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Identification and Classification of the Reasons Given by College Students for Why Plagiarism is Wrong and a Description of How College Students Respond to Explanations and Statements About Plagiarism

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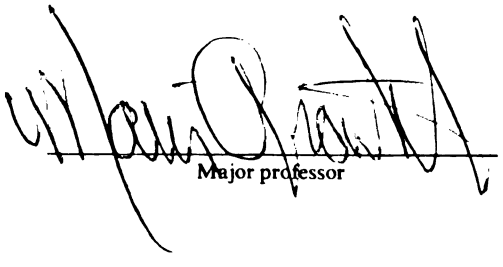

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IDENTIFICATION AND CLASSIFICATION OF THE REASONS GIVEN BY COLLEGE STUDENTS FOR WHY PLAGIARISM IS WRONG AND A DESCRIPTION OF HOW COLLEGE STUDENTS RESPOND TO EXPLANATIONS AND STATEMENTS ABOUT PLAGIARISM

By

Timothy Smith Jenkins

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ABSTRACT

IDENTIFICATION AND CLASSIFICATION OF THE REASONS GIVEN BY COLLEGE STUDENTS FOR WHY PLAGIARISM IS WRONG AND A DESCRIPTION OF HOW COLLEGE STUDENTS RESPOND TO EXPLANATIONS AND STATEMENTS ABOUT PLAGIARISM

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Historically, a number of solutions for the problem of plagiarism have been proposed. However the solution that has been most consistently recommended throughout the professional literature is the utilization of faculty-led discussions with students which give them the opportunity to confront the ethical implications of cheating behavior. While the content of these discussions may vary, what is noticeably missing in most of them is a consideration of how students themselves conceptualize the issue of plagiarism.

The purpose of this study was to test the following research hypotheses: (a) there will be no difference in the types of reasons given by men and women, or by high school family education level students and college family education level students, when responding to the question "Why is plagiarism wrong?", (b) there will be no statistically significant difference in the numerical level

of agreement ratings of explanations about plagiarism given by men or women, or by high school family education level students and college family education level students, (c) there will be no difference in the numerical ranking of explanations about plagiarism given by men or women, or by high school family education level students and college family education level students, and (d) there will be no statistically significant difference in the numerical level of agreement ratings of statements about plagiarism given by men or women, or by high school family education level students and college family education level students.

In terms of both frequency and importance, the three categories of Individual Responsibility, Fairness, and Ownership accounted for the largest percentage of students' responses across all four comparison groups (males, females, high school family education level, and college family education level). In regard to the explanations of why a person should not plagiarize, and to the statements about plagiarism, the analysis of Variance procedure revealed some statistically significant differences between males and females. No statistically significant differences were found at all between high school family education level students and college family education level students.

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CHAPTER I

INTRODUCTION

Statement of the Problem

The commission of acts of dishonesty is not a new phenomenon. In ancient China civil service applicants were required to take their examinations in individual cubicles to prevent cheating. As deterrents, prior to entering these cubicles examinees were searched for notes and told that the death penalty was in effect for them as well as their examiners if they were caught cheating (Brickman, 1961). Even under the threat of death, cheating still occurred.

Today, acts of academic dishonesty, including plagiarism, answer copying, and completing a test while impersonating another student, are at what have been described as epidemic levels in America's institutions of higher education. A recent estimate indicated that the frequency of cheating within institutions of higher education may be as high as 90% of all U.S. college students (Jendrek, 1989). Other studies, which have compared the rates of cheating during the past fifty years, have indicated a more moderate rate of participation in

some form of academic dishonesty among students. These studies have found the incidence of cheating to be from 23% (Drake, 1941) to 56% (Bowers, 1964; Stannard and Bowers, 1970; Singhal, 1982; Tom and Borin, 1988).

In an attempt to understand the problem of academic cheating, Lamont (1979) interviewed 675 parents, students, faculty, and administrators from twelve universities: Yale, Princeton, Michigan, Dartmouth, Columbia, University of California at Berkley, Stanford, Harvard, Pennsylvania, Brown, Cornell, and the University of Chicago. Given the size and comprehensive nature of this study, it may be considered one of the new "classics" in the professional literature about cheating. Lamont's (1979) analysis indicates a "generation losing its soul to the demons of competitive stress. College students today are obsessed with grades, accreditation, and achievement at all costs" (p. 3). "Cheating was once a practice of students who were lazy or unprepared. Today bright and ambitious students are cheating in the name of academic survival" (pp. 71-72).

According to Lamont (1979), in the first half of the century academic integrity was supported through a less diverse student population, a close relationship between student and teacher, the existence of honor codes, the fear of harsh punishment, and the internalization of the normative social value that cheating was wrong. Today, college students come from diverse backgrounds and are less likely to conform to a single standard of values or

behavior (Pendleton, 1975; Fass, 1986). Students are cheating more openly and talking about how they can get away with it. They think that no one gets caught and that cheating is endemic to academic life.

The high incidence of cheating can be attributed to a social trend in the direction of ethical cynicism. As evidence, Lamont (1979) cites related incidents of falsifying letters of recommendation for graduate school admission, the alteration of transcripts, students sabotaging laboratory experiments of peers, and stealing resources from the library so other students cannot use them. He believes that cheating has been tolerated by the generation following the "do-your-own-thing" moral climate of the 1960s as students have witnessed the educational, political and corporate scandals of the 1970s and 1980s.

Today's college students have grown up during two decades which have been characterized by scandals involving private corporations and public servants. These scandals have the potential for affecting attitudes of appropriate behavior and eroding the perceived integrity of parents, teachers, and other figures of authority. In addition, this generation of students has witnessed publicized incidents of unethical behavior within institutions of higher education: recruiting violations and drug abuse in athletics, cheating at U.S. military academies, and the fabrication of scientific data are just a few examples (Fass, 1986). The conclusions drawn from these incidents

may be that dishonesty is a viable and acceptable means of getting ahead. Jellison (1984) elaborates on this theme by indicating that there have been increases in office thefts, falsification of resumes, shoplifting, and tax evasion in recent years. "These instances of dishonesty have a snowball effect: many people tend to think that since everyone else is cheating, they have to do the same in order to protect themselves. In the past, breaking the rules was viewed as an exception. Now such behavior is considered commonplace" (p. 53). Lamont (1979) challenges universities not to "condemn this Watergate mentality while adopting the same hypocrisy and self-delusion" (p. 86). If cheating is as widespread as currently thought, institutions of higher education should be challenged to create innovative solutions to the problem.

Historically, a number of solutions for the problem of cheating have been proposed. Several of these solutions have included publishing a policy statement about academic dishonesty that defines and illustrates its different forms (Barnett and Dalton, 1981; Stevens and Stevens, 1987), greater utilization of the campus judicial process (Hardy and Burch, 1981) and severe sanctions (Malloch, 1976), the implementation of honor codes (Canning, 1956; Brooks, Cunningham, Hinson, Brown & Weaver, 1981), the creation of an institutional environment more conducive to learning (Cooper & Peterson, 1980; Raffetto, 1985), maintaining tight security during examinations (Oaks, 1975; Hardy,

1981), and checking term papers for rare bibliographic references and a writing style that is appropriate for the level of student (Bjaaland and Lederman, 1973). However the solution that has been most consistently recommended throughout the professional literature is the utilization of faculty-led discussions with students which give them the opportunity to confront the ethical implications of cheating behavior (Atkins and Atkins, 1936; Page, 1963; Fogg, 1976; Barnett and Dalton, 1981; Nuss, 1984; Kroll, 1988). This solution to the problem of cheating would also seem to be most consistent with the philosophy that it is the goal of education not to catch the cheater, but to teach the learner (Connell, 1981).

While the content of these ethical discussions may vary somewhat, what is noticeably missing in most of them is a consideration of how students themselves conceptualize the issue of cheating. It can be intuitively assumed that by the time students reach college they have been told cheating is wrong. But what do students understand about the nature and significance of academic dishonesty? Although there have been numerous research studies which have focused on behavior and attitudes (frequency of cheating by college students and student attitudes about cheating), personality characteristics of cheaters, and the environmental factors associated with cheating, only one study (Kroll, 1988) has examined college students' concepts of why it is wrong to cheat. This, despite the fact that

it would seem logical to consider college students' own moral frames of reference when explaining the ethics of cheating.

Purpose and Significance of the Study

A review of the literature revealed that only one study (Kroll, 1988) has been conducted that examines the reasons students give for why plagiarism is wrong, and this study utilized a sample of students who were enrolled in freshmen composition courses at a mid-western state university. Therefore, the primary purpose of this study was to investigate, by means of a questionnaire, what a randomly identified cross section of college students at a small, private liberal arts institution located in the mid-Atlantic region think about the form of cheating known as "plagiarism," describing the reasons they think it is wrong, and to determine if there are differences in those reasons by gender and family education level. Exploring the reasons a randomly identified cross section of college students give for why plagiarizing is wrong may provide more generalizable insights into how students view the ethical issues surrounding plagiarism. this is important since the high incidence of cheating has been attributed to a social trend in the direction of ethical cynicism (Lamont, 1979), and because what is noticably missing from the content of faculty-led discussions about cheating is a consideration of how students themselves conceptualize the

issue of cheating. By identifying these ethical issues, faculty can begin their discussions of plagiarism with those issues that are most familiar and salient for students, taking into account the students' moral frames of reference when asking them to examine the ethics of plagiarizing. Furthermore, it may be possible to identify how infrequently certain other moral principles occur in students' explanations. If these other concepts are not used by students to think about plagiarism, faculty may use this information to help students explore new lines of moral reasoning, thus deepening and broadening students' understanding of why plagiarism is wrong. Hopefully, these new insights will encourage students to internalize the value of academic honesty.

Research Hypotheses

The goal of this study was to test the following research hypotheses:

1. There will be no difference in the types of reasons (see questionnaire "Section I - Free Response") given by men and women, or by high school family education level students and college family education level students, when responding to the question "Why is plagiarism wrong?"

2. There will be no statistically significant difference in the numerical level of agreement ratings of explanations about plagiarism (see questionnaire "Section II A. - Explanation Agreement Scale") given by men and

women, or by high school family education level students and college family education level students.

3. There will be no difference in the numerical ranking of explanations about plagiarism (see questionnaire "Section II B. - Explanation Rank Ordering") given by men and women, or by high school family education level students and college family education level students.

4. There will be no statistically significant difference in the numerical level of agreement ratings of statements about plagiarism (see questionnaire "Section III - Statement Agreement Scale") given by men and women, or by high school family education level students and college family education level students.

Definition of Terms

Student:

Any person enrolled in an undergraduate degree program at Waynesburg College, during the Fall, 1991 semester.

Faculty Member:

Any person who is teaching an academic course at Waynesburg College during the Fall, 1991 semester.

Family Educational Level:

The highest level of education (high school or college) reached by anyone in a student's immediate (parent[s] or guardian[s] and/or siblings) family.

First Generation College Student:

A student who is the first member of their immediate family to attend college.

Plagiarism:

Presenting another person's words or ideas as if they were one's own, without acknowledging the source.

Delimitations

The focus of this study pertained only to certain students attending Waynesburg College. There was no empirical evidence to support a belief that Waynesburg College students are representative of other students who choose to attend a small, private liberal arts institution.

Order of Presentation

The purpose of Chapter I was to introduce the problem for this investigation, including the purpose and significance of the study and the associated delimitations. Chapter II provides the review of the literature and delineates variables relevant to this research. Chapter III furnishes an explanation of the research design and the methodology for the data analysis. In Chapter IV, the results of the descriptive analyses are reported. Chapter V contains a discussion of the results and implications for further research.

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of related literature addresses the following three components: (a) behavior and attitudes (frequency of cheating by college students and student attitudes about cheating), (b) personal characteristics of cheaters, and (c) environmental factors associated with cheating.

Behavior and Attitudes

Frequency of Cheating by College Students

As previously reported in The Problem, a comparison of statistics over the last fifty years indicates that student participation in some form of academic dishonesty has remained relatively constant, involving between 23 to 56 percent of campus populations (Drake, 1941; Bowers, 1964; Stannard and Bowers, 1970; Singhal, 1982; Tom and Borin, 1988). However, when self-report measures are used, the frequency of cheating is higher. This percentage has been reported as high as 95 percent of the undergraduate population at large universities. Tables 1 and 2 indicate the incidence rates for studies using self-report

questionnaires and those using some form of temptation to induce a behavioral measurement of cheating.

Even though self-report measures tend not to be accurate measures of reality, nonetheless since the criterion measure in this instance is cheating it is logical to accept the results of self-report studies over behavioral experiments. Intuitively, there appears to be no reason why students would inflate their self-reported incidence of cheating, although they might minimize their involvement. Conversely, there is ample evidence that experimental inducements to cheat reduce the risk of detection such that either the incidence of cheating unnaturally is inflated or the purpose of the study is so transparent that brighter students refrain from participation. Thus, the behavioral measure may not be generalizable to the non-experimental setting.

Johnson and Gormly (1972) explain, "A problem with research on these issues is that it is not possible to discern whether the effects are due to enhanced motivation or increased opportunity to cheat" (p. 321). Frequencies of cheating, therefore, should be viewed cautiously with an awareness of the settings in which they were collected.

Student Attitudes About Cheating

The following studies indicate that college students believe cheating is a common practice on campuses, that other students are not strongly opposed to cheating, and

Table 1

Percentage of Self-Reported Cheating by College Students

Author(s)	Date	Location	Sample	Percentage
Freeman & Ataov	1960	New York	38 freshmen & sophomores	87
Bowers	1964	national sample	5000 students at 99 colleges	50
Bonjean &	1964	Texas	392 undergraduates	58
			at 2 universities	81
Steininger	1964	Pennsylvania	49 undergraduates	96
Garfield	1967	Illinois	80 undergraduates	50
Knowlton & Hamerlynck	1967	Illinois	80 undergraduates	50
Smith et & al.	1972	New York	112 undergraduates	91
			at 2 universities	97
Oaks	1975	Nebraska	512 undergraduates	50
Budig	1979	20 large universities	20 student body presidents	40
Chapin & Dalton	1979	Iowa	152 undergraduates	83
Dalton	1980	Iowa	802 undergraduates	52
Baird	1980	Pennsylvania	200 undergraduates	75
Cole	1981	California	1961 = 75 1976 = 192 1980 = 565	30
Roark	1981	Stanford,	summary of studies	30-60
		Amherst, Dartmouth, Michigan	(samples unknown)	
Singhal	1982	Arizona	365 undergraduates	56

Table 2

Percentage of Experimentally Induced Cheating by College Students

Author(s)	Date	Location	Sample	Percentage
Hetherington & Feldman	1964	Wisconsin	78 undergraduates	59
Dienstbier & Munter	1971	Nebraska	95 undergraduates	38
Johnson & Gormly	1971	Wisconsin	27 ROTC men	33
Sherrill et al.	1971	Texas or New York	119 undergraduates	23-30
Fakouri	1972	Indiana	154 undergraduates	16
Karabenick & Srull	1978	Michigan	64 undergraduates	45
Bronzaft	1973	large urban university	117 undergraduates	56
Wilkinson	1974	Ohio	137 undergraduates	25

that few students would report a cheater to an institutional authority. Nuss (1984), who polled undergraduates at a large public university, found that 43% would ignore an observed incident of cheating; only 3% would report a cheating student. However, if the incident was considered to be "somewhat serious," approximately 28% would report the student cheater. Given the situation that a university regulation required students to report others who cheat, 15% would report the incident. This percentage represents approximately half (28%) of the proportion of students who would, however, still ignore the incident.

Singhal (1982) surveyed 364 Arizona undergraduates and found that although 86% believed cheating was wrong, 40% indicated a person could have a valid reason for cheating. Only 7% of the undergraduates in this study had ever reported another student for cheating.

Barnett and Dalton's (1981) survey of 802 Iowa freshmen and seniors revealed that only 49% strongly believed that cheating is never justified and most students believed that their close friends only mildly disapproved of cheating. More than 80% of the sample said they "looked the other way when they saw someone cheating on an exam" and only one student would report a cheater.

In contrast, Cole's (1981) longitudinal study of Stanford University students surveyed in 1961 (n = 75), 1976 (n = 192), and 1980 (n = 834) revealed that although many students believed widespread cheating occurs, they

generally saw little cheating and were rarely aware of others' cheating. About three-fourths of the students in the 1980 group would report observed cheating. These findings stand apart from other frequency and attitudinal studies. Although the study provided no discussion as to what factors account for the differences, it is suspected that the population of students who attend Stanford University is different from the population that supplies enrollees to the mostly public institutions reported herein.

Baird (1980) administered a questionnaire to a random sample of 200 undergraduates at an institution in Pennsylvania, representing approximately equal numbers of males and females from different academic majors. While 57% of these students disapproved of cheating, 40% did not disapprove of cheating. More than 75% believed that cheating is a normal part of life and estimated that more than 75% of the student body cheats. Of the students in this sample, only 1% said they would report students they saw cheating compared to the 80% who would not report cheating. Only about half of the non-report group would not be disturbed about seeing other students cheat.

The Carnegie Council on Policy Studies in Higher Education (1980) reported that approximately 9% of the 25,000 undergraduates polled in their 1976 national survey said "some forms of cheating are necessary to get the grades they want" (p. 10). This incidence increased to 11%

at comprehensive universities and colleges. This prestigious research group reported that "almost half (47%) of American college students believe that many successful students at their college make it by 'beating the system' rather than by studying" (pp. 12-13). The report cautions readers to recognize that this group of cheaters consisted of a "substantial minority," not the majority, of college populations. One interesting aspect of the Carnegie surveys of 1976 is that "93% of undergraduates think it is essential or fairly important to formulate ethical values during college" (p. 2).

Schab (1980a) compared the attitudes of over 1,000 college and non-college bound Georgia high school students surveyed in 1969 and 1979. The proportion of college bound students who agreed with the statement, "Sometimes it is necessary to be dishonest," increased significantly during the ten year period. In 1969, 30% agreed, whereas in 1979, 62% agreed. Only about 25% of these students believed most Americans are honest. An opposing trend was noted, however, in response to the statement, "Cheating to get into college will result in failure in college." In 1969, 62% agreed and in 1979, 79% agreed. The author attributed this result to the increase in the number of high school students who attended college in 1979 and who had more contact with college students who may have related their experiences to them.

Budig (1979) surveyed student body presidents at 20 large public universities and found they believed cheating was on the decline. Most of these presidents perceived that fewer than a third of the seniors at their institutions had ever cheated and that cheating was more prevalent in high schools, where students had not yet established career objectives. Since this survey contradicts the results of most other attitude studies conducted at large universities, it might be speculated that this small sample of student body presidents either does not know their student body populations as well as expected or that they are conscientious public relations representatives for their institutions.

Oaks (1975) surveyed a random sample of speech students at two medium-sized universities, one in urban Maryland (n = 390) and the other in rural Nebraska (n = 512). Approximately half of the students (53%) at the Maryland university, compared to only 16% of the Nebraska students, considered cheating to be a moderate to serious problem on their campus. The author noted that the longer the Maryland students were on campus, the more serious the problem was perceived to be. Results from the Nebraska university may have been skewed, however, because over 90% of the sample consisted of freshmen or sophomores.

Zastrow (1970) administered three unannounced quizzes to 45 of the entering first-year social work graduate students enrolled in one of the three required courses at a

large Midwestern university. It was found that 40% cheated on at least one of the three quizzes. Given the size of this percentage, it may suggest that cheating among graduate students is at least as extensive as among undergraduates.

Knowlton and Hamerlynck (1967) polled representative samples of undergraduates at two universities, a large metropolitan university in Indiana (n = 533) and a small rural university in Oregon (n = 165). Upon comparing admitted cheaters with non-cheaters, they discovered that cheaters (more than non-cheaters) perceived that other students frequently cheat. The authors believed the cheaters' estimates were accurate because 81% of one sample admitted to having cheated. The "frequent cheaters" of that group believed 40% of the university cheated regularly, while the non-cheaters believed that only 10% of the student body cheated regularly.

Steininger, Johnson & Kirts (1964) administered a questionnaire to 49 undergraduates in a psychology class. Most of the students said cheating was justified in some situations, that they sometimes had the urge to cheat, and/or to let others copy. Only two students said that cheating was never justified. All of the students believed that cheating was the norm among college students in general, although only 14% said most college students cheat frequently.

Other than the Stanford results (Cole, 1981), where the incidence of cheating remained stable at 30% and where three-fourths of the students said they would report cheaters to an authority, most studies indicated that only one to seven percent of students would report an incidence of cheating. Lamont (1979) attributed this disinclination to condemn cheating to "the bugbear of tattling, a suspicion of authority, and the belief that personal integrity should not be policed" (p. 84).

Lamont's statement is in keeping with Chickering's (1969) developmental theory which posits that most college students have not yet resolved the challenges of becoming autonomous individuals (Vector 3) and have not integrated values, which typically occurs at a later stage (Vector 7). Similarly, Kohlberg's (1971) theory explains that strong peer-orientation is typical of most college students who are still reasoning at Stage 3 in which "individuals conform to stereotypical images of what is the majority behavior" (Kohlberg & Wasserman, 1980; Widick et al., 1981).

For example, Levine (1980) describes an occasion where one student explained that others did not report cheating "because students genuinely care about each other" (p. 59). Another study (Barnett & Dalton, 1981) showed that although most students <u>disagreed</u> with the contention that reporting someone for cheating is worse than cheating, nevertheless, approximately 75% of that sample said that students looked

the other way when they saw someone cheating on an exam. Apparently, there is truth in Schab's (1980a) observation that the "no squealing code" is as strong today as it was over a decade ago. The only substantial risk of detection lies in the authority of the instructor.

Rationale for Cheating

Because so many students believe cheating is sometimes justified, it is important to determine what constitutes their rationale for cheating. When questioned about why they had cheated, college students have offered the following reasons:

1. A strong need to compete for grades and/or avoid failure (Oaks, 1975; Baird, 1980; Barnett & Dalton, 1981; Antion & Michael, 1983; Nuss, 1984; Raffetto, 1985; Fass, 1986);

2. Inability to cope with pressures, or otherwise survive (Bushway & Nash, 1977; Barnett & Dalton, 1981; Hardy, 1981; Nuss, 1984; Stevens & Stevens, 1987);

3. Confusion as to what, specifically, constitutes cheating (Bushway & Nash, 1977; Carroll, 1982; Brownlee, 1987);

4. Differing needs and/or priorities than faculty (Connell, 1981; Kolich, 1983; Brownlee, 1987).

These reasons suggest that Leming's (1980) and Houston's (1976a) analysis of cheating behavior is accurate. They contended that cheating behavior is complex in origin and involves the interaction of specific

situational variables and broad personality traits. Both authors cautioned that generalizations about cheating must take into account the type of task required, the subject matter, and other situational characteristics. The remainder of the literature review will focus on the personal and environmental factors found to have relevance to cheating behavior.

