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Classroom Cheating and Student Perceptions of Ethical Climate

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Abstract

This study examines relationships between perceived ethical climate types, as determined using Victor and Cullen's (1988) ethical climate questionnaire, and actual cheating behavior by students completing a take-home exam problem. Data regarding students' behavior were gathered from sixty-four students in two sections of an accounting course at a well-known university. Our major finding is that students who perceive the classroom as a benevolent climate focused on local groups (i.e. team identification is pre-eminent) engage in more cheating behavior than do students who perceive a benevolent climate focused on broader organization or societal groups. We conclude by discussing the ethical and pedagogical implications of this association between team-interest climate and higher levels of cheating behavior.

KEY WORDS: Accounting Education, Classroom Cheating Behavior, Ethical Climate, Social Responsibility, Team Interest

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Introduction

The literature on business ethics includes numerous articles that view cheating by college students as constituting a problem both widespread and serious (e.g., McCabe and Trevino, 1996; West, Ravenscroft and Shrader, 2004). Cheating in this context is generally defined as either gaining access to another person's work without authorization or as unpermitted collaboration on exams or assignments (Burrus, McGoldrick and Schuhmann, 2007; McCabe and Trevino, 1996; Sierra and Hyman, 2008). In an effort to understand student cheating researchers have relied on a variety of data ranging from student self-reports of cheating behavior (McCabe and Trevino, 1993) to hard evidence such as discarded cheat sheets (Pullen, Ortloff, Casey and Payne, 2000). The focus of these studies has varied from the role of new technologies in student cheating (McCabe and Trevino, 1996), to the differences between intended and spontaneous cheating (Genereux and McLeod, 1995) to the thought process of students who cheated in a particular setting (e.g., Kaufmann, West, Ravenscroft and Shrader, 2005; West, Ravenscroft, and Shrader, 2004).

Regardless of their data sources or focus, the studies on cheating have come to the singular conclusion that such behavior is fairly common. Even more disturbing for those of us who teach in business schools, comparative studies have found that business students often are the most prominent among the cheaters (McCabe and Trevino, 1993). For example, in a study looking at four hundred students across disciplines at two universities, Roig and Ballew (1994) found that students majoring in finance and

accounting held the most tolerant attitudes toward cheating among all students in their sample.

Although business school faculties and administrators have developed a heightened interest in cheating by students (McCabe and Trevino, 2002), their efforts to understand classroom cheating have been frustrated both by a lack of contextual studies and studies examining actual cheating behavior. In the current study we examine business student perceptions of ethical climate surrounding a situation in which actual student cheating occurred on a relatively large scale. By examining the context within which student cheating took place, we seek to understand the relationship between the students' perception of the ethical climate within the classroom and their decisions related to cheating. By studying the relationship in a non-experimental situation (i.e., where actual cheating has taken place) our results enrich a research stream based to a great extent on self-reports of cheating behavior.

Prior Literature

The Context of Cheating

According to studies based on student self-reports, cheating is wide-spread at both the undergraduate (Klein, Levenburg, McKendall and Mothersell, 2007) and graduate level (McCabe, Butterfield and Trevino, 2006). Cheating is not a new phenomenon and, as discussed above, appears to occur more frequently within business schools than it does in other colleges. The rate of cheating varies, however. McCabe and Trevino (1996: pg. 30) state that "the climate or culture of academic integrity found on campus may be the most important determinant of the level of student cheating on that campus." Subsequent papers by McCabe and Trevino and their colleagues have supported this conclusion. For

example, McCabe and Trevino (1997) found that peer influence is among the strongest demographic and contextual factors affecting the level of cheating among students. Moreover, a previous study by these authors found that both peer pressure and technology increased the variety of classroom cheating (McCabe and Trevino, 1996).

Other researchers have also examined the context of student cheating. Premeaux (2005) found differences in cheating climate and acceptance of cheating between students at AACSB tier 1 and 2 schools of business. Expensive schools with high entrance requirements (tier 1) experience relatively more students cheating on written assignments compared to tier 2 schools, where students reported more cheating on exams. Tier 1 students also attached more significant social stigmas to cheating, while tier 2 students, attending local institutions, were more accepting of the notion that even moral people cheat. Such results highlight the importance of student perceptions of classroom context or climate. The influence of climate, peer pressure, and intensity of the situation may push students into behaving in ways that others may see as unethical (Peterson, 2002; Sierra and Hyman, 2008). Even at the graduate level, McCabe, Butterfield, and Trevino, (2006) found that perceptions of unethical peer behavior were a justification students gave for cheating.

