Effects of Explanatory Style and Situational Constraints on Goal Setting

by

Michele Antoinette Rozhon

Thesis submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
Master of Science
in
Psychology

APPROVED:

Dr. Roseanne J. Foti,
Chairperson

Dr. Neil Hauenstein

Dr. Joseph Franchina

May, 1992

Blacksburg, Virginia

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Dr. Roseanne J. Foti, Chairperson

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(ABSTRACT)

A longitudinal study was conducted to investigate whether the effects of explanatory style and situational constraints could account for differences in goal setting, goal commitment, and performance. Two weeks before a first exam, 263 students completed questionnaires measuring explanatory style, situational constraints, academic ability, level of depression, goal difficulty, and goal commitment. Two weeks prior to the second exam, and two weeks prior to the third exam, situational constraints, goal difficulty, and goal commitment were measured again. At the end of the semester, grades for the three exams and the final course grade were obtained. Results suggested minimal support for the proposed hypotheses: (1) Pessimists reporting high situational constraints did not set lower goals, were not less committed to these goals, and did not perform worse in the course than optimists or those reporting low situational constraints, (2) students who reported being high in commitment to difficult course grade goals at Time 1 received a higher grade in the course

than those who did not, and students high in commitment to difficult course grade goals performed better on exams at Time 2 and Time 3. Possible explanations for lack of significant findings are discussed along with implications for future research in this area.

ACKNOWLEDGEMENTS

I would like to thank the members of my committee for their help throughout this project.. I would also like to thank Jack, Ed, and especially my parents for their ongoing support..

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Effects of Explanatory Style and Situational Constraints on Goal Setting

After nearly two decades of research, goal setting has become established as one of the most consistent and successful models of work performance (Earley, Connolly, & Ekegren, 1989). Numerous tests of the goal setting model have consistently supported the basic proposition that specific and difficult goals lead to higher levels of performance than do vague or easy goals (Locke, Shaw, Saari, & Latham, 1981). There is some evidence to suggest, however, that one or more variables may moderate the relationship between goal difficulty and performance (Hollenbeck & Klein, 1987), such as individual differences, situational constraints, commitment, feedback, and task complexity (Locke & Latham, 1990).

Results from studies of individual differences in goal setting have been inconsistent (Locke et al., 1981; Locke & Latham, 1990). Locke et al. (1981) found that the measures of individual differences used in these studies were not consistent across studies, and most of the individual difference variables employed were not based on any clear theoretical rationale. Moreover, they suggest that longitudinal research is needed before the effects of individual differences as a moderator of goal setting can be revealed.

The most common individual differences variables that have been investigated are ability and personality variables. The findings on ability are straightforward (Locke & Latham, 1990). Goal setting is a theory of motivation; if the person does not have the ability to attain the goal, the person will not attain the goal. Locke (1982) found that when subjects were assigned goals across a wide range of difficulty levels, including levels beyond their capacity, the relation of goal level to performance level was curvilinear, with performance leveling off at the higher goal levels. Likewise, if situational constraints are operating to block goal attainment, the person will be less likely to attain the goal (Locke & Latham, 1990). The findings regarding personality are not as straightforward, however.

Various personality variables have been looked at with respect to their relationship with goal setting. Among these are need for achievement (Steers, 1975; Freedman & Phillips, 1988), depression (Bandura, 1988; Simon, 1988), need for independence (French, Kay, & Mayer, 1966; Latham, Steele, & Saari, 1982), and locus of control (Bigoness, Keef, & DuBose, 1983). Mitchell (1979) argues that the few empirical results which have yielded statistically significant effects of personality variables often lack practical significance. For example, Bandura (1988) found that depressed people set standards for themselves far

beyond their capabilities, while Ahrens, Zeiss, and Kanfer (1988) found that depressed subjects set lower goals than did nondepressed subjects. Adler (1986), however, argues that most goal setting research involving personality variables occur in relatively structured and unambiguous situations which offer clear cues to guide behavior. Consequently, there may be little room for variability due to personality differences. Adler suggests the use of complex and ambiguous tasks in goal setting studies to evaluate the effects of personality variables. Moreover, longitudinal research is needed before any conclusions concerning personality variables can be reached.

Several researchers (Villanova, Austin, & Peterson, 1986; Austin & Bobko, 1985; Campbell, 1982) have called for a more multidimensional perspective on goal setting constructs. They suggest that goal setting is but one construct embedded within a larger framework of interrelated constructs, including such influential variables as ability, situational constraints, and individual differences (Villanova, Austin, & Peterson, 1986).

One of the aims of this study is to investigate further the relationship between various individual difference variables (such as ability, commitment, and explanatory style) and goal setting.

Below, the study is described more completely along with a review of the current literature on goal setting and how personal goals and goal commitment are influenced by explanatory style and situational factors.