Personal Characteristics of Cheaters

Gender

Of all the personal variables mentioned in the literature, the relationship between the student's gender and cheating behavior has been the one most frequently examined. Most of the results fall into two categories: (a) males cheat significantly more than females (Hetherington & Feldman, 1964; Oaks, 1975; Bushway & Nash, 1977; Kelly & Worrell, 1978; Baird, 1980; Newhouse, 1982) or (b) there is no significant difference between the frequency of cheating by males and females (Bonjean & McGee, 1964; Bowers, 1964; Knowlton & Hamerlynck, 1967; Fischer, 1970; DeVries & Ajzen, 1971; Dienstbier & Munter, 1971; Johnson & Gormly, 1972; Vitro & Schoer, 1972; Holleque, 1982; Haines et al., 1986).

Of the studies that examined this variable, only two (Jacobson et al., 1970; Leming; 1980) found that females cheated significantly more than males. The first study (Jacobson et al., 1970) was unusual in design in that it

focused on a temptation task of working beyond a time limit during the experimenter's absence, rather than on the changing of incorrect answers as in most experimental studies. The task was presented to students in an environment where there was a low risk of detection and where personality variables were less likely to have interfered with the results. (See "Environmental Factors" in this review for further discussion.)

The other study (Leming, 1980) found that all subjects, male and female, cheated more in a setting where there was little risk of detection (as opposed to a high risk condition) and that females cheated significantly more than males in this setting. The author believed the results indicated that females are less conforming and obedient than was once true and, thus, they are just as likely to cheat as males.

That assumption may be accurate given that few other factors can be identified which account for the ambiguity of results among studies. In the three groups, the chronology, regionality, numbers of subjects, and methods of measurement (use of temptation task versus self-report questionnaire) were similar with few outstanding exceptions. Two of the "no difference" studies (Bonjean & McGee, 1964; Holleque, 1982) showed that although males cheated more than females, the results were not statistically significant. Three of the "no difference" studies (Fischer, 1970; Johnson & Gormly, 1972; Vitro &

Schoer, 1972) used elementary school rather than college populations, but they are included in this review because they were conducted carefully and are exemplary studies in the field.

Kelly & Worrell (1978) conducted a personality study of male and female cheaters identified through a temptation task (scoring their own tests in the absence of the instructor). The authors used a large, non-randomized sample of undergraduates enrolled in a psychology class at the University of Kentucky (n = 259 males and 370 females). Subjects were administered Jackson's Personality Research Form to ascertain personality characteristics.

The authors profiled male cheaters, relative to those males who were non-cheaters, as aggressive, antagonistic, vindictive, interpersonally domineering, highly dependent upon other people's evaluations and concerned about the possibility of bodily harm. Male cheaters were overly reliant on external sources of approval, loud and attention-seeking, and lacking in cooperation. The authors stated that status is a potent reinforcer for the male cheater.

Female cheaters, as compared with female non-cheaters, were described as exaggerated thrill-seekers, lacking concern about physical harm, lacking impulse control and more likely to seek attention through conspicuous, demonstrative behavior. Female cheaters were found to be rebellious, non-conformists, and relatively alienated. The

author stated that female cheaters are reinforced by the very act of cheating rather than by the status accrued from high grades.

Although the results of that study indicated that females and males may cheat for different reasons, the authors cautioned that cheating behavior is influenced by situational determinants such as ease of transgression, perceived surveillance, and reinforcements associated with the transgression. Burton (1963) offered similar conclusions: "...there are no reliable overall sex differences in honesty. The differences found are contingent on other factors that interact with the sex of the subject, such as the motivation elicited by the tests and the age of the subjects" (p. 182).

Age and Year in School

Results of studies that have examined the variables of age and/or year in school are mixed. Five studies disclosed that the incidence of cheating was greater for younger than older students (Knowlton & Hamerlynck, 1967; Henshel, 1971; Cole, 1981; Baird, 1980; Haines et al., 1986).

Although Henshel (1971) did not use a college population, her study is important because it revealed a congruence between values and behavior for students who were much younger than the subjects of this study. (See the "Attitudes" and "Moral Reasoning" sections of this review for further discussion of this topic.) She

presented elementary schoolgirls in the fourth through seventh grades with a values questionnaire and an opportunity to alter answers during the self-scoring of a test. The results indicated that younger children cheated more than older students and that negative correlations between the values scores and the number of cheating incidents rose steeply from the lower to higher grades.

Knowlton & Hamerlynck (1967) and Haines et al. (1986) found that self-reported cheaters were younger than non-cheaters and were more likely to be freshmen or sophomores. Cole (1981), however, reported a substantial increase in self-reported cheating at Stanford from the freshmen to sophomore years with no substantial increases or decreases thereafter. These three studies all used large, random samples.

Baird (1980) discovered that more students said they had cheated in high school than in college and of that group, upperclass students were least likely to have cheated in high school. The author, in agreement with Cole's (1981) conclusions, reported that sophomores were more likely to have cheated in college. Of note was the finding that sophomores cheated more on unit tests (which occur more frequently), seniors cheated more on final exams, and freshmen were least likely to involve other students in the act of cheating. The "number of present courses cheated in" did not vary by year in school, however. This last finding agreed with those of DeVries &

Ajzen (1971) who found that age and/or year in school had no significant relationship with the tendency to cheat.

In contrast, four earlier studies reported that older students were more likely to cheat than younger students (Bonjean & McGee, 1964; Bowers, 1964; Harp & Taietz, 1966; David & Kovach, 1979). It is believed, however, that those studies had measurement problems that may place them in the "no relationship" category directly above. The results from the first study in this group (Bonjean & McGee, 1964) were ambiguous in that they used a dichotomous variable (less than or more than one year of duration at the university) rather than the usual four-year descriptors. They determined that students who had been enrolled more than one year reported more cheating than those who were new students. This study, therefore, might fit into the previous category because it was not made clear whether there was any increase in cheating after the sophomore year.

The second study (Bowers, 1964) revealed that the incidence of cheating increased moderately during the first three years of college and leveled off at the junior year. However, when a specific time period was delimited (number of cheating incidents during the previous academic term), a slightly smaller proportion of students in each successive year admitted cheating. The authors offered two reasons for this result: (a) cheating occurs relatively early in the students' college career and the proportion of recent

cheating adds nothing to the cumulative rate for seniors, or (b) the progressive attrition of "poorer" students lessons the population who are more prone to cheat. The authors concluded that when proper research controls were included, year in school was not a major correlate of cheating, which places this study in the "no relationship" category.

The third study in this category (Harp & Taietz, 1966) found that cheating among fraternity students (not a representative sample of the larger university population) significantly increased from the freshmen to sophomore year. Because this author did not compare the fraternity sample to the rest of the population, it is difficult to relate the results to the other studies reported herein. It is suspected that the normative environment of fraternities is quite different from other college environments. (For further discussion, see the "Fraternity/Sorority Membership section of this review.) Additionally, the authors provided no control for time as did Bowers (1964).

In the fourth study, David & Kovach (1966) offered students at a large, eastern university the opportunity to purchase insurance to guarantee a passing grade as a measure of their tendencies to engage in unethical acts. They discovered that seniors were three times more likely to want to purchase grades than freshmen. None of the junior and senior respondents considered the option

dishonest, yet all of the freshmen either were undecided or had no opinion about the opportunity to buy grades.

It is unknown how the David & Kovach (1979) findings about unethical decisions toward buying grades would correlate with cheating behavior. The constructs of the study led students to believe that the grade insurance plan was acceptable to university administrators, whereas most students know cheating is not.

Although there is some disagreement among the results of the above studies, they lend credence to the belief that students quickly internalize the cheating norms of the college environment when they discover that cheating is profitable and the risk of detection is minimal. As Baird (1980) pointed out, the freshmen incidence of cheating is likely to increase as skills, sophistication, and the socialization process mature.

Race

There are few studies that have investigated the variable of race. The classic study by Hartshorne & May (1928) pertaining to fifth through eighth graders revealed that cheating was more related to the cultural level and social status of students (r = -.45), than to racial identity alone. When intelligence was held constant, even the cultural relationship to cheating was reduced (r = -.30).

David & Kovach (1979) surveyed 100 undergraduates at a medium-sized Eastern university and discovered that black

students (31.3%) were more willing than white students (14.7%) to pay $100 to guarantee a grade in the course. The authors speculated that the racial difference was due to the perception by black students that education is "an expensive commercial effort or business which pays off for those who can afford it" (p. 342). The sample of black students (n unknown) was small, according to the authors, and it should be reiterated that this study may have no bearing upon cheating behavior, which is a considerably different variable than attitudes about grade insurance.

Glatt and Haertel (1982) compared plagiarism incidences among four sections of undergraduates (n = 75), two which were instructed to plagiarize and two which were not so instructed. Students who were unable to accurately fill in blanks that had been substituted for words in their returned papers were assumed not to have written the original material and, thus, to have plagiarized. Non-native English speakers exhibited more errors in the no-plagiarize condition than in the condition where they were instructed to plagiarize and black American students had higher error scores than non-black students. It is unknown whether cultural or academic characteristics were held constant in this study, which would explain whether race alone was the influential factor.

Intelligence

Hartshorne and May's (1928) pioneer research about cheating revealed an inverse relationship (r = -.50)

between IQ and a behavioral measure of cheating for fourth through eighth grade students; cheating increased as level of intelligence decreased. When cultural level and age were partialed out, the more intelligent were still found to cheat less.

Fischer (1970) did not find a relationship between IQ scores of cheaters and non-cheaters in a sample of Kentucky fourth through sixth graders (n = 135) using the Otis Form B. In one school (n = 21), however, a negative relationship was noted between number of cheating responses and the Kuhlman-Anderson Form D IQ test (r = -.48, p < .05), which partially confirmed the Hartshorne and May (1928) results.

Wilkinson (1973) reported that undergraduates enrolled in education courses (n = 137) who had higher Scholastic Aptitude Test math subscores tended to cheat less than students with lower SAT math scores. Verbal subscores, however, were not found to be related to cheating incidences. Kelly & Worrell (1978) disclosed that male cheaters had lower ACT scores than male non-cheaters at the University of Kentucky (n = 38, p < .02), but the relationship, although present, was not as strong for females (n = 46, p < .10).

Although it seems logical for intelligence to be negatively correlated with cheating, the samples of these three studies differed greatly in time, age and number of students, and type of measurement instrument. It further

may be argued that the ACT and SAT tests are achievement, not intelligence measures. Additionally, it is possible that other environmental and psychological factors may be interrelated with "intelligence." For example, Johnson & Gormly (1972), Leming (1980), and Scheers & Dayton (1987) found no relationship between cheating and intelligence when the risk of detection was low. The authors contended that high intelligence may function as an adaptive mechanism for evading obvious detection devices, but that it is not associated with a reduced motivation to cheat.

Academic Achievement

Investigations of the relationship between cheating and academic achievement fall into two opposing groups. Nine studies disclosed that there was an inverse relationship between academic achievement and cheating behavior (Bonjean & McGee, 1964; Bowers, 1964; Hetherington & Feldman, 1964; Knowlton & Hamerlynck, 1967; Johnson & Gormly, 1972; Fakouri, 1972; Bronzaft et al., 1973; Baird, 1980; Holleque, 1982). Students with lower grades cheat more than students with higher grades. Of these, the Bowers (1964) study deserves further mention.

Bowers (1964) surveyed a random sample of 5,000 students from 99 accredited colleges and universities throughout the nation (approximately 50 students per institution) and 600 deans of students and 500 student body presidents from a larger sample of universities. He discovered that "grades have a more important effect on

cheating than the value placed on grades either by the student himself or, as he sees it, by his parents" (p. 92). The percentage of students who reported they had cheated significantly increased as grades dropped.

The issue is not that simple, however. Although he found that low grades and poor study habits operated as pressures to cheat, students who placed great importance on getting good grades were not likely to cheat even when they exhibited low grades. Conversely, the value parents placed on the importance of getting good grades (as perceived by students) acted as a pressure to cheat, especially for students with low grades. Bowers reported, "The highest proportion of cheaters (68%) is found among poor students who treat grades lightly but whose parents consider them to be important; the lowest proportion occurs among the good students who place high value on good grades" (p. 95).

In contrast, nine studies revealed that achievement and cheating were not related (Hartshorne & May, 1928); Garfield, 1967; DeVries & Ajzen, 1971; Johnson & Gormly, 1971; Smith et al., 1972; Ellenburg, 1973; Wilkinson, 1973; Leming, 1980; Singhal, 1982). Only two of these studies (Hartshorne & May, 1928; Wilkinson, 1973) examined both variables of intelligence and achievement. The two studies found that although cheating was inversely related to intelligence, it was not related to achievement.

The Hartshorne & May (1928) study attributed this result to two different possibilities: (a) achievement

grades may have resulted from deception, whereas deception is less likely during the administration of intelligence tests, or (b) students at different levels of achievement differ only in their motives for cheating. Students with lower grades may cheat to improve their standing while students with higher grades cheat to maintain them. (See "Need for Achievement" and "Fear of Failure" sections of this review.)

Leming (1980) reported that the perceived risk of detection may interact with the achievement variable. Their results, similar to the Johnson & Gormly (1972) findings about intelligence, revealed that students above the mean GPA cheated less in high risk conditions than in low risk conditions. Leming explained, "There is a point at which average students judge the advantages of cheating to be not worth the risk. Only above-average students were sensitive to variables in the testing condition" (p. 85).

Since examinations of achievement do not lead to a unitary result, it appears that other variables must be interacting with achievement such as motives, personality factors, and the environment. There are no otherwise outstanding research factors that might account for the difference.

Major Field of Study

Studies that have investigated academic majors or departments of study are inconclusive because each involved a different set of units. Bowers (1964) discovered that

students in career-oriented fields such as business, engineering, and education cheated more than those who viewed college primarily in intellectual terms as in history, the humanities, and languages. Students majoring in the social sciences, physical sciences, and the arts fell between the two extremes. Bowers concluded that the latter group included a mix of students seeking both occupational training and knowledge for its own sake. He encouraged further research on the occupational plans of college cheaters.

Similar results were produced by Baird's (1980) survey of 200 Pennsylvania undergraduates, which revealed that business majors cheated significantly more on unit tests than did liberal arts or education majors. Liberal arts and education majors also were more likely to disapprove of cheating than business majors.

Oaks (1975) surveyed 512 students (mostly freshmen and sophomores) from a Nebraska college to determine in what departments cheating was perceived to be most prevalent. Although 19 of 27 departments on campus were mentioned at least once, mathematics (67%), English (54%), and history (29%) received the greatest mention by students. Cole (1981) discovered, similarly, that "experiences with and knowledge about cheating were highest for science/math majors, although these students were not more likely than were others to have cheated themselves" (p. 113).

Need for Achievement

The need or motive to achieve has been described as "a disposition to approach success in order to obtain a sense of pride in accomplishment" (Smith et al., 1972, p. 641). Theoretically, a high need for achievement would "dispose a person to seek a good grade without resorting to cheating since cheating would deprive him of a sense of accomplishment" (Smith et al., 1972, p. 656). Three studies have confirmed that theory.

Schwartz et al. (1969) provided 35 male undergraduates from the University of Michigan an opportunity to cheat on a vocabulary test followed by a puzzle task in which an accomplice applied psychological pressure for help in completing the task. The authors discovered that need for achievement (as measured by Atkinson's Achievement Risk Preference Scale) was related positively to not cheating and negatively to helpfulness. That is, high-need achievers were less likely to cheat and also less likely to provide help to others.

Johnson and Gormly (1972) examined 113 fifth graders' achievement motivation scores (as assessed by Atkinson's modified thematic apperception measure) in relationship to their cheating on a temptation task. They found high achievement motivation was associated with not cheating for females and with cheating for males. Additionally, among children with low-achievement motivation, cheaters received lower grades, but grades did not differentiate between

cheaters and non-cheaters in the high-achievement motivation group. The authors concluded that cheating is a means of avoiding failure in individuals with a low need for achievement.

Smith et al. (1972) related self-reports of cheating by 112 undergraduates to their achievement motivation (using Atkinson's thematic apperception measure) and test anxiety scores. Test anxiety was hypothesized to indicate a need to avoid negative feelings accompanying failure. The authors believed that the motive to achieve and the motive to avoid failure were two independent dimensions, not opposite ends of a single continuum. For male students (n = 44), higher achievement motivation resulted in less cheating and greater feelings of accomplishment when good grades were obtained without cheating. That result was not achieved for females. The authors speculated that the lack of expected results for females was due either to (a) an obscure measurement instrument that presented only pictures of men, or (b) other motives that may be stronger for females such as the need for approval or fear of success.

In contrast, only one study (Johnson, 1981) revealed that high-need achievers (as assessed by Mehrabain's Modified Achievement Risk Preference Scale) cheated significantly more than students with a low need for achievement. That study involved only males (n = 51), as opposed to the heterogeneous groups above, and used a different measurement device which partly may explain the

opposing results. Two other studies (Fakouri, 1972; Ellenburg, 1973) concluded there was no difference between the achievement motivation of cheaters and non-cheaters or of males and females (as assessed by the Achievement Imagery Scale of Iowa Picture Interpretation Test and the General Math I Test, respectively).

Johnson (1981) offers two thought-provoking questions regarding the lack of unity in achievement motivation studies: (a) "Are high-need achievers actually concerned with competition against standards of excellence or are they simply concerned with success?" and (b) "Are they more concerned with ends than with means?" (p. 374).

Fear of Failure/Need for Approval

Several studies of cheating behavior have used the Marlowe-Crown Social Desirability Scale which was originally hypothesized to measure the need for social approval (NA). Subsequent research determined, however, that high NA scores are related instead to defensive denial. Jacobson et al. (1970) reported that high scores indicated "attempts to avoid feelings of rejection and failure by subjects who demonstrate poor self-concept and social adjustment and considerable repression" (p. 48). Some researchers believe the instrument measures a personality characteristic simultaneously including social conformity and defensiveness. Others believe social compliance is but one aspect of a defensive strategy.

> "If NA scores represent an orientation towards moral and socially conforming behavior, then high scorers may be expected to cheat less extensively than low scorers. However, if NA scores represent defensive behavior resulting from an intense concern with avoiding failure in an interpersonal situation, then high NA scorers may be expected to cheat more extensively than low scorers" (Jacobson et al., 1970, p. 49).

Crown and Marlowe (1964), who reported that high NA scorers cheated more often, reasoned that these students were avoiding negative evaluations. Jacobson et al. (1970) discovered no general effect of need for approval, but found a specific relationship. Women with simultaneous high NA scores and high self-satisfaction scores cheated more than others. Subjects were placed in a temptation situation in which they were told they had failed to meet social norms on a timed task. The authors concluded that women with high self-satisfaction and a greater expectancy of success cheated in order to maintain a self-image as a successful person. That is, cheating resulted from a defensive need to avoid failure.

Millham (1974) provided subjects with false information indicating that they met or failed to meet norms on a serial digit task. He discovered that more subjects cheated following failure than success, indicating students were attempting to avoid a negative evaluation

from the experimentor. The students who cheated following failure exhibited higher NA scores than those who did not cheat following failure, a further indication of defensive behavior to avoid negative evaluations.

Other studies have focused on fear of failure using different dependent measures. Aronson and Mettee (1968) provided a random selection of female students with false feedback as to the results on a self-esteem measure; students were artificially labeled as high in self-esteem, low in self-esteem, or no-change in self-esteem (control). Subjects then were placed in a temptation setting where it was perceived that cheating at a card game could not be detected. Results indicated that students in the low self-esteem group cheated significantly more than those who had received positive feedback about themselves ($p < .05$). The authors interpreted the results to mean that "high self-esteem acts as a barrier against dishonest behavior because such behavior is inconsistent with the self-image (p. 122).

Steininger et al. (1964) provide additional insight into the relationship between low self-esteem and a stable pattern of cheating:

> "Grades achieved with cheating may lower self-esteem and increase the odds that succeeding tests will be found hard. One would predict that those students who, from their earliest college days, barely achieve their goals even with the help of cheating, and who are not caught, would be the ones who increasingly

settle down to a pattern of cheating, feeling justified, and finding many tests hard and senseless" (p. 324).

Graf (1971) confirmed the Aronson and Mettee results by artificially labeling students as possessors of either "positive," "neutral," or "negative" self-esteem. After receiving false test results from the abbreviated California Psychological Inventory during individual feedback sessions, each student was provided with an opportunity to discover and keep a dollar that was left near the door. More low-esteem subjects kept the dollar than did neutral or high-esteem subjects ($p < .05$). The author contends that dishonest behavior is consistent with lowered feelings of self-worth. It might be argued, however, that the act of keeping a dollar is not related to the act of academic cheating. It appears that this study assumes that the "finders keepers" rule is dishonest and that honesty is a general trait.

Smith et al. (1972) assessed the motive to avoid failure with the Mandler and Cowan Test Anxiety Questionnaire. Significant results indicated that high test anxiety (failure-avoidance) was positively related to frequency of cheating and willingness to risk detection and negatively related to advanced preparation for the exam. Additionally, more cheating was found for males who were high both in achievement motivation and test anxiety ($p < .05$). The latter result was not significant for females.

The authors offered a rationale for cheating by test-anxious students that parallels Steininger's (1964) discussion of students with low self-esteem:

> "Anxiety about failure may make preparation repugnant and impair performance under stress, so the student may cheat, be reinforced with a passing grade, and employ the same response in subsequent exams as a means of coping with test anxiety" (Smith et al., 1972, pp. 657-658).

Heisler (1974) reported that "test anxiety is commonly interpreted as being fear of failure, and test anxiety has been directly related to cheating" (p. 578). The author, who assessed the relative anxiety of 123 undergraduates using the Sarason Text Anxiety Scale, discovered that high-test-anxious subjects cheated significantly more than low-test-anxious subjects ($p < .05$). Bronzaft et al. (1973), however, did not concur with the previous findings. They used a different instrument, the Albert-Haber Achievement Anxiety Test, and found that cheaters and non-cheaters at a Pennsylvania university did not differ in test anxiety.

