long, 1996) argued that the general population may have anti-intellectual tendencies, these results are troubling among university students. As hypothesized, students who scored higher on anti-intellectualism were more likely to view cheating inside and outside the classroom as least unethical. Such students simply want to get a grade and eventually a degree, and have no interest in any intellectual pursuits.

Overall, students had above average levels of academic self-efficacy. These are comforting results. Students who felt confident about their academic abilities were most likely to view cheating as unethical. Such students felt confident that they can accomplish academic tasks, such as taking exams, and writing papers, even challenging ones, without resorting to cheating.

The study's conclusions have implications for business instructors and employers. Considering the findings that anti-intellectualism was related to perceptions of cheating, and the overall average anti-intellectual attitudes of students, instructors have an obligation to reduce students' anti-intellectualism. Berube (1996) attributed anti-intellectualism in society in general, and in universities in particular, to a confusion about the nature of academic work and a distrust of tenure. Instructors can change these perceptions through discussion and increased awareness among students of the importance of intellectual pursuits along with the value of academic research.

Instructors should also increase their effort to improve students' academic self-efficacy. It is desirable to have future business leaders with high confidence in their abilities since they will often have to make difficult business decisions and take risks.

Employers should also be aware of this study's findings. They should strive to hire students low on anti-intellectualism and high on academic self-efficacy. The latter variable should also be a part of performance evaluation for promotion since more motivated employees are more likely to succeed and less likely to commit fraud.

The findings of the current study should be interpreted in light of the following limitation. The study measured business students' perceptions regarding cheating. It is possible that the likelihood of cheating may not be related to perceptions. Students can perceive cheating as unethical but, under certain circumstances, be inclined to cheat. Therefore, an expansion of the current study to measure the likelihood of cheating based on different determinants may be beneficial to confirm or refute the link between perception and intention. Future research can also examine other personality variables as determinants of cheating. Research shows that personality variables did not receive enough attention in the cheating literature. In addition, research should examine possible variables related to anti-intellectualism and academic self-efficacy to expand their use in the literature.

References

Allmon, D. E., D. Page and R. Roberts: 2000, 'Detecting, Understanding, and Controlling for Cheating on Tests', *Research in Higher Education* **32**, 725–736.

Angell, L. R.: 2006, 'The Relationship of Impulsiveness, Personal Efficacy, and Academic Motivation to College Cheating', *College Student Journal* **40**, 118–131.

Antion, D. L. and W. B. Michael: 1983, 'Short-Term Predictive Validity of Demographic, Affective, Personal, and Cognitive Variables in Relation to Two Criterion Measures of Cheating Behaviors', *Educational and Psychological Measurement* **43**, 467–482. doi:10.1177/001316448304300216.

Bandura, A.: 1977, 'Self-Efficacy: Toward a Unifying Theory of Behavioral Change', *Psychological Review* **84**, 191–215. doi:10.1037/0033-295X.84.2.191.

Bandura, A.: 1986, *Social Foundation of Thought and Action: A Social Cognitive Theory* (Prentice Hall, Englewood Cliffs, NJ).

Bandura, A.: 1997, *Self-Efficacy: The Exercise of Control* (Freeman, New York).

Barnes, W. F.: 1975, 'Test Information: An Application of the Economics of Search', *The Journal of Economic Education* **7**, 28–33. doi:10.2307/1182030.

Beck, L. and I. Ajzen: 1991, 'Predicting Dishonest Actions Using the Theory of Planned Behavior', *Journal of Research in Personality* **25**, 285–301. doi:10.1016/0092-6566(91)90021-H.

Berube, M.: 1996, 'Public Perceptions of Universities and Faculty', *Academe* **82**, 10–17.

Bowers, W. J.: 1964, *Student Dishonesty and Its Control in College* (Columbia Bureau of Applied Research, New York).

Chapman, K. J., R. D. Davis, D. Toy and L. Wright: 2004, 'Academic Integrity in the Business School Environment: I'll Get by with a Little Help from My Friends', *Journal of Marketing Education* **26**, 236–249. doi:10.1177/0273475304268779.

Chemers, M. M., L. T. Hu and B. F. Garcia: 2001, 'Academic Self-Efficacy and First-Year College Student Performance and Adjustment', *Journal of Educational Psychology* **93**, 55–64. doi:10.1037/0022-0663.93.1.55.