Goal setting

A goal is defined as what an individual is trying to accomplish; it is the object of an action (Locke, Shaw, Saari, & Latham, 1981). The core premise of goal setting theory is that goals are immediate, though not sole, regulators of actions by individuals (Locke & Latham, 1990). Since goals are regulators of performance, it follows that there should be a substantial relationship between goal content and task performance (Locke & Latham, 1990).

Goal setting theory posits that there are three main dimensions of goals: Specificity, temporality, and difficulty. Results of four separate meta-analyses (Chidester & Grigsby, 1984; Mento, Steel, & Karren, 1987; Tubbs, 1986; Wood, Mento, & Locke, 1987) have shown that specific and difficult goals provide more direction and motivation, and result in higher performance than do vague goals such as just "doing your best." Campion and Lord (1982) noted that specific goals provide the most precise interpretation of performance feedback, resulting in better regulation of performance. Difficult goals result in better performance because they provide a higher standard

around which performance is regulated. Moreover, proximal goals, which require action in the present, are more motivating than are distal goals, which that require no immediate action (Bandura, 1977).

The three most direct mechanisms by which goals influence behavior are primarily motivational (Locke & Latham, 1990). These mechanisms are related to the three attributes of motivated action: arousal or intensity, choice or direction, and duration (Blau, Blank, & Katerberg, 1987). Goals affect arousal by regulating the intensity of effort the person gives on the task. More effort is expended when goals are difficult than when goals are easy, so that effort is expended in relation to the difficulty of the goal. Goals affect choice by leading people to direct attention to the goal-related activities, and to activate stored knowledge and skills that are perceived as relevant to performance. Goals affect duration by leading people to persist in trying to achieve the goal until it is attained. Goals define for an individual what level of performance is acceptable. Actions that fall short of the individual's desired ends are appraised by that person as unsatisfactory (Bandura, 1988) and lead to negative performance evaluations. Improving subsequent performance is one way to eliminate the source of the dissatisfaction that such negative appraisals lead to (Locke & Latham, 1990).

In regulating performance, goals are more reliable when feedback is present than when it is absent (Locke et al., 1981). Feedback about the effectiveness of an individual's behavior has been recognized as essential for motivation and learning (Ilgen, Fisher, & Taylor, 1979, p.349). Goals inform individuals as to what level of performance is to be attained so that they can direct their actions and efforts, and feedback allows individuals to set reasonable goals and to monitor their performance in relation to their goals so that adjustments in effort, strategy, and direction can be made as they are needed (Locke & Latham, 1990). In knowing the outcome of previous efforts, individuals seem to set higher goals than what otherwise would be expected (Tolchinsky & King, 1980). Erez (1977) used a number comparison task, and gave half of the subjects knowledge of their scores in one work period before setting goals for a second work period. The other half of the subjects set goals without receiving feedback of their scores. In the second work period, those subjects who received feedback performed better on the task than those for whom feedback was absent.

When there is a discrepancy between the feedback and actual performance, the person experiences dissatisfaction (Locke & Latham, 1990). People who set goals but fail to attain them will persist if they are dissatisfied and if they believe the goals are attainable (Ahrens, 1987). For

example, if you wanted an A on an exam and you received a B; after appraising the situation, several options might be considered: You could set a goal to do better on the next exam, you could lower your goal for the next test if you didn't think you were capable of reaching it, or you may not change your goal but may just feel less committed to it and not try as hard, or maybe try a new strategy. In a study of physical exertion, Bandura and Cervone (1983) gave subjects feedback that they had not reached their goals. Subjects who were dissatisfied and had high levels of self-efficacy (related to the internal-external aspect of explanatory style) subsequently performed better than if either self-efficacy or dissatisfaction were low. Thus, it is not failure alone, but the expectation of <u>continued</u> failure that reduces motivation.

Another variable which affects goal setting is goal level. Studies on goal level (Kanfer & Zeiss, 1983; Loeb et al., 1971) have indicated that goals that are either too high or too low are related to depression. In an early experiment on depression and goal setting (Loeb et al., 1971) depressed and nondepressed outpatients did a card sorting task. They were asked to estimate the number of cards they would like to be able to sort and their estimated probability of success. Depressed patients set the same goals as did nondepressed patients but estimated their probability of success to be lower, and depressed

patients set higher goals for themselves after success than after failure. Nondepressed patients' goals did not differ after success and failure. The responsiveness of depressed people to feedback may make them prone to have low, unmotivating goals following failure and high, unattainable goals following success. The first would lead to low levels of effort, the second to failure. Laxer (1964) found that depressed people had larger discrepancies between what they wanted to be and what they were. Goals that are either too high or too low are related to depression; low goals lead to low motivation, and goals that are too high lead to failure.

Goal Commitment

A major finding in goal setting research is that difficult and specific goals lead to higher levels of performance than do easy or vague goals (Locke, Shaw, Saari, & Latham, 1981). However, this finding depends on the assumption of commitment to those difficult goals (Hollenbeck, Williams, & Klein, 1989).