Dienstbier and Munter (1971) designed an experiment to artificially arouse the emotions of freshmen by giving them a placebo pill perceived to cause side-effects such as "a pounding heart, hand tremor, sweaty palms, a warm or flushed face, and a tight or sinking feeling in the stomach" (p. 209). Students then were provided a temptation task which was labeled as highly predictive of

success in college. The experimentors discovered that students who expected emotional side-effects cheated significantly more than control subjects who were not expecting arousal ($p < .025$). Students in the treatment group simultaneously feared failure and experienced the emotions of test anxiety. The authors concluded that the results are an example of how emotions can be interpreted and used as a rationale for behavior.

Expectation of Success or Failure

Expectation of success is closely related to need for achievement and fear of failure, previously discussed. Feather (1966) demonstrated that student performance on an anagram test was significantly lower after initial failure than after initial success. The author concluded that students refer to their past performance in similar situations when estimating their chances of success in present tasks. The study has implications for understanding students' incentives or motivation to perform under adverse conditions. Students with previous failure in a content area or who perceive themselves to be lacking in skills have several options: (a) to increase their effort in order to succeed, (b) to cheat in order to succeed, or (c) to decrease or maintain their present effort with the belief that success is not probable or that failure is inevitable.

Two studies (Vitro & Schoer, 1972; Millham, 1974) indicated that cheating is more likely to follow initial

failure than success. Vitro & Schoer (1972) provided 611 fifth and sixth graders with false feedback about pretest results on a vocabulary task. Those students who scored one standard error or more above the expected score for mock vocabulary items were considered cheaters. The highest proportion of cheating occurred in the group where there was a low probability of success, the test was perceived as important, and there was little risk of detection.

Millham (1974) informed 91 undergraduates that they had either met or failed to meet norms on an "intelligence test" (a serial digit prediction task) and then provided them with an opportunity to falsify their scores in a low risk setting. Significantly more students cheated following failure than following success. Additionally, the authors discovered that students who cheated following failure had higher NA scores (a measure of failure-avoidance) than non-cheating students, indicating that cheating represented an attempt to avoid negative evaluation by the experimentor, the only incentive offered.

Conversely, four studies showed that cheating is more likely to follow initial success than failure (Jacobson et al., 1970; Houston & Ziff, 1976; Houston, 1977b; Holleque, 1978). In the first study (Jacobson et al., 1970), 276 undergraduates who were enrolled in a psychology class recorded their expectations of succeeding on a digit symbol test prior to the actual administration of the task.

Subjects were then provided with a false norm (exceeding the best previous score) and an opportunity to work past a time limit in the experimentor's absence. Results showed that although males demonstrated a higher overall expectancy of success than females, both men and women with a high expectation of success cheated, while students with a low expectation of success did not.

Houston & Ziff (1976) replicated the Jacobson et al. (1970) study using a different task (a Free-recall timed test) and an added incentive of receiving extra-credit for above average performance relative to the other competitors. Students were provided false feedback as to their trial test performance (success or failure) before taking the second test, during which the answers were purposely exposed. Results indicated that significant cheating followed initial success but not initial failure. The authors believed that failure subjects may have perceived cheating to be futile and success subjects may have cheated to avoid failure, given the high incentive for succeeding.

Houston (1977b) modified the previous experiment by placing 190 subjects in their usual classroom setting, using the regularly scheduled midterm exam as the criterion measure, and requesting students to supply their own estimates of success (rather than experimentally manipulating those variables). The incentive for success was that one-third of the course grade was to be determined

by the midterm performance. Results revealed that answer-copying from adjacent non-target tests significantly correlated with estimates of success (r = .49, p < .01); higher incidences of cheating followed high expectations of success. Of further interest, was the result that neither the estimates of success nor cheating correlated with the actual performance on the test.

Houston's (1978) research provides a viable answer for why unitary results were not obtained from the previous studies. His study replicated the Houston & Ziff (1976) free-recall methodology, except a third condition of medium expectation of success was included. The author discovered that cheating was related to level of anticipated success in a curvilinear manner with students in the medium-success condition yielding to the most cheating. Although significant cheating occurred in the high-success condition, the amount was less than that in the medium-success condition. Little cheating occurred in the low-success condition. It was hypothesized that failure subjects did not perceive cheating as a viable means of improving their chances of success, and success subjects did not perceive cheating as an effective means of improving their already good chances of success. Medium-success subjects perceived cheating as instrumental to their chances of achieving success.

None of these studies addressed the issue of effort or preparation for the task. Several of the above studies

used criterion measures that involved a task that may have been perceived as requiring either an innate talent or a special skill. None of these studies correlated expectancy of success with intelligence or prior achievement. It appears likely that a student who is high in ego-strength because of past successes, nevertheless, may cheat when faced with a task requiring considerable skill, knowledge, or advance preparation in order to maintain a congruent self-definition. The most feasible hypothesis is that need for achievement, fear of failure, and expectation of success would be interrelated with the environmental press of the moment.

Generality of Honesty

Hartshorne & May (1928) conducted one of the most comprehensive investigations of honesty in children, a study considered a classic in the literature about cheating. The authors studied deceptive behavior of fourth through eighth graders at school, athletic events, parties, and home. They provided children with opportunities to cheat at skill or knowledge tasks, to lie, and to steal, with the underlying goal of determining whether a general trait of honesty could be identified. They concluded that although honesty can be related to some personal characteristics, it is more likely a specific act associated with complex factors found within a given situation, not a generalized trait.

Burton (1963), however, cited several studies that concluded there is strong evidence for a general trait of honesty that holds "...that a person is, or strongly tends to be, consistent in his behavior over many different kinds of situations. Thus, a person who lies in one situation is likely to lie in other situations, but is also highly likely to cheat, steal, not feel guilty, and so on" (p. 482).

Burton (1963) set out to test this theory by reanalyzing the Hartshorne & May (1928) data using factor analysis and Guttman's simplex model. He concluded that there is an underlying trait of honesty which a person brings to a resistance to temptation situation. However, honesty is dependent upon the similarity of factors found within the environmental conditions. As two test conditions become less similar, the probability of the same response in both is lessened.

Hetherington & Feldman (1964) provide some additional support for Burton's (1963) assertion that moral behavior is related to similarities among situations. They offered 78 undergraduates enrolled in a psychology class three opportunities to cheat: (a) an opportunity to change answers while grading their own objective tests, (b) an opportunity to bring to class "blue books" with previously written essay answers, and (c) an opportunity to look for answers in a textbook when the examiner left the room momentarily during an oral exam. The authors discovered

that of the identified cheaters (59% of the subjects), approximately 64% cheated in two situations, 24% cheated in all three situations, and only 10% cheated in a single situation. The similarities lie in the academic settings, but since no control was provided for treatment condition such as an opportunity to lie or steal, the hypothesis of generality of honesty across similar situations remains speculative.

Garfield et al. (1967) obtained results to support a specificity view of cheating. They solicited self-report information about cheating and other transgressions from 80 students enrolled in a psychology class. Cheating did not correlate with virginity, genital contact, drinking, extent of religious belief, aggressiveness, or having been suspended from school. It seems questionable that cheating would be related to some of the listed "transgressions" since they do not fall into the realm of honesty. Additionally, it is likely that the self-report data may not have been an accurate picture due to the sensitive nature of some of the personal questions.

Heisler (1974) administered a criminal behavior checklist to 123 students enrolled in a psychology class and then provided them with an opportunity to falsify their test scores during an oral reporting in the presence of their peers. Students who reported they had committed a felony or misdemeanor (including sale of narcotics, grand larceny, auto theft, forgery, rape, assault, and burglary)

were labeled "law violators." Results revealed that law violators cheated significantly more than law abiders. When students were subjected to several models of deterrence (peer apprehended under different conditions), law violators cheated more than abiders under all conditions. The authors hypothesized that law violators may not respond to the same deterrents as abiders. "Law violators may be excitement seekers who are challenged to become more deviant when confronted with the threat of severe restrictions" (p. 581). (See "Environmental Factors" in this review for further discussion of this issue.)

An orientation toward Machiavellianism (Mach) has been studied in relationship to cheating because high Mach's are viewed as unconcerned about conventional morality and likely to cheat when given the opportunity to do so. Christie & Geis' (1970) review of related research concluded that this view must be qualified. They found that high Mach subjects decided whether to cheat based on a rational, cognitive justification available in the situation (such as risk detection), whereas low Mach subjects were easily influenced to cheat due to personal involvement with their peers.

> "Cheating as a general principle is more counter attitudinal for low Machs than high. However, lows can be induced to cheat if someone they are involved with really wants them to and keeps urging. High

Machs, although they have no policy stand on the issue, are less susceptible to distractions of personal involvement" (Christie & Geis, 1970, p. 256).

Cooper and Peterson (1980) set out to confirm that hypothesis by placing 72 undergraduates in groups according to opportunity to cheat (yes, no), personal or impersonal competition, and level of Machiavellianism (low, high). Results showed that high Mach subjects cheated only in the impersonal competition setting where risk of detection was minimal. Low Mach subjects cheated only in the personal competition situation where emotional involvement was high even though some risk was involved. The authors concluded that "characteristics of both the person and the situation must be taken into account in predicting whether transgressions will occur" (p. 74).

These studies, which compared cheating across varying situations, do not reveal conclusively that honesty is a specific trait. Students who are law abiders, or who are low in Machiavellianism, or who have not committed other social transgressions are still identified as cheaters. Cheating behavior appears to be the result of an interaction between personality, needs, incentives, and various environmental factors.

Religion

The classic Hartshorne & May (1928) study of fourth through eighth graders revealed that Baptist, Episcopalian, Jewish, Methodist, and Roman Catholics evidenced more

cheating than expected even when intelligence and social status were controlled. Christians, Christian Scientists, Lutherans, Presbyterians, and Reformed groups demonstrated less cheating than was expected. The authors explained that the result probably was due to the "interaction of fairly homogeneous social groups with the community in which they are gradually gaining a foothold - an interaction which is often colored by excessive ambition on the one side and by exclusiveness or oppression on the others" (p. 256). Additionally, the authors discovered that neither length of time that children associated with Sunday schools nor the regularity of their attendance was associated with cheating.

Similarly, five more recent studies found no significant relationship between religiosity and actual cheating (Bowers, 1964; Garfield, 1967; Knowlton & Hamerlynck, 1967; DeVries & Ajzen, 1971; Smith et al., 1972). However, several of these studies offered some qualifying information about relationships between religion and attitudes, gender, or guilt.

Bowers (1964) found that Jews cheated less than Catholics or Protestants in schools with a strong peer disapproval of cheating. At schools with a moderate climate of disapproval toward cheating, religious groups did not differ in degree of cheating. Only in schools with a weak disapproval of cheating did Jews and Catholics

evidence a slightly higher incidence of cheating than Protestants.

Garfield (1967) revealed that Protestant students felt more guilt about cheating than did Catholics (n = 80, p < .01). DeVries and Ajzen (1971) discovered that Calvinist college students had more negative attitudes toward cheating than did state university students (n = 146, p < .05) despite the fact that the incidences of cheating did not significantly differ. Smith et al. (1972) found that although students did not regard religion as an important deterrent to cheating, female Jews reported significantly more cheating than Christians or "others" (n = 112, p < .05). No difference was found for males.

Two other studies produced widely conflicting results. Hetherington & Feldman (1964) found that cheaters in a Wisconsin group of students enrolled in a psychology class reported a higher frequency of church attendance than non-cheaters (n = 78, p < .001). The authors cautioned that the religiosity results were on a self-report measure and that any speculation about guilt reduction should be based on actual attendance measures.

Conversely, Bonjean & McGee (1964) discovered that religiously active students from two Texas universities (n = 200 and n = 192) cheated less than students who were inactive or only moderately active in religious organizations (p < .001). Once again, both the cheating and religiosity measures came from self-report data.

These studies have varied greatly in time, number, location, and methodology, causing difficulty in making comparisons among them. One can only speculate that the results were due to differences among populations. Bowers (1964) may have provided the best explanation. His complex study of 5,000 students from 99 colleges revealed that when kinds of colleges are taken into account, as reflected by the climate of peer disapproval toward cheating, differences among religious groups became inconsistent.

Guilt

Generally, most studies have indicated that degree of guilt is not strongly related to frequency of cheating. Only one study in this group (Smith et al., 1972) reported a significant inverse relationship between guilt and cheating ($r = -.40$). This relationship was significant for males only ($p < .01$), although females reported a greater amount of guilt in general than males ($p < .05$). Additionally, guilt and potential loss of self-esteem were highly correlated for both sexes.

In contrast, four studies reported that guilt did not act as a deterrent to cheating. Bonjean & McGee (1964) compared cheating incidences at two universities; one using an external system of detection (proctors) and the other using an internal system of control (honor system). They found that at the external control university, 72% of the students who admitted that guilt determined their actions cheated anyway. Although the frequency was less at

the honor system university, 43% of the high-guilt students still admitted they had cheated.

Steininger et al. (1964) reported that guilt did not increase as cheating increased. The authors cautioned, however, that in a self-report study it would be improbable for students to admit guilt because then they would be able to justify their cheating behavior, consistent with cognitive dissonance theory. Of further interest in this study was the fact that students felt greater guilt at cheating on tests perceived as hard than on tests perceived as easy. The authors reasoned that subjects may have felt they could have raised their scores on a hard test by studying, but an easy test reflected poor quality of pedagogy and, therefore, was outside the students' control. (See "Locus of Control" for further discussion.) Students also said they felt more guilt at cheating when the proctor left the room (also probably due to lack of internal control), but felt more justified in cheating and would cheat more in this instance. (See "Environmental Factors: Teacher" in this review for further comment.)

Garfield et al. (1967) found that guilt about cheating did not significantly correlate with self-reported cheating. Females felt more guilty about cheating than males, however, and Protestants reported more guilt than Catholics.

Similarly, Heisler (1974) reported that differences in cheating by high- and low-guilt-prone subjects (assessed by

the Mosher Guilt Scale) were non-significant ($p > .05$). However, the author found a relationship between guilt and other deviant behaviors. The administration of a self-report crime classification checklist to 123 undergraduates enrolled in a psychology course at Southern Illinois University revealed that approximately half could be labeled as law violators. (See "Generality of Honesty in this review for further discussion.) High-guilt-prone law violators cheated significantly more than all other groups: low-guilt violators, high-guilt abiders, and low-guilt abiders.

Locus of Control

Locus of control, as conceived by Rotter (1966), is a generalized expectancy by persons that reinforcements following their behaviors are due either to their own efforts and abilities (internal control) or are due to factors outside their control such as luck, fate, chance or powerful others (external control). Following is a summary of characteristics and behaviors associated with each type of control.

Subjects Exhibiting Internal Control

1. Likely to manifest initiative and effort in controlling their environment (Miller & Minton, 1969).
2. Likely to resist coercion and social pressure (Lefcourt, 1982; Johnson et al., 1968).

3. Likely to be perceptive, inquisitive, and efficient processors of knowledge (Lefcourt, 1982).
4. Likely to be resilient after defeat (Lefcourt, 1982).
5. Likely to be tolerant of discomfort in doing what they consider to be right (Lefcourt, 1982).
6. Unlikely to surrender a sense of responsibility, even when succumbing to manipulation (Lefcourt, 1982).
7. Likely to help other people (Lefcourt, 1982).
8. Likely to use principled reasoning as assessed by Kohlberg's Moral Judgement Interview (Alker & Poppen, 1973) and Rest's Defining Issues Test (Bloomberg, 1974).

Subjects Exhibiting External Control

1. Likely to manifest a passive orientation to their environment (Miller & Minton, 1969).
2. Likely to fail to examine and evaluate alternatives (Lefcourt, 1982).
3. Likely to yield easily to external pressures (Lefcourt, 1982).
4. Likely to agree with Machiavellian positions when they perceive their own ability to be less than that of others (Miller & Minton, 1969; Lefcourt, 1982).

5. Likely to possess closed systems of beliefs and disbeliefs; dogmatic (Clouser & Hyelle, 1970).

The above characteristics have led researchers to assume there would be a relationship between locus of control and cheating. Lefcourt (1982) reported that "locus of control has not been implicated in studies of real complicity in evil or immoral acts" (p. 55). Nevertheless, it has been hypothesized that internal subjects would be less likely than externals to cheat. Miller & Minton (1969), using the Rotter I-E Scale, confirmed that hypothesis in an experiment that induced more external than internal subjects to violate instructions not to look at a wall chart containing the deaf-alphabet in a translation exercise (n = 227 males, $p < .05$).

Johnson & Gormly (1972) assessed the internal/external control of 113 fifth graders with the Crandall Intellectual Achievement Responsibility Questionnaire. They discovered that female students who cheated during a temptation task were more externally oriented than female non-cheaters ($p < .05$). The results were not significant for males, although their scores fell toward the external end of the continuum.

Three studies indicated that the way subjects perceived the specific situational context (as involving either skill or chance) was predictive of their expectations of success, actual performances, and satisfaction with their performances. Feather (1967) discovered that when success or failure at an anagram task

was attributed to skill, success became more attractive and failure became less repugnant as the task became more difficult. When the outcome appeared to be determined by luck, repugnance of failure was relatively low and unexpected success was viewed as attractive regardless of difficulty. The author contended that in a highly structured task, situational cues were more determinative of attributes of responsibility for success or failure than were personal characteristics. This has important implications for academic testing which, necessarily, are highly structured tasks.

Feather (1969) later discovered that subjects who unexpectedly failed or succeeded at an anagram task were likely to attribute the result to luck rather than ability. In the final study, Feather and Simon (1971) investigated a working relationship between pairs on the same anagram task. This time they discovered that before the task began subjects were more confident of the probability of their partner's success than of their own. As in Feather's 1969 study, the unexpected outcome of success or failure was likely to be attributed to good or bad luck. A person was more likely to attribute the partner's success to ability, but his or her own success to luck and his or her own failure to inability rather than to the partner's failure. The authors concluded that it was the unexpected outcome, not the expected outcome, that was attributed to factors which underlie performance. The authors encouraged future

study of the social context of performance in any studies pertaining to internal-external control.

These studies provide opportunities for insight into the way students may rationalize cheating following a task perceived as requiring either ability or luck. For example, if an examination is perceived as unexpectedly "too difficult" or as testing abstractions rather than specific tasks, students might be likely to say, "I don't have ability in this subject," or "I'm always unlucky, anyway." Thus, cheating may be perceived as the only way to survive the exam or course.

Additionally, the outcome of these studies may help explain why it is that bright students who are well prepared for an exam, nevertheless, will look at another student's exam, knowing that student is not as well prepared and previously has not received high grades. One explanation for this behavior is lack of self-confidence or low self-esteem; another is lack of internal control.

Karabenick and Srull (1978) set out to determine whether internal and external subjects differed in the way they perceived situational contexts and, further, how these perceptions were related to cheating behavior. After taking the Rotter I-E Scale, students were provided an opportunity to falsely report their solutions to unsolvable puzzles. Internal subjects cheated more in situations that had been described by the researcher as requiring skill;

external subjects cheated more in situations believed to be based on chance.

After the task, 68% of the subjects admitted they had cheated. External subjects who cheated in the chance condition justified their actions by stating that they wanted "to appear more capable to the experimentor." Few of the internals in the skill condition used the same rationale. The authors concluded that internals valued succeeding when they could do so skillfully, but that externals needed approval from others.

Internals who did not cheat, however, said they had considered cheating at some point in both the skill and chance conditions, but non-cheating externals considered cheating only in the chance condition. Non-cheating externals (who had considered doing so) explained that fear of detection kept them from giving in to the temptation. Non-cheating internals, however, said that the results were too important to falsify their scores. The authors concluded that success was related to the ways individuals perceive themselves, as either lucky or skilled.

Houston (1977c) and Leming (1980) used a revision of the I-E Scale developed by Collins (1974) to ascertain if there was a relationship between locus of control and cheating. The revised instrument divided beliefs about the world into four categories: "difficult-easy," "just-unjust," "predictable-unpredictable," or "politically responsive-unresponsive." Houston discovered that only the

"difficult-easy" items correlated with cheating behavior (r = .41, p < .01). This subscale was interpreted to mean that the world is viewed as involving difficult, complex tasks. Thus, individuals may view cheating as instrumental in gaining control over a situation that is beyond their own abilities to master.

Houston (1977c) explained that the reason the total I-E Scale did not correlate with cheating was because external subjects may have viewed cheating as futile in a world controlled by chance and, conversely, internal subjects may have viewed cheating as a means of gaining control over their environment. Therefore, the traditional view of internal-external reinforcement as related to cheating may not be an accurate one. Leming (1980), who replicated Houston's 1977 study, found a smaller correlation between cheating and the "difficult-easy" subscale (r = .19). He concluded that locus of control does not appear strongly related to cheating.

To review, external locus of control appears, at least on an intuitive level, to be related to cheating. Two studies have confirmed this hypothesis (Miller & Minton, 1969; Johnson & Gormly, 1972). Three studies (Feather, 1967; Feather, 1969; Feather & Simon, 1971) revealed than an individual's perception of a <u>situation</u> as requiring either skill or chance will influence subsequent behavior. Another study (Karabenick & Srull, 1978), however, found that the way persons view <u>themselves</u> (as lucky or skillful)

determines subsequent behavior. Externals were more likely to cheat in chance conditions and internals were more likely to cheat in skill conditions. Lastly, two studies (Houston, 1977c; Leming, 1980) found that cheating correlated with only one component of externality, a perception that the world is difficult.

Another instrument, the Personal Orientation Inventory (POI) by Shostrum (1974), purports to measure the individual's level of self-actualization. A high scorer is assumed to be autonomous and free of external controls. The inner-directed subscore of the POI, differing from Rotter's definition of internal locus of control as described above, is a measure of whether the source of feelings about the individual's self-worth comes from inside the person or from the perceptions of other people. Because both instruments appear to measure locus of control, Wall (1970) predicted that they should be positively correlated. She did not find a relationship, however, and concluded that the two instruments do not measure the same constructs. Furthermore, Wilkinson (1973), found that the time-competence and inner-directed subscores of the POI were not related to students' cheating.

Moral Reasoning

According to theory, cognitive development is sequential and invariant, progressing along a hierarchical continuum at an irregular rate, each stage subsuming

previous stages and preparing the way for the next (King, 1978). Individuals are forced to alter cognitive structures when environmental stimuli cannot be adsorbed by existing mental constructs. Cognitive structures determine how individuals will behave in relationship to particular environmental stimuli.

