

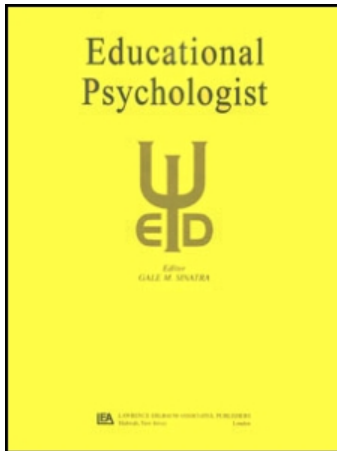
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Motivational Perspectives on Student Cheating: Toward an Integrated Model of Academic Dishonesty

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Motivational Perspectives on Student Cheating: Toward an Integrated Model of Academic Dishonesty

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This article uses theoretical concepts from self-efficacy theory, goal theory, expectancy value, and intrinsic motivation theory as a way to organize the vast and largely atheoretical literature on academic cheating. Specifically, it draws on 3 particular questions that students encounter when deciding whether to cheat: (a) What is my purpose?, (b) Can I do this task?, and (c) What are the costs associated with cheating? This article reviews both experimental and nonexperimental evidence related to each of these questions and offers suggestions for future research and instructional practices that will lessen the likelihood of cheating.

Today's high school and college students openly admit that academic cheating has become both pervasive and expected. As many as 80% to 90% of students cheat prior to graduating from high school, and a similar percentage cheat during their undergraduate years (Davis, Grover, Becker, & McGregor, 1992; McCabe & Trevino, 1997). Many students admit to cheating only once; however, for a substantial minority, the behavior is repetitive (Hollinger & Lanza-Kaduce, 1996; McCabe & Trevino, 1997). Moreover, cheating rates have risen steadily over the past 30 years, coupled with a growing majority of students who believe that cheating is acceptable in some circumstances (Cizek, 1999; Evans & Craig, 1990a, 1990b; Schab, 1991). Although the causes of increased cheating are unknown, some speculate it is due to more pressures for success (Callahan, 2004). In a recent article in the *New York Times*, a group of Connecticut adolescents spoke about their knowledge of student cheating and their own feelings of pressure to cheat to keep up with their peers (Gross, 2003). Other research suggests that an increased national emphasis on high-stakes testing may encourage dishonesty (Nichols & Berliner, in press).

Scholarship focused on understanding and predicting academic cheating has also expanded in the last decade. To a large

extent, these studies examine personal characteristics associated with dishonesty, including demographic variables such as gender and prior achievement, as well as personality and motivational factors, including self-efficacy, goal orientation, and moral development. A second body of studies focuses on contextual factors associated with cheating, such as the difficulty of students' course loads or the level of instructor proctoring. Whereas a minority of these studies are grounded in motivation, moral development, or social deviance theories, most are atheoretical. Moreover, there have been few efforts to interpret these findings within an overarching conceptual framework (see Whitley, 1998), making it difficult to build to a systematic, progressive body of scholarship.

We propose a framework for organizing this vast literature, using concepts and research from achievement motivation. Specifically, we seek to show how many of the seemingly disparate factors that predict cheating influence dishonest behavior via three motivational mechanisms: (a) students' goals, (b) students' expectations for accomplishing those goals, and (c) students' assessments of the costs associated with achieving those goals. We demonstrate that students are more likely to cheat when they answer the question "What do I hope to accomplish?" with goals that are performance, ego, or extrinsically focused versus mastery, learning, or intrinsically focused. Second, cheating rates are higher when students have poor expectations of their abilities to accomplish their goals through personal effort ("Can I do this?"). Finally, when stu-

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dents assess that the potential costs incurred from cheating are minimal, they are more apt to engage in dishonest behaviors. Within this framework, both individual factors and contextual factors are presumed to influence students' answers to each of these questions. For example, although a student may have high self-efficacy for performance in mathematics, and we would thus predict that she would not be inclined to cheat in math classes, within a particular classroom, that student may doubt her ability to accomplish a given goal because of poor teaching, unclear tests, or a host of other environmental variables that are outside of her control.

Although macro level changes in the values and behaviors of our society have undoubtedly contributed to the academic dishonesty epidemic (Callahan, 2004), we limit our framework (see Figure 1) and our analysis of cheating to the effects of classrooms, families and peers, or what Bronfenbrenner (1979) refers to as microlevel influences. We delimited our framework in this way because the majority of the cheating literature addresses micro-level effects and, as educational psychologists, we are particularly interested in identifying factors that can help schools to reduce academic dishonesty.

This article is organized into four major sections. Extant literature demonstrating how cheating is related to students' goals, judgments about their capabilities to achieve those goals, and the perceived costs of cheating is presented in the first three sections. We have framed each section with a guiding "question" that students consider in academic contexts. Within each topic, we provide a conceptual argument for the relations between the specific motivational concepts and cheating and then review both the nonexperimental and experimental research supporting these relations. A critical synthesis of the findings concludes each section. We subsequently provide a more integrated analysis of this literature

as a whole and offer suggestions to improve our understanding of academic dishonesty. This final section outlines what we can infer about creating classroom environments that ameliorate cheating and a brief discussion of cheating within the larger societal context. We hope to illustrate the parallels between the school-based factors that affect the likelihood of cheating and the larger changes in our society that make the promotion of academic honesty a complex task for teachers and other school personnel (Callahan, 2004).

QUESTION #1: WHAT IS MY PURPOSE?

Theoretical Perspective

Students approach their classroom learning with a range of goals, both academic and social (Anderman & Anderman, 1999; Dweck & Leggett, 1988; Midgley, 2002; A. M. Ryan, Hicks, & Midgley, 1997; Urdan, 1997; Wentzel, 1998). Our focus is primarily on students' academic purposes, because social goals (i.e., belonging, friendship) have been minimally examined in relation to cheating (see Calabrese & Cochran, 1990; Murdock, Hale, & Weber, 2001). Numerous theories of achievement motivation, including intrinsic motivation theories (Deci, 1975; Deci & Ryan, 1985) and goal theories (Ames, 1992; Dweck & Leggett, 1988) explain differences in achievement-related behavior in terms of students' reasons for pursuing their academic work (Pintrich & Schunk, 2002). Across these theories, there is a distinction between students who approach classroom tasks with a genuine desire to understand (i.e., high intrinsic value, strong mastery or learning goals) versus those who are more interested in external indicators of accomplishment (i.e., performance goals, ego goals, extrinsic

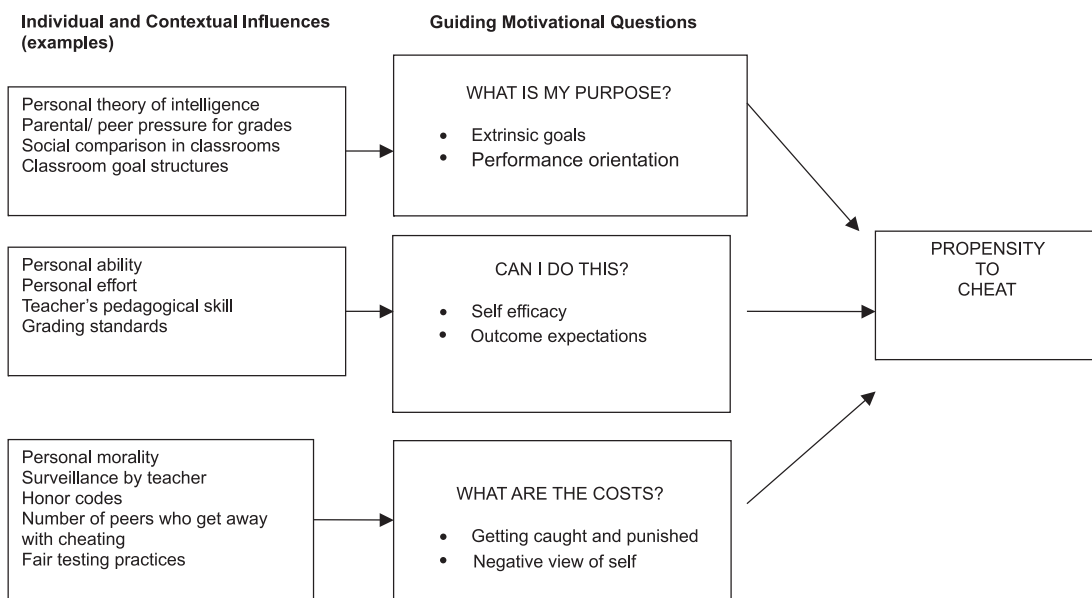


FIGURE 1 Proposed motivational framework for integration of the cheating literature.