Goal commitment can be defined as the determination to try for a goal and the persistence in pursuing it over time (Locke et al., 1981). Thus, goal commitment implies the extension of effort toward achieving a goal and an unwillingness to lower or abandon the goal (Campion & Lord, 1982). Goal commitment should be distinguished from goal acceptance, which is not as critical for predicting

performance (Hollenbeck & Klein, 1987). A person can originally accept a difficult goal but not remain committed to the goal over time.

Goal commitment was one of the first potential moderating variables recognized by Locke (1968). He stated that people who are uncommitted to a goal perceive the goal as impossible to reach and longer try for that goal. Commitment has been measured directly, indirectly, and by inference. An example of a direct question is "How comitted are you to attaining the goal set?" (Earley & Kanfer, 1985). The use of direct questions assumes that people can introspect well enough to detect varying degrees of commitment (Locke, Latham, & Erez, 1988). An indirect measure of commitment is the discrepancy between an assigned goal level and the personal goal the subject reports to be trying to attain (Hannan, 1975). This method can be used only to measure commitment to assigned or participatively set goals. A third way to measure commitment is by inference from performance, or from goal choice; people will choose the goal to which they are most committed (Locke, Latham, & Erez, 1988). Salancik (1977) argued that behavior is the ultimate <u>proof</u> of commitment, and therefore the most accurate measure of it. Several researchers (Locke & Bryan, 1968; Spielberger, 1965; Earley & Kanfer, 1985) have concluded that there is no difference

in results with respect to whether commitment is measured before or after performance.

According to Locke and Latham (1990), goal level should be more highly and positively related to performance among individuals with high commitment than among those with low commitment to the goals.

Individuals high in commitment should be less likely to change their goals following a discrepancy between their goal and performance. Once feedback has been provided, performance depends on the appraisal and decision sequence that follows. If there is a low goal-performance discrepancy, the individual will usually be satisfied and will maintain the same level of performance (Locke & Latham, 1990). If there is a high goal-performance discrepancy and the individual anticipates dissatisfaction if future performance is at the same level, performance will depend on future appraisals. Individuals with high self-efficacy setting high goals will have higher motivation and performance than individuals with low self-efficacy setting low goals, whose performance will not improve much and may even decline (Locke & Latham, 1990).

Hollenbeck, Williams, and Klein (1989) reported that goal commitment accounted for 13% of variance in a measure of future grade performance, after controlling for goal level. Moreover, Wofford (1982) found that for subjects with high goals in a high commitment condition there was a

smaller goal-performance discrepancy than among subjects in a low-commitment condition.

Commitment has also been treated as a dependent variable in goal setting studies. Rotter (1966) suggested that locus of control may be associated with commitment. Yukl and Latham (1978) found that subjects with an external locus of control set less difficult goals than subjects with an internal locus of control, since externals would be more likely to perceive goal attainment as beyond their control.

Explanatory style

Explanatory style is a cognitive personality variable which refers to individual patterns in the selection of causes over a variety of events (Peterson & Seligman, 1984). Explanatory style reflects a habitual tendency to choose certain kinds of explanations for good versus bad events. Individuals who possess a pessimistic explanatory style use internal, stable, and global attributions to explain bad events which befall them, while individuals with an optimistic explanatory style use external, unstable, and specific attributions to explain bad events. Examples of internal causes are lack of ability, lack of effort; external causes are lack of luck, the task being too hard, etc. Stable causes are perceived to be long-lasting, versus unstable causes which are perceived to be short-lived. Finally, global causes affect a wide domain

of activities whereas specific causes pertain to just one situation (Peterson & Seligman, 1984). Individuals with a pessimistic explanatory style tend to react in a passive way when they are faced with failure or a difficult situation. Pessimists will see failure not only in the near future, but also across time and across a variety of situations: "It's my fault, it's going to last forever, and it's going to affect everything I do." Optimists, however, tend to persist longer when faced with failure or difficult circumstances (Peterson & Seligman, 1984).

Explanatory style was introduced in the attributional reformulation of the learned helplessness model, which claims that individuals who possess a pessimistic explanatory style for bad events are more predisposed to depression when bad events occur (Peterson & Seligman, 1984). Consider the event of a checking account being overdrawn. A person with a pessimistic explanatory style might give the explanation of "I'm incapable of doing anything right." However, a person with an optimistic explanatory style might give the explanation, "I'm surprised- my bank has never made an error before." When confronted with the same or similar situation, people who tend to use internal, stable, or global attributions should be more likely to experience a depressive reaction than people who tend to use external, unstable, or specific attributions (Metalsky, Abramson, Seligman, Semmel, and

Peterson, 1982). The particular explanation which an individual makes for the negative event influences the time course and generality of depressive reactions (Peterson & Seligman, 1984). Explanations affect depression to a greater degree than depression affects explanations. However, Abramson et al. (1978) state that it is important to realize that explanations and explanatory style are not sufficient to produce depression but rather are risk factors for depressive deficits.