Kohlberg's theory of moral development describes cognitive change as progressing from an egocentric view of life in which right and wrong are related to hedonistic consequences, through a sociocentric view in which behavior is the result of conformity and a desire to maintain social order, to an allocentric orientation in which moral values and principles have validity and application apart from the individual's identification with any group. The egocentric view is labeled preconventional thinking, the sociocentric view is labeled conventional thinking, and the allocentric level is labeled principled thinking.

Research indicates that moral reasoning is a distinct cognitive entity, not highly correlated with either IQ or verbal intelligence. Correlations with those variables are in the .30s, accounting for only 10 to 15% of the variance (Kohlberg & Wasserman, 1980). Moral reasoning is related to logical reasoning and age, however, in that higher stages require the ability to see perspectives other than one's own, an abstraction of personal experience. Additionally, moral reasoning more highly correlates with educational attainment than with either age or logical

reasoning. Moral judgement also is related to socio-economic status, participation in formal and informal organizations, occupational status, and responsibility (Kohlberg & Wasserman, 1980).

Most of the adult population reasons at Stage 4 of the conventional level, only 20 to 25% of the adult population operates at the principled level (Stages 5 and 6), and few persons display consistent Stage 5 reasoning before the age of 23 (Smith, 1978b; Widick et al., 1981). Most college students reason at Stage 3 or 4 (conventional reasoning), but during the early college years, students appear to regress in moral thinking, which is explained as a transitional phase in which they are simultaneously denying and asserting morality based on an inconsistent, relativistic view of their new experiences (Smith, 1978b).

The relationship between moral reasoning and overt moral behavior has been questioned and continues to be the object of study. Kohlberg asserts:

> "Moral judgement is a necessary but not sufficient condition for mature moral action. One cannot follow moral principles if one does not understand (or believe in) moral principles. However, one can reason in terms of principles and not live up to the principles" (Kohlberg & Wasserman, 1980, p. 562).

Additional factors that may affect behavior are motives, emotions, a sense of will, purpose, or ego strength, and the environmental context.

A strong belief in cognitive-development theory would lead one to surmise that level of moral reasoning should be related to cheating behavior, since cognitive structures determine how individuals behave. Yet, Kohlberg proposes that the content of reasoning (whether to cheat or not in a given situation) is not as vital to his theory as the process of reasoning (the rationale supplied for decisions or behaviors). Thus, a young child might decide not to cheat because a parent might apply punishment for such misbehavior (preconventional reasoning) and a graduate student might make the same decision not to cheat because of a belief in the principle of academic integrity (principled reasoning). The behavioral consequence of their different modes of reasoning is the same; a decision is made to refrain from cheating. Therefore, the theory might lead one to assume that moral reasoning is not related to cheating, since moral reasoning focuses on cognitive processes rather than on content, and moral reasoning is not the only basis for moral action.

Most studies have indicated, however, that the first hypothesis is correct. Schwartz et al. (1969) found that students who were high in moral thought (as assessed by Kohlberg's measure) were less likely to cheat than those low in moral reasoning ($\chi^2 = 3.64$, $p < .05$). Blasi (1980) also disclosed similar statistics: principled vs. conventional judgement and complete resistance to cheating

(χ^2 = 8.65, p < .01); Stage 4 vs. lower stages and complete resistance to cheating (χ^2 = 6.00, p < .05).

Blasi (1980) conducted an extensive review of literature on the relationship between moral reasoning and moral action. He concluded that there is considerable research support for the hypothesis that reasoning and action are statistically related. This support varied, however, for different correlates. There is a strong support for the belief that individuals at the higher stages of moral reasoning will resist conforming their judgements to others' attitudes, but little support for the hypothesis that these individuals will resist pressures to conform to others' actions. The author found evidence that there is a significant positive relationship between level of moral thinking and resistance to temptation, although some of the relationships were low. He concluded that moral reasoning is not the only determinant of honest behavior. Other factors that may intervene are intelligence and ego strength.

Leming (1980) discovered that level of moral development combined with other factors to determine behavior. Subjects were placed in either a low threat/low supervision or a high threat/high supervision situation. Although subjects high in moral reasoning cheated less than other subjects (χ^2 = 10.4, p < .01), subjects high in moral development were just as likely as low scorers to cheat in the low threat/low supervision situation. The author

concluded that risk of detection is a salient consideration for all students, regardless of level of moral development.

As mentioned previously, moral development has been found to relate to locus of control. Two studies (Alker & Poppen, 1973; Bloomberg, 1974) found that principled reasoners, as assessed by either Rest's Defining Issues Test or Kohlberg's Moral Judgement Interview, were likely to exhibit internal locus of control. Lefcourt (1982) stated, "Attempts to draw relationships between locus of control and moral judgement are ambiguous, but there is some meaningful overlap" (p. 58). He cited a 1978 study by Connelly and McCarrey in which the DIT and I-E correlations were different for males and females. Internality regarding <u>social system control</u> yielded high moral judgement scores for females. Internality regarding <u>personal control</u> yielded moderate to high moral judgement scores for females but no relationship was found for males. Further research concerning the relationship between these variables was recommended.

Rest (1980) explained that moral judgement, as Kohlberg earlier asserted, is not the only determinant of moral behavior. "In some multiple regression studies, moral judgement is shown to contribute unique and significant predictability to behavior, but in other studies moral judgement is too confounded with other variables" (p. 605).

Interaction Between Type of Cheating and Personal Characteristics

Many studies have described specific personality characteristics of cheaters and/or students' definitions of and values about various types of cheating. Only one study has been identified that combined both aspects by focusing on the personality characteristics of students who engaged in particular types of cheating. Hetherington & Feldman (1964) administered a large battery of personality instruments to 78 undergraduates in a psychology course and then provided them with three different opportunities to cheat.

The authors identified four labels that described various types of cheating: (a) independent-opportunistic cheaters changed answers while grading their own tests or looked up answers in a textbook in the teacher's absence during an oral exam; (b) independent-planned cheaters used crib notes or submitted pre-written blue-book answers; (c) social-active cheaters copied answers from other students; (d) social-passive cheaters allowed other students to copy from their tests. One outcome was that using the textbook did not correlate with the other types of independent-opportunistic cheating but did relate with other types of copying. The authors decided to examine the cluster of textbook copiers as a separate entity rather than in the original group of independent-opportunistic cheaters.

There was a significant relationship between independent-opportunistic and social-active cheating (r = .30), indicating a common element of unplanned impulsivity. Interestingly, 42% of the cheaters engaged in only one cluster of cheating. The authors identified the following personality characteristics as typical of each cluster of cheating:

1. Independent-planned cheaters were motivated to cheat because of low grades and were self-controlled enough to make preparations to cheat.
2. Independent-opportunistic cheaters received satisfaction from social activities rather than academic achievement, responded immaturely to stress, and were naively enthusiastic and optimistic toward life.
3. Social-active cheaters were unable to achieve in either academic or social situations, were strongly dependent upon others, and were desirous of protection.
4. Social-passive cheaters were concerned with sustaining mutually supportive relationships with others (needed approval and affection); were nurturing of others; were calm, insightful, and socially mature; were not dependent on repressive defense mechanisms.

5. Cheaters who used the textbook during the oral exam were unconventional, poorly socialized, and impulsive.

The authors concluded that "different situations tend to elicit specific types of cheating behavior which are at least partially associated with subject characteristics" (Hetherington & Feldman, 1964, p. 218).

Summary of Personal Characteristics of Cheaters

Following is a summary of the personal characteristics of cheaters that have been examined most frequently.

1. Gender. The studies were equally divided between those which found that (a) males cheat more than females and (b) no relationship exists.

2. Age and Year in School. The results were mixed showing that (a) more cheaters were found in the freshmen and sophomore years, (b) older students cheat more than younger students, and (c) no relationship exists.

3. Race. Only three studies were identified for this variable and measurement difficulties confounded the results. The relationship between race and cheating, therefore, is unknown.

4. Intelligence. Although most studies indicated that intelligence and cheating share an inverse relationship, one study showed that there is no relationship when the risk of detection is low.

5. Academic Achievement. Results fell equally into two groups: (a) achievement is inversely related to

cheating, and (b) no relationship exists. The conclusion of the two studies that examined both intelligence and achievement was that although cheating is inversely related to intelligence, it is not related to achievement. Another study found that low risk of detection reduces the relationship.

6. Major Field of Study. Results were inconclusive because each study used a different set of units. Students in the following majors were found to cheat more frequently than comparison groups: business, engineering, math, and English.

7. Need for Achievement. Most studies indicated that students with a high need for achievement cheat less than those who are low in this characteristic. Although two studies disagreed, they used different measurement instruments.

8. Fear of Failure/Need for Approval. Need for approval is a measure of defensive denial and, thus, similar to fear of failure and low self-esteem. Test anxiety is related to fear of failure. All studies indicated there is a positive relationship between cheating and fear of failure/need for approval. There is an inverse relationship between cheating and self-esteem.

9. Expectation of Success or Failure. Results were mixed. Two studies indicated cheating is more likely to follow initial failure than success; four studies showed cheating is more likely to follow initial success than

failure. Another study found a curvilinear relationship between cheating and the other two variables.

10. Generality of Honesty. Results were mixed between those that showed (a) honesty is situational and (b) honesty is a general trait. The generality studies qualified their results to situations which are similar. Machiavellianism does not appear to be related to cheating.

11. Religion. Most studies have indicated no relationship exists between religious participation and cheating.

12. Guilt. Degree of guilt does not act as a deterrent to cheating.

13. Locus of Control. Locus of control is related to cheating, but the results varied. Two studies showed that external subjects cheat more than internals. Another showed that externals cheat in chance conditions, but internals cheat in skill conditions. Three studies found that subjects' perceptions of the situation as requiring luck or chance will affect subsequent behavior. Two studies showed that cheating is related to a perception that the world is difficult, an external view.

14. Moral Reasoning. There is a general trend that cheating is inversely related to moral reasoning. Moral judgement is not, however, the sole determinant of moral behavior.

15. Personality and Type of Cheating. Different situations elicit different types of cheating from different personality types.

Environmental Factors Associated with Cheating

Group Norms

Hartshorne and May (1928) concluded that group cultural norms are major determinants of cheating. For example, they demonstrated that the correlation for incidences of cheating by siblings was higher (r = .47) than the correlation for their performance on IQ tests (r = .12). Similarly, high correlations were noted between the cheating frequencies of close friends in the same classroom (r = .73) and between the mean moral-knowledge scores and the average frequency of cheating for particular classrooms (r = .84). The implication is that social conditioning provides group members with either a lack of opportunity to learn about academic honesty or with opportunities for rationalizing dishonest behavior.

Because fraternity and sorority membership increases the development of personal identification with the group and its associated culture, the frequency of cheating by "Greek" organization members has been frequently investigated. Most studies have shown that fraternity and/or sorority members exhibit a higher incidence of cheating than other groups (Bowers, 1964; Bonjean & McGee, 1964; Harp & Taietz, 1966; Knowlton & Hamerlynck, 1967;

Bushway & Nash, 1977; Baird, 1980). Another study (Hetherington & Feldman, 1964) found a tendency for greater cheating among this group, but it failed to reach significance ($p > .10$). Only one study (Tracey et al., 1979) disputed that finding.

In the majority group, Bowers (1964) discovered that living in the fraternity or sorority house increased the incidence of cheating, as opposed to just belonging to the organization. He stated that "the more closely students are associated with a fraternity or sorority the more likely they are to cheat" (p. 109). Similarly, Baird (1980) reported that fraternity and sorority members not only admitted cheating more frequently, but also admitted cheating in more courses, on more types of tests, and by using more methods. They also were more likely to engage in cooperative techniques such as copying other students' tests or assignments and taking tests for other people. The outcome of these studies generally is interpreted as resulting from group cultural norms and a collective rationalization that "everybody else cheats, so why shouldn't I?"

Tracey et al. (1979) agreed with this principle of normative conditioning. They demonstrated, however, that higher rates of cheating were not exhibited by "Greek" members but by students residing in large dorms. They pointed out that their study used a population baseline to check on the proportional representation rates of each

group, which few other studies had accomplished. Additionally, comparison of other fraternity/sorority studies is difficult because they have used differing divisional definitions (e.g., Greek organizations, off-campus residences, on-campus residences, non-Greeks, "independents," etc.). Nevertheless, high residentiality appears to influence normative attitudes toward cheating and resultant behavior.

As previously noted in the "Attitudes" section of this review, most students at every institution where such a study was conducted reported that cheating was prevalent on campus and that they probably would not report an observed incident of cheating to a university official. Steininger et al. (1964) disclosed that not one subject in their study said that the college norm was never to cheat. The authors suggested that "the student culture demands that students be willing to share or to do for others what they hope others will do for them" (p. 323).

The outcome of a survey of 5,000 students from a national sample of colleges (Bowers, 1964) indicated that "the proportion of students who cheat increases markedly as values move from strong disapproval to tolerance of cheating (43 percentage points)" (p. 71). Bowers pointed out that more than a third of the students who strongly disapproved of cheating still admitted they had participated in the behavior. He discovered that cheating was most prevalent among those who highly valued social

activities and was least prevalent among those who highly valued intellectual activities. Students characterized as primarily social in orientation (i.e., emphasizing interpersonal skills, occupational training, or preparation for marriage) were less likely to disapprove of cheating and to do well in their studies. Social values appeared to take priority over honesty values.

Bonjean and McGee (1964) collected self-report information about cheating from a random sample of approximately 400 students attending two universities in the South. Their findings indicated that more cheating was exhibited by students who did not comprehend the presence or meaning of the formal institutional norm about academic honesty than by those students who were aware of and understood the institutional regulations ($p < .001$). Similarly, where students believed their friends agreed with the institutional principle of academic honesty, little cheating was revealed and, conversely, where friends' attitudes departed from the institutional norm, more cheating was found ($p < .001$).

As previously reported, Knowlton and Hamerlynck (1967) disclosed that cheaters, more than non-cheaters, more accurately estimated the actual frequency of cheating on campus and reported more cheating by their friends. This outcome suggests that group membership and defensive perceptions act as powerful influences on cheating behavior.

DeVries and Ajzen (1971) studied the attitudes of 146 undergraduates from two universities in the Midwest. They found moderately strong correlations between the students' behavioral intentions to cheat and the normative beliefs of their closest friends (r = .56 - .62), their classmates (r = .31 - .51), and their families (r = .26 - .51). Behavioral intentions to cheat, in turn, strongly correlated with self-reported cheating behaviors (r = .59 - .78, $p < .01$). The authors concluded that "normative beliefs may be expected to mediate the influence of other variables of importance" (p. 207), such as personal values.

The influence of the so-called honor system of control has been assumed to have a strong deterrent effect upon cheating. Although most large universities use a proctor system to control cheating today, honors systems remain prevalent at institutions where there is a long history of practice. Bowers (1964), who surveyed 99 institutions nation-wide, reported that "honor systems are effective in all size groups, but their absolute effectiveness is greater in small schools than in large ones" (p. 192). The author concluded that honor systems heighten both the student's sense of internal control and the social climate of peer disapproval of cheating.

Kamens (1978) commented that in institutions that practice selective admissions and have high residentiality, normative climates are more likely to support academic honesty. Conditions of high residentiality increase the

homogeneity of student behavior by eliminating distinctions between commuters and residents, married and unmarried students, full-time and part-time students, night-attenders and day-attenders, and traditional and non-traditional age groups. By comparing cheating frequencies at 50 different colleges, Kamens showed that all groups at highly residential colleges demonstrated lower levels of collective deviance as compared to more heterogeneous populations.

Risk of Detection

All studies that have investigated this variable indicated that cheating significantly increased when the risk of detection was minimal (Hetherington & Feldman, 1964; Steininger et al., 1964; Hill & Kochendorfer, 1969; Smith et al., 1972; Vitro & Schoer, 1972; Houston, 1976; Bushway & Nash, 1977; Leming, 1978; Cooper & Peterson, 1980; Leming, 1980; Hardy, 1981). Smith et al. (1972) surveyed 112 undergraduates regarding the greatest risk of detection they would be willing to take for quizzes, mid-terms, and final exams. Students said that the degree of risk was the same for any type of test. Males were more willing to risk detection than females ($p < .01$).

As described previously, Hetherington and Feldman (1964) provided students with three different opportunities to cheat: (a) during an objective test and the subsequent self-scoring of that exam, (b) during an essay test in which blue-books were used, and (c) during an oral exam

when the instructor was called away from the test site momentarily. The authors found that the first two situations induced the same degree of cheating (50% of the students), while only 22% cheated during the oral exam. Additionally, approximately 64% of the violators cheated in two situations, 24% cheated in all three situations, and 10% confined their cheating to only one situation. Although no control was provided for opportunity to cheat, the authors assumed that the high incidence of cheating was the result of the minimal risk of detection.

Several studies have tested that hypothesis by providing a comparison risk condition (high vs. low). Vitro and Schoer (1972) manipulated the following test conditions for 24 classrooms of fifth and sixth graders (n = 611): (a) high or low probability of success on a test as determined by artificial pretest results, (b) high or low test importance (labeled either as an "ability" test or as having nothing to do with school work), and (c) high or low risk of detection (two proctors surveyed the room or were inattentive). Results indicated that, of the eight possible treatment conditions, more cheating was evidenced in the classes where there was a low risk of detection, the test was described as highly important, and the students had been informed they had a low probability of success (p < .01). Risk of detection was not a significant factor in combination with any of the other factors. Although this study did not use a college population, it was carefully

conducted and offers support for the hypothesis that several personality and environmental factors may combine to influence cheating behavior.

Leming (1978) compared students' moral reasoning scores, as assessed by Rest's Defining Issues Test, in two conditions of risk (high threat/high supervision and low threat/low supervision). The author discovered that although subjects high in moral development cheated less than other subjects in general, this group was just as likely to cheat as those low in moral reasoning in the low threat/low supervision setting. Leming concluded that "threat of detection is a strong situational influence, equally salient to preconventional thinkers and principled moral thinkers in determining moral behavior" (p. 216). Poyourow (1969), however, found that principled thinkers were less responsive to the pressure of the immediate situation and exhibited greater variance regarding caution and willingness to risk detection.

Leming (1980) later provided support for the hypothesis that a low-risk condition will induce high ability students to cheat. The author found that although students above the mean GPA cheated less than others in the high-risk condition, there was no difference between the cheating behaviors for different ability groups in the low-risk condition. Leming interpreted the outcome to mean that "there is a point at which average students judge the advantages of cheating to be not worth the risk" (p. 85).

Cooper and Peterson (1980) tested psychology students in two experimental environments: (a) a no-opportunity-to-cheat condition in which the experimenter was present, and (b) an opportunity-to-cheat condition in which the experimenter was absent and students were allowed to self-score the task. Students in the opportunity-to-cheat condition cheated significantly more than those in the no-opportunity condition.

The authors also discovered that students high in Machiavellianism (see "Need for Approval/Fear of Failure") cheated only in impersonal competition where the risk of detection was low, confirming that high Mach subjects are emotionally detached and use a rational basis for their moral decisions. Conversely, students low in Machiavellianism cheated only in personal competition settings where their emotional involvement was high, even though the risk of detection was considerable.

Although the focus of the previous study was on the relationship between Machiavellianism and students' preferred forms of competition, the results provide support for the hypothesis that personal characteristics interact with environmental cues in situations involving moral decisions. For example, Houston (1976a) empirically confirmed that the environmental control technique of spacing students in alternate columns of seats led to a significant reduction in cheating behavior. He later compared the effects of the administration of alternate

form or single-form tests. Houston discovered that overall answer copying was not reduced when alternate-form tests were used because copying from the front increased to balance the decrease in copying from the side. He explained that front answer-copying did not occur in the first experiment which used the spaced-seating method because the students were more exposed, increasing their fear of detection.

An alternate explanation was that the incentive to cheat was greater in the second experiment (grade) than in the first experiment (participation credit). The author recommended the use of the alternate seating method over the alternate test-form method to control cheating until further research can be more definitive. It is important to note, however, that since students were not made aware that alternate test forms had been administered, the procedure should not have been labeled a control method, but rather a detection method. The students probably did not even perceive there was a risk of detection in that crowded environment.

Threat of Punishment

The threat of punishment is closely related to risk of detection, but only when students are made aware of the sanctions against academic dishonesty. As previously stated, if students do not perceive that multiple forms of a test have been distributed, they are unlikely to comprehend a greater risk of detection in comparison to

their usual test conditions and, thus, unlikely to exhibit less cheating as a defensive measure.

Bonjean and McGee (1964) and Hill and Kochendorfer (1969) demonstrated that students who perceived a threat of punishment or who feared disciplinary sanctions exhibited less cheating than students who did not. Additionally, several studies have demonstrated that disciplinary threats are more effective in deterring cheating than are moral appeals or conditions of implicit trust (Fischer, 1970; Tittle & Logan, 1973; Tittle & Rowe, 1973; Tittle & Rowe, 1974; Heisler, 1974; Frary et al., 1977; Houser, 1982).

Fischer (1970) provided five groups of fourth through sixth graders with an opportunity to cheat while self-scoring their own tests. The five groups consisted of the following: (a) a control group which received the same test instructions as the others groups but no threat; (b) an informative appeal to honesty group which was told the importance of getting a true measure of their knowledge; (c) a public affirmation of value group in which all students were asked to state why they would not cheat on the test; (d) a value-relevant threat of punishment group which was warned that cheaters would have to write 50 times that although they did not believe in cheating, they cheated on the test; and (e) a non-value-relevant threat of punishment group which was warned that cheaters would have to write the numbers from 1 to 100, 25 times. The control and informative appeal to honesty groups did not differ

significantly in frequency of cheating. All of the other three threat groups exhibited significantly lower incidences of cheating than did the informative appeal group, but they did not differ from each other ($p < .01$). The author recommended the use of the public affirmation of value technique to foster internal control over the other two external control methods for upper-elementary students.

Tittle and Rowe (1973 and 1974) compared the levels of cheating exhibited by college classes (as assessed by premarked self-scored tests) following three types of exam instructions: (a) a moral appeal for honesty, (b) a threat of spot-checking for cheating, and (c) a notice that a cheater had been discovered and penalized. Results indicated that, compared to the control group, the moral appeal did not deter cheating, but the threat of being caught and punished significantly reduced the incidence. The authors cautioned, however, that since not all cheating was deterred, the fear of sanction may not have been strong enough for those students who were performing poorly in the course. Nevertheless, the study confirms the Fischer (1970) findings that an informal appeal for honesty is not an effective way to reduce cheating, while sanction threats produce substantial results.