motivation). The most utilized of these theories, achievement goal theory, emphasizes how students' constructed sense of the purpose of schooling influences their motivated behaviors (Urdu, 1997). Learners who pursue understanding are referred to as mastery, task, or learning-oriented, whereas those whose primary goal is to demonstrate their ability are termed performance, relative-ability, or ego-oriented. Some goal-orientation researchers also distinguish students who are motivated primarily by extrinsic rewards and recognition (e.g., Anderman, Griesinger, & Westerfield, 1998).

Conceptually, cheating can be viewed as a viable strategy to attain extrinsic or performance goals. However, academic dishonesty might hinder goal-directed progress if students are primarily engaged with a task because of intrinsic interest or a strong desire to learn. The forthcoming review of the literature suggests that students' achievement goals are related to frequency of cheating in predictable ways: the pursuit of mastery goals is related to decreased cheating, whereas the pursuit of performance and extrinsic goals is related to greater cheating.

Nonexperimental Evidence

Numerous correlational and comparative studies demonstrate that motivation toward extrinsic outcomes is associated with academic cheating, whereas the pursuit of intrinsic goals is associated with less dishonesty. For example, when college students rated their reasons for cheating or for not cheating, the desire to increase one's grades was one of the primary reasons cited for dishonest behavior. In contrast, honest students said they do not cheat because it would devalue their achievement (Newstead, Franklyn-Stokes, & Armstead, 1996). Moreover, rates of cheating were almost 40% higher among students who viewed their education primarily as a means to an end, such as securing a better job, than for those who said they were pursuing a college education for personal development.

Canadian community college students asked to assess the extent to which various circumstances would affect their likelihood of cheating on an exam indicated that the effect of the exam on their long-term grades and their ability to garner future financial support would be two of their top five reasons for cheating (Genereux & McLeod, 1995). Still other evidence indicates the cheating declines when motivation is intrinsic: College students report that they cheat less when the class is interesting to them (Pulvers & Diekhoff, 1999; Schraw et al., in press).

Several scholars have explicitly applied achievement goal theory to studies of cheating. One group of these studies discriminates between students' orientations for grades versus learning, using Eison's (1981) Learning and Grade Orientation scale (LOGO), whereas others measure students' mastery, performance, or extrinsic goal orientations, based on the Patterns of Adaptive Learning Survey (PALS; Midgley et al., 1998). College students' endorsements of a learning orientation as measured by the LOGO have been inversely associated with self-reported cheating in two college samples,

whereas grade orientations were positively associated with cheating among those same students (Huss et al., 1993; Weiss, Gilbert, Giordano, & Davis, 1993). Further, relations between students' purposes for schooling and their academic dishonesty appear well before the college years. Middle school students who reported cheating in a specific class also reported lower levels of personal mastery goals and higher levels of extrinsic goals than noncheaters (Anderman et al., 1998). Logistic regression analyses revealed that individual differences such as worrying and strategy-usage, and contextual factors such as perceived school-wide emphases on performance goals, were also predictive of academic cheating.

When Murdock and colleagues (Murdock et al., 2001) replicated the work of Anderman et al. (1998), they too found that students who reported cheating in middle school had lower levels of personal mastery goals than noncheaters and perceived their classrooms as being less focused on mastery. Personal extrinsic goals were positively related to the likelihood of cheating. Classroom goal structures were also related to cheating; however, because of the high correlation between scores on those measures and three of the other contextual variables in the model (teacher competence, teacher commitment, and teacher respect), they were not unique predictors of dishonesty. The multicollinearity among these perceived classroom characteristics raises questions about the specific aspects of the environment that may facilitate cheating: Is cheating affected by the goal structure per se, or the other factors in the classroom that are concordant with low mastery settings?

Dweck and Leggett (1988) frame differences in students' achievement goals in terms of theories of intelligence. Entity theorists see intellect as a fixed capacity. In contrast, incremental theorists believe that intelligence is a reflection of what one currently knows and can thus be improved through additional effort. Therefore, persistence, struggle, and effort are viewed as valued behaviors to incremental theorists and threatening behaviors to entity theorists. Not surprisingly, entity theorists tend to pursue ego, extrinsic, or performance goals, as compared to the more mastery-oriented pursuits of students who espouse an incremental view of intelligence. In addition, there is some evidence that entity theorists may be quicker to cheat to succeed. In one study, fifth graders viewed a vignette depicting a peer who had failed a quiz despite studying for it and being confident (Dweck & Sorich, 1999). When the participants rated various strategies they might adopt for the upcoming quiz, incremental theorists were more likely to say they would try harder, whereas entity theorists were significantly more likely to say that they would try to cheat.

Dweck's focus on theories of intelligence as underlying students' achievement goals suggest that goal orientations are dispositional attributes. In contrast, many contemporary goal theorists argue that goals should be conceptualized as situational rather than personality variables (e.g., Anderman & Maehr, 1994). As such, one would expect that as students' goals change across classroom contexts, so too will their lev-

els of cheating. To test this hypothesis, participants attending an elite private college rated their goal orientations and their frequency of engaging in 17 cheating behaviors for each course they were enrolled in during a particular semester (Jordan, 2001). Across classes, students' cheating was inversely related to mastery goals and positively related to extrinsic goals. Moreover, among the students who admitted to cheating, their dishonesty was not consistent across classes. They were more extrinsically oriented and less mastery oriented in classes where they cheated than in classes where they reported being honest. In fact, "dishonest" students' goals in classes where they had not cheated were not significantly different than those of the noncheaters.

Academic integrity also appears to decline when families, peers, or instructors emphasize extrinsic or performance goals over mastery goals. Recall that in both the Anderman et al. (1998) and the Murdock et al. (2001) studies, the perceived goal structure of the classroom, in addition to one's personal goals, predicted self-reported cheating. Several additional studies indicate positive relations between perceived competitiveness of the classroom and amount of academic dishonesty (Perry, Kane, Bemesser, & Spicker, 1990; Smith, Ryan, & Diggins, 1972). Longitudinal evidence reveals that students moving from middle school math classes that are relatively mastery-oriented to high school classes that are more performance-oriented also report increases in their cheating during that same time period (Anderman & Midgley, 2004). In contrast, students moving from a performance-oriented to a more mastery-oriented environment reported cheating less in high school math than they had in middle school.

Although the findings above suggest that students are more apt to cheat both as a function of their personal goals and of goals that are emphasized in the classroom, these results are limited by an exclusive reliance on methodologies that correlate student self-reported cheating with their individual perception of the classroom goal structure. Such correlations might exist because the students who admit to cheating are likely to report that the classroom gives them a motive to cheat. Such findings may also be affected by multicollinearity between measures of personal goals and classroom goal structures.

In an effort to better understand the relations of classroom variables to student cheating, Murdock, Miller, and Anderman (2005) reanalyzed data from two previous studies using hierarchical linear modeling (HLM). Students' individual perceptions of the classroom goal structure were entered at level one, whereas aggregated goal structures were entered at level two. In both sets of data, rates of cheating differed significantly across classrooms. However, although the individual student perceptions of the goal structures predicted personal rates of cheating, the aggregated variables did not.