Few studies of attributions have investigated goal setting (Locke & Latham, 1990). Silver and Greenhaus (1983) found that individuals who made internal attributions about previous performance on a clerical task were most committed to subsequent goals especially if the goals were difficult to attain, perhaps because they felt more confident of achieving the goals (Locke & Latham, 1990). Future goals are affected by appraisals and attributions, and are based on anticipated as well as past satisfaction with various levels of performance (Locke & Latham, 1990). If pessimists tend to anticipate negative feedback (Villanova, Peterson, & Kyger, 1988), they may be less committed to attaining their goals, particularly those of moderate and high levels of difficulty. As a result, these individuals may set lower goals following a large discrepancy between the set goal and performance, thereby performing more poorly than their optimistic counterparts.

Peterson and Barrett (1987) reported that explanatory style predicted academic performance among university freshmen, even when academic ability and depression were held constant. Students with a pessimistic explanatory style received lower grades than did students with an optimistic explanatory style. Their results also suggested that explanatory style may affect subsequent performance through an influence on academic goals. Individuals with a pessimistic explanatory style set less specific academic goals. And, as noted above, research in the goal setting tradition has shown that specific and difficult goals result in performance that exceeds that of individuals who set less specific goals (Locke et al., 1981). Thus, students with a pessimistic explanatory style may not work as hard or as long as students with an optimistic explanatory style, who should be more likely to keep trying to excel (Peterson & Barrett, 1987).

Situational Constraints

Peters and O'Connor (1980) define situational constraints as factors which impede the translation of ability into performance. Thus, situational constraints may make the individuals' transactions with the environment more difficult. To the extent that situational constraints hinder the use of ability, performance should be reduced (Peters & O'Connor, 1980). Examples of academic-related situational constraints are not having enough time to

study, not having a quiet place to study, an unintelligible lecture, a lost textbook, lost lecture notes, and an unhelpful instructor. Peters, O'Connor, and Rudolph (1980) showed that situational constraints influenced the levels of both performance and affect. Subjects with high situational constraints performed at a lower level and reported more negative affect than did subjects with lower levels of situational constraints. O'Connor, Peters, Pooyan, Weekley, Frank, & Erenkrantz (1984) tested the impact of situational constraints on performance, affective outcomes, and turnover. Situational constraints were found to be associated with lower appraised performance, lower satisfaction, and higher turnover (O'*connor et al., 1984).

Although situational constraints can prevent goals from being attained, individuals do not always react passively when their performance is hindered (Locke & Latham, 1990). If the individual is committed to a difficult goal, than there should be motivation present to overcome obstacles in the way. To date, there have been no known studies that have examined the effect of goals on reactions to obstacles (Locke & Latham, 1990).

Situational constraints may interact with explanatory style in the prediction of goal characteristics, such as specificity or difficulty. Dachler and Mobley (1973), Schneider (1978), and Terborg (1977) have proposed that situational constraints directly affect work outcomes. In

many work situations, people who are willing and able to accomplish a task may be either inhibited or prevented from doing so due to situational characteristics beyond their control. In a study by Peters, Chassie, Lindholm, O'Connor, and Kline (1982), goal level was significantly correlated with performance when situational constraints were low ($r = .63$, $p < .001$), but not when situational constraints were high ($r = .19$). The constraints were completeness of task information, ease of use of materials and supplies, and similarity of the work environment to the training environment (Peters et al., 1982).

The notion that explanatory style might interact with situational factors in the prediction of motivation and performance is not new. Metalsky, Abramson, Seligman, Semmel, and Peterson (1982) were the first researchers in the learned helplessness literature to investigate the interactive effects of explanatory style and a situational variable. They stated their predictions within a diathesis-stress model of learned helplessness. According to Metalsky et al. the reformulated model of learned helplessness implies that certain attributional styles are susceptible to depression. The diathesis-stress model of learned helplessness posits that a pessimistic explanatory style is a "diathesis" (predisposition toward a particular condition) for depressive reactions and that negative life events are a "stress" for depressive reactions such as

negative affect, low motivation, and subsequent poor performances. Specifically, this framework posits that when pessimists encounter bad events, they become depressed, less motivated and perform poorly, whereas when optimists encounter negative events, their affect, motivation, and subsequent performance are less affected.

Metalsky et al. measured students' explanatory style and level of depression prior to a midterm exam. Failure on the midterm exam served as the situational variable hypothesized to interact with explanatory style in the prediction of mood following the receipt of exam feedback. Analysis of the standardized residual gain scores on the Multiple Affect Adjective Check List (MAACL; Zuckerman & Lubin, 1965) supported the diathesis-stress hypothesis with respect to the internality and globality subscales of the Attributional Style Questionnaire (ASQ; Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982), but failed to support the prediction with respect to the stability subscale of the ASQ.

