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Academic Dishonesty in the Middle East: Individual and Contextual Factors

Donald L. McCabe · Tony Feghali · Hanin Abdallah

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Abstract Little work has been done on academic dishonesty in the Middle East. This research investigates the nature of the relationship between contextual factors and academic dishonesty using a sample from three private universities in Lebanon, and compares the results to a sample from seven large universities in the US. Using the basic model of McCabe et al. (*Research in Higher Education 43*(3):357–378, 2002), we found additional evidence for the strong role perception of peers' behavior plays in understanding student decisions concerning academic integrity. Cross cultural comparisons of attitudes, beliefs, and behaviors regarding academic dishonesty were pivotal in this research. Our results support the view that Lebanese university students are strongly influenced by the norms of the collectivist society in which they are raised as compared to the more individualistic society found in the United States.

Keywords Academic integrity · Middle East · Individual factors · Contextual factors

Introduction

Understanding how students think about, and what affects their decisions to engage in, dishonest behavior may allow academic institutions to reduce the incidence of academic dishonesty. By discouraging such behavior, academic institutions can also help ensure the integrity of the degrees they offer, and help level the playing field of grade competition among students. Just as importantly, rationalizations that students offer for cheating

D. L. McCabe (✉)
Rutgers Business School, 111 Washington Street, Newark, NJ 07102, USA
e-mail: dmccabe@andromeda.rutgers.edu

T. Feghali · H. Abdallah
Suliman S. Olayan School of Business, American University of Beirut, P.O. Box 11-0236, Beirut, Lebanon
e-mail: feghali@aub.edu.lb

H. Abdallah
e-mail: haninabd@aub.edu.lb

(pressure to get good grades, unfairness in the educational system, difficulty of exams, perception that others cheat and can get away with it) can be, and are, paralleled in the professional environment (Lysonski and Gaidis 1991; Dupont and Craig 1996). Studies that have investigated the relation between academic integrity and business ethics (Sims 1993; Ogilby 1995; Nonis and Swift 2001) show that student decisions to cheat might be related to decisions to engage in unethical behavior in the workplace. Furthermore, some studies have found a relation between the level of college cheating and a country's corruption index (Magnus et al. 2002). Since corruption and lack of business ethics constitute an impediment to growth (Wilhelm 2002), addressing academic integrity issues may be especially important in developing countries. Cross cultural comparisons of attitudes, beliefs, and behaviors regarding cheating may reveal differences and similarities that have serious implications in today's global context. Of particular interest may be behaviors that are viewed as dishonest in one cultural context but seen as appropriate in another.

In the United States, McCabe and Trevino (1997) and McCabe et al. (2002) have examined the relationship between various contextual factors, including honor codes, and the prevalence of academic dishonesty on college and university campuses. Although academic honor codes as known in the US are not generally found in other countries, the work of McCabe and his colleagues has been expanded to include campuses in Canada (Christensen-Hughes and McCabe 2006). However, little work has been done to investigate the relationship between contextual factors (e.g., the severity of penalties for cheating; student and faculty understanding of campus integrity policies; the likelihood a student might be reported for cheating; and the perception by students of peer cheating behavior) and academic dishonesty in other cultures.

The research described here discusses a comparison of academic dishonesty among US and Lebanese students that was carried out in the 2004–2005 academic year using the basic model of McCabe et al. (2002). A total of 12,793 undergraduate students on seven campuses in the United States and 1,317 students on three campuses in Lebanon are used in this comparison. First year students were excluded from both samples since several universities surveyed students early in the fall semester before most first year students had any meaningful experience with tests and exams or major written assignments. The seven US and three Lebanese schools included in this study are all universities with a comprehensive range of faculties/schools and majors. Eleven other US campuses that participated in the 2004–2005 administration of the survey were excluded from the comparison discussed in this paper to maintain a degree of comparability between the US and Lebanese samples. As expected when comparing results from two data sets collected independently, issues regarding validity and selection bias often arise. However, in spite of the low response rate in the US sample, this research shows that the basic model of McCabe et al. (2002) holds in the context of Lebanon but with some important differences that can be explained by culture and country specific factors.

Studies Outside the United States

A modest number of studies have looked at academic dishonesty outside the US. Some of these studies take a comparative approach while others focus on a single country. Many of the one-country studies assess the severity of cheating and focus on the effect of beliefs. Their findings in general agree with studies conducted in the US. Beliefs are found to affect cheating behavior and students report less cheating for violations that they consider more

serious (Franklyn-Stokes and Newstead 1995; Lim and See 2001). These studies also find that the faculty perception of what constitutes serious cheating is different from student perceptions (Franklyn-Stokes and Newstead 1995; De Lambert et al. 2003) and that a low percentage of students are willing to report cheating (De Lambert et al. 2003; Lim and See 2001). Some of these studies emphasize the effect of the perceived level of peers' cheating on a student's cheating behavior (Underwood and Szabo 2003; Lim and See 2001).