Survey and interview data suggests that students from high school through college believe that cheating is caused by pressure and competition for high grades and could be re-

duced with classroom practices that foster learning and deemphasize grades. Middle and high school students enrolled in highly competitive advanced placement courses stated that pressures for high grades from parents, peers, and teachers contributed to cheating (Taylor, Pogrebin, & Dodge, 2002). College-bound students in a second study indicated that cheating increases during the junior year because of the weight given to those grades in the college admission process (Stephens, 2004). Similarly, in a nationwide survey of college undergraduates, three of the top 12 suggestions to instructors for decreasing cheating pertained to shifting the norms for the course: not grading on a curve, focusing on learning rather than grading, and removing assignments that were trivial and uninteresting (McCabe, Trevino, & Butterfield, 2001).

In summary, correlational, comparative, and longitudinal data provide convergent evidence that by late elementary school, students have developed different approaches to learning that are related to cheating in predictable ways. Students who focus on their abilities, social comparisons, and extrinsic rewards report increased dishonesty. Although it appears that the competitiveness of the environment may also affect cheating, conclusions about any environmental effects should be tempered as a majority of these studies relied on one-time data collection, making it impossible to determine if variations in the perceived environment were related to changes in cheating, or if people who cheat judge their environment more harshly as a justification for their actions.

Experimental Evidence

Several forms of experimental research add additional support to the literature on the relations between personal goals, contextual goal attributes, and academic dishonesty. In one set of studies, learning environments are manipulated experimentally using hypothetical vignettes; in another set, students complete laboratory tasks that permit and measure cheating.

Research using high school, undergraduate, and graduate students indicates that various classroom practices alter the justifiability of cheating in a given context, as well as the likelihood that cheating will occur (Murdock, Miller, & Goetzinger, 2005; Murdock, Miller, & Kohlhardt, 2004). Students in these three age groups were asked to read a hypothetical vignette depicting a teacher who created a performance or mastery-oriented classroom. The teacher was also portrayed as pedagogically more or less competent, yielding a 2 (goal structure) \times 2 (pedagogical competence) design. Cheating was rated as more justifiable and more likely in classrooms where teachers emphasized performance goals as compared to mastery goals and where teachers were perceived as less versus more competent.

Wryobeck and Whitley (1999) demonstrated that students' goal orientations not only predict their own cheating, but also how those students evaluate the dishonest behavior of others. College students read one of several scenarios de-

picting a student who had cheated and an accomplice who had assisted the culprit for either altruistic (friendship) or monetary incentives. Across scenarios, students with a high versus low learning orientation endorsed a higher rate of punishment for the cheater and the accomplice. In addition, students' ratings of their own likelihood of engaging in the behaviors of the cheater and accomplice were a product of the interaction between the incentive that was offered and their own learning (high versus low) and grade (high versus low) orientations. Students with high grade orientations indicated that they would be more likely to cheat and to help the cheater than those with low grade orientations. This effect was true in both incentive conditions for students in the low learning orientation group. For those with high learning orientations, the effects were more complex: students with high learning and high grade orientations reported that they would act like the cheater and the accomplice more in both the altruistic and the monetary incentive conditions. However, within conditions, the high grade/high learning group identified more with the scenario in the altruistic condition, whereas the high learning/low grade group identified more in the monetary condition.

Vignette studies are useful as a first step in clarifying the mechanisms that underlie students' decisions to cheat but are limited to assessing dependent variables that reflect attitudes and intentions, rather than behavior. Two studies have manipulated achievement goals and measured actual cheating within a laboratory setting. External incentives increased cheating in a laboratory study with 10- to 12-year-old students (Lobel & Levanon, 1988). Students were instructed to draw figures, without lifting their pencil from the paper or retracing their path. Of the five puzzles they completed, only two could be solved; thus, when students scored their work, any student reporting a score of above two was labeled a "cheater." One group was offered a prize for high performance, a second group was told that their scores would be made public, and a third group received no incentives. Students cheated more in the prize condition than in the other two conditions. Self-esteem and need for approval were also assessed but were unrelated to cheating. Covey, Saladin, and Killen (2001) monitored college students' cheating as a function of, among other variables, the reward structure of the task. Participants were shown a series of mazes and were told to memorize and then trace the mazes with their eyes closed. The number of mazes correctly completed was the dependent variable. In the extrinsic reward condition, double-credit was offered to the participants for high performance; the other participants were promised double credit simply for completing the task. The level of experimenter surveillance was also manipulated (high versus low), and comparisons were made between high and low self-monitors, defined as the extent to which self-presentational concerns motivated an individual's behavior. Cheating occurred less frequently at higher versus lower levels of sur-

veillance. Incentive rewards did not increase the amount of cheating for high self-monitoring students. However, among the low self-monitoring students, cheating rates in the high incentive condition were double those in the low incentive condition.

Summary and Questions for Further Exploration

The goals of many teachers and students today are focused on the attainment of high test scores, given the high-stakes assessments that most students and teachers encounter (Nichols & Berliner, in press). Pressure for high test scores is so extreme that teachers and administrators have falsified students' standardized tests themselves (Levitt & Dubner, 2005). As our society continues to emphasize outcomes over learning, many argue that cheating is likely to continue to occur (Callahan, 2004). Whereas some students focus on mastery and learning, others focus on demonstrations of ability and attaining extrinsic incentives. In addition, some students may pursue a host of goals, both mastery and performance, simultaneously. Cheating is a strategy that some students choose to employ to achieve those goals.

The extent to which teachers can reduce cheating by implementing practices that are less extrinsically or performance focused and more mastery focused is still unclear. Correlational studies simply examine how students' personal characteristics and perceptions of learning contexts are related to behaviors. Nevertheless, these results cannot disentangle the extent to which variations in teaching practices across classrooms predict cheating. The two studies that have attempted to tease out variance between classes from variance within classes using HLM suggest that although students report cheating more if they *perceive* the presence of a performance goal structure, goal structure appears to be unrelated to cheating when a more objective method of assessing context is utilized. In addition, most studies to date have not assessed students' perceived interest in a course or valuing of the course simultaneously with measures of students' goals and perceptions of classroom goal structures. It is indeed possible that highly valuing a certain class may either buffer or exacerbate the likelihood of cheating.

Although cheating can be induced by extrinsic rewards in laboratory settings, generalizing from these results to the classroom minimizes important differences between the settings. After leaving the lab, students will not have to interact with an experimenter, nor is that person in a position to affect the participants' academic careers. In contrast, cheating in a classroom comes with the potential for embarrassment, as well as grade penalties. Fears of being caught and the perceived severity of the consequences for being caught are two of the most important deterrents to potential cheaters (Cizek, 1999).

QUESTION #2: CAN I DO THIS?

Theoretical Perspectives

Students' judgments about their capabilities to bring about a desired outcome (*Can I do this?*) represent a second component of many theories of achievement motivation, including expectancy-value theory (Eccles, 1983; Wigfield & Eccles, 2002) and self-efficacy theory (Bandura, 1986, 1997). Both of these perspectives maintain that the cognitive beliefs underlying motivated behaviors result from interactions between students and their environments. Within Bandura's social-cognitive framework, students' responses to the question, "Can I do this?" are a product of their self-efficacy judgments or their confidence in their ability to execute the skills needed to bring about a desired outcome, combined with their assessments of the contingencies between executing those behaviors and the desired outcome (i.e., outcome expectations). Although efficacious students are generally more engaged in classroom activities, a student may be confident that she can master the skills covered on the next test (i.e., high self-efficacy), but not exert effort because she believes that her mastery of the material will not be reflected in the teacher's poorly constructed tests (i.e., low outcome expectations) (Linnenbrink & Pintrich, 2003). Conceptually, one would expect that cheating would vary as a function of self-efficacy beliefs, and the individual and environmental factors that influence students' self-efficacy or outcome expectations.