Most previous research has dealt with outcomes of goal setting rather than the goal setting process (Locke & Latham, 1990). However, Campion and Lord (1982) conducted a study of goal setting as a changing process. They found that below-goal performance on an exam often led students to raise their goals and to increase their effort because they needed to get a higher grade on the next test in order

to get a desired course. Only after many grade-goal discrepancies did the students lower their future goals (Campion & Lord, 1982). They suggest that the goal setting process should be looked at as a dynamic process where feedback is necessary to ensure adequate adjustments in behavior. This study looked at how goals change, taking into account ability and past performance, but did not look at the effects of attributions or situational constraints. The results of a study by Villanova, Peterson, and Kyger (1988), however, suggest that attributions and situational factors play an important role in the goal setting process. In their study, they investigated whether differences in the levels of academic goals could be explained by the diathesis-stress model of learned helplessness. Subjects responded to questionnaires that measured explanatory style, situational constraints, threat appraisals, and personal goals for an impending introductory psychology exam and goals for the course grade. Subjects with a pessimistic explanatory style tended to set lower goals when faced with a difficult situation than pessimists faced with a less difficult situation. Further, optimists maintained their difficult goals when faced with a difficult situation. In a second study, Villanova et al. (1988) showed that individuals who set lower exam grade goals tended to get lower exam grades than did those who set higher goals (Villanova et al., 1988).

In summary, numerous goal setting studies (Locke et al., 1981; Tubbs, 1986; Steers & Porter, 1974, etc.) have shown that specific, difficult goals provide more direction and yield better performance than do easy or vaguely defined goals. This relationship is stronger for those with high commitment than for those low in commitment (Locke & Latham, 1990).

Individual differences and situational variables seem to moderate the goal-performance relationship. Explanatory style may affect a student's performance through its influence on academic goals. Thus, students who attribute failure to internal, stable, and global causes may not exert as much effort as those who attribute failure to external, unstable, and specific causes (Peterson & Barrett, 1987). Moreover, situational constraints, which can impede the translation of an individual's ability into performance (Peters & O'Connor, 1980), can be perceived as more constraining for those individuals with a pessimistic explanatory style than for those with an optimistic explanatory style. This would result in lower commitment and lower academic performance for the former group.

The purpose of the present study was to investigate the moderating effects of explanatory style, situational constraints, and commitment on the goal-performance relationship. In addition to these, level of depression and academic ability were also measured. This study

extends the work of Villanova et al., (1988) in several ways. In the Villanova et al. (1988) study, subjects were presented with questionnaires measuring explanatory style, situational constraints, threat appraisals, and exam and course grade goals, but the impact of depression, ability, and commitment was not investigated. These variables were included in the present study since they are also predictive of academic performance. Moreover, goals and commitment were measured before all three exams, with students' scores on the exams and the course grade being obtained. The longitudinal method used in this study allowed for an investigation of how goal difficulty levels and commitment change over time following exam feedback.

The hypotheses of the present study were:

Hypothesis 1: Explanatory style and situational constraints will interact in the prediction of exam grades, exam grade goals, course grade goals, course grade performance and goal commitment, even when controlling for level of depression and academic ability. Specifically, pessimists reporting high situational constraints will set lower goals, be less committed to these goals, and perform worse on the exams and in the course than pessimists reporting low situational constraints or optimists reporting either high or low levels of situational constraints.

Hypothesis 2: Goal commitment will interact with goal difficulty in predicting grade performance with explanatory style and situational constraints held constant. Individuals who report being highly committed to difficult goals will perform significantly better than will individuals who are highly committed to easier goals or individuals low in goal commitment in either goal condition.

Method

Subjects

Three hundred eighty-two university students enrolled in introductory psychology classes at Virginia Polytechnic Institute and State University participated in the study at Time 1. Three hundred seventeen students participated in the study at time 2, and three hundred ten participated at Time 3, resulting in a final participation rate of 81%. A subject's data was removed from the study if there were a large amount of questionnaire items omitted or if the subject did not attend all three sessions.

Procedure

Questionnaires were administered to students at approximately two weeks into the semester (T1), two weeks prior to the second exam (T2), and two weeks prior to the third exam (T3). Grades for the exams and the grade for the course were also obtained. Ability, explanatory style, depression, situational constraints, commitment, and goals

were measured at T1. Situational constraints, commitment, and goals were measured at T2 and T3.

The following briefly describes the questionnaires.

Goals. (See Appendix A). Exam grade goals were measured by asking each subject to indicate, by number of items correct out of 60, what his/her goals were for the upcoming exam. Course grade goals were measured by asking the subject to indicate what his/her grade goal was for the course.

Academic ability. (See Appendix B). Academic ability was measured by using the Wesman Personal Classification Test. This test consists of verbal analogies of the form "_____ is to water as eat is to _____". Four options are provided for each of the two blanks, and the correct response is found by selecting both the number corresponding to the key word in the first series and also the letter corresponding to the key word in the second series. The test is shown to have a correlation of about .70 with the Otis and Wonderlic tests. Reliability data provided by Wesman has been computed to be in the low .80's.