Franklyn-Stokes and Newstead (1995) found an inverse relation between frequency and seriousness of cheating in the UK. Staff reported lower perceived cheating than students did, and ratings for perceived seriousness were consistently higher for staff than for students. Newstead et al. (1996) report students in the UK were involved in a range of cheating behaviors and paraphrasing without acknowledgement was reported by the greatest number of students (54%). Men reported more cheating than women; more academically successful and older students reported less cheating; and cheating was more common in the sciences and technology. Students who stress the value of learning as opposed to obtaining high grades tended to cheat less. Underwood and Szabo (2003) tested for the effect of individual factors (use of internet, gender and experience), and contextual factors (perception of cheating by others and response of faculty members to cheating) on the level of cheating among UK students. One third of the students in their study indicated they would revert to cheating to avoid failure. Cheating was associated with the overall assessment of risk, the cost-benefit analysis of cheating, the perceived level of cheating by others, and the level of guilt when cheating.

De Lambert et al. (2003) studied academic dishonesty in New Zealand with respect to its "prevalence, perceptions and justification" from the viewpoint of students and teaching staff. In universities and polytechnics, they found dishonesty to be prevalent as 80% of Staff had reported at least one incidence involving lack of referencing and 96% reported witnessing some incidence of dishonesty in their academic career. Student perceptions of what constitutes serious cheating were more lenient than staff perceptions, especially concerning issues of referencing.

In a 1988 study in Canada, Harpp and Hogan (1993) report rates of cheating as high as 90% and discuss preventive measures which may help reduce cheating on multiple-choice exams. In Singapore, Lim and See (2001) studied the prevalence and perceived severity of cheating as well as the willingness of students to report such incidences. Test cheating was reported to be more serious than plagiarism and almost all students admitted to at least one incident of cheating. Seventy-seven percent reported seeing another student cheat but less than 2% were willing to report someone for cheating. Violations that were perceived to be less serious were committed more often.

While there are many similarities across different cultures, comparative studies emphasize some important cultural differences in terms of reported levels of cheating and in terms of student attitudes about cheating. As discussed below, these differences have often been attributed to differences in the value system (individual and social) as well as attitudes towards individualism versus collectivism and uncertainty avoidance across different cultures.

For example, Magnus et al. (2002), using a "tolerance of cheating index", found significant differences in attitudes towards cheating in four countries: Russia, the Netherlands, Israel, and the United States. The index depended on a student's attitude toward students who cheat, students who help others cheat, and those who inform or report cheating. They attributed the reported variability to three factors: culture (especially the strength of individual versus collective values), the educational system, and a "coordination effect" which rests on the premise that, "the more consistently a norm is observed in society, the

greater the costs incurred by an individual deviating from it." (2002, p. 131) The authors found a link between the "tolerance for cheating index" and the country corruption index and noted partial support for a link that suggests cheating and corruption may arise from common cultural roots.

Chapman and Lupton (2004) compared cheating behavior, the effect of gender, and determinants of cheating in a business course taught in both Hong Kong and the US American business students reported more cheating and believed that more of their peers cheat. Male US students cheated more than females but there was no difference in the Hong Kong sample based on gender. They attributed their results to the cultural differences vis-à-vis individualism versus collectivism, and uncertainty avoidance. In a comparative study between US and Polish students, Lupton et al. (2000) found that 55% of US students reported cheating at least once compared to 84% of Polish students, although Polish students were more likely to report cheating. Perceptions of what constituted cheating differed significantly between the two samples.

Salter et al. (2001) reported that US accounting students are more likely to cheat and are more affected by their context, in particular the severity of punishment, than their UK counterparts. They explain this difference using Cohen et al.'s (1993) conclusion: "Individuals in low uncertainty avoidance cultures apply a broad ethical framework in their decision making and are less affected by the severity of sanctions". Diekhoff et al. (1999) found that Japanese students are more likely to cheat than US students are. They are also more likely to justify their behavior and are less deterred by the fear of "social stigma and punishment". However, they also found strong similarities as both groups ranked social stigma as the least effective deterrent and fear of punishment as the most effective.

Many of the studies above faced limitations related to the difference in the education systems of the universities from which the samples are obtained. In this study, samples were selected from North American and from Lebanese universities that follow the American education model. Particularities related to both cultures can then be analyzed as how they reflect on academic integrity behavior.

Contextual Influences on Academic Dishonesty

McCabe and Trevino (1993, 1997) and McCabe et al. (2002) have provided evidence that academic dishonesty among college students is related to a series of contextual variables. Five variables have been consistently included in their work—perception of peers' behavior, student perceptions of the understanding and acceptance of campus integrity policies, the perceived certainty of being reported for cheating, the perceived severity of campus penalties for cheating, and the presence or absence of an academic honor code. As McCabe and Trevino suggested in their first study in this ongoing project, understanding how these variables relate to, and perhaps influence, academic integrity is important because these variables are open to a degree of "administrative influence" (McCabe and Trevino 1993, p. 536). Although measurable change is not easily achieved, a number of campuses feel they have made significant strides in this direction over the last ten to 15 years and the efforts of the University of Maryland at College Park stand out in this regard (McCabe and Pavela 2000). These contextual variables, with the exception of the presence or absence of an honor code, were utilized in the current study. Honor codes were not included since only a single campus included in the sample for this analysis has an honor code. However, since an underlying objective of the current study is to examine differences between student behavior in the US and Lebanon, a dummy variable was added

to the analysis to assess the relation between country (culture) and academic dishonesty, as described below.