Nonexperimental Evidence

Several correlational studies have directly examined self-efficacy beliefs in relation to cheating behavior. For example, Murdock et al. (2001) reported an inverse relation between cheating and academic self-efficacy for middle school students, even after controlling for personal goals, classroom goal structures, and other aspects of the classroom environment. Similar relations between self-efficacy and cheating have been reported in college samples (e.g., Finn & Frone, 2004). Other studies have linked cheating to a fear of failure (Calabrese & Cochran, 1990; Michaels & Miethe, 1989), test anxiety (Malinowski & Smith, 1985), and worrying about one's performance (Anderman et al., 1998). Although fear and worry are not direct assessments of self-efficacy, within social-cognitive theory, arousal, which is tied to emotion, has been shown to be one of the four sources of information that people use in forming their self-efficacy judgments (Bandura, 1986, 1997), with negative and anxious emotions serving as low efficacy cues.

Actual achievement is also another cue for individuals' appraisals of their self-efficacy (Bandura, 1986, 1997). In general, there is a positive correlation between measures of academic achievement and self-efficacy belief, and indices of achievement such as grade point average (GPA) have also been inversely related to self-reported cheating (Finn &

Frone, 2004; McCabe & Trevino, 1997; Michaels & Miethe, 1989; Newstead et al., 1996; Roig & DeTammasso, 1995). However, a 1998 meta-analysis of studies of college populations reported that the average effect size of GPA on cheating is small (Whitley, 1998). Results from the one study that used actual cheating as the dependent variable also suggest that prior achievement and cheating are inversely related. For each of six quizzes, undergraduate students in an economic class handed in their completed work, which, unknown to the students, was photocopied by the Teacher Assistant and returned to the student at the next class (Nowell & Laufer, 1997). Students then graded their own work and 27% of them cheated. Although GPA was not uniquely related to dishonesty in multiple regression analysis, a lower grade in that specific course grade was a significant predictor of dishonesty. Undoubtedly, the lack of effect of GPA was due to its correlation with course grade, but the simple correlations were not provided by the study's authors.

Dishonesty is not confined to low-achieving students but occurs among those who are the most academically able (Stephens, 2004). From a social-cognitive framework, the negative correlation between GPA and cheating is not contradicted by the evidence that cheating also occurs among those with high GPA because achievement (GPA) and self-efficacy are not isomorphic constructs. Even among high achievers, one's self-efficacy judgments predict behavioral outcomes more so than one's prior achievement (Bandura, 1997). These findings have also been documented in relation to cheating. Among late adolescents attending high school and college, self-efficacy beliefs predicted levels of cheating above and beyond that which was accounted for by GPA (Finn & Frone, 2004). Moreover, self-efficacy moderated the effect of GPA on dishonesty. Strong prior performance was inversely related to cheating, but only among students with high self-efficacy. For those with lower levels of self-efficacy, stronger and weaker performers were equally likely to cheat.

The complicated relations between cheating and prior achievement might also be understood in terms of the goals that students have for themselves. Although mastery goals are typically associated with more effective strategy use, more sustained effort, and other desirable motivational outcomes, performance goals are typically related to higher grades (Anderman & Wolters, 2006; Bandura, 1997). Moreover, at the middle and high school levels, higher achieving students are more likely to be tracked into classes with similarly achieving peers, creating a higher standard for their performance. At all levels, students typically compare their performance against others who they view as similar to themselves. Thus, although high GPA students may be more capable than others in an absolute sense, they be equally or less confident in their ability (self-efficacy) to achieve their self-imposed goals than are lower ability students.

Indirect evidence for relations between self-efficacy and cheating also comes from studies that demonstrate relations

between various indices of students' lack of preparedness and their engagement in academic dishonesty. For example, both quantity and quality of study time are inversely related to cheating (Kerkvliet, 1994; Norton, Tilley, Newstead, & Franklyn-Stokes, 2001), as is class attendance (Michaels & Miethe, 1989). Procrastination has been found to be positively correlated with cheating on examinations and plagiarism among university students (Roig & DeTommaso, 1995). In addition, cheating is more prevalent in math, science, and technology courses (Schab, 1991), which are also perceived as more difficult.

Factors such as instructional quality and course or exam difficulty may influence students' self-efficacy judgments and outcome expectations. Unorganized teachers, for example, may make it more difficult to learn, thereby undermining self-efficacy judgments, and tests that do not match the course material may lower students' outcome expectations. Consistent with this prediction, students report that they are more likely to cheat when classroom factors impede learning. When asked to rate the competence and commitment of their teachers, middle schools students who cheated in a given class gave the instructor lower ratings as compared to students who did not report cheating (Murdock et al., 2001). Among university students, an inverse relation was reported between level of cheating and the perceived quality of organization and task-focus of the instructor (Pulvers & Diekhoff, 1999). Moreover, when asked their opinion concerning why students cheat, junior and senior high school students were more likely than their teachers to attribute cheating to tough academic standards, large amounts of work, and difficult grading practices (Evans & Craig, 1990b)

Experimental Evidence

A number of experimental vignette studies provide additional evidence that pedagogical factors may influence students' cheating via their influence on students' self-efficacy and outcome expectations. In one study, high school and college students each read 19 vignettes depicting a student who was portrayed as having cheated for one of 19 reasons (Jensen, Arnett, Feldman, & Cauffman, 2002). Participants then rated the acceptability of each of those motives. Results indicated that unfair treatment by the instructor was ranked as one of the five most acceptable justifications for cheating.

In more recent research, high school students rated vignettes in which the quality of teachers pedagogy was portrayed as high versus low; in one study this manipulation was crossed with a goal structure manipulation (classroom mastery vs. performance); in another study it was crossed with a manipulation of the teacher interpersonal competence (Murdock et al., 2004). Students ratings of the acceptability and likelihood of cheating were influenced by the quality of the portrayed pedagogy. These results were replicated with undergraduate and graduate students (Murdock, Miller, & Goetzinger, 2005). Moreover, in the latter studies, students

perceptions of the fairness of the classroom mediated the relations between pedagogical competence and judgments of cheating acceptability, offering some evidence that cheating may be higher in classes where teachers behaviors are perceived as reducing students' outcome expectations.

Can I Do This? Summary and Questions for Further Exploration

Similar to the research linking students' goals to cheating, there is more evidence that students' individual self-efficacy beliefs and their perceived outcome expectations are related to cheating, and there is less evidence for the effects of the environment on cheating, via their impact of these beliefs systems. When students have high self-efficacy beliefs and expect to succeed at an academic task, cheating is probably neither a necessary nor useful strategy. As noted by Anderman et al. (1998), cheating is a somewhat unique behavior, different from other behaviors associated with performance avoidance. Self-handicapping and other avoidance strategies (e.g., avoidance of help-seeking, avoidance of novelty) are means of explaining and justifying failures. In contrast, cheating is a strategy that is designed to lead to success, albeit via antisocial and unacceptable means (Turner et al., 2002; Urdan, Ryan, Anderman, & Gheen, 2002).

Although there are theoretical explanations for the relations between cheating and self-efficacy beliefs, two under-explored facets of education that may yield additional insights regarding the relations of self-efficacy to academic cheating are ability grouping and differentiation of academic tasks. Self-efficacy and expectancies for success may be lower for students in lower-ability tracks. However, in terms of cheating, perhaps a more serious problem emerges for students who are in high-ability classes but do not feel as efficacious as their peers. When students feel that they cannot keep up with their more able peers, they may be more likely to resort to cheating to appear as competent as their classmates. This is, in some ways, reminiscent of a performance-avoid goal orientation in that students may resort to cheating if they feel that they will be perceived as incompetent if they do not perform as well as their peers (Elliot, 1999; Middleton & Midgley, 1997).