Academic Attributional Style Questionnaire, or AASQ. (See Appendix C). The AASQ (Peterson & Barrett, 1987) is a questionnaire which measures explanatory style. Each subject was presented with twelve hypothetical academic events, and was asked to rate each of the causes of an

event on seven-point scales according to its internality/externality, stability/ instability, and globality/specificity. The scores across the scale dimensions were averaged to provide a composite score of explanatory style (Peterson & Barrett, 1987). Scores which are closer to 7 are indicative of a more pessimistic explanatory style. The estimated coefficient alpha of the AASQ composite was .79, with reliabilities for the internal/external, stable/unstable, and global/specific reliabilities computed to be .59, .84, and .80, respectively. Reliability for the composite was also computed using a formula for the reliability of linear combinations. According to Nunnally (1978), this formula should be used when the samples of items from a questionnaire come from different domains. With this formula, one needs to compute the variance of the linear combination (y), the standard deviation of each variable in the linear combination, and the reliability of each variable. This formula can be expressed as:

$$r_{yy} = \frac{\Sigma \sigma_{ii}^2 - \Sigma r_{ii} \sigma_i^2}{\sigma_y^2}$$

When using this formula, the reliability for the composite was computed to be .82.

Depression. (See Appendix D). Depression was measured with the short form of the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, and Erbaugh, 1961). This version consists of 13 of the original 21 items of the BDI and assesses the severity of common depressive symptoms (Peterson & Seligman, 1984). Examples of these items are sadness, pessimism, sense of failure, suicidal thoughts, dissatisfaction, self-dislike, etc. The BDI's validity in samples of university students is .78 (Bumberry, Oliver, & McClure, 1978). Each item and response has a value between 0 and 3. A composite score consists of each individual item value summed for a total; higher scores reflect higher depression. The subject falls into one of four categories: nondepressed, mildly depressed, moderately depressed, and severely depressed. The estimated coefficient alpha for the BDI was .77.

Situational constraints. (See Appendix E). This questionnaire (Villanova et al., 1988) asks subjects to indicate the quality and availability of certain resource variables necessary for good academic performance. These variables are student role-related information, required services and help from others, time availability, and work environment. Students were asked to indicate to what extent each of the resources are of sufficient quality and availablity for performing well in the introductory psychology course. These ratings were made on five-point

scales, 1 being equal to high availability or high quality and 5 being equal to low availability or poor quality. Scores were be added together and divided by four to obtain a composite score. Scores closer to 1 reflect low situational constraints and scores closer to 5 reflect high situational constraints (Villanova et al., 1988). The coefficient alpha for this 12 item measure was .81 at Time 1, .78 at Time 2, and .80 at Time 3. The test-retest reliability was computed to be .46 between Time 1 and Time 2, .64 between Time 2 and Time 3, and .46 between Time 1 and Time 3.

Commitment. (See Appendix F and Appendix G). Commitment was measured using a self-report measure designed by Hollenbeck, Williams, & Klein (1989). Subjects were asked to indicate, on a five-point scale, their agreement with each item. Scores were summed and divided by the number of items to obtain an overall index of commitment. Scores closer to 1 reflect low commitment to goals, whereas scores closer to 5 reflect high commitment. There were seven items in the course goal commitment measure and five items in the exam goal commitment measure. However, due to a low reliability of .33 for the course goal commitment measure at Time 3, items 1 and 7 were deleted, resulting in a coefficient alpha for this new five-item measure of .75. Estimated coefficient alphas for

both of the commitment measures ranged from .61 to .75 for the three time periods.

Results

Means, standard deviations, and intercorrelations of the major variables for Time 1, Time 2, and Time 3 appear in Tables 1-3. At Time 1, situational constraints correlated negatively with exam goal commitment ($r(310)=-.18$, $p<.001$) and course goal commitment ($r(310)=-.22$, $p<.001$); correlations with goals and performance were not significant. At Time 2, situational constraints correlated negatively with exam goal commitment ($r(285)=-.27$, $p<.001$) and course goal commitment ($r(288)=-.26$, $p<.001$). Again, correlations with goals and performance were not significant. At Time 3, situational constraints correlated negatively with goal for the third exam ($r(263)=-.17$, $p<.05$), course grade goal ($r(280)=-.14$, $p<.05$), final grade ($r(263)=-.11$, $p<.05$), exam goal commitment ($r(278)=-.17$, $p<.001$), and course goal commitment ($r(279)=-.24$, $p<.001$). Correlations for explanatory style with goals, commitment, and performance were all nonsignificant.

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Hypothesis 1 stated that when controlling for level of depression and academic ability, explanatory style and situational constraints should interact in the prediction of goals, commitment, and performance. According to the diathesis-stress model of learned helplessness, pessimists perceiving high situational constraints should set lower goals and be less committed to these goals, resulting in lower performance levels. This implies an ordinal interaction between situational constraints and explanatory style.