As stated earlier, our research model and strategy were based on the work of McCabe et al. (2002) and the hypotheses and measures used in this research were identical to those employed in this earlier study with only three exceptions: the use of a more robust measure of perception of peers' behavior, the elimination of honor code as a variable, and the addition of country as a contextual variable. As a result, our discussion of hypotheses and measures will closely mirror the work of McCabe et al. (2002), although it will be condensed.

As suggested in that earlier work, the perception of peers' behavior has proven to be one of the most significant explanatory contextual variables with perceptions of higher levels of academic dishonesty among one's peers associated with higher levels of self-reported academic dishonesty. McCabe and Trevino (1993) and McCabe et al. (2002) suggest that social learning theory (Bandura 1977) and the powerful influence of example (Rosenhan et al. 1976) explain this relationship:

> The strong influence of peers' behavior may suggest that academic dishonesty not only is learned form observing the behavior of peers, but that peers' behavior provides a kind of normative support for cheating…. Thus cheating may come to be viewed as an acceptable way of getting and staying ahead. (McCabe and Trevino 1993, p. 533)

McCabe et al. (2002) suggest many students feel they have no choice but to cheat to keep the playing field level. Further support for a positive relation between perceptions of peers' behavior and academic dishonesty is also found in Kohlberg's (1969) work on moral development, research on just communities (Power et al. 1989), and Trevino and McCabe's (1994) discussion of a school's "hidden curriculum." But perhaps the most straightforward support is offered by Dalton (1985) who notes that values which are prized in a peer culture have a significant influence on college students—"Students emulate the values of those they admire." (McCabe et al. 2002, p. 360). Following the lead of McCabe et al. the first hypothesis to be tested in this study can be stated as follows.

Hypothesis 1: Academic dishonesty will be positively related to perceptions of peers' academic dishonesty.

The second element in the McCabe et al. (2002) model is student perceptions of the degree of understanding and acceptance of campus policies concerning academic integrity. McCabe and Trevino (1993) reported a strong relationship between such understanding/acceptance and academic honesty but suggested that faculty understanding and acceptance may also be an important influence on student behavior. Jendrek (1989) and Nuss (1984) reported that at least some faculty prefer to handle allegations of student cheating in their courses directly and may bypass stated campus policies and procedures. One 'negative' outcome of such behavior is that no central record is kept of such incidents. In the absence of such records, students would correctly conclude that the risk of getting caught cheating a second time is no greater than a first offense. As McCabe et al. (2002, p. 360) suggest, "lack of acceptance and adherence to the institution's policy by faculty may lead to more cheating." Indeed such behavior by faculty, important role models for students in academic settings, is likely to negatively impact student behavior.

Hypothesis 2: Academic dishonesty will be inversely related to perceived understanding and acceptance of academic integrity policies by both students and faculty.

Based on the findings of McCabe and Trevino (1993) and McCabe et al. (2002), we would expect to observe an inverse relationship between academic dishonesty and the degree to which a student might expect to be caught if they choose to engage in academic dishonesty. Like these earlier studies, we rely primarily on the logic of deterrence theory (Gibbs 1975) as summarized by McCabe and Trevino (1993, p. 526) in their original study: "…for misconduct to be inhibited, wrongdoers must perceive, first, that they will be caught and second, that severe penalties will be imposed for the misconduct." With regard to academic dishonesty, Tittle and Rowe (1973), McCabe and Trevino (1993, 1997) and McCabe et al. (2002) have all demonstrated support for this relation. Stated simply, the behavior of students "is likely to be influenced by how likely it is that inappropriate behaviors will be detected and punished. In the college setting… being reported by a peer is one important way in which a student's academic dishonesty may be uncovered" (McCabe et al. 2002).

Hypothesis 3: Academic dishonesty will be inversely related to the perceived uncertainty of being reported by a peer.

McCabe et al. (2002, p. 361) note that "Zimring and Hawkins (1973) have used deterrence theory to argue that the greater the severity of the penalties for a particular act the less likely individuals will be to engage in that act…" McCabe and Trevino (1993, 1997), McCabe et al. (2002), and Michaels and Miethe (1989) have all provided empirical support which indicates student cheating is deterred by strong penalties.

Hypothesis 4: Academic dishonesty will be inversely related to the perceived severity of penalties.

The Influence of Culture

Culture is recognized as one of the most important variables influencing ethical decision-making (Ralston et al. 1994; Singhapakdi et al. 1994; Swidan et al. 2004). One of the more popular typologies of culture is that of Hofstede (1982) which classifies countries depending on their position with respect to four parameters that he considers important in defining a culture: power distance which defines the position of individuals towards authority; individualist versus collectivist which defines how an individual is related to and influenced by the group; whether the society emphasizes and values masculine versus feminine attributes; and uncertainty avoidance or how societies and individuals deal with uncertainty.