Kaufmann, West, Ravenscroft, and Shrader (2005) found that students demonstrated immature ethical reasoning and rationalization when they believed peer behavior and the classroom environment encouraged cheating. In responding to open-ended questions about a cheating incident students revealed both concern with following perceived norms and an ability to subsequently rationalize their behavior. "When everybody cheats, it's okay to join the bandwagon." Another student said, "Coursework

is based on the idea of working in teams efficiently and effectively. WE [sic] are so used to this that what others consider 'cheating' to us is 'teamwork'." At the same time, students were not amoral and tried to rationalize their behavior by distinguishing what they had done from what they considered to be more serious cheating behavior. Both the line of reasoning articulated in the studies above and the quotes from Kaufmann, West, Ravenscroft, and Shrader (2005) suggest that when students perceive an ethical climate in the classroom that is dissonant from their pre-existing moral beliefs or other training, they may behave in ways that are not consonant with these pre-existing beliefs about what is ethically right and wrong.

Similarly, students from different cultures may hold divergent attitudes toward cheating, and these different attitudes may create difficulties for course instructors. Citing an example where cheating was observed firsthand, Flynn (2003) states that 'displaying concern for one's classmates and seeking to encourage them during an examination… was only natural for someone reared in a culture that emphasized the well being of the group (pg. 438).' Consequently, an organizational or societal culture that tolerates widespread sharing of work may precipitate academically dishonest actions.

Ethical Climate

A recent, broad-based workplace survey indicates that ethical environment is critical to workers' perceptions and behavior, and that generational differences exist in how workers perceive the ethical culture of the workplace (Ethics Resource Center, 2010). Victor and Cullen (1988, p. 101) coined the phrase 'ethical climate' to describe "the prevailing perceptions of typical organizational practices and procedures that have ethical content." Ethical climate is one of the most widely studied phenomena in

business (e.g., Brower and Shrader, 2000; Martin and Cullen, 2006). The most widely-known model of ethical climate was developed by Victor and Cullen (1988) in their seminal study of 872 workers across four firms. This study generated a two-dimensional taxonomy of ethical climates that combines a person's referent group (locus of analysis) with various possible ethical perspectives through which decisions are made. Basing the first dimension on work by sociologists on roles and reference groups, they define locus of analysis as the "referent group identifying the source of moral reasoning used for applying ethical criteria" in decision making (Victor and Cullen, 1988, p. 103). The second dimension stems from moral philosophy, and was classified as either egoistic, benevolent, or principled (i.e., deontological). "These theories differ in terms of the basic criteria used in moral reasoning, i.e. maximizing self-interest, maximizing joint interests, or adherence to principle, respectively," (Victor and Cullen, 1988, p. 104). The resulting model subdivides the possibilities of an organization's ethical climate into nine potential climate types as shown in Table 1.

Table 1: Ethical Climate Types

(based on Victor and Cullen, 1988)

Ethical Perspectives	Locus of Analysis		
	Individual	Company (Local)	Cosmopolitan
Egoism	Personal Gain	Company Profit	Efficiency
Benevolence	Friendship	Team Interest	Social Responsibility
Principle	Personal Morality	Rules / Procedures	Law and Code

In egoistic ethical climates self-interest determines actions, while the loci of analysis determine the scope of that self-interest. In individual-centered egoistic climates, an individual would express preferences for protecting personal gains and losses, while in a climate perceived as local, individuals would focus on their organizational or workgroup interests. Finally, in a cosmopolitan climate participants would consider the protection of broader economic interests such as overall efficiency in reaching their self-interested goals. Egoistic climates are often seen as the least preferred in ethical terms because they have the potential to result in instrumental behavior.

By contrast, benevolent climates are rooted in caring, and are characterized by concern for others' well-being beyond self (Martin and Cullen, 2006). At the individual level benevolent concern is based on personal friendship and reciprocity. At the local level, a benevolent climate emphasizes a sense of team spirit and camaraderie, while at the cosmopolitan level, benevolence extends one's concerns beyond organizational boundaries to a more generalized sense of social responsibility focused on the well-being of a more broadly-defined social group.

Principle-based climates reflect more deontological beliefs based on duty and obligation rather than on consequentialist beliefs or concerns. These climates are seen as emphasizing abstract rules or principles as the basis for decisions, such that neither the interests of others nor the effect of one's actions on others is the primary motivator of behavior. If the locus of analysis is 'individual' then a person is motivated by his/her personal code or sense of right and wrong. In a local principle-based climate the local organization is the source of rules and principles. At the cosmopolitan locus of analysis, people follow laws and codes external to the organization, perhaps those based on

professional membership or the legal system.

Numerous studies have investigated Victor and Cullen's (1988) nine climate types and have generally concluded that individual/egoism ethical climates are associated with instrumental behaviors (such as cheating), while benevolent and principled climates are associated with behaviors demonstrating consideration for relatively more stakeholders and/or higher levels of moral reasoning (Barnett and Vaicys, 2000; Brower and Shrader, 2000; Cullen, Parboteeah, and Victor, 2003; Peterson, 2002; and Wimbush, Shephard and Markham, 1997).   This insight is clearly relevant within academia where cheating is clearly and explicitly considered unacceptable and an outcome most would consider unethical. However, if students perceive an egoistic ethical climate, then they may believe their classroom provides a context relatively more accepting of cheating. Further complicating this issue is that individual students may perceive the climate differently. Consequently, we examine the possibility that certain perceived climate types by individual students may set the stage for, and are associated with, differences in cheating behavior.