To test this hypothesis, moderated regression was used. First, depression and ability scores were entered simultaneously as a block. Next, explanatory style and situational constraints were entered simultaneously as a block to test for main effects. Finally, the cross-product term of explanatory style and situational constraints was entered to test for an interaction between these two variables in predicting exam grade goals, course grade goals, exam goal commitment, course goal commitment, performance on the exam, and overall performance in the class. This procedure was used for all three time periods. No statistically significant effects for any independent variable in the equation were found (see Tables 4-12).

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insert Table 12 about here

Moderated regression was also used to test Hypothesis 2, which stated that goal commitment should interact with goal difficulty in predicting grade performance, controlling for explanatory style and situational constraints. First, explanatory style and situational constraints were entered as a block. Then, goal and commitment were entered as a block. Lastly, the interaction between the goal and commitment was entered. The procedure was used to test for interactions at all of the three time periods. With respect to exam grade goal and exam goal commitment, no significant effects were found (see Tables 13-15).

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insert Table 13 about here

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insert Table 14 about here

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insert Table 15 about here

For course grade goal and course goal commitment, the only significant effect at Time 1 was the interaction of

these two variables in predicting the final course grade (significant F change=.03; ($F(5, 257)=5.79$, $p=.0000$ for the full equation; $R=.878$) (see Table 16, Figure 1). At Time 2, the interaction between course grade goal and course goal commitment in predicting the grade on exam two was the only significant effect (significant F change=.05; ($F(5,259)=7.68$, $p=.0000$ for the full equation; $R=-.802$) (see Table 17, Figure 2). Finally, at Time 3, the only significant effect was the interaction between course grade goal and course goal commitment in predicting the grade on the third exam (significant F change=.04; ($F(5, 256)=8.37$, $p=.0000$ for the full equation; $R=-.798$) (see Table 18, Figure 3).

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insert Table 16 about here

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insert Table 17 about here

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insert Table 18 about here

Additional analyses were conducted using a composite measure of situational constraints which consisted of summing the scores of the situational constraints measures at all three time periods, and an explanatory style measure

which used scores from the 75th percentile and above to classify pessimists and scores from the 25th percentile and below to classify optimists. This analysis using the 75th and 25th percentiles was conducted because of the small differences distinguishing optimists and pessimists using a median split. One hundred thirty subjects were used in these analyses. Coefficient alpha for the composite measure of situational constraints was .89. Out of a possible score of 30, with 0 reflecting low situational constraints and 30 reflecting high situational constraints, scores ranged from 0 to 18, with a mean of 8.87 and a standard deviation of 3.00. Coefficient alpha for the explanatory style measure for this subsample was .88. The mean for optimists was 3.71 and the mean for pessimists was 5.16.

Moderated regression was used to test for an interaction of situational constraints and explanatory style in the prediction of course grade goal, course goal commitment, and course grade. All equations were nonsignificant (see Tables 19-20).

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insert Table 19 about here

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insert Table 20 about here

Exploratory analyses were conducted to see if an alternative model would be better in predicting goals, commitment and performance. Three different models were tested. First, the interaction of explanatory style with situational constraints in predicting goals, commitment, and performance was tested, deleting depression from the equation and using ability as the only covariate. The moderated regression procedure was used, with ability being entered into the equation first, then explanatory style and situational constraints, and finally the interaction of explanatory style and situational constraints. Because the correlations with the dependent variables were higher for depression than for explanatory style, the second and third analyses involved using depression and situational constraints to test for interaction effects rather than using explanatory style and situational constraints. For the second model, ability was entered into the equation first, then depression and situational constraints, and lastly the interaction between depression and situational constraints. For the third model, ability and explanatory style were first entered as block. Next, depression and situational constraints were entered as a block to test for main effects. Lastly, the interaction term of depression with situational constraints was entered. These analyses were performed for all three models using all of the data,

and also using data from the upper and lower quartiles. All equations for all models were non-significant.

Because of the low correlations between the internality, globality, and stability dimensions of the explanatory style questionnaire (ranging from .10 to .40),

Discussion

In general, minimal support was found for the proposed goal setting model. Explanatory style was not related at any of the three time periods to situational constraints, goals, commitment, or performance. Situational constraints, however, were negatively related to exam grade goal and course grade goal at Time 3, negatively related to both exam grade goal commitment and course grade goal commitment at all three points in time, and positively correlated with level of depression. Students reporting high situational constraints at Time 3 set lower goals for the third exam and lower goals for the course grade. Goals were found to correlate positively with commitment and performance at all points in time, while commitment only correlated positively with performance at Time 2 and Time 3. Students setting higher goals reported being more committed to achieving these goals than students setting lower goals, and students that reported being more committed to their goals performed better on exams at Times 2 and 3.

Contrary to expectations, the interaction between explanatory style and situational constraints did not predict goals, commitment, or performance, at any of the three time periods. Individuals with a pessimistic explanatory style reporting high situational constraints did not set lower goals, were not less committed to these goals, and did not perform worse in the course than optimists or those reporting low situational constraints.