Frary et al., (1977) compared the frequency of cheating in three college classes after the instructors made different pre-exam statements: (a) general instructions with no reference to cheating, (b) a moral

appeal not to cheat, and (c) a threat that tests would be compared for similarities. The authors reported that the incidence of cheating was extremely high (n unstated) in the first instance and significantly reduced in the second. No cheating was evidenced in the third condition of threat. Since the article did not provide the necessary statistics, it is difficult to determine how their moral appeal differed from those reported above.

Heisler (1974) labeled college students as law abiders or law violators according to their anonymous self-reported incidences of criminal behaviors (felonies and misdemeanors). Then, he submitted them to one of eight experimental conditions in which the threat of punishment was manipulated. Four different pre-exam instructions were paired with conditions in which students witnessed a confederate apprehended for cheating. Subjects who received a severe threat (suspension from school) but who did not witness a model being caught cheated more than all others, yet subjects who received the same severe threat and who witnessed a model apprehended cheated less than all other groups ($p < .05$).

Law violators cheated with about the same frequency as law abiders, except in the severe threat/model absent group and the lenient treatment of model group, when violators cheated significantly more. Heisler speculated that "law violators may be excitement seekers who are challenged to become more deviant when confronted with the threat of

severe restriction" (p. 581). Although a clear trend did not emerge from this study, Heisler demonstrated that students cheated less when mildly threatened (i.e., with loss of test points or with repetition of the course) and cheated more when severely threatened with suspension from school. The fact that the witnessing of a peer apprehended for cheating had the effect of reducing cheating supports the findings of the previous section that there is an inverse relationship between risk of detection and cheating.

Only one study was identified which indicated that a persuasive message was effective in either reducing cheating or in changing attitudes toward cheating (Horowitz, 1968). The author admitted, however, that the results were contaminated by the partial disclosure of the purpose of the study when students complained about the excessive cheating in class. This study, therefore, does not provide convincing evidence to contradict the previous ones.

Incentive

As was pointed out in the "Personal Characteristics" section of this review, the expectation of failure or success on a given task greatly influences some students to cheat. The most plausible conclusion of that group of studies is that expectation of success has a curvilinear relationship with cheating (Houston, 1978). To review, Houston found that failure subjects did not perceive

cheating as a viable means of improving their chances of success, and success subjects did not perceive cheating as an effective means of improving their already good chances of success. Medium-success subjects, however, perceived cheating as instrumental to their chances of achieving success and cheated significantly more than the other groups. Because this theory does not convincingly explain why successful students are still found to cheat, expectation of success or failure probably is based on multiple factors such as previous reinforcement, test, importance, and preparation for the exam.

Bowers' (1964) national survey of a random sample of 5,000 undergraduates revealed that less cheating occurred on final exams than on lab work or other kinds of tests. Similarly, the Smith et al. (1972) survey of 112 undergraduates from two universities in New York revealed that students exhibited more cheating on frequent quizzes than on final exams, particularly those in their major field of study ($p < .001$). The authors speculated that this was because students are better prepared for final exams and that final exams are better supervised. Baird (1980) explained that it is not surprising that more cheating occurs on less important tests since they occur more frequently and are less closely monitored.

Farley (1974), however, explains the phenomenon differently: students believe that although some types of tasks are less important, the resulting grade or outcome is

just as valuable. The author reports that students considered it more acceptable to cheat on term papers, in courses outside their major, in required courses, and in courses where other students were known to cheat frequently than on final exams in their major. Test importance, then, appears to interact with other variables, such as test preparation, risk of detection, probability of success, and relavence of outcome.

Vitro and Schoer (1972) partially tested that hypothesis by placing groups of fifth and sixth graders in eight differing treatments consisting of combinations of three variables: probability of success, risk of detection, and test importance. They discovered that each of these variables had a significant effect in certain combinations with the others, but not in all combinations. The highest proportion of cheaters was found in the treatment group with high test importance, low risk of detection, and low probability of test success. The lowest proportion of cheaters was noted in the treatment group with high test importance, low risk of detection, and high probability of success. Probability of success, which likely is mediated by previous reinforcement and test preparation, was found to be the most influential of the factors investigated, but only in combination with other factors.

Many studies have investigated various kinds of reinforcements that influence cheating behavior. Millham

(1974) and Smith et al. (1972) discovered that some students will cheat just to avoid negative (or obtain positive) evaluations by the investigator, even when grades are not involved. Similarly, Hill and Kochendorfer (1969) showed that students will cheat to avoid orally reporting a low score in the presence of their peers, even when that score does not effect the course grade.

Another study found that the receipt of extra credit for experimental participation is motivating to many students (Houston & Ziff, 1976), while other students are more motivated by grades (Houston, 1977b). Fischer (1970), for example, found that minimal cheating occurred until students were told that the task would contribute to their course grades.

Johnson and Gormly (1971) discovered that when ROTC students were informed that a test was predictive of future success as an officer, officer candidates cheated significantly more than students who did not intend to be officers. Additionally, some students are more internally than externally motivated and will cheat to maintain an internal self-image that they are skillful persons (Johnson, 1981; Karabenick & Srull, 1978).

These studies are in agreement with the considerable body of research that has focused strictly on motivation. One cluster of studies is based on the theory that individuals cognitively mediate their behaviors according to what factors motivate them. This theory, known as

expectancy theory, posits that individuals will try to maximize their expected satisfaction in any situation (Vroom, 1964). According to this theory, if students do not perceive that their efforts will lead to successful performance (which necessarily depends on the type of task and the individual's ability and/or power to succeed), but the outcome is highly valued, then the student may decide to cheat in order to maximize the achievement of that valued reward.

Other authors have explained the same concept in varying ways. Tittle and Rowe (1974) said "...the greater the utility of the act, the greater the potential punishment required to deter it" (p. 48). Similarly, Jellison (1984) stated that "...most people are honest when it pays them to be so and dishonest when there are comparable rewards" (p. 54). Lest the inference be made that cheaters consciously set out "to beat the system" or that they are "moral deviants," it is important to reiterate that considerable research indicates that cheating behavior is much more complex than that. Motivation interacts with the environmental press and multiple personal values.

Study Habits

Although this variable partially may be a function of personal characteristics, it also is strongly affected by environmental factors. Hetherington and Feldman (1964) made a case for the influence of personality on study

behaviors. They submitted 78 undergraduates to a large battery of personality measures and discovered that "active cheaters" were typically immature, impulsive, irresponsible, and lacking the self-sufficiency to exert effort toward studying. "Passive cheaters" (accessories) were found to be the opposite: mature, nurturing, and insightful.

Bowers (1964), however, focused on behavior rather than the psychological characteristics of cheaters. He discovered an inverse relationship between cheating and preparation for exams: as study time increased, the proportion of cheating decreased. Similarly, the degree of efficiency in studying (appropriate time management) was found to be an influential factor, independent of the amount of time spent studying. This finding was qualified by the fact that effectiveness of study habits correlated more highly with disapproval of cheating than with poor grades. Bowers explained, "The fear of failure as a result of poor preparation, rather than the fact of previous failure, is what seems to pressure students who strongly disapprove of cheating to engage in academic dishonesty" (p. 84).

Oaks (1975), who surveyed approximately 900 students from two universities, revealed that although 38% said students cheat because it "is easier than studying," more students (45%) said cheating was necessary because "too many assignments and tests come at the same time" (p. 233).

Only 3% said that cheating was "a game to outsmart the instructor." This same group of respondents said that students who do not cheat think it is dishonest (63%), are afraid of getting caught (58%), and study hard so they do not need to cheat (51%). These statements imply that cheaters not only fail to apply effort in preparing for exams, but also lack time management and study skills.

An additional factor related to test anxiety and study habits is the phenomenon of arousal during studying and test-taking. Houston (1977b) discovered that as study conditions deteriorated in a highly disrupted environment, learning decreased and cheating increased on the subsequent test. Since it generally is assumed that fraternities and sororities (with exceptions) provide a social environment where studying is easily disrupted, this study may have relevance to the research which shows that fraternities and sororities evidence increased incidences of cheating over other groups.

In a later study, Houston (1977a) revealed that performance on a free-recall memory task was not improved by cheating compared to the condition where students had no opportunity to cheat. The author explained that cheating was ineffective because it demanded attention and effort which otherwise might have been utilized in legitimate mental search processes. Cheating disrupted efficient retrieval strategies that are typically used to recall categories of items.

This group of studies demonstrates that cheaters do not practice appropriate study skills and have difficulty managing their time schedules and study environments. The implication is that student cheaters may benefit from an educational intervention program where these strategies are introduced.

Teacher

There is some indication that many faculty are unaware of the academic stresses facing college students. Barnett and Dalton (1981) reported that faculty and students disagreed on questions such as "students are able to keep up with the reading and homework" and "students always have enough time to finish exams" (p. 545). Additionally, Farley (1974) pointed out that many faculty were unaware that "grades are a matter of life and death to some students" (p. 30). He explained that grades are the unit of exchange at the university, analogous to the professor's paycheck, and when students' efforts do not lead to the appropriate rewards, cheating may seem to be the only way to survive.

There is also a strong implication that poor pedagogy influences many students to cheat. Steininger et al. (1964) surveyed 49 undergraduates regarding the identification of specific environmental variables that would induce them to cheat. The findings indicated that cheating increased sharply as situations contained more of the following factors: (a) the course was meager and

uninteresting, (b) the quality of teaching was poor, (c) tests were based on senseless detail, and (d) tests were difficult.

Bonjean and McGee (1964) supplied evidence that cheating increased when instructors were perceived to be autocratic, unduly harsh, unfair, or not understanding of student needs. Additionally, Bushway and Nash (1977) cited several studies that found more cheating in classes taught by authoritarian instructors who allowed little class discussion, displayed negative attitudes toward students, and who gave excessively difficult tests. Frary (1978) offered the following related comments:

> "We observe that professors tend to become irritated when students persist in questions about the form, content, and relative weighting of questions on an upcoming exam...They tend to be vague about requirements, hazy about examinations. If a professor's paycheck varied in amount in seemingly capricious ways, if his salary were determined by criteria he could not ascertain, he might experience bitterness and resentment like that felt by students about <u>their</u> wage" (p. 29).

The problem is compounded by reports that many university teachers are "basically lazy in respect to detecting and preventing cheating" (Jacobson, 1983, p. 18). A study conducted by Dalton (1980) at Iowa State University revealed that faculty and students differed in their

assessment of the quality of exam proctoring. More faculty (48%) than students (21%) believed proctors remained alert throughout exams to spot cases of cheating. Additionally, fewer faculty (18%) than students (64%) reported that graduate students frequently proctored exams. The implication is either that graduate students do not perform the job well or that students resent the absence of the professor during exams.

There is also considerable evidence that cheating significantly increases when proctors are inattentive or absent (See "Risk of Detection" in this review.) Steininger et al. (1964) found that students said they would take advantage of the professor's leaving the room during an exam and would consider their behavior justified. More cheating also occurs in large, over crowded classrooms and when the same test is administered repeatedly (Bowers, 1964; Hardy, 1981).

These studies indicate that teachers share some of the blame for the high rate of cheating. Poor pedagogy, inconsiderate treatment, and over crowded, uncontrolled classrooms offer more temptation than most students can resist.

Even when university professors display appropriate pedagogical methods, they seldom provide students with a normative value regarding academic integrity. Nuss (1984) discovered that 53% of the faculty at the University of Maryland never or rarely discussed with their classes the

administrative policies or their own requirements pertaining to academic dishonesty.

Several studies indicate, however, that professors may be unrewarded for reporting incidences of cheating. Students are protected by elaborate procedural rights that can be time-consuming (Jacobson, 1983), and some professors are unwilling to face the administrative red-tape of prosecuting cheaters (Lamont, 1979). Lamont's (1979) survey of professors at 12 select universities yielded a collective attitude the an unproved charge of cheating was worse than no charge at all because of the time and effort involved in due process hearings and the potential of losing esteem.

Additionally, Hardy (1981) found that "some professors minimize the problem because they fear it may reflect badly on their ability to teach or...reveal that they lack the requisite skills or experience to avert such infractions" (p. 70). Others do not report cheaters because they do not want to be branded a zealot or to face the risk of censure by their colleagues and students (Hardy, 1981; Jacobson, 1983). For some professors, the punishment appears too harsh and they do not want to jeopardize a student's future career (Lamont, 1979). Hardy (1981) believes a greater problem exists when professors deny that a cheating problem even exists.

Extra-Curricular Activities

Few studies have investigated the influence of extra-curricular activities on cheating, with the exception of fraternity and sorority membership which was previously discussed with reference to residentiality (See "Group Norms"). Baird (1980) surveyed 200 undergraduates at a Pennsylvania university of which one third were liberal arts majors, 42% were education majors, and 23% were business majors. The author found that those students who were involved in three or more extra-curricular activities disapproved of cheating significantly more than those students less involved. Those who were actively involved also were more likely to take some action if they witnessed a cheating incident.

Newhouse (1982) administered two measurement instruments to 120 randomly selected freshmen attending Kansas State University: (a) Scrole's Scale of Anomie, a measure of alienation, and (b) a cheating index developed by Lewis. By comparing low, medium, and high scores on cheating and alienation, the author discovered that students high in alienation exhibited a high disposition to cheat and, similarly, those low in alienation were less likely than others to cheat. Newhouse concluded that students who perceive themselves to be outside the social structure may resort to dishonesty in order to survive. He recommended the expansion of career and vocational counseling opportunities on campus.

Johnson and Gormly (1971) discovered an opposing trend to the two studies above. They presented a temptation task to 27 Navy ROTC men at a large university in the Midwest. The authors disclosed that cheaters belonged to more clubs and held more leadership positions than non-cheaters ($p < .05$). It should be reiterated that Bowers (1964) found more academic dishonesty among those students who more highly valued social criteria than intellectual criteria.

Thus, it appears that no conclusion can be reached about the effect of social activities on cheating. Because these studies used disparate populations and measurement methods, it is impossible to compare their results. It is logical to assume that the results would differ according to the type of organizational membership and the accompanying cultural norms. The strongest inference that can be made at this time is that membership (or non-membership) in social activities is but one variable that interacts with multiple others.

Summary of Environmental Factors

The preceding analysis reveals that environmental cues greatly influence academic dishonesty. The variables may be summarized as follows:

1. Group Norms. More cheating is evidenced among friends and by groups displaying high residentiality (such as fraternities, sororities, and large dorms), a tolerance for cheating, a strong social orientation, and a lack of

understanding of the institutional principle of academic integrity.

2. Risk of Detection. Cheating significantly increases when the risk of detection is minimized by crowded classrooms, inattentive or absent proctors, students scoring their own exams, and/or opportunities to pre-write blue-book essay exams. When the risk of detection is low, students exhibiting high achievement and/or high moral reasoning are just as likely to cheat as students low in those characteristics. Risk of detection particularly is influential when students perceive the test to be highly important and their probability of success to be low. The risk of detection is increased when spaced seating is used, but not when alternate test-forms are used.

3. Threat of Punishment. Students who perceive a threat of punishment or who fear disciplinary sanctions exhibit less cheating than others. Mild disciplinary threats or reminders are effective in reducing cheating, but appeals for honesty and conditions of implicit trust are ineffective.

4. Incentive. Students are inclined to cheat because of different incentives, depending on their personal characteristics and the environmental press. More cheating occurs on the more frequently administered quizzes in less valued subjects than on final exams in students' preferred fields of study.

5. Study Habits. Cheaters exhibit poor study habits and have difficulty managing their time schedules and study environments.

6. Teacher. More cheating is found in classes where teachers are perceived to be autocratic, harsh, unfair, or not understanding of students. Overcrowded, uncontrolled test conditions encourage cheating behaviors. Few professors discuss with their classes the institutional policies or their own values pertaining to academic integrity. Professors are not rewarded for detecting or preventing cheating.

7. Extra-Curricular Activities. Results are mixed between those that reveal that students involved in more organizations cheat less, and those that show that highly social students cheat more than others.

CHAPTER III

PROCEDURES

Overview

Chapter III contains a description of the research design, subjects, instrumentation, data collection, and analytical procedures used in the study. Included are the methodological assumptions and limitations.

Research Design

This investigation consists of descriptive research with a random sample, cross-sectional survey design. As previously stated, the purpose of this study was to test the following hypotheses: (A) there will be no difference in the types of reasons (see questionnaire "Section I - Free Response") given by men and women, or by high school family education level students and college family education level students, when responding to the question "Why is plagiarism wrong?", (B) there will be no statistically significant difference in the numerical level of agreement ratings of explanations about plagiarism (see questionnaire "Section II A. - Explanation Agreement Scale") given by men and women, or by high school family education level students and college family education level

students, (C) there will be no difference in the numerical ranking of explanations about plagiarism (see questionnaire "Section II B. - Explanation Rank Ordering") given by men and women, or by high school family education level students and college family education level students, and (D) there will be no statistically significant difference in the numerical level of agreement ratings of statements about plagiarism (see questionnaire "Section III - Statement Agreement Scale") given by men and women, or by high school family education level students and college family education level students.

The independent variables were nominal scale measurements of gender (male or female), and family educational level (high school or college). The dependent variables were ordinal scale measurements and included the following:

1. The responses students gave to the question "Why is plagiarism wrong?" utilizing a classification scheme and numerical percentages (see questionnaire "Section I - Free Response").

2. How students rated explanations about why they should not plagiarize, according to a five-point numerical scale (see questionnaire "Section II A. - Explanation Agreement Scale").

3. Students' rank-ordering of explanations about why they should not plagiarize (see questionnaire "Section II B. - Explanation Rank Ordering").

4. Students' ratings of statements about plagiarism, according to a five-point numerical scale (see questionnaire "Section III - Statement Agreement Scale").

Subjects

The subjects were 258 randomly identified students attending Waynesburg College during the Fall, 1991 semester. This sample size was determined based on a given finite population of 1100 students such that the sample proportion $\underline{p}$ was within $\pm$ .05 of the population proportion $\underline{p}$ with a 95% level of confidence (Isaac & Michael, 1981).

Subjects were identified for participation in this study in the following manner. The Registrar's Office assigned a number to each faculty member in the computer file. The Registrar's Office then generated a random list of three faculty members from each of the six academic divisions (Business; Education; English and Fine Arts; History and Social Sciences; Nursing; Science and Technology). Each identified faculty member was solicited for assistance in this study (see "Data Collection" section, below). Faculty members who agreed to assist in this study administered the questionnaire during one class period, to students who were willing to participate. If an identified faculty member declined to assist in this study, the Registrar's Office randomly identified another faculty member from the same academic division. Given the average class size was approximately 20 students, identifying three

faculty members from each of the six academic divisions would have yielded a sample size of potentially 360 subjects.

Methodological Assumptions

1. All students had an equal and independent opportunity to be identified and, thus, were representative of all students at Waynesburg College.

2. Students enrolled at Waynesburg College during the Fall, 1991 semester were not unlike the students enrolled during other recent semesters.

3. In regard to the 2 X 2 Fully Crossed Analysis of Variance (ANOVA) procedure, the following conditions were met:

(a) Observations were independent. Participants were randomly identified, and completed the questionnaire on their own. Each observation qualified for placement in one and only one cell because the cell categories were mutually exclusive.

(b) There was homogeneity of variance among groups. This assumption rests on the Central Limit Theorem, from which the following generalization can be made: as n increases, the variability of the sampling distribution of the mean decreases (Glass and Hopkins, 1984).

(c) The population was normally distributed. This assumption also rests on the Central Limit Theorem, from which the following generalization can be made: even for

non-normal parent populations, the shape of the sampling distribution rapidly approaches normality as n increases (Glass and Hopkins, 1984).

Instrumentation

The survey questionnaire (Appendix A) was developed based on the description of the instrument utilized in a similar study of plagiarism by Kroll (1988), and with his permission. Two pilot studies were conducted to determine whether or not the questions were clear, understandable, and unambiguous. The second pilot study was based on revisions in wording and format made from the first pilot study. Both pilot studies utilized professors and undergraduate students from the institution at which this study took place.

Data Collection

Descriptive statistics and parametric methodologies comprised the analytical processes of this study. Descriptive information about each student was collected as a part of the questionnaire administration.

The questionnaire was administered according to the following schedule:

September 2-6, 1991: A pre-contact through their campus mailbox was made with all faculty identified for possible assistance in this study. This pre-contact was for the purpose of explaining the study and soliciting their assistance in the administration of the questionnaire

during class time. Response to this pre-contact varied; some initially-identified faculty agreed to participate, while others did not agree to participate in this study. There were also some initially unidentified faculty who asked if they could assist in this study. Non-participants tended to be those faculty members who did not know the researcher well personally, and who had concerns about giving up class time in order to administer the questionnaire. The final number of assisting faculty members from each academic division was as follows: 3 from Business (60 questionnaires), 2 from Education (40 questionnaires), 3 from English/Fine Arts (60 questionnaires), 1 from Nursing (40 questionnaires), 4 from Science/Technology (80 questionnaires) and 4 from History/Social Sciences (80 questionnaires). This uneven participation of faculty by academic division seemed to be reflected in the number of students with a particular academic major, as represented by those students who chose to participate in this study (see Table 3 in Chapter IV).

September 13, 1991: A meeting was conducted with those faculty who had agreed to assist with this study, to explain the questionnaire and administration process.

September 16, 1991: The questionnaires were distributed in a sealed envelope to assisting faculty members through their campus mailbox.

September 18-19, 1991: The questionnaires were administered to students who were willing to participate,

in classes taught by faculty members who agreed to assist with this study. As part of the administration of the questionnaire, students were asked not to complete the questionnaire if they had already done so in a previous class.

September 20-23, 1991: Completed and unused questionnaires were returned in sealed envelopes through campus mail to the researcher, by faculty members who had agreed to assist with this study. Of the 360 questionnaires distributed to assisting faculty, 300 were returned completed, at least in part. This resulted in an 83% response rate. All returned questionnaires were examined for completeness of data. Because some questionnaires lacked responses to all questions, or because the directions in the questionnaire had not been followed and thus resulted in unclear or confusing responses, 42 questionnaires were determined to be unusable. This left for analysis a total of 258 useable questionnaires with complete responses.

Descriptive Analyses

Following is a delineation of the research variables and the analytical methods that were employed for each research objective.