Self-efficacy theorists argue that self-efficacy is highly task specific (Bandura, 1997; Pajares, 1996). Thus a student may report feeling highly efficacious on a writing task but extremely inefficacious on a specific multiplication problem. In terms of cheating, the student would be more likely to engage in cheating while completing the task for which the student feels a sense of low self-efficacy. Nevertheless, it is possible that low levels of self-efficacy within a particular academic domain may yield a greater long-term likelihood of the occurrence of cheating within that domain. Future studies examining the long-term effects of low levels of task-specific self-efficacy on more generalized behaviors should be examined.

Although data suggest that facets of the classroom context that potentially lower students' self-efficacy and outcome expectations also increase rates of cheating, this literature has many of the same limitations as does the body of work that examines the relations of classroom goals structures to academic cheating. Most of the data are not longitudinal, and data on perceived classroom practices are almost always measured by the individual students' perceptions. Studies are needed that incorporate other methods of measuring classroom context and that analyze data at both the individual and classroom levels. Moreover, specific tests of the effects of contextual variables on cheating via their influence on self-efficacy or outcome expectations also are warranted. Finally, social learning theory suggests that observational learning may play an important yet understudied role in this area of research. Indeed, it is possible that students develop a sense of self-efficacy for particular tasks via observations of peers. In addition, students may develop actual self-efficacy for cheating by viewing their peers successfully engaging in cheating behaviors.

QUESTION #3: WHAT ARE THE COSTS?

Theoretical Perspectives

Although it seems reasonable that students who have stronger performance goals combined with low self-efficacy or low outcome expectations would be more motivated to cheat than their highly confident and mastery-focused peers, cheating is still one of many strategy choices for increasing one's performance. For example, a student might obtain additional help, try new approaches, or take a different class. From a motivational perspective, the decision of which strategy to adopt will be influenced by the perceived potential *cost* associated with a given behavior. For example, the choice to spend extra time studying for an exam might mean that a student can get a better grade but not make extra money from a part-time job, attend volleyball practice, or participate in recess (e.g., Watkinson, Dwyer, & Nielsen, 2005). Within an expectancy-value framework (Eccles, 1983; Wigfield & Eccles, 1992), these costs are weighed against the potential value of achieving one's goal: When the costs outweigh the perceived gain, the behavior is less likely to occur.

Although cheating can reduce the amount of time spent completing school work, it is not without its own potential costs. The most studied of these are the cost of being caught, and the potential cost to one's self-concept. Choices also communicate our priorities and therefore affect how others see and respond to us. The extant literature reviewed below is consistent with predictions about the role of costs in determining motivated behavior: Cheating is more likely to occur when students can minimize the potential costs associated with detection and the costs of having to perceive oneself as dishonest.

Costs of Detection: Nonexperimental Evidence

Detection costs are largely controlled by two factors: the perceived likelihood of being caught, or the ease of cheating, and the perceived punishment that will result if caught. Indeed, it is easier to cheat on academic work in some situations compared to others, and factors that make cheating more difficult also appear to lower rates of dishonesty. For example, students and faculty at two small private colleges indicated that the chance of getting caught and the penalties associated with getting caught were two of the top three reasons for not cheating (Graham, Monday, O'Brien, & Steffan, 1994). In another study high school students from two demographically diverse schools rated the "fear of getting caught and punished" as the second most frequent reason why they did not cheat, with the most frequent response being that they did not have any need to cheat (Stephens, 2004). Moreover, students believe that making the act of cheating more difficult reduces its frequency. For example, two-thirds of the students in a large public university reported that scrambling test-items, providing alternate test forms, unique make up tests, as well as small classes and additional proctors, would reduce dishonest behavior (Hollinger & Lanza-Kaduce, 1996). Finally, formal honor code statements that clearly specify no tolerance for cheating have been found to increase students' perceptions of risk involved in trying to cheat (Cummings & Romano, 2002) and decrease the actual prevalence of cheating behavior (McCabe & Trevino, 1993; McCabe et al., 2001; McCabe, Trevino, & Butterfield, 2002).

Costs of Detection: Experimental Evidence

Naturalistic and laboratory experiments demonstrate declines in cheating when there is an increased risk of detection. For example, Houston (1976) examined the effects of spaced seating and alternate exam forms on cheating in undergraduate psychology classes. The dependent variable was a cheating index on a multiple choice test, based on the ratio of identical correct and incorrect answers shared by the student and a nearby target, as compared to the student and another random student. Less copying occurred in spaced versus nonspaced seating conditions; however, having two different question orders for an exam did not lead to less cheating than having one version of the exam. The authors speculated that item order was not a deterrent because it was relatively easy for students to find the matching question from someone seating near them.

To test this hypothesis, Houston (1983) examined rates of cheating in three conditions: when the test items were scrambled, when the question and answer choices within the questions were scrambled, and when there was no scrambling. Cheating only declined when both the questions and the answers within the questions were scrambled. Moreover, students cheat more when seating is chosen versus assigned because they tend to sit near people who they know and with

whom they have studied (Houston, 1986). The cost of engaging in cheating behaviors may be perceived as higher when students are randomly assigned to seats due to the unknown outcomes of cheating from unfamiliar classmates.

Laboratory studies also demonstrate the effects of potential detection on cheating. Students in an experimental laboratory study were less likely to cheat in a high versus low surveillance condition (Covey et al., 2001). This main effect was modified by an interaction effect: The rates of cheating among students who were low in self monitoring, and who presumably care less about the opinions of others, were less affected by the amount of surveillance than were cheating rates of their more impression-conscious peers. Experimental studies of high school students with high and low surveillance conditions have yielded similar findings (see Corcoran & Rotter, 1987).

Costs to One's Self-Image: Nonexperimental Evidence

Dishonesty is also more prevalent when a student can reduce the potential costs of having to see him- or herself or fear that others will see him or her as a "bad person." Self-image suffers when people behave in ways that violate their own norms of acceptable behavior; as such, one would anticipate that the costs associated with cheating would be reduced, and thus the prevalence of cheating would be higher, among students who see cheating as acceptable. Indeed, a qualitative study of college students in Canada describes the numerous impression management strategies that some students use to ensure that they are not perceived by others as cheaters, such as staring at the ceiling while thinking, dressing without pockets, and making facial expressions that convey serious involvement with the exam materials (Albas & Albas, 1996).

Students' judgments of the acceptability of cheating have been conceptualized in two ways, including: moral beliefs about cheating and attitudes about the justifiability of cheating, which is often referred to as "neutralizing attitudes." As we show below, evidence suggests that students who engage in cheating behaviors typically view cheating as more justifiable and acceptable than those who are more honest, thereby lessening the impact of the behavior on one's self-perceptions (i.e., reduced cost of cheating). At the same time, it is not clear that honest and dishonest students actually differ in their moral judgments of cheating. We turn first to the literature on morality and cheating, followed by the scholarship on neutralizing attitudes.

Morality. When asked why they refrain from cheating, high school students indicated that personal morality and the anticipated embarrassment of being caught were two of their top five deterrents (Stephens, 2004). Moreover, when students self-report their level of moral reasoning and their cheating behavior, there are consistent inverse correlations between the two constructs. For example, recent data from high school stu-

dents produced small, but statistically significant, relations between self-reported cheating and students' level of moral reasoning and their specific moral judgments about cheating (Stephens, 2004). Similarly, vignette studies of high school, undergraduate, and graduate students confirm that students who perceive cheating as "wrong" in a given situation also predict that less cheating will occur in that situation when compared to their peers who see it as more acceptable (Murdock, Miller, & Goetzinger, 2005; Murdock et al., 2004).