Hypotheses Development

Previous work on ethical climate suggests several relationships between ethical climate and cheating. Specifically, these studies point to an association between instrumental ethical climates and certain dysfunctional behaviors in the workplace. For example, Peterson (2002) found all three of the 'egoism' climate types are associated with various sorts of unethical behavior and concluded that these climates are associated with a predominance of self-interested and instrumental solutions to ethical problems. We

would therefore expect that students perceiving an egoistic climate could rationalize cheating behavior and would, therefore, be more likely to engage in such behavior.

Surprisingly perhaps, benevolent climates at the individual and local loci of analysis may also provide the context for cheating behavior. Rothwell and Baldwin (2007), for example, found friendship (benevolence/individual) and team interest (benevolence/local) climate types to both be correlated with greater willingness, but not frequency, of blowing the whistle on unethical behavior in police departments. Similarly, Kaufmann, West, Ravenscroft, and Shrader (2005) found that students tend to rationalize cheating in terms of being part of a team and being a good friend and helper to others. One student said, "It felt like I was doing something good, working with someone, helping each to understand." Another said, "When students share knowledge, it is helps everyone understand a little better."

In a lab setting, Gino, Ayal and Ariely (2009), demonstrated the influence of peers on students' cheating behaviors when another student is known to have cheated. The authors found that students were more likely to cheat when they believed the 'known cheater' attended their own school and less likely to cheat if they thought s/he attended a different school. Based on research showing that climates perceived as egoistic and peer influence can both lead to rationalization, we expect that cheating will be higher in the benevolent climate at both the individual (friendship) and local (team interest) locus of analysis as students will be motivated to work with other students, which is cheating, while rationalizing it as helping.

Although individual and local benevolent ethical climates may be associated with cheating, we hypothesize that the cosmopolitan benevolent climate (social responsibility)

will work against it. Social responsibility is defined as the expectation that organization members will do what promotes well-being of the customer and public beyond the organization, i.e., demonstrate concern for constituencies outside the actor's self-interest and immediate social group. Social responsibility includes identification with a larger set of values, and is associated with actions that go beyond simple self-interest (Victor and Cullen, 1988). In this vein, Barnett and Vaicys (2000) found subjects who perceived the climate as one emphasizing social responsibility were less likely to intend to engage in questionable sales practices. Peterson (2002) concluded that organizations with strong benevolence/cosmopolitan (social responsibility) climates were very likely to develop conduct codes which lowered the likelihood of unethical behavior. Finally, Rothwell and Baldwin (2007) found higher levels of perceived social responsibility climate were associated with the increased willingness of police officers to report minor rules violations within their department. These results support the inference then that when students perceive a classroom climate emphasizing social responsibility they would be less inclined to engage in self-interested behaviors such as cheating.

Because principle-based ethical climates occur when participants' ethical decisions are framed in terms of duty (Victor and Cullen, 1988), we expect students who perceive the classroom as a principle-based climate (regardless of their locus of analysis) to engage in less cheating behavior. Principle - based climates are often associated both with higher level moral reasoning (as defined by Kohlberg, Levine, Hewer and Meacham, 1983) and less instrumental behavior. For example, Brower and Shrader (2000) observed directors of both for-profit and not-for-profit organizations exhibited high levels of moral reasoning when faced with scenarios requiring consideration of the

organization's interests. Based on their findings, Bulutlar and Öz (2009) encourage managers to foster climates where ethical decisions are framed in terms of principle and duty in order to reduce bullying and other negative behaviors.

However, while organizational leaders (in this case faculty) try to shape student perceptions of climate through such framing, it is the students' perceptions of the climate that ultimately will influence their behavior. We, therefore, expect that students who cheat perceive ethical climate differently and perhaps less favorably than those who do not cheat.

Organizational settings seldom have a singular ethical climate (Victor and Cullen, 1988) and research indicates that climate should be assessed based on the view of participants' appropriate organizational level (Wimbush, Shephard, and Markham, 1997). Similarly, because ethical climate is inherently subjective, only students can assess the ethical climates they believe are in operation in their classrooms. As a result, while faculty may believe they have established clear and unambiguous guidelines regarding cheating, students may perceive the situation quite differently.

We hypothesize that egoism-based climates across all three loci of analysis and the benevolent climate at the individual (friendship) and local (team interest) loci of analysis to be associated with increased cheating. By contrast we expect the benevolence cosmopolitan climate (characterized by a sense of social responsibility) and principle-based climates across all three loci of analysis to be associated with less cheating. Therefore, we offer the following hypotheses:

Hypothesis 1:   Egoistic climates across all three loci of analysis, and benevolent climates at the individual and local loci of analysis, are associated with higher levels of classroom cheating.