Two of Hofstede's attributes have been related to academic dishonesty in cross-cultural studies. Collectivist cultures are expected to tolerate more cheating as helping other students during exams is accepted and may even be encouraged (Magnus et al. 2002; Chapman and Lupton 2004). "Individuals within a more uncertainty avoidant culture are more likely to cheat and will seek the certainty of sanction as a guide to making decisions of an ethical nature" (Salter et al. 2001). Individualist societies are found in western Europe and North America, while collectivist societies are often found in Asia, South America and Southern Europe.

Lebanon is a religiously diverse country on the East Mediterranean with a population of 4 million people. The country is one of the most westernized Arab countries and has a large community of ex-patriates living in the Americas, Australia, and Africa and many Lebanese families live and work in the Arab gulf countries. Arabic is the official language and

schools generally teach either French or English as a second language. Lebanon has an open economy with people characterized by a strong entrepreneurial spirit. However, the country has serious problems with which it is dealing after a long 30-year period of instability and occasional wars. "Structural problems remain colossal, and cloud Lebanon's future. Poor public services and corruption are common" (World Bank 2006). In 2005, Lebanon and the US ranked 83 and 17, respectively on Transparency International's Corruption Perceptions Index, a composite index that uses surveys drawn from the business community to measure the perception of the level of corruption in a country.

While there are several degrees of collectivism, and Lebanon is not the most collectivist of Arab cultures (Pulford et al. 2005; Ayyash-Abdo 2001; Buda and Elsayed-Elkhouly 1998), the Lebanese culture can still be considered a collectivist society. "Collectivism pertains to societies such as the Arab society, in which people from birth onwards are integrated into strong, cohesive in-groups. A lifetime of protection is exchanged for unquestionable reality" (Al-Harthi 2005). Indeed, results from a recent study (Ayyash-Abdo 2001) showed that the majority of Lebanese university students (67%) are collectivistic. In contrast, the North American culture is one of the most individualistic cultures where independence, freedom of choice, and pursuing individual goals are highly valued. People in individualistic societies "are autonomous and independent from their in-groups." They primarily base their behavior on personal interest and not on the norms of their in-groups (Triandis 2001).

In light of these cultural differences and the relation between academic dishonesty and culture, we suggest that the cheating level among Lebanese students will be higher than among students in the US.

Hypothesis 5: Academic dishonesty will be higher among university students in Lebanon than in the United States.

Methodology

United States

As noted previously, the US sample used in this analysis consisted of seven large comprehensive universities which participated in the survey discussed here in the 2004–2005 academic year. Participating schools ranged in size from approximately 11,500 students to over 30,000. Admissions criteria ranged from moderately selective to very selective and five of the institutions were public universities. Each had a comprehensive range of schools and majors although one clearly emphasized its undergraduate programs and one its graduate programs. The schools were located from the northeast to the southwest but did not include any schools on the west coast.

In contrast to the written surveys used in earlier administrations of this ongoing project, including the 1999 survey on which the current analysis is modeled (McCabe et al. 2002), this survey was conducted online. On each of the seven participating campuses, students received an email invitation informing them of their school's participation in this project and inviting them to complete a survey by clicking on the link provided in the invitation. An effort was made to notify every student on campus and on each campus, at least one reminder email was sent to students. Several of the campuses used other means to publicize the survey as well, primarily articles in the school newspaper. Since several schools completed the survey in the fall semester, first year students were excluded from those

surveys and first year students have been excluded from the remaining schools for purposes of this analysis to maintain comparability. Graduate students were surveyed at six of the seven schools but were also excluded from this analysis.

Typical of other internet-based survey administrations in this project, overall response rates were lower than desired. Indeed, the 12,793 completed surveys in the US represent only 14.3% of the total non-first year undergraduate population at the participating schools. However, the total student population used in these calculations clearly includes students who do not use their school email address, preferring instead to receive their email at an aol.com or hotmail.com account. While this suggests the 'real' return is probably somewhat higher, the difference is not likely to be very dramatic, and certainly, the response is under 20%. In contrast, in the last large written administration of this survey (1999) the response rate was 29%. This continues an ongoing decline in response rates starting with a 38% response in the first phase of this ongoing project in 1990, declining to 36% in 1995, to 1999's 29% (McCabe et al. 2002) and now to 15–20%. We believe at least one factor here is a greater reluctance on the part of students to complete an internet survey on a sensitive topic such as cheating due to concerns about anonymity. Although students are told their responses will remain anonymous, students often comment that they have left certain sections blank, and they know of friends who elected not to respond, since they are not convinced that their responses will not be tracked via the internet. Apparently another contributing factor is the suggestion made by our primary contact (typically a senior student affairs officer) at several participating campuses that they have noticed a growing reluctance of students to complete surveys on any topic.

We believe our sample is large enough that its analysis is still important in spite of the low response rate, especially in light of the unique opportunity it presents to make comparisons to another culture. But the low response rate among US students clearly limits our ability to generalize our findings, especially if one assumes that rates of academic dishonesty may be higher in the non-responding segment of the population. However, questions we asked respondents concerning the behavior of *other* students may suggest this is not a major problem. For example, 35% of the US students responding indicated that they had observed another student cheat on a test "several" or "many" times compared to 54% of Lebanese students. Similar reports were observed for plagiarism. Both of these patterns are similar in scope and direction to self-reported rates of cheating in the US and Lebanese samples, although the difference between the two samples is more pronounced in the case of self-reports. This greater difference may imply some under-reporting in the US sample and all results should thus be interpreted with appropriate caution. Any under-reporting may also reflect a greater reluctance among US versus Lebanese respondents to report their own experiences with cheating. Of course, it is also possible that there is significant under-reporting in the Lebanese sample.