Neutralizing attitudes. Academic cheating, like other deviant behaviors, is empirically related to students' neutralizing, or explaining away the wrongness of the behavior, among middle-school (Anderman et al., 1998), high school (Stephens, 2004), and college students (Jordan, 2001; Whitely, 1998). Neutralizing attitudes can take various forms including externalizing blame onto others, pointing out the normativeness of the behavior, and reframing the behavior as a crime with no victim. In addition, neutralizing attitudes may be related to individuals' overall interest or valuing of various academic courses or subjects.

Nonexperimental studies suggest that assigning blame to others and appealing to one's peer norms are the most frequent strategies used to justify dishonesty. When blame for cheating is shifted to others, the most common target is the teacher and his or her instructional practices. For example, Pulvers and Diekhoff (1999) reported that among undergraduate students, self-reported cheaters rated the instructional context as worse than the students who did not cheat (i.e., instructor as less personally engaged, class as less interesting, activities as more poorly organized and having less clarity). Across all students, there was a positive relationship between the degree of neutralization and negative perceptions of the instructional context. In another survey study of undergraduate students, "poor instruction" was rated as one of the most acceptable motives for cheating (Jensen et al., 2002). Finally, the motivational climate created by teachers has also been associated with cheating attitudes. Anderman and colleagues (1998) found that middle school students rated cheating as more acceptable in classrooms where the perceived classroom goal structure was one that focused on extrinsic recognition and rewards for performance (performance goals) versus the mastery of content (mastery goals).

Consistent with social learning theory (Bandura, 1986), students appear to normalize cheating when they see others getting away with it. Evidence from a multi-campus study of undergraduates confirms the important role of peer attitudes and behaviors: The frequency with which one's peers were perceived to cheat and the perceived attitudes of peers toward cheating were two of the strongest predictors of personal cheating, among a range of variables that were studied (McCabe & Trevino, 1997). Similar results have been found in other high school and college samples (McCabe & Trevino, 1993; Rodgers & Rowe, 1990).

Costs to One's Self-Image: Experimental Evidence

Morality. In contrast to the consistent correlations between moral reasoning and self-reported cheating, experimental studies that use *actual cheating behavior* as the dependent variable have been less conclusive. For example, in one study, moral reasoning was examined in relation to actual cheating behavior among students attending religious and secular high schools (Bruggeman & Hart, 1996). After completing a moral reasoning test, students were asked to memorize the location of 10 circles of various sizes on a sheet of paper and then to reproduce the drawing with their eyes closed. Extra credit points were offered for high performance on the reproduction tasks. Students were coded as cheaters if they scored more than three standard deviations above the mean score for "blinded" performance, established prior to the study, or if after the test, they admitted to having cheated. Cheating was equally frequent among students attending secular (79%) and religious (70%) high schools, and dishonesty was unrelated to level of moral reasoning in either sample.

Corcoran and Rotter (1987) examined moral correlates of cheating under high and low surveillance conditions. Undergraduate women completed an assessment of their stated degree of morality and their level of self-punishment after violating their own moral standards. Subsequently, participants completed five mazes with their eyes closed after studying them for a few minutes. Half of the participants completed the task while the experimenter watched (high surveillance), whereas the other half were left alone (low surveillance). Among all students cheating was less frequent when someone monitored the students' behavior. Across both surveillance conditions there was not a significant correlation between students' self-punishment scores and their level of cheating. However, cheating was inversely related to students' morality scores but only in the high surveillance condition, suggesting that morality may only matter when there is some public threat of being exposed.

In contrast to these findings, undergraduate male students at lower versus higher levels of moral reasoning were found to cheat more frequently and more quickly on a laboratory task. Participants completed 10 trials of a tracking task requiring them to trace a moving triangular figure with a stylus light. They recorded their own time on the task, which was also recorded by a clock in another room. Students were left alone to complete the task and were given falsely inflated normative information about the results obtained from others on this task. Unlike the Corcoran and Rotter (1987) study, no tangible incentives were given for task performance, and no high surveillance condition was included, which may account for the differential findings between the two studies. The presence of a morality effect in this study but not in the Bruggeman and Hart (1996) study also may be due to the age differences of the participants: High school students probably do not attain the levels of moral reasoning that were asso-

ciated with decreased dishonesty in the college sample. This hypothesis could not be tested, however, because Bruggeman and Hart measured moral reasoning on a continuous scale, rather than classifying individuals into moral stages.

Finally, Malinkowski and Smith (1985) examined cheating behavior in high and low temptation conditions. Although higher levels of moral reasoning were associated with fewer cheating incidents, this finding occurred only when temptation was low, suggesting that if the stakes are high enough, the incentives to cheat may outweigh the cost of violating one's moral code, even for those with mature levels of moral reasoning.

Neutralizing attitudes. One possible conclusion for the inconsistent relations between morality and cheating is that seeing oneself as an immoral person is not always enough of a cost to deter cheating. However, these incongruous findings are typical of the totality of research on moral cognition and moral behavior (Blasi, 1980, 1983). One common explanation for this discrepancy is people's use of strategies to neutralize or justify their behavior, thereby protecting their image of themselves as moral, decent individuals (Blasi, 1980, 1983).

Experimental studies suggest that students justify or neutralize their cheating by appealing to aspects of the classroom context. For example, Murdock et al. (2004) found that students' ratings of the justifiability of cheating were affected by portrayed classroom context. Specifically, among high school students, cheating was seen as more justifiable in classrooms portrayed as having a performance versus a mastery goal structure, with poor versus good pedagogy, and where the teacher was interpersonally uncaring versus caring. Cheating was also judged as more likely to occur in these settings, and correlations between the justifiability and the likelihood ratings were strong. These findings were replicated among undergraduate and graduate students (Murdock, Miller, & Goetzinger, 2005). Moreover, although cheaters generally thought that academic dishonesty was more justifiable than noncheaters, the context effects did not interact with cheating status, suggesting that it is not only dishonest students who use situational aspects of the environment to justify dishonesty.

Costs: Summary and Questions for Further Exploration

Students' cheating-related attitudes and behaviors are clearly affected by their perceptions of need, as well as an analysis of the potential costs of dishonesty. These costs are not only the direct costs of being caught and punished, but the psychological costs that come from being seen, or seeing oneself, as a person who does something unethical. As with much of the other scholarship in this area, one of the major limitations to our understanding results from an almost exclusive reliance on one-time correlational studies using self-report data. A more thorough understanding of the ways in which specific

classroom practices actually deter cheating could be achieved by the inclusion of classroom observation data and teacher reports of their classroom policies and behaviors.

Understanding the role that assessed costs play in determining cheating behavior could also be improved by beginning to look at moderating relations. For example, we might ask how the variables that affect people's need to cheat, such as their level of academic self-efficacy, interact with the cost associated with dishonest behavior. In addition, whereas the literature on cheating offers strong evidence that less dishonesty occurs when perceived costs are high, there are far fewer studies focusing on the other side of the equation: the incentive value of cheating. Students report that they cheat more often when the stakes for failure are high (i.e., losing a scholarship, being placed on probation) (Sheard, Markham, & Dick, 2003), and they also are more forgiving of their dishonest peers in these situations (Jensen et al., 2002; Sutton & Huba, 1995). Efforts to more fully integrate costs and benefits associated with cheating are clearly needed.

OVERALL SUMMARY AND FUTURE DIRECTIONS

Our primary aim in this manuscript was to provide a framework to organize the existing body of work on cheating, to evaluate the quality of the experimental and nonexperimental evidence for the various components of the framework, and to offer some overarching suggestions for future research in this area.

Several conclusions are apparent from this review. First, despite numerous studies on academic cheating, in many ways this literature is still nascent both conceptually and methodologically. Nevertheless, academic cheating is by nature a motivational issue, and the evidence seems to suggest that many of the motivational processes that are highlighted in theories of achievement motivation are useful for explaining cheating behavior. Students must be motivated to cheat, and there must be a reason for cheating, whether that reason is extrinsic (i.e., to earn a grade), social-comparative (i.e., to demonstrate one's ability or to avoid appearing incompetent), or social-cognitive (i.e., because a student does not feel efficacious at a particular task). In addition, the higher the perceived cost of cheating, the less likely it is that students will cheat.