Cooper, D. R. and C. W. Emory: 1995, *Business Research Methods* (Irwin, Chicago, IL).

Crown, D. F. and M. S. Spiller: 1998, 'Learning from Literature on Collegiate Cheating: A Review of Empirical Research', *Journal of Business Ethics* **17**, 683–700.

Davis, S. F., C. A. Grover, A. Becker and L. N. McGregor: 1992, 'Academic Dishonesty: Prevalence, Determinants, Techniques and Punishments', *Teaching of Psychology (Columbia, Mo.)* **19**, 16–20. doi:10.1207/s15328023top1901_3.

Davis, S. F. and H. W. Ludvigson: 1995, 'Additional Data on Academic Dishonesty and a Proposal for Remediation', *Teaching of Psychology (Columbia, Mo.)* **22**, 119–121. doi:10.1207/s15328023top2202_6.

Eigenberger, M. E. and K. A. Sealander: 2001, 'A Scale for Measuring Students' Anti-Intellectualism', *Psychological Reports* **89**, 387–402. doi:10.2466/PR0.89.6.387-402.

Elias, S. M. and R. J. Loomis: 2000, 'Using an Academic Self- Efficiency Scale to Address University Major Persistence', *Journal of College Student Development* **41**, 450–454.

Fass, R. A.: 1990, *Cheating and Plagiarism: Ethics in Higher Education* (McMillan, New York, NY).

Freeman, F. M., L. H. Anderman and J. M. Jensen: 2007, 'Sense of Belonging in College Freshman at the Classroom and Campus Levels', *Journal of Experimental Education* **75**, 203–220. doi:10.3200/JEXE.75.3.203-220.

Graham, M. A., J. Monday, K. O' Brien and S. Steffen: 1994, 'Cheating at Small Colleges: An Examination of Student and Faculty Attitudes and Behaviors', *Journal of College Student Development* **35**, 255–260.

Hofstadter, R.: 1963, *Anti-Intellectualism in American Life* (Knopf, New York).

Hook, R. J.: 2004, 'Students' Anti-Intellectual Attitudes and Adjustment to College', *Psychological Reports* **94**, 909–914. doi:10.2466/PR0.94.3.909-914.

Houston, J. P.: 1976, 'The Assessment and Prevention of Answer Coping on Undergraduate Multiple-Choice Exams', *Research in Higher Education* **5**, 301–311. doi:10.1007/BF00993429.

Iyer, R. and J. K. Eastman: 2006, 'Academic Dishonesty: Are Business Students Different from Other College Students?', *Journal of Education for Business* **82**, 101-110.

Karabenick, S. A. and T. K. Scrull: 1978, 'Effects of Personality and Situation Variation in Locus of Control on Cheating: Determinants of the ''Congruence Effect''', *Journal of Personality* **46**, 72–95. doi:10.1111/j.1467-6494.1978.tb00603.x.

Kisamore, J. L., T. H. 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. doi:10.1007/s10551-006-9260-9.

Klein, H. A., N. M. Levengurg, M. McKendall and W. Mothersell: 2007, 'Cheating During the College Years: How Do Business School Students Compare?', *Journal of Business Ethics* **72**, 197–206. doi:10.1007/s10551-006-9165-7.

Kuo, F., C. S. Lin and M. Hsu: 2007, 'Assessing Gender Differences in Computer Professionals' Self-Regula-

tory Efficacy Concerning Information Privacy Practices', *Journal of Business Ethics* **73**, 145–160. doi:10.1007/s10551-006-9179-1.

Lawson, R. A.: 2004, 'Is Classroom Cheating Related to Business Students' Propensity to Cheat in the Real World?', *Journal of The American Academy of Business* **8**, 142–146.

Leach, C. W., S. S. Queirolo, S. D. Voe and M. Chemers: 2003, 'Choosing Letter Grade Evaluations: The Interaction of Students' Achievement Goals and Self-Efficacy', *Contemporary Educational Psychology* **28**, 495–509. doi:10.1016/S0361-476X(02)00058-9.

Lock, E. A., E. Frederick, C. Lee and P. Bobko: 1984, 'Effects of Self-Efficacy, Goals, and Task Strategies on Task Performance', *The Journal of Applied Psychology* **69**, 241–251. doi:10.1037/0021-9010.69.2.241.