Hypothesis 2: Benevolent climates at the cosmopolitan locus of analysis, and principle-based climates across all three loci of analysis are associated with lower levels of classroom cheating.

We test these hypotheses with data obtained from students involved in an actual cheating episode as detailed below.

Research Method: A Naturally-Occurring Experiment

We examined the ethical climate in a business school where a significant cheating episode occurred. The cheating happened in two sections of an introductory course in managerial accounting taught at a well-known Midwestern university. Sixty-four students enrolled in the two sections of the course were given a take-home problem as part of a midterm examination. The problem itself was selected from an Instructor's Manual provided by the publisher. However, the faculty member had previously provided to the students a relevant method for solving the problem that was unique to his class and which differed significantly from the approach taken in the publisher-provided materials. Even though the problem came from the manual, successful completion of the assignment involved the application of techniques uniquely taught in the course. Consequently, even though the instructor assigned the problem he believed very few students would be able to complete the entire problem, as it went beyond the material that had been covered in class, and he planned to curve the grading accordingly.

Because this problem was part of an exam, students were explicitly told that they were prohibited from using the Internet or other computer sources to obtain assistance in solving the problem. In addition, while students previously had been allowed to collaborate on many of the assignments in the course, the instructor was explicit in telling students that they needed to complete the assignment individually and that working with

others was not permitted. However, unbeknownst to this instructor, another faculty member at the University who was no longer teaching the same course had the intact Instructor's Manual on a dormant section of the student-access portion of his own website. The second faculty member's Web posting included the solution to the exam problem, albeit the solution took a very different approach than what the first faculty had articulated to the students.

Upon receiving the students' take-home portion of the exam for grading, the faculty member quickly realized that solutions had been shared among students and that many of the answers matched the textbook solution but differed radically from the approach demonstrated in the class. In addition, a student contacted him and told him she was aware of a great deal of student collaboration on the problem. The professor concluded that, despite his instructions, many of the students in the class had used the Web, collaborated with classmates, or done both. In fact, forty-seven of the sixty-four students in the class were found to have violated the rules in one form or another.

Initially, the instructor was distressed to find such a high level of cheating. Therefore, a decision was made to address the issue directly with the students by asking them to respond to a series of questions to help the faculty member understand their motivation. The instructor collaborated with the co-authors on the data collection instruments after the cheating event had occurred, and after initially discussing the episode with the class. During this time the instructor sought and received expedited university 'human subjects' approval for conducting the study. The students completed the Ethical Climate Questionnaire and responded to a series of questions about their level of cheating on the exam. We assured the students that all their responses were voluntary,

although they were not confidential. The lack of confidentiality was necessary if the responses were to be matched to each individual student's actual behavior. However, the instructor assured the students that complete anonymity in discussions or articles about the incident would be retained. Finally, the students were told that the exam problem would not be graded and that responses to our study's questions would not affect their individual grades. As a result, all sixty-four of the students involved in the incident voluntarily took part in the data gathering phase of the study.

Ultimately, the study group was comprised of sixty-four undergraduate students enrolled in the introductory managerial accounting course described above. Fifty-three of the students were college of business majors, and the remaining were majors from the engineering and liberal arts colleges.

Cheating Measure

The level of actual cheating was obtained directly from students' descriptions of their own behavior as well as from objective observations. First, we asked students "To what extent did you receive assistance on the project from outside sources (e.g. working with friends, accessing the online answer manual)?" Additionally, this university kept a record of all persons going to university Web sites, so the faculty member could objectively identify which students had gone to the other professor's Web site to look at the Instructor's Manual solution for the take-home problem. Finally, from these records the faculty member could see which students had answers that were identical to the students known to have gone to the forbidden web site.

Our measure of cheating was calculated from the direct results of the actions and behaviors of students. Initially, we coded students' responses to an open-ended question

about help they obtained in doing the take-home question and categorized their responses into four increasing levels of cheating. We assigned a '1' to a response where the student did not cheat at all; a '2' indicated that the respondent talked with another student; a '3' indicated that the student went to the Web site where the answer could be obtained; and '4' meant the respondent both talked with another student and went to the Web site. The instructor also used the data obtained from the university regarding access to the Web site and compared solutions. Our contention is that these four levels represent increasing levels of effort or attempt to cheat. This categorization is consistent with research by Palazzo, Lee, Warnakulasooriya and Pritchard (2010) who analyzed cheating in terms of increasing levels of 'copying' on homework assignments in physics courses.