Women responded to this survey in greater numbers than men did. While 49% of the undergraduate population at the participating campuses is female according to numbers obtained from online data available at each school's website, 58% of the survey respondents were female. This difference is comparable to the experience of other researchers (e.g., McCabe et al. 2002), but it no longer seems to be the case that this bias will lead to the underestimation of overall cheating levels suggested by McCabe and Trevino (1993) who indicated cheating was less prevalent among females. Although some differences persist in more aggressive forms of cheating (e.g., explicit test cheating), more recent data, and the data obtained in this project, suggest fairly comparable levels of academic dishonesty are now reported by men and women.

Lebanon

The Lebanese sample consisted of students attending three four-year universities in Lebanon. All three universities provide instruction in English and their enrollment is between 5,000 and 7,000 students each. They range from moderately selective to very selective in their admission criteria and each has adopted the American model of education. Their enrollments are predominantly undergraduate with equal gender distribution and a heterogeneous student body of Christians and Moslems.

The first step in the Lebanese recruitment process was to solicit students to register in an online community that promotes academic integrity and business ethics in Lebanon—Bicharaf.org. Bicharaf ("with honor" in Arabic) is an initiative launched in mid 2004 at several Lebanese universities and high schools to create academic integrity awareness among students, faculty, and administrators. One of its goals is to support academic institutions in Lebanon in their quest to build cultures of academic integrity on their respective campuses. Bicharaf.org was a natural venue for the researchers to collect data since this study, along with subsequent ones, was part of its overall academic integrity initiative; its website was technically ready to accept user input; and survey participation could serve the dual purposes of academic research and social development.

Out of 2,384 registered members, 1,543 took the survey between May 2004 and September 2005, although only 1,317 were used in this analysis after eliminating graduate and first year students as we did in the US sample. In order to promote data collection, awareness campaigns were launched on the three campuses, computers were made available to students in common areas, volunteers discussed academic integrity issues with students after they had filled out the questionnaire, banners were displayed on campus, and promotional items (such as branded pencils and mouse pads) were distributed to students. In addition, professors who taught classes in a computer lab, or who had access to a lab, were recruited to assist in data collection by asking their students to register and take the survey at the beginning of their classes.

The questionnaire took between 15 min and 25 min to complete. The questionnaire was designed to be anonymous and students were appropriately informed. For members who registered and chose not to fill out the questionnaire, reminder emails were sent to encourage them to take it. Word of mouth also helped convince students to fill out the survey.

Measures

Perceived Certainty of Being Reported

As suggested in McCabe et al. (2002), perceived certainty of being reported was measured using a 4-point Likert scale item which ranged from 1 = very unlikely to report to 4 = very likely to report. Students were asked how likely they felt it was that the typical student on their campus would report an incident of academic dishonesty they observed.

Perceived Understanding/Acceptance of Policy

Perceived understanding/acceptance of a school's academic integrity policies has consistently been measured in this project using a combination of four items and this same

measure was retained for this analysis. These four items include student ratings of: the faculty's understanding of the school's integrity policies, the faculty's acceptance/support of these policies, the average student's understanding of these policies, and the effectiveness of these policies. However, unlike previous analyses which have used 4-point Likert scales to measure these items, 5-point Likert scales were employed in this project with values ranging from 1 = very low to 5 = very high. Thus the perceived understanding/acceptance variable ranged from 5 (signifying low perceived understanding/acceptance) to 20 (high understanding/acceptance). The Cronbach's alpha for this scale was .797 comparable to the levels found in earlier surveys. An analysis by country found little difference—a Cronbach's alpha of .797 for the larger US sample and .779 for the smaller Lebanese sample.

Perceived Severity of Penalties

Student perceptions of the severity of campus penalties for cheating were measured using a 5-point Likert scale item which ranged from 1 = very low to 5 = very high. (Previous stages of this ongoing project have used a 4-point Likert scale item to measure perceived severity of penalties.) Low ratings would suggest students do not feel the penalties for cheating on campus are very high while high ratings would indicate student perceptions that the penalties were substantial. Although the response scale has been expanded by one choice, this item is identical to the question used to measure severity of penalties in earlier surveys.

Perception of Peers' Behavior

One of the few measures that has not been fundamentally consistent over the different phases of this project is perception of peers' behavior. In 1990 and 1995 student perceptions consisted of two items: how often students had observed other students engaging in academic dishonesty and how often they felt cheating occurred in general on their campus, whether they had directly observed it or not. In 1999, perception of peers' behavior consisted of a single item, a simple yes/no response that asked students whether or not they had ever observed another student cheat during a test or exam. In the present study, students were once again asked whether or not they had observed cheating among other students on a test or exam but the response categories were expanded to five choices ranging from 1 = never to 5 = many times.