Hypothesis 1.: There will be no difference in the types of reasons (see questionnaire "Section I - Free Response") given by men and women, or by high school family education

level students and college family education level students, when responding to the question "Why is plagiarism wrong?"

Students were asked to write several sentences explaining why plagiarism is wrong. Then they were instructed to go back over their response and to bracket each separate reason they had written. Finally, they were instructed to rank order each bracketed reason from the most important (number 1) to the least important.

The student's bracketing was normally followed in order to decide what counted as separate reasons. However, as noted in Kroll (1988), it was not possible to always rely on the accuracy of the students' bracketing of reasons; students may not have bracketed any reasons, or bracketing may not have accounted for all the different reasons in their explanations. Therefore, in those cases where clearly different reasons were grouped together or where two identical responses were bracketed separately, the students' bracketing was adjusted to reflect more accurately the reasons in their explanations.

All responses were reviewed and grouped by similarity into categories representing content ideas and/or themes. Ideas and/or themes were identified based upon the words and phrases used by students in their responses (e.g., "cheating yourself"; "credit where credit is due"; "stealing"; "dishonest"; "easy way out"; "against the law").

Each bracketed response was then classified according the set of categories that emerged during the process of examining the responses, and categories were formulated that accounted for the majority of responses students gave. These were compared to six principle categories identified by Kroll (1988): Individual Responsibility, Fairness, Ownership, Honesty, Laziness, and Crime and Punishment. It was also anticipated that additional categories may have emerged because of the use of a cross section of subjects, unlike in the Kroll (1988) study. However, no additional categories did emerge, even when those responses classified as Miscellaneous were examined in a post-hoc manner. (Explanations and illustrations of the categories that emerged in this study are found in Appendix B.)

When assigning categories, the rule was followed that at most one response from each student could be placed in each primary category. This was done because the primary purpose of this study was to investigate what students think about plagiarism, versus investigating how often students repeated thoughts about plagiarism. There were also two categories for responses that did not fit elsewhere: Miscellaneous and Unclassifiable. Responses were assigned to the Miscellaneous category when they were legitimate but uncommon responses that did not fit into any other categories (e.g., saying that plagiarism would cause accumulated knowledge to shrink, or that plagiarism involves an invasion of privacy). Reasons were assigned to

the Unclassifiable category when they were tautological (e.g., saying that plagiarism is "morally wrong") or when the meaning or relevance of the response was not understandable (e.g., saying "I do not know," or claiming that plagiarism is "not all that bad").

To get an estimate of how consistent and reliable the ratings were, a random sample of 65 response sets (25% of the useable questionnaires) were selected and given to a rater who was blind to the purpose of the study. This rater used a scoring guide to identify reasons and assign them to categories. In this analysis, exact agreement was achieved in 90% of the inter-rater category assignments. Considering the problems posed in accurately identifying separate reasons, the ambiguities that existed in some of the students' statements, and the fact that the rater had no prior training or practice with the coding scheme, these results at least suggest that the coding process was neither arbitrary nor substantially unreliable.

Once all responses were classified, they were examined in order to determine how frequently each of the six primary kinds of reasons were mentioned and how many times each reason was identified as most important. When only one reason was listed, it was considered first in importance. These results are reported in commentary and in Table 4 and Table 5 of Chapter IV.

Hypothesis 2.: There will be no statistically significant difference in the numerical level of agreement ratings of explanations about plagiarism (see questionnaire "Section II A. - Explanation Agreement Scale") given by men and women, or by high school family education level students and college family education level students.

The second section of the survey questionnaire provided students with five explanations of why students should avoid plagiarism, and asked them to rate each explanation using a five-point scale to indicate "how closely the explanation comes to expressing your own view of why students should not plagiarize" (1=does not express my views very well, 2=expresses my views only slightly, 3=expresses my views to some extent, 4=expresses my views fairly well, and 5=expresses my views very well). The aim of this part of the questionnaire was to obtain supplementary information about students' conceptions of plagiarism. The students' explanations, in their own words, constituted the primary data for the study.

Each of the five explanations was designed to reflect a particular orientation that a person could adopt toward plagiarism: Self-Respect, Fairness, Consequences for the Academic Community, Obedience to Rules, and Teacher-Student Relationship. In choosing these orientations the work in moral development theory, particularly Kohlberg's (1976, p. 40) notion of four "moral orientations" that focus on "one of four universal elements in any social situation," was

utilized. Thus the first explanation (Self-Respect) was modeled on Kohlberg's orientation to "ideal self," or one's image of oneself as a person of conscience and virtue; the second explanation (Fairness) was based on Kohlberg's orientation to "justice or fairness"; the third (Consequences for the Academic Community) drew on Kohlberg's orientation to "utility consequences," especially the sense of bad consequences for the college community; and the fourth (Obedience to Rules) expressed a view consistent with Kohlberg's orientation to "normative order," or on an ethic based on prescribed rules. The fifth explanation (Teacher-Student Relationship) was developed using Gilligan's (1982) arguments concerning a contextual and relational ethic based on respect and care for other persons, an orientation that, according to Gilligan, was particularly salient for women. The five explanations of plagiarism were intended to reflect five different moral orientations, attempting to keep the explanations parallel in form and equal in length.

Responses were examined in order to determine the mean ratings of each explanation, followed by application of the ANOVA procedure. These results are reported in commentary and in Tables 6-11 of Chapter IV, highlighting significant differences among and between variables.

Hypothesis 3.: There will be no difference in the numerical ranking of explanations about plagiarism (see questionnaire

"Section II B. - Explanation Rank Ordering") given by men and women, or by high school family education level students and college family education level students.

In addition to the analysis rationale given above in Objective 3., students were asked to rank the five explanations from the one that best expressed their own view to the one that least expressed it. In the analysis only the students' top-ranked explanation, the one they choose as the most significant, was focused on.

Responses were examined in order to determine the percentage ranking of each explanation first in importance. These results are reported in commentary and in Table 12 of Chapter IV, by gender and family educational level.

Hypothesis 4.: There will be no statistically significant difference in the numerical level of agreement ratings of statements about plagiarism (see questionnaire "Section III - Statement Agreement Scale") given by men or women, or by high school family education level students and college family education level students.

In the third part of the questionnaire, students were asked to use a five-point rating scale (1=strongly disagree, 2=disagree to some extent, 3=neutral or undecided, 4=agree to some extent, and 5=strongly agree) to rate the following eight statements about plagiarism:

(A) I would be angry and feel it was unfair if I discovered that another student in the class had plagiarized a paper.

(B) I do not think plagiarism is right, but there are still some situations in which a student might be forced to plagiarize in order to get a decent grade in a course.

(C) If I knew that another student in the class was planning to plagiarize a paper, I would try to persuade him or her not to plagiarize.

(D) I do not care if other students want to plagiarize; it is their business, not mine.

(E) If I discovered that a student had plagiarized, I would try to persuade him or her to confess.

(F) Plagiarism is always wrong, regardless of the circumstances.

(G) If a student in this class got caught plagiarizing a paper, he or she would deserve to fail the course.

(H) If I discovered that a student had plagiarized, I would report him or her to the instructor.

These eight statements focused on three issues identified in the literature: students' feelings about a situation in which other members of a class were plagiarizing (A, D, G), students' propensity to take some personal action against plagiarists (C, E, H), and students' judgements about whether plagiarism is situationally relative (B and F).

Responses were examined in order to determine the mean ratings of each statement, followed by application of the ANOVA procedure. These results are reported in commentary and in Tables 13-21 of Chapter IV, highlighting significant differences among and between variables.

Limitations

This study was limited to the description of students who chose to participate in the study. Because these students were, in effect, volunteers the findings should be viewed with caution (Rosenthal & Rosnow, 1975). In addition, no empirical evidence exists that this group was a representative sample of the population of students at Waynesburg College or at other similar institutions.

CHAPTER IV

FINDINGS

The presentation of findings is divided into four categories pertaining to each hypothesis. The discussion and interpretation of the findings are presented in Chapter V.

In describing the demographic characteristics of the students who participated in this study, Table 3 indicates that over half (60.47%) of the students who participated in this study were female and that fewer than half (39.53%) were male. A breakdown of age categories discloses more students at the two lower categories, ages 18-19 (56.98%) and 20-21 (37.21%), than at the two upper categories, ages 22-23 (2.71%) and 24 and above (3.10%). Almost one-third of the sample was freshmen, compared to 28.68% from the sophomore class and 23.64% from the junior class; seniors were least represented in the sample (16.28%). Table 3 indicates that the two most represented academic major categories were Science/Technology (25.19%) and History/Social Science (21.71%). These academic major categories were followed by a nearly equal number in each

Table 3

Demographic Characteristics of Study Sample and Population

Variable	Sample n	Sample Percent	College[a] N	College[a] Percent
Gender				
Male	102	39.53	381	46.58
Female	156	60.47	437	53.42
Total	258	100.00	818	100.00
Age			[b]	
18-19	147	56.98		
20-21	96	37.21		
22-23	7	2.71		
24+	8	3.10		
Total	258	100.00		
Academic Class				
Freshman	81	31.40	256	31.30
Sophomore	74	28.68	228	27.87
Junior	61	23.64	150	18.34
Senior	42	16.28	184	22.49
Total	258	100.00	818	100.00

[a]College Full-Time Student Data
[b]Data Not Available

Table 3 (cont'd)

Variable	Sample n	Sample Percent	College[a] N	College[a] Percent
Academic Major				
Business	38	14.73	149	18.22
Education	21	8.14	69	8.44
English/Fine Arts	34	13.18	81	9.90
Nursing	19	7.36	74	9.04
Science/ Technology	65	25.19	203	24.82
History/Social Sciences	56	21.71	164	20.04
Undecided	25	9.69	78	9.54
Total	258	100.00	818	100.00
Cumulative Grade-Point-Average				
-1.00	0	0	1	.18
1.00-1.49	2	1.13	2	.38
1.50-1.99	0	0	31	5.70
2.00-2.49	16	9.04	147	27.02
2.50-2.99	56	31.64	139	25.55
3.00-3.49	63	35.59	145	26.65
3.50+	40	22.60	79	14.52
Total	177[b]	100.00	544[c]	100.00
Family Education Level			[d]	
High School	72	27.91		
College	186	72.09		
Total	258	100.00		

[a]College Full-Time Student Data

[b]Because of the time during the academic year at which the questionnaire was administered, freshmen would not have had a college cumulative grade-point-average to report. Therefore, freshmen were not included in this category.

[c]Freshmen Not Included

[d]Data Not Available

of the Business (14.73%) and English/Fine Arts (13.18%) categories. Each of the final three academic major categories of Education, Nursing and Undecided all had fewer than 10% representation in the sample. This was fairly consistent with the level of faculty participation by major. Almost 90% of the students had cumulative grade-point-averages of 2.50 or higher. Finally, the majority of the sample (72.09%) indicated they came from families where at least one other member had previously attended college; 27.91% of the students in the sample were first generation college students.

Hypothesis 1

There will be no difference in the types of reasons (see questionnaire "Section I - Free Response") given by men and women, or by high school family education level students and college family education level students, when responding to the question "Why is plagiarism wrong?"

Student responses to the question "Why is plagiarism wrong?" were classified according to 6 primary reasons (in addition to Miscellaneous and Unclassifiable). Table 4 shows the percentage of students who mentioned each of the 6 reasons. The table shows that the majority of the men gave responses involving notions of Individual Responsibility (59.80%) and Fairness (36.27%). While these categories were also a majority in terms of response

Table 4

Frequency of Responses to The Question "Why is Plagiarism Wrong?"

Category of Reason	Gender		Family Education Level	
	Men (n=102) %	Women (n=156) %	High School (n=72) %	College (n=186) %
Individual Responsibility	59.80	47.44	52.78	52.15
Ownership	28.43	35.90	37.50	31.18
Fairness	36.27	48.08	43.06	43.55
Honesty	24.51	30.77	30.56	27.42
Laziness	12.75	11.54	13.89	11.29
Crime & Punishment	3.92	8.33	8.33	5.91
Miscellaneous	7.84	5.77	5.56	6.99
Unclassifiable	12.75	10.26	11.11	11.29

Note. The column figures indicate the percentage of students who mentioned a reason in a particular category; these percentages sum to more than 100% because students could mention reasons from more than one category in their explanations.

frequency among women, women tended to be more evenly divided between reporting responses involving ideas of Individual Responsibility (47.44%) and Fairness (48.08%). Responses with a view toward Ownership were found to be the third most frequent among both men (28.43%) and women (35.90%). The fourth most frequent response, again for both men (24.51%) and women (30.77%), fit in the category of Honesty. A nearly equal percentage of men (12.75%) and women (11.54%) indicated in their response that Laziness was a factor; the Laziness response, and those responses determined to be Unclassifiable, were approximately even in terms of percentages as the fifth most frequently occurring responses among both men and women. Crime and Punishment and Miscellaneous responses were indicated by fewer than 10% of either male or female students.

Table 4 also depicts that the Individual Responsibility response was given by a nearly identical percentage of students, whether they designated themselves as being from a high school family education level [HSFEL] (52.78%) or a college family education level [CFEL] (52.15%). A nearly identical percentage of high school family education level students (43.06%) and college family education level students (43.55%) also gave responses involving the idea of Fairness as the second most frequently occurring response. Third in frequency were

those responses oriented towards Ownership; HSFEL students gave these responses 37.50% of the time, as compared to these responses being given 31.18% of the time by CFEL students. Responses involving thoughts of Honesty were indicated as fourth in frequency by HSFEL students (30.56%) and CFEL students (27.42%). Laziness and Unclassifiable responses were mentioned fifth in frequency by both HSFEL and CFEL students. Crime and Punishment and Miscellaneous responses were not indicated by more than 8% of either HSFEL or CFEL students.

Table 5 depicts the percentage of students who indicated a particular category of response as their most important reason for why plagiarism is wrong. While the majority of the men (35.29%) indicated a reason based on Individual Responsibility as the most important, the majority of the women (29.49%) indicated a reason based on Fairness as most important. Reasons citing Ownership and Fairness were equally second in importance among the men, each reason being indicated 19.61% of the time. Comparatively, women ranked a reason based on Ownership (24.53%) as second in importance and on Individual Responsibility (21.79%) as third in importance. Honesty served as the fourth most important rationale among both men (11.76%) and women (14.10%). Laziness (4.90%) was found to be the fifth most important reason among men, while reasons from the Unclassifiable category (3.85%) were found to be fifth in importance for women. Reasons

determined to be Miscellaneous (2.94%) in nature were found to be sixth in importance for men, whereas reasons with a Crime & Punishment (2.56%) basis were discovered to be sixth in importance for women. The least number of men (1.96%) indicated a rationale with a Crime & Punishment focus as most important; the least mentioned rationale in terms of importance by women (1.28%) were those categorized as Miscellaneous.

Table 5 also indicates that a reason for why plagiarism is wrong based on Individual Responsibility was most important for a similar percentage of both HSFEL students (26.39%) and CFEL students (27.42%). Second in importance for HSFEL students was a rationale based on Ownership (25.00%); second for the CFEL students was a rationale based on Fairness (26.88%). Third in importance for both HSFEL (22.22%) and CFEL (22.04%) students were reasons based on Fairness. Both HSFEL students (16.67%) and CFEL students (11.83%) indicated Honesty as a basis of their fourth most important reason. HSFEL students ranked Crime & Punishment reasons as fifth in importance (4.17%), followed by reasons determined to be Miscellaneous and Unclassifiable as sixth in importance (1.39% each). Reasons categorized as Unclassifiable were ranked fifth in importance for CFEL students (4.84%), followed by reasons categorized as Miscellaneous (2.15%) sixth, and those with a Crime and Punishment focus (1.61%) seventh.

Table 5

Rank Ordering of The Reasons Students Give to The Question "Why is Plagiarism Wrong?"

Category of Reason	Gender		Family Education Level	
	Men (n=102) %	Women (n=156) %	High School (n=72) %	College (n=186) %
Individual Responsibility	35.29	21.79	26.39	27.42
Ownership	19.61	24.53	25.00	22.04
Fairness	19.61	29.49	22.22	26.88
Honesty	11.76	14.10	16.67	11.83
Laziness	4.90	1.92	2.78	3.23
Crime & Punishment	1.96	2.56	4.17	1.61
Miscellaneous	2.94	1.28	1.39	2.15
Unclassifiable	3.92	3.85	1.39	4.84

Note. The column figures indicate the percentage of students who indicated that a reason in a particular category was the sole or most important reason for why plagiarism is wrong; since students could indicate only one reason as most important, these columns sum to 100% (taking into consideration rounding error).

Hypothesis 2

There will be no statistically significant difference in the numerical level of agreement ratings of explanations about plagiarism (see questionnaire "Section II A. - Explanation Agreement Scale") given by men and women, or by high school family education level students and college family education level students.

Students responded to five short explanations of why a person should not plagiarize, rating the explanations according to how well they expressed the students' own views of why a person should not plagiarize. Table 6 shows the mean ratings (and variances) for each of the five explanations. Explanations based on Self-Respect and on Fairness received the highest mean ratings within and between all four comparison groups (men, women, high school family education level students and college family education level students), being separated only by fractional differences. Though receiving not as high ratings, the three remaining explanations received similar mean ratings both within and between comparison groups, again being separated only by fractional differences. All five explanations, both within and between groups, exhibited fairly similar variances.

Examination of Table 7 depicts that for the explanation based on Self-Respect the difference in means

between men (3.76) and women (4.03) was statistically significant ($p < .05$). No statistical significance was found between the mean rating of high school family education level students (3.93) and college family education level students (3.92), or for the interaction effect of gender and family education level.

Table 8 indicates that for the explanation based on Fairness the difference in means between men (3.76) and women (4.06) was statistically significant ($p < .05$). No statistical significance was found between the mean rating of high school family education level students (4.06) and college family education level students (3.90), or for the interaction effect of gender and family education level.

The mean ratings for the explanation based on Consequences for the Academic Community, as described in Table 9, were not statistically significant between any of the comparison groups.

For the explanation based on Obedience to Rules, Table 10 discloses that the difference in means between men (3.12) and women (3.60) was statistically significant ($p < .001$). No statistical significance was found between the mean rating of high school family education level students (3.43) and college family education level students (3.40), or for the interaction effect of gender and family education level.

Table 11 indicates that the mean ratings for the explanation based on the Teacher-Student Relationship were

Table 6

Mean Ratings and Standard Deviations of Explanations of Plagiarism

Explanation Based Upon	Gender		Family Education Level	
	Men n=102 (S.D.)	Women n=156 (S.D.)	High School n=72 (S.D.)	College n=186 (S.D.)
Self-Respect	3.76 (1.04)	4.03 (.92)	3.93 (1.00)	3.92 (.97)
Fairness	3.76 (1.16)	4.06 (1.09)	4.06 (1.05)	3.90 (1.16)
Consequences for The Academic Community	3.05 (1.16)	3.26 (1.08)	3.17 (1.10)	3.18 (1.13)
Obedience to Rules	3.12 (1.20)	3.60 (1.03)	3.43 (1.12)	3.40 (1.13)
Teacher-Student Relationship	3.34 (1.19)	3.54 (1.09)	3.38 (1.22)	3.49 (1.10)

Standard Deviation is in parentheses below mean.

Table 7

Analysis of Variance for Self-Respect Explanation

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	4.411	2	2.205	2.342
Gender	4.409	1	4.409	4.682*
FEL[a]	.002	1	.002	.003
2-Way Inter-actions	.005	1	.005	.006
Gender & FEL	.005	1	.005	.006
Explained	4.416	3	1.472	.563
Residual	239.185	254	.942	
Total	243.601	257	.948	

[a]Family Education Level

* $p < .05$

not statistically significant between any of the comparison groups.

Hypothesis 3

There will be no difference in the numerical ranking of explanations about plagiarism (see questionnaire "Section II B. - Explanation Rank Ordering") given by men and women, or by high school family education level students and college family education level students.

Students responded to 5 short explanations of why a person should not plagiarize, ranking the explanations in the order in which they expressed the students' views of why a person should not plagiarize. Table 12 indicates that for men (31.37%) and women (39.74%) alike, the most important reason for not plagiarizing had to do with the idea of Self Respect. Men (29.41%) and women (36.54%) were also alike in ranking their second most important reason for not plagiarizing as pertaining to thoughts of Fairness. Reasons related to Consequences for the Academic Community and reasons referring to the Teacher-Student Relationship tied for third in importance (8.33% each) among the women. The explanation related to the Teacher-Student Relationship was ranked third in importance (13.73%) among men. Reasons involving Consequences for the Academic Community and reasons regarding Obedience to Rules tied for fourth in importance (12.75% each) among the men. Women ranked the

Table 8

Analysis of Variance for Fairness Explanation

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	6.369	2	3.185	2.534
Gender	5.078	1	5.078	4.042*
FEL[a]	1.075	1	1.075	.856
2-Way Inter-actions	.589	1	.589	.469
Gender & FEL	.589	1	.589	.469
Explained	6.959	3	2.320	1.846
Residual	319.169	254	1.257	
Total	326.128	257	1.269	

[a]Family Education Level

* $p < .05$

Table 9

Analysis of Variance for Consequences for the Academic Community Explanation

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	2.885	2	1.428	1.137
Gender	2.842	1	2.842	2.263
FEL[a]	.036	1	.036	.029
2-Way Interactions	.048	1	.048	.038
Gender & FEL	.048	1	.048	.038
Explained	2.903	3	.968	.771
Residual	318.895	254	1.255	
Total	321.798	257	1.252	

[a]Family Education Level

Table 10

Analysis of Variance for Obedience to Rules Explanation

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	14.127	2	7.063	5.801
Gender	14.071	1	14.071	11.557*
FEL[a]	.005	1	.005	.004
2-Way Interactions	.872	1	.872	.716
Gender & FEL	.872	1	.872	.716
Explained	14.999	3	5.000	4.106
Residual	309.269	254	1.218	
Total	324.267	257	1.262	

[a]Family Education Level

* $p < .001$

Table 11

Analysis of Variance for Teacher-Student Relationship Explanation

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	3.217	2	1.609	1.254
Gender	2.474	1	2.474	1.928
FEL[a]	.864	1	.864	.673
2-Way Inter-actions	.964	1	.964	.751
Gender & FEL	.964	1	.964	.751
Explained	4.181	3	1.394	1.086
Residual	325.931	254	1.283	
Total	330.112	257	1.284	

[a]Family Education Level

Table 12

Percent of Students Ranking Each Explanation of Plagiarism as First in Importance

Explanation Based Upon	Gender		Family Education Level	
	Men (n=102)	Women (n=156)	High School (n=72)	College (n=186)
Self-Respect	31.37	39.74	26.39	40.32
Fairness	29.41	36.54	36.11	32.80
Consequences for The Academic Community	12.75	8.33	8.33	10.75
Obedience to Rules	12.75	7.05	13.89	7.53
Teacher-Student Relationship	13.73	8.33	15.28	8.60

Note. The column figures indicate the percentage of students who indicated that a particular explanation was the most important explanation for why a person should not plagiarize; since students could rank only one explanation as most important, these columns sum to 100% (taking into consideration rounding error).

explanation reflecting a reason for not plagiarizing based on Obedience to Rules last in importance (7.05%).