Although the data support to a greater and lesser extent the various components of our proposed framework, as a whole it is limited in two main ways. First, the proposed motivational relations are presumed to be functions of both the individual and the context in which learning occurs. Although it would be nice to say that students with a specific set of characteristics cheat, cheating behavior is much more complex. Students who cheat in one class often do not do so in all of their classes. Yet, in experimental studies where there are incentives to cheat but few obvious costs, many students do so. To a large extent, the

literature does not capture the complexity of these relations: Some studies consider individual characteristics (i.e., students' self-efficacy, goals) and characteristics of instructional contexts (i.e., teacher competence, goal structure), but few studies look at the interaction among these variables.

Second, there are no studies that simultaneously assess indicators of goals (mastery versus performance), expectations for accomplishing those goals (self-efficacy and outcomes expectations), and costs (perceived likelihood of being caught, attitudes, and morality about cheating). Our proposed framework focuses on the cost-benefit analysis associated with cheating. A student would benefit from cheating most if he or she is performance-oriented *and* has a low self-perception of ability. The student's decision to cheat would be a function of the benefits and the perceived costs of dishonesty, but this relationship might be additive or multiplicative. The only way to tease these relations out would be to include all of these constructs within one investigation. Currently, it is clear that no one study has accomplished this feat, as the potential costs for cheating are complex, including both aspects of the classroom (perceived level of punishment), as well the person's own moral and self-presentational concerns. However, we could build evidence for a conceptual model by beginning to conduct studies that include several indicators of each of the proposed constructs.

In addition to the above limitations, we offer five suggestions for the advancement of future scholarship in this area: (a) Conduct studies using methodologies that allow for better identification of classroom effects; (b) Attend to developmental processes; (c) Attend to emotional processes; (d) Attend to macrocontextual influences and moderators, and (e) Focus on teachers.

Suggestions for Future Research

Improved testing of classroom effects. As this review has demonstrated, much of the research on academic cheating relies on one-time correlational studies, where students' self-reported cheating is associated with personality attributes or students' perceptions of the classroom context. As such, there is much stronger support for the relations between individual variables and cheating than there is for the role of contextual variables. Students who hold performance goals or who are extrinsically motivated, who doubt their self-efficacy, and who hold beliefs that reduce the costs associated with dishonesty are more likely to cheat as compared to their peers. However, the role of classroom, peer, and family variables in creating and sustaining those beliefs is more equivocal. We know that students who cheat perceive these environments differently from those who do not cheat, but we have little evidence suggesting that rates of cheating vary across classrooms in ways that be explained by characteristics of that classroom. Although experimental studies in laboratory situations (Sherrill, Salisbury, Horowitz, & Friedman, 1971) or with hypothetical vignettes (Murdock, Miller, & Goetzinger, 2005;

Murdock et al., 2004) suggest that classroom context variables are important, the external validity of these studies is limited by the contrived context in which they are performed. A complete understanding of the role played by classroom factors in cheating will require studies that use the classroom and the individual as units of analysis simultaneously and that assess classroom contexts in alternate ways, such as through aggregated student reports within classrooms, teacher reports, and classroom observations. However, there are HLM studies (e.g., Turner et al., 2002; Urdan, Midgley, & Anderman, 1998) linking classroom goal structures to students' self-efficacy beliefs and students' personal goals. Future studies should consider classroom variables as both direct and indirect predictors of dishonesty and incorporate other aspects of the classroom that have been suggested as causes of cheating (i.e., test fairness, teacher competence). In addition, future studies will need to more strategically disentangle the effects of personal goals and classroom goal structures, given the potentially high levels of multicollinearity between such measures.

Attention to developmental processes. Until high school older students cheat more than do younger students (Evans & Craig, 1990). At that point cheating appears to be inversely related to age. College students cheat less than high school students, and within college students there is less cheating by older versus younger students (Jensen et al., 2002). Although most of this research has been cross-sectional, some recent longitudinal work supports these conclusions (Anderman & Midgley, 2004; Anderman & Turner, 2004).

Within the conceptual framework that we have proposed, there are at least four reasons to anticipate that developmental differences in cheating behavior exist. First, research suggests that as children move through elementary school, they are likely to shed their incremental views of intelligence and increasingly endorse an entity or fixed view of intellectual capacity (Nicholls & Miller, 1983). The entity view of intelligence is associated with a higher likelihood of having a performance orientation (Dweck & Leggett, 1988). Second, and related to the previous point, across the early elementary years, students' academic self-concepts become more differentiated and show greater heterogeneity. Young children typically rate themselves at the top of their class, regardless of their actual levels of accomplishment (Nicholls, 1990; Nicholls & Miller, 1983). Thus, cheating is likely to become more of a viable choice for students as they become aware that they may not have the ability to accomplish their goals.

The costs for cheating are probably different and are perceived as being different for students at various developmental levels. At lower stages of moral reasoning, judgments about cheating have more of an external (i.e., right and wrong, punishment and nonpunishment) frame of reference, whereas adults think about moral decisions using more complex forms of thinking. Among college students, one's personal financial investments in college, as well as age, are inversely related to cheating (Whitely, 1998). Being denied

course credit, or potential expulsion, may have a different meaning for students who are paying for their own education; indeed, the act of cheating may be associated with greater costs for those students. In addition, adult students may have families of their own, and they may be concerned about the kind of role model they are providing for them (e.g., Anderman, Jensen, Haleman, & Goldstein, 2002).

Finally, the structure of schooling changes as students move from one grade level to another: There is a greater emphasis on grades, less heterogeneous grouping, and more individual responsibility for learning (Anderman & Maehr, 1994; Eccles & Midgley, 1989). These changes are related to an increased focus on grades and performance for children (e.g., Midgley, Anderman, & Hicks, 1995), which may be related to engagement in cheating behaviors.

Despite the many ways in which developmental and age-related changes in context might logically impact cheating, longitudinal studies over *extended* periods of time have not been conducted. Although Anderman and Midgley (2004) suggest that cheating changes as students move into more or less performance and mastery-oriented environments, studies that examine such shifts in context along with maturation over extended periods of time are warranted. In addition, studies that examine the short- and long-term consequences of cheating are needed. The dearth of longitudinal studies on academic cheating precludes researchers from currently examining the long-term effects of persistent engagement in academic cheating.

Affective processes and cheating. Emotions are an important component of people's motivated behavior, but, to date, studies of cheating have focused almost exclusively on cognitive correlates. As such, little is known about students' emotional reactions to cheating, or to the role of emotions in their regulation of the decisions around dishonest behavior. Within an attributional model (Weiner, 1985), one might predict that students would experience several kinds of emotions following cheating. For example, if the cheating results in success, students might experience some type of positive emotion. Ironically, since cheating might be considered an internal and controllable cause of success, students might even experience pride. In contrast, the negative emotion of behaving in a dishonest manner might overtake the positive affect associated with success. Further, students' justifications for cheating might reduce negative feelings about themselves. Moreover, whereas our model focuses on the academic goals that students may pursue in the classroom, it is also possible that students' motivation to cheat is affected by goals that are not academic, such a desire to appear "cool" (impression management) or for the thrill associated with engaging in risky behavior (sensation seeking).