We categorized responses as 'cheating' only if the evidence was clear. This was important because research has shown that students rationalize cheating (Kaufmann, West, Ravenscroft, and Shrader, 2005), so student beliefs about cheating may have differed considerably from faculty beliefs about what constituted cheating. Although our ranking implies that collaboration was relatively less serious than obtaining solutions from the computer, we do not condone either of these forms of cheating. However, students often mentioned that they were accustomed to and had been encouraged to work together and to help one another on homework and assignments. Thus "teamwork" might justify working together, but using the Web after the professor expressly said not to is a more flagrant violation of the norm of following professorial guidelines. Consequently, it struck us as less likely that students could rationalize obtaining a solution from a Web site, other than their instructor's source, as the norm or as condoned behavior. Our ranking implicitly reflected students' comments about their behavior but because of our

independent verification, it was free from the under-reporting (of cheating) problem identified by Nowell and Laufer (1997).

As a result, we found that twenty-six percent of the students did not cheat at all. We also found that forty-four percent worked with a colleague and thirty percent obtained a solution from a web site, with two-thirds of those students sharing their information with another student. This is a rather disturbing result, but it is consistent with previous self-report studies on the prevalence of cheating by business school students (McCabe and Trevino, 1996). In a situation where students were told that collaboration with other students and aids were not permissible, only one-quarter of the students complied with the instructor's instructions. Our view is that this was a situation where compliance (not cheating) was the default action. Some students may have felt pressure to assist peers; but they had to expend some effort to explore the internet and find the Web site that had the entire solution manual on it. In other words, this was not a situation where it was possible to cheat by accident or unintentionally.

Ethical Climate Measures

Cullen and colleagues have developed two forms of the ethical climate questionnaire, a thirty-six item instrument and the original twenty-five item instrument. In order to test for the ethical climate in the classrooms and fit our results more squarely with prior research on ethical climates, we administered the original, more parsimonious version as recommended by Peterson (2002). This survey contained short statements to which the subjects responded on a scale from "completely false" to "completely true" about how accurately it described the classroom environment. It is worth noting that this is the manner in which this questionnaire is most commonly administered.

All sixty-four students in both class sections were administered the Ethical
Climate Questionnaire by the instructor after the cheating had occurred. Because of
incomplete responses by some students, the number of subjects whose responses are
analyzed in this study was reduced to fifty-seven. This sample size limited the extent to
which we could analyze the factor structure of the Ethical Climate Questionnaire. Our
sample was not large enough to meet the assumptions of factor analysis and test climate-
type dimensionality (Hair, Anderson, Tatham and Black, 1995). Consequently, in order
to analyze the dimensions or climate types we first calculated coefficient alphas for each
ethical climate for the nine original climate types (indicated in Table 1). We then
excluded from our analysis those climate types with scale reliabilities not reaching or
exceeding .70 as recommended by Hair, Anderson, Tatham, and Black (1995).
Accordingly, we retained the following four climates as significant: (1) Egoism/
Cosmopolitan (efficiency), (2) Benevolence/ Individual (friendship), (3) Benevolence/
Local (team interest), and (4) Benevolence/ Cosmopolitan (social responsibility). All
three of the Benevolence types and only one of the Egoism types produced reliable
measures. No Principle climate types were reliable and, therefore, could not be tested
with our results. Table 2 relates the two hypotheses with the reliable measures.

Table 2 – Summary of Measures and Hypotheses

Measures used in analysis	Locus of Analysis		
	Individual	Company (Local)	Cosmopolitan
Egoism	X	X	Efficiency Hypothesis 1 Higher levels of cheating
Benevolence	Friendship Hypothesis 1 Higher levels of cheating	Team Interest Hypothesis 1 Higher levels of cheating	Social Responsibility Hypothesis 2 Lower levels of cheating
Principle	X	X	X

Our analysis pertaining to the two hypotheses is presented in Appendix A. We find support for both hypotheses, and specifically that benevolence/local (team interest) climate is associated with higher levels of cheating and that benevolence/cosmopolitan (social responsibility) climate is associated with lower levels of cheating.

Discussion and Conclusions

A major contribution of this study lies in its examination of *actual* cheating behavior rather than experimentally-driven perceptions or self-reported behaviors. The fact that ours is, in effect, a naturally-occurring field study is very important. We did not manipulate or concoct a cheating intervention. The instructor certainly did not want or intend for it to happen. The cheating occurred naturally and it happened in a setting that is probably similar to business school settings worldwide. These results coincide with

those who claim cheating is widespread (e.g., McCabe and Trevino, 1996; West, Ravenscroft, and Shrader, 2004) but goes on to offer an explanation as to why, based on students' perception of their environment. We believe the results offer some important ethical and pedagogical considerations for faculty.

Limitations

Because this study is a natural experiment, it is important to acknowledge several limitations upfront. First, we were not able to sample in the traditional sense, and as a result the study does not have the controls traditionally designed field studies would have. Our 'sample' or data group is not large and our student population is not diverse. In effect, we have a population of cheaters for a specific situation. Moreover, we draw our conclusions from only two sections of an accounting course offered at a Midwestern university in the United States. While we have no evidence that the students in our sample differ radically from the overall US student population, we believe that future research should examine both this assumption as well as climate effects in international contexts. This latter type of study would also add to the literature by testing Salter, Guffey and McMillan's (2001) assertion, that students in the United States may be more susceptible to contextual influences than students in elsewhere in the world.