Country

To allow us to run a final regression model with country as an independent variable, we created a simple dichotomous dummy variable to denote country with 1 = United States and 2 = Lebanon.

Academic Dishonesty

The composite measure of academic dishonesty used in the present analysis was an extension of the measure used by McCabe et al. (2002). In that study, academic dishonesty

was a composite measure of eight different items. Four of these items related to cheating on tests and exams: copying from another student with their knowledge, copying from another student without their knowledge, using unpermitted crib notes or cheat notes, and helping someone else to cheat on a test or exam. Four related to cheating on written work: copying material almost word for word from any source and turning it in as your own work, fabricating or falsifying a bibliography, turning in work done by someone else, and copying a few sentences without footnoting them. With the exploding use of the internet in the last five to 10 years, the items for cheating on written work have been modified and expanded in an attempt to capture inappropriate use of the internet (internet plagiarism) in the composite measure. The modifications made to existing items include copying material almost word for word from a written source and turning it in as your own work and paraphrasing or copying a few sentences from a written source without footnoting them. The added items attempt to capture similar behaviors with the internet as the source—turning in a paper obtained in large part from a term paper "mill" or website and paraphrasing or copying a few sentences from an electronic source—e.g., the Internet—without footnoting them. For each of the ten items, respondents had four response choices—never, once, more than once, and not relevant. Not relevant responses were coded as missing data so the resulting ten item measure of academic dishonesty could range from a low of ten (no reported cheating) to a high of thirty (multiple incidents on all ten items). This ten-item scale had a Cronbach's alpha of .769. Separate analysis by country showed a Cronbach's alpha of .743 in the US and .829 in Lebanon. Consistent with previous research in this project, this measure was highly skewed and violated the assumptions of statistical normality. As McCabe and Trevino (1993, 1997) and McCabe et al. (2002) have done previously, this issue was addressed by employing a log transformation of the academic dishonesty variable.

Results

As shown in Table 1, all of the relationships predicted in Hypotheses 1 through 4 between academic dishonesty and our contextual variables were supported in both the US and Lebanese samples. All of these relationships were significant at $p < .001$ with the exception of perceived certainty of being reported (Hypothesis 3) in the Lebanese sample which was significant at $p < .05$. Hypothesis 5, which predicted the effect of country, does not lend itself as well to correlation analysis and this relation was analyzed through a simple *t*-test. The mean level of academic dishonesty in the United States (before any log transformation) is 11.85 versus a mean of 14.52 for Lebanon. This difference was highly significant ($t = -27.144$, df = 11,383, $p < .001$) with higher levels of academic dishonesty reported among students in the Lebanese sample.

Once again following the lead of McCabe et al. (2002), Table 2 shows the results for the regression of perceived certainty of being reported, perceived understanding of policy, perceived severity of penalties and perception of peers' behavior on academic dishonesty, first for the US sample and then for Lebanon. The third regression shows the results for the combined sample with country as an additional independent variable (1 = US, 2 = Lebanon). Each of these regressions is significant and the individual models explain between 9% (US sample) and 15% (combined sample) of the total variance. Replicating the findings of McCabe et al. (2002), "(p)erception of peers' behavior makes the most significant contribution to the regressions models, again suggesting the strong role the perception of peers' behavior plays in understanding student decisions concerning

Table 1 Intercorrelations of study variables—US versus Lebanon Sample

Variable	*N*	Intercorrelations						
		M	SD	1	2	3	4	5
United States								
1. Perceived certainty of being reported	12,714	1.84	0.63	–	.25	.16	−.28	−.12
2. Perceived understanding/acceptance of policy	12,137	14.56	2.91	.25	–	.54	−.27	−.09
3. Perceived severity of penalties	12,427	3.85	0.87	.16	.54	–	−.19	−.03
4. Perception of peers' behavior	12,762	2.35	1.26	−.28	−.27	−.19	–	.30
5. Log (academic dishonesty)	10,525	1.07	0.08	−.12	−.09	−.03	.30	–
Lebanon								
1. Perceived certainty of being reported	1,285	1.75	0.78	–	.20	.12	−.18	−.07*
2. Perceived understanding/acceptance of policy	1,289	13.41	3.04	.20	–	.52	−.37	−.15
3. Perceived severity of penalties	1,315	3.45	1.01	.12	.52	–	−.23	−.11
4. Perception of peers' behavior	1,304	3.48	1.31	−.18	−.37	−.23	–	.38
5. Log (academic dishonesty)	860	1.14	0.12	−.07*	−.15	−.11	.38	–

* Significant at $p < .05$. All other correlations are significant at $p < .001$

Table 2 Regression of perceived certainty of being reported, perceived understanding/acceptance of policy, perceived severity of penalties, perception of peers' behavior and country on academic dishonesty—US versus Lebanon