Table 12 also indicates that among HSFEL students the most important (36.11%) reason to not plagiarize was the reason based on Fairness. This differed for the CFEL students, who indicated as their most important (40.32%) reason the one related to Self-Respect. The explanation referring to Self-Respect was second in importance (26.39%) among the HSFEL students, while the explanation referring to Fairness was second in importance (32.80%) for the CFEL students. HSFEL students ranked the reason related to the Teacher-Student Relationship third (15.28%), and the reason related to Obedience to Rules fourth (13.89%) in importance. CFEL students ranked the explanation referring to Consequences for the Academic Community third (10.75%), and the explanation referring to the Teacher-Student Relationship (8.60%) fourth in importance. The reason ranked last in importance by HSFEL students was the one involving Consequences for the Academic Community (8.33%), while the reason ranked last in importance by CFEL students was the one related to Obedience to Rules (7.53%).

Hypothesis 4

There will be no statistically significant difference in the numerical level of agreement ratings of statements about plagiarism (see questionnaire "Section III - Statement Agreement Scale") given by men and women, or by

high school family education level students and college family education level students.

Students were asked to rate, in terms of strength of agreement, eight statements about plagiarism. The mean ratings (and variances) of these 8 statements are found in Table 13. As disclosed in Table 13, while the exact strength of agreement with each statement varied between men and women, five statements emerged in the same order of agreement for both gender groups. In descending order from the highest mean (men = 3.64; women = 4.00), these statements were as follows: Angry, Plagiarism is Always Wrong, Plagiarist Should Fail, Persuade Another Not to Plagiarize and Do Not Care (for full text of statements see Appendix A). The statement referring to Situations Forced to Plagiarized had the sixth highest mean (2.54) among men, while the Persuade to Confess statement received the sixth highest mean (2.47) among women. The Persuade to Confess statement had the seventh highest mean (2.14) among men, as did the Situations Forced to Plagiarized statement (2.31) among women. Finally, the Report Student statement received the lowest mean rating among both gender groups (men = 1.92; women = 2.12).

Table 13 also shows that the statement with the two highest mean ratings differed between HSFEL students and CFEL students. The Plagiarism is Always Wrong statement received the highest mean rating (3.89) among the HSFEL

students, while the Angry statement received the highest mean rating (3.85) among CFEL students. The Angry statement received the second highest mean rating (3.86) among the HSFEL students and the Plagiarism is Always Wrong statement received the second highest mean rating (3.71) among the CFEL students. While the exact strength of agreement with each statement varied between HSFEL students and CFEL students, three statements emerged in the same order of agreement between both family education level groups. In descending order from the statement with the third highest mean (HSFEL mean = 3.76; CFEL mean = 3.49), these statements were as follows: Plagiarist Should Fail, Persuade Another Not to Plagiarize, and Do Not Care. The statement receiving the sixth highest mean rating (2.42) among HSFEL students was the Persuade to Confess statement. The statement with the sixth highest mean rating (2.41) among the CFEL students was the Situations Forced to Plagiarize statement. The Situations Forced to Plagiarize statement had the next to lowest mean rating (2.38) among HSFEL students, as did the Persuade to Confess statement (2.31) among the CFEL students. Both family education level groups had the Report Student statement rated lowest (HSFEL = 2.17; CFEL = 1.99).

Examination of Table 14 shows that for the Angry statement the difference in means between men (3.64) and women (4.00) was statistically significant ($p < .05$). No statistical significance was found between the mean rating

Table 13

Mean Ratings and Standard Deviations of Statements About Plagiarism

Statement	Gender		Family Education Level	
	Men n=102 (S.D.)	Women n=156 (S.D.)	High School n=72 (S.D.)	College n=186 (S.D.)
Feel Angry (item A)	3.64 (1.14)	4.00 (.98)	3.86 (1.03)	3.85 (1.08)
Situations Forced to Plagiarize (item B)	2.54 (1.36)	2.31 (1.29)	2.38 (1.36)	2.41 (1.31)
Persuade Another Not to Plagiarize (item C)	3.25 (1.17)	3.35 (1.15)	3.33 (1.14)	3.30 (1.17)
Do Not Care (item D)	2.99 (1.31)	2.54 (1.19)	2.78 (1.19)	2.69 (1.29)
Persuade to Confess (item E)	2.14 (1.03)	2.47 (1.03)	2.42 (1.04)	2.31 (1.04)
Plagiarism is Always Wrong (item F)	3.56 (1.35)	3.89 (1.17)	3.89 (1.21)	3.71 (1.27)
Plagiarist Should Fail (item G)	3.49 (1.25)	3.62 (1.21)	3.76 (1.25)	3.49 (1.21)
Report Student (item H)	1.92 (1.13)	2.12 (1.08)	2.17 (1.14)	1.99 (1.09)

Standard Deviation is in parentheses below mean.

of high school family education level students (3.86) and college family education level students (3.85), or for the interaction effect of gender and family education level.

The mean ratings for the Situations Forced to Plagiarize statement, as described in Table 15, were not statistically significant between any of the comparison groups.

Table 16 indicates that the mean ratings for the Persuade Another Not to Plagiarize statement were not statistically significant between any of the comparison groups.

Table 17 depicts that for the Do Not Care statement the difference in means between men (2.99) and women (2.54) was statistically significant ($p < .05$). No statistical significance was found between the mean rating of HSFEL students (2.78) and CFEL students (2.69), or for the interaction effect of gender and family education level.

For the Persuade to Confess statement, Table 18 discloses that the difference in means between men (2.14) and women (2.47) was statistically significant ($p < .01$). No statistical significance was found between the mean rating of HSFEL students (2.42) and CFEL students (2.31), or for the interaction effect of gender and family education level.

Review of Table 19 indicates that for the Plagiarism is Always Wrong statement the difference in means between men (3.56) and women (3.89) was statistically significant

Table 14

Analysis of Variance for Feel Angry Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	8.122	2	4.061	3.664
Gender	8.120	1	8.120	7.325*
FEL[a]	.006	1	.006	.006
2-Way Inter-actions	.034	1	.034	.031
Gender & FEL	.034	1	.034	.031
Explained	8.156	3	2.719	2.453
Residual	281.538	254	1.108	
Total	289.694	257	1.127	

[a]Family Education Level

* $p < .01$

Table 15

Analysis of Variance for Situations Forced to Plagiarize Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	3.167	2	1.584	.907
Gender	3.088	1	3.088	1.770
FEL[a]	.042	1	.042	.024
2-Way Interactions	1.648	1	1.648	.944
Gender & FEL	1.648	1	1.648	.944
Explained	4.815	3	1.605	.920
Residual	443.263	254	1.745	
Total	448.078	257	1.743	

[a]Family Education Level

Table 16

Analysis of Variance for Persuade Another Not to Plagiarize Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	.751	2	.375	.279
Gender	.697	1	.697	.518
FEL[a]	.038	1	.038	.029
2-Way Interactions	.793	1	.793	.589
Gender & FEL	.793	1	.793	.589
Explained	1.543	3	.514	.382
Residual	341.651	254	1.345	
Total	343.194	257	1.335	

[a]Family Education Level

Table 17

Analysis of Variance for Do Not Care Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	13.166	2	6.583	4.283
Gender	12.798	1	12.798	8.326*
FEL[a]	.581	1	.581	.378
2-Way Inter-actions	2.770	1	2.770	1.802
Gender & FEL	2.770	1	2.770	1.802
Explained	15.936	3	5.312	3.456
Residual	390.408	254	1.537	
Total	406.345	257	1.581	

[a]Family Education Level

* $p < .01$

($p < .05$). No statistical significance was found between the mean rating of HSFEL students (3.89) and CFEL students (3.71), or for the interaction effect of gender and family education level.

The mean ratings for the Plagiarist Should Fail statement, as indicated in Table 20, were not statistically significant between any of the comparison groups.

Table 21 indicates that the mean ratings for the Report Student statement were not statistically significant between any of the comparison groups.

Table 18

Analysis of Variance for Persuade to Confess Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	7.419	2	3.709	3.485
Gender	6.848	1	6.848	6.435*
FEL[a]	.410	1	.410	.386
2-Way Inter-actions	.240	1	.240	.226
Gender & FEL	.240	1	.240	.226
Explained	7.659	3	2.553	2.399
Residual	270.325	254	1.064	
Total	277.984	257	1.082	

[a]Family Education Level

* $p < .01$

Table 19

Analysis of Variance for Plagiarism is Always Wrong Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	8.195	2	4.098	2.637
Gender	6.528	1	6.528	4.202*
FEL[a]	1.389	1	1.389	.894
2-Way Inter-actions	.239	1	.239	.154
Gender & FEL	.239	1	.239	.154
Explained	8.434	3	2.811	1.809
Residual	394.667	254	1.554	
Total	403.101	257	1.568	

[a]Family Education Level

* $p < .05$

Table 20

Analysis of Variance for Plagiarist Should Fail Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	4.666	2	2.333	1.550
Gender	.902	1	.902	.600
FEL[a]	3.598	1	3.598	2.391
2-Way Interactions	.381	1	.381	.253
Gender & FEL	.381	1	.381	.253
Explained	5.047	3	1.682	1.118
Residual	382.197	254	1.505	
Total	387.244	257	1.507	

[a]Family Education Level

Table 21

Analysis of Variance for Report Student Statement Rating

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F
Main Effects	3.788	2	1.894	1.553
Gender	2.154	1	2.154	1.766
FEL[a]	1.472	1	1.472	1.206
2-Way Inter-actions	.004	1	.004	.003
Gender & FEL	.004	1	.004	.003
Explained	3.793	3	1.264	1.036
Residual	309.820	254	1.220	
Total	313.612	257	1.220	

[a]Family Education Level

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

A review of literature revealed that American colleges and universities are attempting to determine appropriate ways of dealing with the large number of incidences of academic dishonesty. One of the most consistently recommended approaches is the utilization of faculty-led discussions with students which give them the opportunity to confront the ethical implications of cheating behavior. While the content of these ethical discussions may vary somewhat, what is noticeably missing in most of them is a consideration of how students themselves conceptualize the issue of cheating. Although there have been numerous research studies which have focused on behavior and attitudes, personality characteristics of cheaters, and the environmental factors associated with cheating, only one previous study (Kroll, 1988) has examined college students' conceptions of why it is wrong to cheat; this, despite the fact that it would seem logical to consider college students' own moral frames of reference when explaining the ethics of cheating.

The research population consisted of a total of 258 students who chose to participate in this study by completing a questionnaire that was administered in class by assisting faculty during the Fall, 1991 semester.

The purpose of this study was to investigate, by means of a questionnaire, what a randomly identified cross section of college students at a small, private liberal arts college located in the mid-Atlantic region thought about the form of cheating known as "plagiarism," describing the reasons they thought it was wrong as a function of their gender (male or female), their family education level (high school or college), and the interaction of their gender and family education level.

Four research hypotheses evolved from the statement of purpose:

1. There will be no difference in the types of reasons (see questionnaire "Section I - Free Response") given by men and women, or by high school family education level students and college family education level students, when responding to the question "Why is plagiarism wrong?"

2. There will be no statistically significant difference in the numerical level of agreement ratings of explanations about plagiarism (see questionnaire "Section II A. - Explanation Agreement Scale") given by men and women, or by high school family education level students and college family education level students.

3. There will be no difference in the numerical ranking of explanations about plagiarism (see questionnaire "Section II B. - Explanation Rank Ordering") given by men and women, or by high school family education level students and college family education level students.

4. There will be no statistically significant difference in the numerical level of agreement ratings of statements about plagiarism (see questionnaire "Section III - Statement Agreement Scale") given by men and women, or by high school family education level students and college family education level students.

An analysis of frequencies and percentages revealed that most of the 258 students who participated in this study were female, ages 18-21 and either sophomores or juniors. The two most represented academic major categories were Science/Technology and History/Social Science, accounting for nearly 50% of the sample members. Each of the three academic major categories of Education, Nursing and Undecided all had fewer than 10% representation in the sample. Almost 90% of the students had self-reported cumulative grade-point-averages of 2.50 or higher. Finally, almost 75% of the sample indicated they came from families where at least one other member had previously attended college; a little less than a third of the students in the sample were first generation college students.

Results of Hypothesis 1

Student responses to the question "Why is plagiarism wrong?" were classified according to 6 primary reasons (in addition to Miscellaneous and Unclassifiable). The majority of the men gave responses involving notions of Individual Responsibility (59.80%) and Fairness (36.27%). Women tended to be more evenly divided between reporting responses involving ideas of Individual Responsibility and Fairness. Responses with a view toward Ownership were revealed to be the third most frequent among both men (28.43%) and women (35.90%). Crime and Punishment and Miscellaneous responses were not indicated by more than 10% of either male or female students.

The Individual Responsibility oriented response was the one most frequently given by a nearly identical percentage of students, whether they designated themselves as being from a high school family education level (HSFEL) or a college family education level (CFEL). A nearly identical percentage of HSFEL students and CFEL students also gave responses involving the idea of Fairness as the second most frequently occurring response. Third in frequency were those responses oriented towards Ownership. Crime and Punishment and Miscellaneous responses were not indicated by more than 8% of either HSFEL or CFEL students.

Response analysis also disclosed the percentage of students that indicated a particular response as their most important reason for why plagiarism is wrong. While the

majority of the men (35.29%) indicated a reason based on Individual Responsibility as the most important, the majority of the women (29.49%) indicated a reason based on Fairness as most important. Reasons citing Ownership and Fairness tied for second in importance among the men. Comparatively, women ranked a reason based on Ownership as second in importance and on Individual Responsibility as third in importance. The least number of men (1.96%) indicated a rationale with a Crime & Punishment focus as most important; the least mentioned rationale in terms of importance by women (1.28%) was that categorized as Miscellaneous.

A reason for not plagiarizing based on Individual Responsibility was most important for a similar percentage of both HSFEL students and CFEL students. However, HSFEL students next preferred a rationale based on Ownership (25.00%), while the CFEL students next preferred a rationale based on Fairness (26.88%). Reasons based on Fairness and on Ownership were indicated by a nearly identical percentage of the HSFEL students and the CFEL students, as third in importance. Reasons determined to be Miscellaneous and Unclassifiable were tied for sixth in importance (1.39% each) among HSFEL students. Reasons categorized as Miscellaneous ranked sixth, and those with a Crime and Punishment focus seventh among CFEL students.

Results of Hypothesis 2

Students responded to 5 short explanations of why a person should not plagiarize, rating the explanations according to how well they expressed the students' own views of why a person should not plagiarize. Explanations based on Self-Respect and on Fairness received the highest mean ratings within and between all four comparison groups (men, women, HSFEL students and CFEL students), being separated only by fractional differences. Though receiving not as high ratings, the three remaining explanations received similar mean ratings both within and between comparison groups, again being separated only by fractional differences. All five explanations, both within and between groups, exhibited fairly similar variances.

For explanations based on Self-Respect and Fairness, the difference in means between men and women was statistically significant ($p < .05$). For the explanation based on Obedience to Rules the difference in means between men and women was also statistically significant ($p < .001$). The mean ratings for explanations based on Consequences for the Academic Community and the Teacher-Student Relationship were not statistically significant between the gender comparison groups. No statistical significance was found between the mean ratings of HSFEL students and CFEL students, or for the interaction effect of gender and family education level, for any of the explanations.

Results of Hypothesis 3

Students responded to 5 short explanations of why a person should not plagiarize, ranking the explanations in the order in which they expressed the students' views of why a person should not plagiarize. It was revealed that for men (31.37%) and women (39.74%) alike, the most important reason for not plagiarizing had to do with the idea of Self Respect. Men and women were also alike in ranking their second most important reason for not plagiarizing as pertaining to thoughts of Fairness. Reasons related to Consequences for the Academic Community and reasons referring to the Teacher-Student Relationship were third in importance (8.33% each) among the women. The explanation related to the Teacher-Student Relationship was ranked third in importance (13.73%) among men. For women, Obedience to Rules was the least important explanation for not plagiarizing.

Among HSFEL students the most important reason to not plagiarize was the reason based on Fairness. This differed for the CFEL students, who indicated as their most important reason the one related to Self-Respect. The explanation referring to Self-Respect was second in importance (26.39%) among the HSFEL students, while the explanation referring to Fairness was second in importance (32.80%) for the CFEL students. The reason ranked last in importance by high school family education level students

was the one involving Consequences for the Academic Community (8.33%), while the reason ranked last in importance by college family education level students was the one related to Obedience to Rules (7.53%).

Results of Hypothesis 4

Students were asked to rate, in terms of strength of agreement, a series of 8 statements about plagiarism. While the exact strength of agreement with each statement varied between men and women, five statements emerged in the same order of strength of agreement between both gender groups. In descending order from the highest mean (men = 3.64; women = 4.00), these statements were as follows: Angry, Plagiarism is Always Wrong, Plagiarist Should Fail, Persuade Another Not to Plagiarize and Do Not Care. The Report Student statement received the lowest mean rating among both gender groups (men = 1.92; women = 2.12).

The Plagiarism is Always Wrong statement received the highest mean rating (3.89) among the HSFEL students, while the Angry statement received the highest mean rating (3.85) among CFEL students. The Angry statement received the second highest mean rating among the HSFEL students, while the Plagiarism is Always Wrong statement received the second highest mean rating among the CFEL students. While the exact strength of agreement with each statement varied between HSFEL students and CFEL students, three statements emerged in the same order of agreement between both family education level groups. In descending order from the

statement with the third highest mean (HSFEL = 3.76; CFEL = 3.49), these statements were as follows: Plagiarist Should Fail, Persuade Another Not to Plagiarize, and Do Not Care. Both family education level groups had the Report Student statement rated lowest (HSFEL = 2.17; CFEL = 1.99).

It was found that for the Angry, Do Not Care and Plagiarism is Always Wrong statements the difference in means between men and women were statistically significant ($p < .05$). The difference in means between men and women were also statistically significant ($p < .01$) for the Persuade to Confess statement. There was no statistical significance between the means of men or women for the following statements: Situations Forced to Plagiarize, Persuade Another to Confess, Plagiarist Should Fail and Report Student. Additionally, no statistical significance was found between the mean ratings of HSFEL students and CFEL students, or for the interaction effect of gender and family education level, for any of the statements.

Conclusions

The findings of this investigation lead to some generalizations about how the students who participated think about plagiarism. While this study and the findings were similar to the pioneering work in this area by Kroll (1988), the findings of this investigation apply only to the students who participated and may not generalize to other students at this college or elsewhere. With those

qualifications, the following conclusions seem to be suggested from the data.

Students' Reasons for Why Plagiarism is Wrong

Three issues dominated the students' (all comparison groups) own responses to why they thought plagiarism was wrong, and they were also reflected in the students' responses to the explanations they were asked to rate (see "Explanations" below). Students indicated they had an individual responsibility not to plagiarize, either because plagiarism involved cheating oneself (usually out of learning), or because it violated a duty to do one's own work (and thus to use one's own mind or creative capacity). Students also indicated they should not plagiarize because to do so would be unfair. Two major concepts were included in these responses: that an injustice occurs when an author does not get the credit he or she deserves, and that an injustice occurs when a person gets undeserved credit by plagiarizing. Finally, students indicated that one should not plagiarize because it involves the theft of someone else's property or possessions, a crime analogous to stealing a car or a stereo. These findings suggest that while not all college students construe plagiarism in exactly the same way, many students--certainly the majority in this study--explain it in terms of a small number of familiar ethical issues: fairness to authors and other students, the responsibility to learn through independent work, and respect for ownership rights. It therefore seems

that a desire for a just and fair system of rewards--for authors and students alike--is a fundamental issue for these students.

Since these responses are in the students' own words, it is believed by the researcher that they provide the best evidence for how these students view plagiarism. Ideally, of course, the results from this method and the method of rating explanations (see "Explanations" below) would complement and support each other. And, in part, they do. But it was also evident that the students' own responses and the five explanations did not always correspond in a way that afforded easy comparisons. For example, some explanations conflated several issues that were regarded as separate reasons in the student statements (e.g., the explanation based on Self-Respect incorporates elements of dishonesty and laziness, as well as responsibility to oneself--elements that were coded as separate reasons in the analysis of students' own explanations of plagiarism).

Explanations of Why a Person Should Not Plagiarize

Consistent with students' own reasons for why plagiarism is wrong (see "Students' Reasons for Why Plagiarism is Wrong" above) the majority of both the men and women rated the explanations based on Self-Respect and on Fairness highest. This same preference for the explanations based on Self-Respect and on Fairness was found when examining the ranking assigned by men and women, although the explanation based on Fairness was somewhat

lower for men. Men and women were also similar in regard to the explanation receiving the lowest rating, that being Consequences for the Academic Community. While these students may desire that a just and fair system of rewards govern the academic community (see "Students' Reasons for Why Plagiarism is Wrong" above), perhaps they do not view their own values as consistent with the academic community values when "in fact" they may be consistent.

The majority of both the HSFEL students and the CFEL students also preferred the explanations based on Self-Respect and on Fairness. Within their respective groups, the mean ratings for each of these two explanations were very similar, being separated by only fractional differences. Between groups there was not a statistically significant difference in the ratings for these two explanations, suggesting that family education level may not influence how these students think about plagiarism. This same preference for the explanations based on Self-Respect and on Fairness was found when examining the ranking assigned by HSFEL students and CFEL students, although the explanation based on Self-Respect was somewhat lower for HSFEL students. HSFEL students and CFEL students were also similar in regard to the explanation receiving the lowest rating, that being Consequences for the Academic Community. Two relatively large differences between CFEL students and HSFEL students were indicated in the ranking of the explanations based on Obedience to Rules and on the

Teacher-Student Relationship. It would seem that HSFEL students are, in each case, almost twice as much concerned about these two explanations as are CFEL students. It may be that HSFEL students are more concerned with external sources of authority or approval (ie., meeting the expectations of others) than are CFEL students. While sounding contradictory, this conclusion may be consistent with the finding that the lowest rated explanation had to do with Consequences for the Academic Community. Perhaps these students see the academic community as being a source of authority, but yet do not understand that that authority can be eroded through actions such as plagiarism. In effect, these students may view the academic community as an absolute authority, one which is "untouchable."