Long, C. D.: 1996, 'It Came from Hollywood: Popular Culture Casts Professors in a Negative Light', *Academe* **82**, 32–36.

McCabe, D. L.: 1997, 'Classroom Cheating Among Natural Science and Engineering Majors', *Science and Engineering Ethics* **3**, 433–445. doi:10.1007/s11948-997-0046-y.

Multon, K. D., S. D. Brown and R. W. Lent: 1991, 'Relation of Self-Efficacy Beliefs to Academic Outcomes: A Meta-Analytic Investigation', *Journal of Counseling Psychology* **38**, 30–38. doi:10.1037/0022-0167.38.1.30.

Nonis, S. and C. O. Swift: 1998, 'Deterring Cheating Behavior in the Marketing Classroom: An Analysis of the Effects of Demographics, Attitudes and in-class Deterrent Strategies', *Journal of Marketing Education* **20**(3), 188–199.

Pajares, F.: 1996, 'Self-Efficacy Believes in Academic Settings', *Review of Educational Research* **66**, 543–578.

Perry, A. R., K. M. Kane, K. J. Bernesser and P. T. Picker: 1990, 'Type A Behavior, Competitive Achievement-Striving, and Cheating among College Students', *Psychological Reports* **66**, 459–465. doi:10.2466/PR0.66.2.459-465.

Pino, N. W. and W. L. Smith: 2003, 'College Students and Academic Dishonesty', *College Student Journal* **37**, 490–500.

Premeaux, S.: 2005, 'Undergraduate Student Perceptions Regarding Cheating: Tier 1 Versus Tier 2 AACSB Accredited Business Schools', *Journal of Business Ethics* **62**(4), 407–418.

Rettinger, D. A. and A. E. Jordan: 2005, 'The Relations Among Religion, Motivation, and College Cheating: A Natural Experiment', *Ethics & Behavior* **15**, 107–129. doi:10.1207/s15327019eb1502_2.

Shaffer, L. S.: 1981, 'The Growth and Limits of Recipe Knowledge', *Journal of Mind and Behavior* **2**, 71–83.

Sims, R. L.: 1993, 'The Relationship Between Academic Dishonesty and Unethical Business Practices', *Journal of Education for Business* **68**, 207–211.

Sims, R. L.: 1995, 'The Severity of Academic Dishonesty: A Comparison of Faculty and Student Views', *Psychology in the Schools* **32**, 233–238. doi: 10.1002/1520-6807(199507)32:3<233::AID-PITS2310320311>3.0.CO;2-H.

Smyth, L. S. and J. R. Davis: 2004, 'Perceptions of Dishonesty Among Two-Year College Students: Academic Versus Business Situations', *Journal of Business Ethics* **51**, 62–73. doi:10.1023/B:BUSI.0000032347.79241.3c.

Swift, C. O. and S. Nonis: 1998, 'When No One is Watching: Cheating Behavior on Projects and Assignments', *Marketing Education Review* **8**, 27–36.

Torres, J. B. and V. S. Solberg: 2001, 'Role of Self-Efficiency, Stress, Social Integration, and Family Support in Latino College Student Persistence and Health', *Journal of Vocational Behavior* **59**, 53–63. doi:10.1006/jvbe.2000.1785.

Wacquant, L. J.: 1996, 'The Self-Inflicted Irrelevance of American Academics', *Academe* **82**, 18–23.

Williams, M. S. and W. R. Hosek: 2003, 'Strategies for Reducing Academic Dishonesty', *Journal of Legal Studies Education* **21**, 87. doi:. doi:10.1111/j.1744-1722.2003.tb00326.x.

Whitley, B. E.: 1998, 'Factors Associated with Cheating Among College Students', *Research in Higher Education* **39**, 235–274. doi:10.1023/A:1018724900565.

Wood, R. E. and E. A. Locke: 1987, 'The Relation of Self-Efficiency and Grade Goals to Academic Performance', *Educational and Psychological Measurement* **47**, 1013–1024. doi:10.1177/0013164487474017.

Zajacova, A., S. M. Lynch and T. J. Espenshade: 2005, 'Self-Efficacy, Stress, and Academic Success in College', *Research in Higher Education* **46**, 677–705. doi:10.1007/s11162-004-4139-z.

California State University,
Los Angeles, CA, U.S.A.
E-mail: relias@calstatela.edu