A second limitation arising from our naturally occurring setting is an inability to determine direct causality. The regression and ordered logit analyses in this study suggests that a linear relationship exists between ethical climate (team interest) and cheating. But we cannot distinguish whether the perception that these classrooms fostered team interest allowed students to believe cheating was acceptable or whether students simply claimed they perceived this climate as a foil to rationalize the cheating

behavior after the fact. We have given only temporal precedence to ethical climate based on our assumptions of how climate might be related to cheating behavior.

A final limitation is that we cannot claim that all the non-cheaters in our study actually made the choice not to cheat. This is because we do not know for certain that all students in the two sections knew about the erroneous posting on the Web. Some non-cheating students may simply have not known of the opportunity to cheat. For example, students with friends in the section may have been more likely than those without friends to find out about the posted solution and may have been more likely to cheat as a result. Therefore, those categorized in the non-cheating level may not all be the same in terms of intent. This possibly could have confounded our 'team interest' finding. We do maintain that most, if not all, students were aware of the Web posting, but we do not know that for sure. We were not able to control for this possibility because our study was not planned and was naturally-occurring. Therefore, future research should more clearly examine the initial intent of subjects as well as establish a situation where all subjects are exposed to exactly the same treatment.

But even with these limitations this study has contributed important suggestive information from an empirical perspective. This study sheds some light on the classroom context for cheating. Our results point rather clearly to the relationship between student concern for the team and the penchant to cheat. Students in our study were not subject to any unusual contextual influences; they were given a problem to solve as part of an exam with explicit instructions to refrain from talking with others or using computer-based aids. What they did have, however, was extensive experience working in teams and access to computers.

Discussion and Implications

Teams in the classroom

These findings indicate an association between students' perception that the ethos of their classroom is centered on concern for the team's interest and a greater likelihood of engaging in cheating behavior. This result lends support to McCabe and Trevino's (1996) observation regarding the importance of peer influence on an individual's ethical behavior. In effect, students see the needs of the team to be more important than adherence to rules and codes. We are not claiming this is the way things should be, but is what we found to be the case. Our finding that team interest is significantly associated with cheating lends support for Peterson's (2002) results that team interest climate type was not only strongly related to falsifying reports, but also with not reporting others who falsified reports. Similarly, our findings indicate that the team interest climate orients organization members toward the good of the team or local group rather than to some other ideal standard of behavior.

In our study, while the course was generally structured to facilitate a team environment, the specific assignment was an individual one. According to Victor and Cullen (1988. p. 112), 'team interest' is associated with a high need for cooperation and a focus on jointly produced outcomes. Indeed, research has shown the potential of team-based course designs for enhancing student satisfaction over time (Michaelsen, Watson and Shrader, 1985; Reinig, Horowitz and Whittenburg, 2011). Moreover, as successful completion of most assignments in the current course depended on the abilities and cooperation of the team, it appears that the rules for this individual assignment were subsumed in and worked against the team-oriented culture of the class. The problem is

that students were apparently not able to relinquish their concern for the team in the face of the explicit but contrary directions of the instructor. Future research should seek to examine the complex nature of the team culture and its effect on moral judgments.

Self Interest Emphasis in Business Schools

In business schools the phrase "rational self interest" is used both normatively and descriptively. For students, cheating is perhaps motivated by a rational view of what it takes to survive in the university context; after all, if cheating is as widespread as thought, not cheating would put the student at a competitive disadvantage for grades, scholarships, jobs, etc. Business school faculty may contribute to the problem by encouraging students to act in their rational self-interest while simultaneously urging them to work collaboratively with others (Koppenhaver and Shrader, 2003; Premeaux, 2005). Cheating is seen by students to be a way to succeed, and the team provides both the rationale for this behavior and a relevant moral standard. The major contribution of this research is not just that identification with a relevant group may impact cheating behavior, but that this identification seems to outweigh the effects of principled climates. This is extremely important especially with the emphasis on teams in both business schools and the workplace. Given these potentially negative outcomes from group identification it becomes important, for both managers and business school faculty to provide clear instructions for all activities and carefully monitor team outcomes for violations of desired moral standards of behavior.

The findings regarding social responsibility and benevolence indicate another important contribution of this study. Our results show cheating occurring within the moral climate of benevolence, but not across different loci of analysis. Previously Martin

and Cullen (2006) found that different behavior patterns were observed across moral levels and that these patterns were associated with perceptions of different moral bases for ethical climate. Generally, Martin and Cullen say very little about the benevolent/cosmopolitan 'social responsibility' climate type in their meta-analysis. We found that a climate of social responsibility has a negative association with student cheating. The implications of this finding are subtle but important. Teachers and managers must understand that they need to carefully foster concern for many constituencies beyond the work team.