Statements About Plagiarism

Statements A (Feel Angry), D (Do Not Care) and G (Plagiarist Should Fail) all involve students' feelings about a situation in which other students are plagiarizing. The relatively high mean ratings on A and G, the low rating on D indicate that students in this study do care about plagiarism, that they are angry when it occurs and that they believe plagiarists should be punished. Statements C (Persuade Another Not to Plagiarize), E (Persuade to Confess) and H (Report Student) all focus on the students' propensity to take personal action against plagiarists. The ratings of these statements suggests that students in this study are reluctant to take action when it involves

reporting plagiarism to an authority (H), somewhat more willing to persuade a student to confess (E), and most willing to talk another student out of plagiarizing (C). Finally, statements B (Situations Forced to Plagiarize) and F (Plagiarism is Always Wrong) involve the issue of whether plagiarism is always wrong. The students' high rating of statement F and relatively low rating of statement B may indicate a tendency to reject statements reflecting a relativistic position on the morality of plagiarism.

The ratings of statements about plagiarism seem to reveal fairly consistent differences between men and women. First, the women in this study appear to be somewhat more definite in their view of plagiarism, because they agreed more strongly (statistically) then the men with the statement that Plagiarism is Always Wrong (F) and gave a lower (although not statistically significant) rating to the statement that there are situations in which a student might be Forced to Plagiarize (B). Second, the women expressed a stronger reaction to plagiarism, giving a statistically significant higher rating to the Feel Angry statement if another student plagiarized (A); a higher mean rating was also given by women than men to the statement that if a student was caught plagiarizing he or she would Deserve to Fail the course (G), although the difference between ratings was not statistically significant. Third, women gave a statistically significant lower rating to the statement that they Do Not Care if other students wanted to

plagiarize (D). Finally, the ratings by women suggest that they may be more likely than men to consider taking some kind of action against plagiarizing. Women gave a higher, although not statistically significant, rating to the statement that they would try to Persuade Another Not to Plagiarize (C), a higher and statistically significant rating to the statement that they would try to Persuade to Confess (E), and a slightly higher (although still low and not statistically significant) rating to the statement that they would Report Student to the instructor (H). These findings may be reflective of the women reasoning about plagiarism in terms of Kohlberg's (1971) socio-centric view ("Stage 4"), in which behavior is the result of conformity and a desire to maintain social order. This view differentiates society's point of view from interpersonal agreement or interpersonal motives. "Right" is doing one's duty in society, upholding the social order, upholding the welfare of society or one's sub-society.

The ratings of statements about plagiarism also appear to reveal fairly consistent differences between students from a HSFEL and a CFEL. First, the HSFEL students in this study appear to be more definite in their view of plagiarism, because they agreed more strongly (although not statistically significant) then the CFEL students with the statement that Plagiarism is Always Wrong (F) and gave a lower (but again not statistically significant) rating to the statement that there are situations in which a student

might be Forced to Plagiarize (B). Second, the HSFEL students expressed a stronger reaction to plagiarism, giving a higher (yet not statistically significant) rating to the Feel Angry statement if another student plagiarized (A); a higher (but again not statistically significant) mean rating was also given by HSFEL students than CFEL students to the statement that if a student was caught plagiarizing he or she would Deserve to Fail the course (G). Third, CFEL students gave a lower (while not statistically significant) rating to the statement that they Do Not Care if other students wanted to plagiarize (D). Finally, the ratings of HSFEL students suggest that they may be more likely than the CFEL students to consider taking some kind of action against plagiarizing. The HSFEL students gave a higher, although not statistically significant, rating to the statement that they would try to Persuade Another Not to Plagiarize (C), a higher but not statistically significant rating to the statement that they would try to Persuade to Confess (E), and a slightly higher (although still low and not statistically significant) rating to the statement that they would Report Student to the instructor (H). As with the women of this study, if these ratings are an accurate indication of moral attitudes it may be difficult to escape the conclusion that the HSFEL students in this study are less sympathetic to plagiarism than are the CFEL students. It may also be the case that the CFEL students are reasoning about plagiarism from a

less advanced point of view than are the HSFEL students. The CFEL students (perhaps like the men) may be reasoning about plagiarism in terms of Kohlberg's (1971) "Stage 3," where "right" is living up to what is expected by people close to you, and where good behavior is that which pleases or helps others and is approved by them (versus society or social norms).

Recommendations

Based on the findings of this investigation, the following recommendations for implementation and further research are presented.

The question arises as to whether the use of faculty-led discussions is as effective as other approaches to changing student attitudes and/or behaviors about plagiarizing. Would suspension from school or being placed on disciplinary probation, in combination with an F grade in the course, challenge students' attitudes or reasoning to the same degree as faculty-led discussions about plagiarizing? Within the context of this study it is impossible to determine what factors make one approach more effective than another.

However it might be worth considering how a faculty member may typically approach the problem of dealing with a student caught plagiarizing. The faculty member may typically react by dispensing punishment only. This approach teaches two lessons: (a) the faculty member and

the College do not condone plagiarizing and (b) the students' behavior was inappropriate. Yet this approach does not teach the student substitute behaviors, encourage appropriate habits, or provide a supportive environment for their growth. The use of faculty-led discussions would at least seem to imply that faculty could focus on more than encouraging the cognitive mastery of a particular body of knowledge, and focusing on the reasons given by students for why plagiarism is wrong (as cited in Kroll, 1988 and as found in this study), attempt to encourage in students "the development of value systems, self-awareness, interpersonal skills, and community responsibility" (THE Project, 1974, p. 1). Presumably the effective condition for facilitating this kind of growth is providing concentrated practice in moral problem solving, stimulated by critical thinking (challenging one another's thinking, reexamining assumptions, being exposed to different points of view, building lines of argument, and responding to counter argument) among students and between faculty and students.

Further Research

1. A study could be conducted that would follow students over time in order to ascertain what effects faculty-led discussions have had on their thinking relative to plagiarism.

2. A study could be initiated to determine how students' concepts of plagiarism may be related to other antecedent variables such as age, academic class, grade

point average, co-curricular activities, career aspirations, etc.

3. An experimental study could be undertaken that would determine whether students who had been engaged in faculty-led discussions about plagiarism subsequently changed their behaviors related to plagiarism.

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APPENDICES

APPENDIX A

LETTER OF TRANSMITTAL,

ACKNOWLEDGEMENT OF INFORMED CONSENT

AND

SURVEY INSTRUMENT

LETTER OF TRANSMITTAL

September 2, 1991

Dear [faculty member's name]:

It does not seem possible that the summer is drawing to a close and that students will soon be returning to campus. I hope you have had an enjoyable summer and that you are looking forward to the beginning of the semester.

This summer has been a good one for myself. As you may know, for the past few years I have been working on my Ph.D. from Michigan State University. This summer I had the first three chapters of my dissertation approved, which I was very excited about. My research proposal was also approved by the Michigan State University Committee on Research Involving Human Subjects. What this means is that now I can actually conduct my study.

I am writing you today to solicit your assistance in conducting my study. You have been randomly selected as one of three faculty members from your academic division for assisting in my study. (Three faculty members from each of the six academic divisions have been identified.) Specifically, I would like you to consider administering a questionnaire to students in one of your classes. The questionnaire is designed to generate responses from students regarding their views on academic dishonesty. However, please be assured that in the analysis of the data there will NOT be any association or correlation made related to responses and your class or your academic division. What I am interested in looking at is if gender and/or family educational level will be related to the responses given by students. The actual administration of the questionnaire will not take up much of your class time. This summer I conducted two pilot studies, and most students were able to complete the questionnaire in approximately fifteen to twenty minutes.

I would be very appreciative, both personally and professionally, of your willingness to assist me in this study. I will assume you are willing to assist me unless I hear back from you. If you have any questions please feel free to call me. I will contact you again to discuss a convenient time to meet with you about the actual questionnaire administration procedure.

Sincerely,

Timothy S. Jenkins

ACKNOWLEDGEMENT OF INFORMED CONSENT

You are being asked to voluntarily complete this questionnaire about plagiarism. As you probably know, plagiarism involves presenting another person's words or ideas as if they were your own, without acknowledging the source. This questionnaire is designed to find out what students know and how they feel about the matter of plagiarism. If you decide to participate, it will take you approximately ten to fifteen minutes to complete the questionnaire.

As stated above, your completing this questionnaire is completely voluntary. You may refuse to participate totally, or you may refuse to answer only particular questions. If you initially decide to participate and later change your mind, that will be fine. There is no course penalty (for example, lowering your grade) for choosing not to participate. The questionnaire has nothing to do with this course. It is being administered as a part of the research being conducted by Tim Jenkins, Waynesburg College Associate Dean of Student Development, for his doctoral dissertation. Should you have any questions about this questionnaire or the research, you may contact Mr. Jenkins in the Student Development Office.

Since you do not have to put your name on the questionnaire, you can be sure that your responses will be completely anonymous. There will be no way to personally link you to your responses. Mr. Jenkins only knows those faculty members which have agreed to assist him; Mr. Jenkins does not know in which classes the questionnaire is actually being administered. The completed questionnaires will be returned to Mr. Jenkins in sealed envelopes, through campus mail; he will not even know from which assisting faculty member they are from. It is hoped that anonymity makes you feel free to say what you really think on the issue of plagiarism--not what you have been told to think, and not what you think you should say to make yourself look good.

You indicate your voluntary agreement to participate by completing and returning this questionnaire.

SURVEY QUESTIONNAIRE

You are being asked to complete this questionnaire about plagiarism. As you probably know, plagiarism involves presenting another person's words or ideas as if they were your own, without acknowledging the source. This questionnaire is designed to find out what students know and how they feel about the matter of plagiarism. Please answer the questions in this booklet as fully and honestly as you can. Since you do not have to put your name on the questionnaire, you can be sure that your responses are completely anonymous. It is hoped that anonymity makes you feel free to say what you really think on the issue of plagiarism--not what you have been told to think, and not what you think you should say to make yourself look good.

BACKGROUND INFORMATION

Please provide the following background information:

1. Gender: Male ___ Female ___

2. Age: ___

3. Class Status: Fresh. ___ Soph. ___ Jun. ___ Sen. ___

4. Academic Major: _____

5. Cumulative Grade-Point-Average: _____

6. Are you the first person in your immediate family (parent[s], guardian[s], or sibling[s]) to attend college? Yes ___ No ___

INSTRUCTIONS

In the three sections which follow, you will find two different types of questions. In the first section you will find a situation described and then asked to write a short response. An example of both this type of situation statement (in standard print) and response (in italics) is provided below:

Most students would agree that they like to go to McDonalds for meals. But **WHY** do they like to eat there? Please write your response in the space below.

I like to go to McDonalds because the food is good. Wherever you are you know it will taste the same. It is also reasonably priced, and you can get it "to go" if you are in a hurry.

Following your written response there will be this set of instructions:

"If you mentioned more than one reason, please put brackets [ ] around **EACH SEPARATE REASON** and rank order each reason to indicate how important that reason is in explaining your response (starting with 1. for the most important reason, 2. for the next most important, etc). Put the number at the beginning of each bracketed reason, in front of each left-handed bracket."

Except that you may rank order the reasons differently in terms of their importance to you, after completing the above instructions the example response would look like this:

I like to go to McDonalds because 4.[the food is good.] Wherever you are 3.[you know it will always taste the same.] It is also 1.[reasonably priced,] and 2.[you can get it "to go"] if you are in a hurry.

In the second and third sections of this questionnaire you will find explanations that ask you to indicate the level of your agreement with each of the explanations provided by responding on a five point scale. Examples of the instructions, explanations, and five point scale, are provided below:

Most students would agree that they like to go to McDonalds for meals. But **WHY** do they like to eat there?

"Rate the explanations below, based on how closely the explanation comes to expressing your own view."

Scale:

1=does not express my views
2=expresses my views only slightly
3=expresses my views to some extent
4=expresses my views fairly well
5=expresses my views very well

____ A. Because their time is so valuable, college students need to eat at places that serve their food quickly.

1 *2* *3* *4* *5*

____ B. It doesn't matter how quickly the food is served; today's college students are health conscious and will eat at places that serve food that is nutritious.

1 *2* *3* *4* *5*

At the end of the second section there will be this additional set of instructions:

"NOW, GO BACK AND RANK ORDER ALL FIVE EXPLANATIONS from the one that best expresses your own view (using the number 1.) to the one that least expresses it (using the number 5.). For each explanation, place your ranking in the left margin next to the question number. Use each rank order number only once."

After completing the above instructions the example responses may look like this (notice the ranking is written in the left margin next to the question number):

____ A. Because their time is so valuable, college students need to eat at places that serve their food quickly.

1 2 3 4 5

____ B. It doesn't matter how quickly the food is served; today's college students are health conscious and will eat at places that serve food that is nutritious.

1 2 3 4 5

Remember you are to use each rank order number only once. Therefore you will have to decide different rank orders for statements you have rated the same (as in examples A and B above) while using the five point scale.

You are now ready to begin. However, DO NOT actually do so until you are told to begin by the instructor.

SECTION I - FREE RESPONSE

Please answer the questions in this booklet as fully and honestly as you can. Since you do not have to put your name on the questionnaire, you can be sure that your responses are completely anonymous. It is hoped that anonymity makes you feel free to say what you really think on the issue of plagiarism--not what you have been told to think, and not what you think you should say to make yourself look good.

A typical college "Policy on Academic Dishonesty" might state the following:

> Plagiarism: A student must not intentionally adopt or reproduce ideas, words, or statements of another person without acknowledgement (for example, copying word-for-word from a book and not putting quotation marks around the text in your report, thus not indicating the source; or, explaining in a report that you have come up with a new way of looking at something, when in fact the new way of looking at something was the idea of someone else).

1. **Most students would agree it is "wrong" to plagiarize. But <u>WHY</u> is it wrong? Please write your response in the space below.**

If you mentioned more than one reason, please put brackets [ ] around **EACH SEPARATE REASON** and rank each reason to indicate how important that reason is in explaining your response (starting with 1. for the most important, 2. for the next most important, etc.). Put the number at the beginning of each bracketed reason, in front of each left-handed bracket. (If you are uncertain about how to do this bracketing, look back at the instructions on page 2.)

When you have finished this section go on to the next. You are not to return to this section again.

SECTION II - EXPLANATIONS ABOUT PLAGIARISM

Part A. - Explanation Agreement Scale

Most students would agree it is "wrong" to plagiarize. But WHY is it wrong?

Rate each of the five explanations below, based on how closely the explanation comes to expressing your own view of why students should not plagiarize. Using the five point scale, circle the number which corresponds to your response for each explanation. You may find that you agree with several (perhaps even all) of these explanations. But please try to differentiate between those explanations that express your views only slightly (even though you might agree with them).

Rating Scale:

1=does not express my views
2=expresses my views only slightly
3=expresses my views to some extent
4=expresses my views fairly well
5=expresses my views very well

Rank

____ 1. College students owe it to themselves to try always to act in a way that they can feel proud about. Plagiarizing, however, is nothing to feel proud of because it is an admission of carelessness, laziness, or (most seriously of all) dishonesty. Plagiarizing a paper ultimately diminishes one's own sense of integrity, honor, and self-esteem. If you want to keep your self-respect, do not plagiarize.

Rating: *1* *2* *3* *4* *5*

____ 2. It is simply not fair when students get credit for work they did not do themselves. By copying, the plagiarist is likely to produce a paper that makes other students' work look weak by comparison. Thus the plagiarist cheats those students in the class who are attempting, on their own, to do their best work. If you want to be fair to other students, do not plagiarize.

Rating: *1* *2* *3* *4* *5*

Rank

____ 3. When students go to college they join a community whose members value original thinking and believe new ideas flourish only in an atmosphere of integrity and trust. Plagiarism violates this atmosphere, thereby destroying the conditions that are necessary for independent thinking and original research. If you want to preserve the university as a place where students and scholars can work productively, do not plagiarize.

Rating: *1* *2* *3* *4* *5*

____ 4. All universities have strict rules against cheating. An act of plagiarism is an offense against the rules, and as such it merits penalties, some of them rather severe (including expulsion). Students have to learn to obey the rules of the institution, and if they get caught plagiarizing they should expect to pay the price. If you want to avoid failure or expulsion, do not plagiarize.

Rating: *1* *2* *3* *4* *5*

____ 5. Most college teachers care a great deal about students and work hard to help them learn. These teachers expect their students to be equally caring and hard-working. It is therefore quite insulting and upsetting when a student acts deceitfully and plagiarizes a paper. Plagiarism violates a teacher's trust in students. If you respect your teachers and want them to respect you, do not plagiarize.

Rating: *1* *2* *3* *4* *5*

Part B. - Explanation Rank Ordering

NOW, GO BACK AND RANK ORDER ALL FIVE EXPLANATIONS from the one that best expresses your own view (using the number 1.) to the one that least expresses it (using the number 5.) For each explanation, place your ranking on the line in the left margin next to the question number. Use each rank order number only once.

When you have finished this section go on to the next. You are not to return to this section again.

SECTION III - STATEMENT AGREEMENT SCALE

Use the five point rating scale to rate these eight statements about plagiarism.

Rating Scale:

1=strongly disagree
2=disagree to some extent
3=neutral or undecided
4=agree to some extent
5=strongly agree

1. I would be angry and feel it was unfair if I discovered that another student in the class had plagiarized a paper.

   Rating: *1* *2* *3* *4* *5*

2. I do not think plagiarism is right, but there are still some situations in which a student might be forced to plagiarize in order to get a decent grade in a course.

   Rating: *1* *2* *3* *4* *5*

3. If I knew that another student in the class was planning to plagiarize a paper, I would try to persuade him or her not to plagiarize.

   Rating: *1* *2* *3* *4* *5*

4. I do not care if other students want to plagiarize; it is their business, not mine.

   Rating: *1* *2* *3* *4* *5*

5. If I discovered that a student had plagiarized, I would try to persuade him or her to confess.

   Rating: *1* *2* *3* *4* *5*

6. Plagiarism is always wrong, regardless of the circumstances.

   Rating: *1* *2* *3* *4* *5*

7. If a student in this class got caught plagiarizing a paper, he or she would deserve to fail the course.

   Rating: *1* *2* *3* *4* *5*

8. If I discovered that a student had plagiarized, I would report him or her to the instructor.

Rating: *1* *2* *3* *4* *5*

Please indicate your responses to these final two questions:

A. Did you understand the questions you were asked to respond to in this booklet? Yes ___ No ___

B. Did you answer the questions thoroughly and honestly? Yes ___ No___

Once you have completed this questionnaire, please keep it until the instructor asks that all of them be returned at the same time. This will help insure your anonymity.

APPENDIX B

ILLUSTRATIONS AND EXPLANATIONS OF IDENTIFIED RESPONSE CATEGORIES TO THE QUESTION "WHY IS PLAGIARISM WRONG?"

RESPONSE CATEGORIES

Individual Responsibility

Students have a responsibility not to plagiarize, either because plagiarism involves cheating oneself (usually out of learning or improving as a writer), or because it violates the duty to do one's own work and thus to use one's own mind or creative capacity. Typical responses would include:

1. Plagiarizing is only cheating yourself.
2. It is wrong because everyone should use their own imaginative resources to the fullest potential. If you are relying on someone else for your thoughts then you are cheating yourself.
3. It is wrong because it does not expand the mind of the person doing it.
4. The reason for writing your own thoughts is to increase your writing ability. If someone writes someone else's thoughts or ideas they are not increasing their ability to write.
5. It is wrong because you are not using your own ideas and mind. Your own creativity is being deprived its fullest attention.

Fairness

Two major concepts were included in these responses: that an injustice occurs when an author does not get the credit he or she deserves, and that an injustice occurs

when a person gets undeserved credit by plagiarizing. These are found in the following examples:

1. It is wrong to plagiarize because one should always give credit where credit is due.

2. It is wrong for people to take credit for other people's work because the original writer put a lot of hard work in his or her piece of writing and they want and deserve the credit for it.

3. One is using another's ideas which is not fair to the one who originally created the idea. It just would not be fair.

4. Plagiarism is wrong because no one should take due credit on someone else's hard work.

5. Plagiarism is wrong because it is taking credit for something someone else should get credit for. Not only are you claiming the credit for yourself, you are denying the real owner the recognition.

Ownership

These responses focused on the idea that plagiarism involves the theft of someone else's property or possessions, a crime analogous to stealing a car or a stereo. This approach to plagiarism is indicated in the following examples:

1. Plagiarism is wrong because it is like "stealing" something from someone--something that is not rightfully yours.

2. It is wrong to plagiarize because it is stealing. It is stealing the hard work that another person had to do.

3. It is wrong to plagiarize because you are stealing the thoughts and conclusions of someone else. That person spent a great amount of time to form the ideas he has so therefore they are his.

4. Plagiarism is a form of stealing. If you take someone else's words it is just like taking something that belongs to them.

5. It is immoral because you are stealing. It is just like if you were to steal a book from the book store.

Honesty

Statements in this category focus on the notion that plagiarism is wrong because it involves such acts as lying, deceit, or fraud. For example:

1. It is wrong because it is dishonest.

2. The main reason plagiarizing is wrong is because you are taking someone else's work and claiming it as your own.

3. Plagiarizing is also lying; when you hand in someone else's work as your own, you are lying to your instructor.

4. Plagiarism is wrong because it is not your own work and you are lying if you say it is.

5. Because it is simply dishonest.

Laziness

Examples in this category included:

1. Plagiarism is just a cop out for one's dullness and laziness.

2. People who plagiarize are not using their brain. they are just looking for a lazy way out.

3. Plagiarism is too easy and therefore wrong.

4. Plagiarism is simply the easy way out.

5. People also plagiarize when they are too lazy to take the time to sort out their own ideas and pick the most important to write about.

Crime and Punishment

This category included any statements that referred to plagiarism as a crime, as a violation of a rule or law, or as an act that risked punishment for the offender. Statements included the following:

1. Plagiarism is a type of crime.

2. Because it is against the law.

3. It is also wrong because many authority figures tell us it is wrong.

4. I do not want to get caught and kicked out of school.

5. It can get a person expelled, or cause him to fail a class.