Similarly, the affective experiences associated with belonging may also be related to cheating. In recent years, there has been a growing emphasis on the importance of experiencing a sense of belonging or connectedness to one's envi-

ronment (Anderman, 2003; Baumeister & Leary, 1995; Ryan & Deci, 2000) and linking psychological belonging to behaviors indicative of positive motivation. Associations between cheating and belonging have only been minimally explored. For example, Calabrese and Cochran (1990) documented a positive relation between school alienation and cheating. From the vantage of self-determination theory, these relations seem logical, as one would expect that students would be more likely to internalize positive school values when they feel like important members of the school community. Two recent studies have looked explicitly at school belonging in relation to cheating (Finn & Frone, 2004; Murdock et al., 2001). Whereas Finn and Frone found higher rates of cheating among those with lower school identification, these relations were not significant in Murdock and colleague's study. However, cheating has been linked to the quality of interpersonal connection that students have with their teachers (Anderman & Midgley, 2004; Murdock et al., 2004), providing ancillary support for the role of school identification or belonging. On the other hand, if students' sense of belonging comes largely from dishonest peers, then these same relationships would not be expected. Future research might attend to both the quality and sources of students' connection to schooling as it relates to student dishonesty.

Macrocontextual factors and cheating. Most of the psychological literature on cheating treats academic dishonesty as either contextual or as influenced solely by classroom processes and the influence of immediate significant others (i.e., parents, peers) in students' lives. However, as Callahan (2004) aptly points out, increases in dishonesty are present in many domains of our society, created by and contributing to the large milieu in which academic cheating occurs. Future research might aim to specifically tease out some of these more macro-level influences. For example, given that students cheat more often when they perceive the incentive system in the classroom as unfair, it may also be that the larger view of the relations between effort, achievement, and advancement in our society also influence the degree to which they are willing to cheat. Some researchers have speculated that the growing numbers of middle-income families barely holding ground or losing financial ground creates intense pressure by parents on their children to succeed. Research examining the relations between economic changes, parenting behavior, and cheating are warranted. Similarly, repeated exposure to high level officials who have been found to have engaged in dishonest behavior may lower the perceived costs associated with such behavior. Finally, both costs and incentive values undoubtedly are moderated by people's place within our social system. For students who are holding down jobs to help their family, constraints on their ability to study may be more critical than for others of higher socioeconomic status. The role of macrosystem influences such as social class is wide open for investigation.

Teachers' responses to cheating. Teachers at all levels concur that cheating is pervasive in today's classrooms, and yet the amount of prosecution against cheaters is minimal (Evans & Craig, 1990; Jendrek, 1989). Although little research has explored factors underlying instructors' decisions to penalize cheaters, findings from a national sample of psychology professors found four main categories or reasons why faculty do not report cheating: increased anxiety associated with handling the situation, fear of retaliation or lawsuit, unwillingness to expend the time needed to see the charge through, and belief that dishonest students will eventually suffer some consequence from the behavior (Keith-Spiegel, Tabachnick, Whitley, & Washburn, 1998). Another study found that faculty did not feel confident that they would receive administrative support for enforcing academic honesty, and these perceptions were related to their willingness to follow the established school discipline procedures (Simon et al., 2003). Future studies examining teachers' motivation for acknowledging or ignoring cheating and the kinds of social context supports that are needed to encourage teachers to effectively deal with cheating are warranted.

Implications for Practice

Cheating is a motivated behavior, in that a student ultimately must *decide* whether or not to cross the line and actually engage in that behavior. As noted by Wigfield and Eccles (2000), there is an important decision-making component to motivation. Indeed, individuals make different types of decisions depending on the contextual information that is presented to them (see also Tversky & Kahneman, 1981). Thus, one of the logical implications of the research on academic cheating is that instructors can affect students' decision-making process.

In this article we have examined students' perceived purposes for cheating, the relations between self-perceptions of ability and cheating, and the relations of perceived costs associated with cheating. As we have suggested, students must answer questions that they pose to themselves at each stage. If a student's sole purpose for engaging in a task is to get a good grade, then the student may be more likely to engage in cheating behavior than a student whose primary goal is task mastery. If a student harbors low ability perceptions toward a task, the student may choose to cheat, particularly if the task is difficult or complex. In this final section, we offer instructional implications within each of these three components of our model.

Question #1: What is my purpose? As reviewed, students' goals toward academic tasks are ultimately related to their decisions about cheating. Although most of the research in this arena is based on correlational studies, results generally indicate that cheating is associated with extrinsic and performance goals and is less likely to occur when students pursue mastery goals.

One obvious implication is that instructional environments should focus more on mastery and less on performance and outcomes if fewer occurrences of cheating are desired. This task is of course complex and particularly difficult in today's era of high-stakes assessment. Nevertheless, teachers and college faculty can focus their instruction on mastery and, in particular, indicate to students that evaluation will be based on mastery rather than on demonstration of knowledge relative to others. A number of researchers have demonstrated that motivational emphases in academic settings can be changed to focus on mastery and improvement rather than on performance and extrinsic outcomes (e.g., Ames, 1990; Maehr & Midgley, 1996). Although these studies did not examine academic cheating as an outcome, they did demonstrate that instructional contexts can be altered successfully based on motivation theory to emphasize mastery and improvement.

Research suggests that the decision to cheat ultimately is dependent upon students' personal purposes for engagement in learning. Whereas most educational contexts are competitive to some extent, instructors can work with students at all levels to focus on individual progress and personal effort. In particular, grading systems that are based on personal improvement and mastery, rather than on norm-referenced criteria, are likely to reduce cheating.

Question #2: Can I do this? Students' self-perceptions of ability also are related to academic cheating. One instructional implication is that educators should work to build students' self-efficacy beliefs. Whereas there is much research indicating that self-efficacy is an extremely important motivational variable (see Bandura, 1997), self-efficacy often is not considered during instructional planning by teachers and college instructors.

One proven means of improving students' self-efficacy beliefs is to help students set proximal goals (Schunk, 1990). When students focus on short-term attainable goals rather than longer-term distal goals, they are more likely to feel a sense of satisfaction and to experience task-mastery, which in turn helps to build their personal self-efficacy beliefs toward a task. When students are confronted with difficult tasks and focus on distal goals, they may be more likely to experience anxiety and ultimately to view cheating as a viable means for achieving success. However, if a student sets short-term goals and experiences success at those goals, the student's efficacy beliefs will be enhanced, and the likelihood of cheating may be diminished.

Question #3: What are the costs? The final question that we examined concerned the costs facing students when they choose to cheat. Various types of costs are associated with cheating, including the possibility of being caught and the impact to one's self-image. One instructional implication is that educators should make the costs of cheating obvious, important, and serious. When students know that punishments for cheating are severe, they are less likely to cheat (Graham et al., 1994). An obvious question to be addressed in future research

is whether stricter penalties for engagement in cheating behaviors will lead some students to choose more sophisticated and technologically savvy methods of cheating.

The literature clearly suggests that when students can shift the blame away from themselves, cheating is more likely to occur. As such, good instructional practices are a key to reducing cheating. Clear learning objectives and fair assessment procedures reduce the likelihood that students will see the teacher as creating conditions where cheating can be rationalized.

It also is possible to make students think about the potential costs to their self-concepts if they engage in cheating by making public expectations for honesty and violations of the policy. This tactic is not used often in classrooms, but it certainly could be, particularly in middle and high school classrooms. School counselors or school psychologists might play a role in this area (Gilman & Anderman, in press). Indeed, school psychologists or counselors could work directly with teachers and students to help students to understand how the act of cheating in the present might remain a salient problem for them in their future.

CONCLUSION

Many of the individual and contextual factors that are related to cheating can be subsumed under a motivational framework whereby students' decisions to cheat or not cheat can be understood as coming from their answers to three motivational questions: "What is my goal?", "Can I do this?", and "What are the costs?" Framing dishonesty in this manner has implications not only for teaching practices, but also for theories of motivation. Students may respond to low self-efficacy or high needs for achievement by being dishonest, rather than simply by increasing or decreasing effort, changing their learning strategies, or self-handicapping. Thus, future motivation research should more regularly recognize cheating as a potential method for achieving one's classroom goals. Accomplishing this objective may push motivational researchers to expand their theories to include both moral development and decision-making components.

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