Climate Perceptions Differences across Roles

Cheating occurs in many settings and the classroom is certainly not exempt. The strong emphasis on teamwork in current classrooms may tend to add confusion regarding the definition of cheating because students may see working with teammates as morally acceptable even when told not to do so. Trevino, Weaver and Brown (2008) document the very different perceptions of ethical climate within an organization where people are working full-time and a formal program of ethics awareness was offered.   In the classroom students are afforded far less consistent and prolonged exposure to the professor's ethical beliefs than the employees studied by Trevino, Weaver, and Brown (2008). Although faculty may presume that the ethics of cheating are understood, particularly in a situation where an honor code exists, misunderstandings can still arise. Team-based class designs may unintentionally divide the loyalty of students between the class team and the instructor. In such a setting, students may consciously or unconsciously misinterpret faculty instructions. Therefore, from a practical perspective,

classroom instructors need to be thoughtful as they use teams and more transparent and explicit about course expectations.

Pedagogical Implications

Although the cheating behavior itself is performed by students, those of us involved in the educational process also may be contributing to this problem. Hill (1982) reviewed the complexities of comparing performance by individuals to performance by groups, and showed that simply using groups does not always promote better learning outcomes. Thus, faculty may promote group work and the importance of teams to such an extent that we inadvertently undervalue the importance of individual effort and assessment of individual learning. With increasing class sizes and fewer resources, faculty may use groups without a careful consideration of how to appropriately balance individual effort and preparation within a team assignment. Consequently, students may fail to appreciate the need for individual preparation before group collaboration yields real benefits. Although groups are used extensively in business, ultimately accountability (promotions or raises and, in the classroom, grades) is assigned to individuals. As faculty we are responsible for helping students understand the importance of their individual preparation and study as those contribute to group effort. Instead, students may be completing assignments in teams or groups without sufficient prior individual preparation or study and come to rely overly much on such collaborative work.

Faculty should work to create assignments that require individual work which leverages that individual effort by further group processing. In addition, taking into consideration the results of our study, faculty should carefully communicate expectations with teams and offer practice assignments to help clarify those expectations. Teams

should be used to help support, not defeat, the identification of ethical issues. Instructors using teams in the classroom should provide ample opportunity for teams to learn to work together and should make expectations explicit when making formal assignments to teams.

In conclusion, this paper has addressed at the classroom level the effects of ethical climate types on cheating behavior. In a current business environment where unethical behavior appears to as prevalent as ever, the prospect of better understanding cheating behavior seems compelling. Our findings are that ethical climates characterized by a strong team interest are associated with a higher frequency of actual cheating. Regardless of whether team interest is a cause or a post hoc rationalization for cheating, instructors and managers should seriously consider the challenging ethical context a focus on team interest might create.

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Statistical Analysis and Results

Table A1 presents the basic relationships between our four climate variables and level of cheating. It plots the mean perceived response for each climate variable at each level of cheating. Level 1 is no cheating and level 4 is cheating in terms of collaboration with both friends and the Web. The graph portrays a consistent pattern among climate perceptions as the level of cheating increases moving from no cheating to both talking with others and consulting the Web. The highest levels of cheating have markedly higher perceptions of a benevolent local climate (or 'team interest') than do non-cheaters. The other climate perceptions are at the same or nearly the same level for both non-cheaters and those at our highest cheating level. Perceptions decrease or dip at 'moderate' levels of cheating for all variables. However, the only variable that appears to be higher for our most serious cheaters compared with non-cheaters is 'team interest.'