	Total sample			United States			Lebanon		
	b	*β*	*p*	*b*	*β*	*p*	*b*	*β*	*p*
Intercept	1.02		.000	1.04		.000	0.97		.000
Perceived certainty of being reported	−0.00	−0.03	.003	0.00	0.01	.868	−0.00	−0.02	.013
Perceived understanding of policy	−0.00	−0.03	.021	0.00	−0.01	.868	−0.00	−0.03	.021
Perceived severity of penalties	0.01	0.05	.000	−0.00	−0.01	.752	0.00	0.04	.000
Perception of peers' behavior	0.02	0.29	.000	0.03	0.37	.000	0.02	0.30	.000
Country	0.06	0.17	.000						
F	246.67			34.00			366.05		
Degrees of freedom	4, 9842			4, 827			5, 10673		
Adjusted R^2	.091			.141			.146		

academic integrity" (p. 368). None of the other contextual variables are significant in the Lebanese regression while all the contextual variables are significant in the both the US and combined samples. In these regression models and, as expected, perceived certainty of being reported and perceived understanding of policy show an inverse relationship with academic dishonesty. However, perceived severity of penalties exhibited a positive relationship with academic dishonesty in the US and in the combined regression models. While this result conflicts with the bivariate correlation findings, it was also observed by McCabe and Trevino (1993, 1997). Indeed, McCabe et al. (2002) also reported this phenomenon and suggested that the "most logical explanation may be the fact that perceived severity of penalties and perceived understanding/acceptance of policy are highly correlated; [and] the presence of perceived understanding/acceptance of policy in the model may simply be

suppressing the true influence of perceived severity of penalties," an argument supported by Cohen and Cohen (1983). In the same vein, we believe suppression is also the most likely explanation here.

Discussion

The results found in testing Hypotheses 1 through 4 support the basic conclusions previously reported by McCabe and Trevino (1997) and McCabe et al. (2002) but extend these results to the Lebanese context. In both the US and Lebanon we find support for their basic model—student academic dishonesty shows a significant positive relationship with the perceived perception of peers' behavior and significant inverse relationships with the certainty of being reported, perceived understanding/acceptance of academic integrity policies on campus, and the perceived severity of penalties for violations of these policies. We also see similar results in the test of Hypothesis 5 although the variance explained in each model is more modest than the levels McCabe and his colleagues have reported. Once again the perception of peers' behavior makes the most significant contribution to the overall regression model. In the US and combined regression models shown in Table 2 we also note the significant, inverse contributions of perceived certainty of being reported and perceived understanding/acceptance of policy. As noted above, we believe the unexpected positive relationship between perceived severity of penalties and academic dishonesty is due to a suppression effect.

Of course the most interesting result in Table 2 is the Lebanese regression model which shows a much stronger relationship between academic dishonesty and the perception of peers' behavior than we observe in the US model, a relationship which may help explain why none of the other independent variables make a significant contribution to the model in the Lebanese context. For example, if one simply looks at the percentage of students who admit to one or more incidents of academic dishonesty in the past year, we find that 80% of the Lebanese students admit to such a violation compared to 54% of the US students. The difference is even more dramatic for cheating on tests and exams where more than three times as many Lebanese students (66%) versus US students (21%) admit to at least one violation in the past year. One might argue that we do not observe a significant contribution from the independent variables representing perceived severity of penalties, perceived understanding/acceptance of policy, and perceived certainty of being reported in the Lebanese sample simply because they are far less relevant to Lebanese students than their perception of peers' behavior and how, as we discuss shortly, this behavior seems to be consistent with societal norms. As shown in Table 1, the mean for each of these variables is higher in the US context while the mean for perception of peers' behavior is dramatically higher in Lebanon than it is in the US In fact, while only 18% of US respondents report they have actually observed someone cheating on a test or exam more than "a few times", half of the Lebanese students say they have. If this is an accurate reflection of the level of cheating Lebanese students observe, the higher self-reports of academic dishonesty are probably not surprising nor is the insignificant influence of campus policies, the perceived severity of penalties, and the understanding/acceptance of campus integrity policies. Perhaps when so many others are cheating around you, it's hard to convince yourself that campus policies and penalties are very relevant.

A closer examination of the individual items which comprise the test cheating component of our academic dishonesty measure seems to provide some insight into the question of cheating in collectivistic versus individualistic societies, part of the logic used

to derive Hypothesis 5 and the prediction that cheating would be greater in the collectivistic, Lebanese culture. While the Lebanese students in our sample reported higher levels of engagement on all ten individual cheating behaviors examined in this study (relating to both test cheating and cheating on written work) the largest differences were found on the test cheating items. And while the differences in the two items one might classify as individualistic cheating (copying from someone else on a test or exam *without* their knowledge and the use of unpermitted crib or cheat notes) were significant, the differences in the more cooperative or collectivistic behaviors (copying from another student on a test or exam *with* their knowledge and helping someone else to cheat on a test) were far greater. Eleven percent of the US students versus 22% of the Lebanese sample self-reported copying *without* the other's knowledge and eight percent of the US students versus 21% of the Lebanese students indicated the use of unauthorized crib or cheat notes. In contrast, while nine percent of the US students reported copying from someone else on a test or exam *with* the other's knowledge (collaborative cheating), five times as many Lebanese students did so (47%). We observed an almost 6-fold difference in the number of US (10%) versus Lebanese (58%) students who reported they helped someone else to cheat on a test or exam, clearly a collaborative behavior. While not conclusive, we believe these data provide significant support for the view that Lebanese university students are strongly influenced by the norms of the collectivist society in which they are raised. Of course, a number of students attending university in Lebanon actually come from other Arab countries which may be even more collectivistic in nature.