Table A1 – Mean Climate with Cheating Level
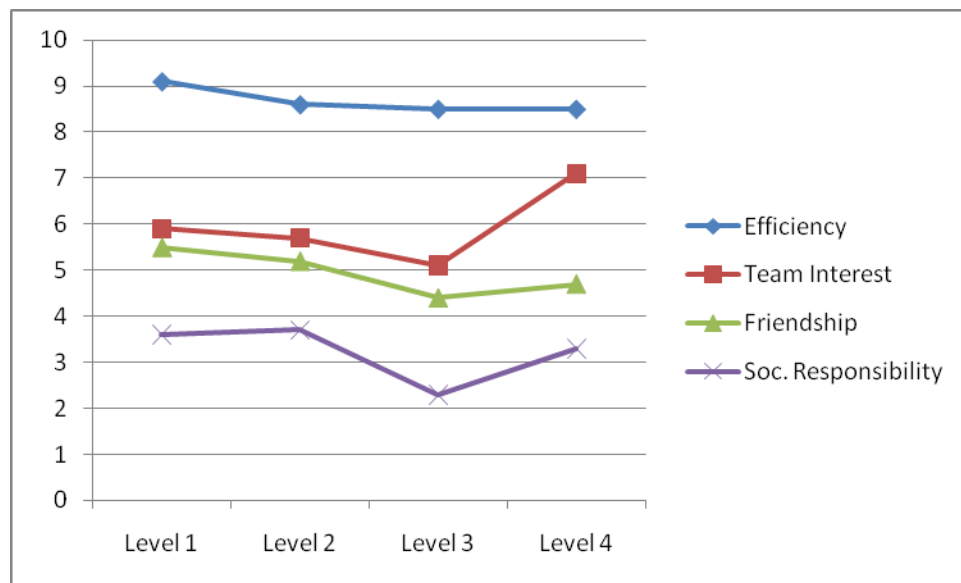
We follow the two-step approach in testing our hypothesis recommended by Hair, Anderson, Tatham, and Black (1995). First, we use multiple regression to determine the potential presence of the hypothesized climate effects. In multiple regression the coefficients indicate the relative change in the dependent variable for each unit change in the independent variable. It allows an assessment of both the direction and size of regression coefficients. However, due to the nonmetric or categorical nature of our dependent variable, we do not fully meet the assumptions of linear regression. Therefore, as the second part of our analysis we perform an ordered logit regression. Ordered logit analysis is basically similar to multiple regression except that it utilizes a categorical dependent variable and accounts for potential non-linear relationships. It also considers the hypothesized relationships in terms of their likelihood of fitting the overall model. However, logit models prevent any direct interpretation of individual coefficients or parameter estimates. According to Hair, Anderson, Tatham, and Black (1995), in logit analysis the interpretation of coefficients is not necessarily straightforward. Consequently, we elected to use both forms of analysis. Logit analysis provides a unique complement to multiple regression because we are able to account for all potential relationships in the data while avoiding possible misinterpretations of individual effects.

Results of the regression analysis are given in Table A2 below:

Table A2
Multiple Regression - Ethical Climate Types

Variables	Coefficients	Standardized Coefficients	t-statistic
Intercept	3.036		4.716
Egoism/Cosmopolitan *(Efficiency)*	-0.027	-0.068	-0.501

Benevolence/Individual *(Friendship)*	-0.166	-0.251	-1.465
Benevolence/Local *(Team Interest)*	0.222	0.470**	2.773
Benevolence/Cosmopolitan *(Social Responsibility)*	-0.292	-0.292*	-1.998

*p < 0.10
**p < 0.05

R-square	0.180
Adjusted R-square	0.112
F-statistic	2.633
Model: p-value	0.046**

The regression results presented in table A2 indicate support for hypothesis 1. The egoism/cosmopolitan measure 'efficiency' and the benevolence/individual measure 'friendship' are not significant predictors of cheating behavior; however, the 'team interest' benevolence climate scale is a significant predictor of cheating level. Team interest is the most powerful predictor (ß = .470, p < .05) in the model. Where actors perceive strong concern for what is best for the team (team interest); the association with cheating behavior is high.

The benevolence/cosmopolitan (social responsibility) climate is associated with a lower cheating level as predicted in hypothesis 2. The identification of the actor with more inclusive constituencies beyond the team (e.g. the organization itself) is associated with lower levels of cheating (β = -.292, p < .10).

Therefore, these results provide support for both hypotheses 1 and 2. We found lower levels of cheating associated with both benevolence/ individual (friendship) or benevolence/cosmopolitan (social responsibility) climates, and we found higher levels associated with the team interest (benevolence/local) climate type. Overall, the result for

the regression model is reasonably strong ($R^2 = .18$). Benevolence ethical climate types adequately predict level of cheating behavior.

The results of the ordered logit analysis are given in Table A3 below:

Table A3

Ordered Logit Analysis

Variable	Estimate	95 % Confidence Interval	
		Lower bound	Upper bound
Egoism/Cosmopolitan *(Efficiency)*	-.043	-.241	.155
Benevolence/Individual *(Friendship)*	-.385	-.818	.048
Benevolence/Local *(Team Interest)*	.428**	.107	.750
Benevolence Cosmopolitan *(Social Responsibility)*	-.495*	-1.051	.061

*$p < 0.10$
**$p < 0.05$

Log likelihood final – 123.793 (Significance = .041)

The parameter estimates in Table A3 indicate that again the only significant predictors are team interest ($p < .05$) and social responsibility ($p < .10$). Furthermore, the relatively high log-likelihood test suggests that the model is a good fit. In other words, the ordered logit analysis indicates that the probability of benevolence ethical climate corresponding to our levels of cheating is high. These findings complement that of the multiple regression analysis.

In summary, while cheating occurred more frequently when students perceived a team-based (benevolence local) climate, we found cheating was not as likely to occur when students perceived a climate based on social responsibility (benevolence cosmopolitan). We found no significant effects for egoistic climates (hypothesis 1). Our overall models, however, are statistically significant at the traditional $\alpha = 0.05$ level and

adequately predict the response variable. Benevolence ethical climate does a good job

predicting cheating using either the linear or non-linear models. Moreover, the results

point to the importance of the individual effects on cheating of both the 'team interest'

and 'social responsibility' variables.

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