Conclusion

While the results of our test of the McCabe et al. (2002) model are interesting, the most interesting results seem to be our findings on the individualistic versus collectivistic behavior of US versus Lebanese students. In spite of concerns regarding the low response rate in the US sample, the data support the conclusion that there is a higher level of cheating among Lebanese students, although they may also suggest that judging the cheating behavior of students in non-Western contexts using Western standards may be problematic. Using those Western standards, one would clearly argue that cheating is a much larger problem in Lebanon than it is in the US. However, viewed through a collectivistic lens one could argue that the Lebanese students are behaving exactly the way they were raised to behave—working together to navigate a difficult task.

Recognizing the powerful societal forces that influence these students, and their well established collectivistic tendencies, one might even ask if Lebanese universities should try to change these behaviors. Indeed, Lebanese educational institutions may have neither the incentive nor the capability to make dramatic changes. If the larger society is based on a collectivistic philosophy, as it appears to be, it doesn't seem to make much sense to train the future leaders of that society in a different philosophy unless your objective is to catalyze large scale societal change. If Lebanese society remains collectivistic in nature, an interesting question is whether current definitions of 'cheating' should be redefined in the Lebanese, and other collectivist contexts. However, the fact that levels of cheating were higher even for non-collectivistic behaviors suggests this would be a very difficult challenge. For example, to suggest to students that it is acceptable behavior to collaborate with each other on exams but not to use crib or cheat notes, seems almost contradictory. A better solution will probably be found by developing collectivistic-appropriate teaching strategies that emphasize and take advantage of the power of collaborative work.

Our data suggest that perception of peers' behavior is a critical factor in addressing academic dishonesty, or promoting academic integrity, which may also lend support to the notion that some type of collaborative strategy may be appropriate in Lebanon. Of course, with the increasing emphasis on teamwork and related skills by American corporations, perhaps American campuses can learn a lesson here as well. McCabe and his colleagues have long endorsed community-centered approaches to addressing the problem of cheating and they may have particular relevance in collectivistic societies. Once desired standards have been identified, of course, a major question in both Lebanon and the US will be how an academic institution can change the perception of peers' behavior.

We believe the proposals recently suggested by McCabe et al. (2006) to address issues of academic dishonesty in graduate school environments may also have application here. First, we agree that there are certain strategies which individual faculty may employ that are likely to help—including the use of multiple versions of an exam, insuring that students do not bring cell phones or other unauthorized electronic aids into examinations, and being explicit about guidelines for individual versus group work. But as McCabe et al. (2006) suggest, these are really piecemeal responses "that depend on individual faculty members taking more responsibility" (p. 301). What is really needed in their view, and ours, are "broader programmatic efforts based upon notions of ethical community building", an approach which "involves creating a 'culture of integrity and responsibility'…" (p. 302). The dialogue among faculty, students, and administrators that typically develops in such programs seems particularly important in Lebanon where students may be trying, unsuccessfully, to reconcile societal norms they have learned as children with principles, at least as defined in the United States, of academic integrity.

While the honor code approaches normally espoused by McCabe and his colleagues may not be directly applicable in Lebanon, many of the elements found in typical honor codes do seem to make sense—particularly high levels of student involvement, a clear statement of community expectations regarding academic integrity, and the development of an appropriate process to address allegations of student dishonesty, including significant student representation on hearing boards and clear sanctioning guidelines. Indeed, we would encourage a Lebanese university to initiate a meaningful campus dialogue to consider the development of a "collectivistic honor code" that could perhaps serve as a model for other Lebanese and Arab universities, including those in countries with even stronger collectivistic cultures. While such a code may bear only a casual resemblance to honor codes found on US campuses, it is likely to contain some common elements. The strongest policy implication suggested by the results of the current study seems to be that universities in collectivistic cultures should initiate a thorough review of their academic integrity policies. To the extent these policies have been modeled on university systems in other cultures, especially those with strong individualistic norms, the need for such a review may be even more urgent. We believe two guiding principles will be critical to the success of these efforts—involve the entire campus community in any review (students, faculty, and non-teaching staff—including senior administrators) and don't necessarily look to individualistic cultures as a model. And if the 'answer' is to incorporate collectivistic principles more fully into an academic integrity policy it seems essential that faculty are prepared to make relevant changes in their testing and assignments. For example, if we know that students in collectivistic societies are more likely to collaborate on assignments, and we want to allow and perhaps even encourage that, faculty probably need to avoid tests that rely on individual rote memorization and develop tests, which may be more challenging and perhaps of greater learning value, that acknowledge the fact they are likely to be completed collaboratively. Colleges and universities should not, in our

view, implement policies that may be fundamentally at odds with societal norms since student transgressions of such norms are almost predictable. Of course this does not preclude the possibility that a school might desire to hold its students to a higher standard. But in that case, it is imperative that the school properly inform and orient its students concerning these norms and the consequences for violators. Perhaps the most important policy implication is that "one size does not fit all" when it comes to academic integrity.

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