The interaction between exam grade goal and exam goal commitment was not significant in predicting exam grade or course grade, but course grade goal and course goal commitment predicted the final grade at Time 1, and exam grade at both Time 2 and Time 3. Students who reported being highly committed to difficult course grade goals at Time 1 received a higher grade in the course than students setting lower goals or students not as committed to their goals. Moreover, students high in commitment to difficult course grade goals performed better on exams at Time 2 and 3. It seems that the distal course grade goal was a better regulator of behavior than the more proximal exam grade goal.

There are several plausible explanations for the absence of significant findings in this study. The first explanation rests upon how the study was conducted. Each session involved the participation of 35-50 individuals, which could have introduced such problems as potential loss

of concentration, failure to follow directions, etc. This is not surprising given the large spoilage rate of data for this study. Moreover, the first testing session lasted exactly 60 minutes and many questionnaires were distributed, possibly resulting in fatigue.

A potential problem in the measurement of goal commitment is that commitment may affect performance without the person's being able to report it accurately (Locke & Latham, 1990). This could be a result of poor introspection. Also, exam goal commitment was measured two weeks before each exam. It is possible that the individual's commitment to the exam grade goal could change within the two weeks prior to the exam. Moreover, the range of responses was quite low, varying from 2.2 to 2.4 across the three time periods for both exam goal commitment and course goal commitment. The standard deviations varied from .35 to .48, as compared to a standard deviation of .72 in the study conducted by Hollenbeck, Williams, & Klein (1989).

With respect to goals, the overwhelming majority of individuals did not attain their exam grade goals at any of the three time periods (1.8% for Time 1, 7% for Time 2, and 23% for Time 3). Thus, differences in the setting of future goals between those who attained their goals and those who did not could not be assessed.

The absence of significant effects for explanatory style may be due to the small differences in the means which distinguish optimists from pessimists. The differences in mean scores characterizing pessimistic and optimistic explanatory styles were not extreme; on a 7-point scale, the mean for optimists was 3.95 and the mean for pessimists was 4.89; a score closer to 6 or 7 would have been more representataive of a pessimistic explanatory style, likewise, a score closer to 1 or 2 would have been more characteristic of an optimistic explanatory style. The AASQ works as a projective test used to measure a person's characteristic explanatory style. The theory posits that if this style invokes internal, stable, and global causes, then the person tends to become depressed when bad events occur (Peterson and Seligman, 1984), leading them to set lower goals which ultimately lead to lower performance. The mean for pessimists was 4.89, which does <u>not</u> reflect attributions which are internal, stable, and global. The means for optimists and pessimists using the 25th and 75th percentiles also did not differ much (3.71 for optimists and 5.16 for pessimists). Therefore, in this study, the data from the AASQ did not allow for an adequate test of the theory. Moreover, the range for the composite scores was 3.03 (scores ranged from 2.89 to 5.92), and the standard deviation was computed to be .57. In the Peterson & Barrett (1987) study, however, the

standard deviation for this measure was .69, resulting in greater variability among scores. Lastly, the internal-external subscale of the AASQ had a modest reliability (.59). Peterson, Villanova, & Raps (1985) suggest that the internal-external dimension needs clarification. The reformulated model of learned helplessness does not propose that internal attributions determine the occcurrence of depression, its magnitudes, or its effects.

The small amount of significant effects with respect to situational constraints may be due, in part, to the low mean score for this scale; the mean for this measure was 3.89 at Time 1, 4.12 at Time 2, and 3.83 at Time 3. Scores on this scale can range from 1 to 10, with scores closer to 10 reflecting high situational constraints, indicating that situational constraints acted as more of a nuisance for the students participating in this study than actual constraints. It may be that constraints have to reach a certain minimum level of moderate severity before they will significantly influence an individual's performance. Given the generally low level of constraints observed within the current study, one would not expect a strong relationship between situational constraints and performance.

Although these findings resulted in modest support for the hypotheses, it cannot be concluded that the theory is incorrect; especially in light of the observations noted above. Perhaps future research can provide a better test

of the hypotheses by attending to the shortcomings of the present study, using a design which allows for stronger causal inferences about the relationships between the variables. Albeit, the shortcomings were not apparent until the data had been collected and analyzed.

Future research may wish to look at relationships among other variables not included in this study, such as goal priority, goal conflict, goal intensity, threat appraisals, mood and enthusiasm, and coping strategies. This information may prove to give valuable insight into the goal setting process.

In conclusion, the results of this study do not support the hypotheses offered, but the lack of significant findings can be explained by many factors. Further discussion of the validity of this model must await more conclusive data.

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Table 1

Correlation Matrix of Study Variables at Time 1

Variables	1	2	3	4	5	6	7	8	9	10
1 Explanatory Style										
2 Constraints	0									
3 BDI	.23**	.23**								
4 Wesman	-.05	-.08	-.10							
5 Exam Grade Goal	0	0	-.08	.16**						
6 Course Grade Goal	.03	.06	.03	.12	.54**					
7 Exam Goal Commitment	0	-.18**	-.12*	.10	.35**	.32**				
8 Course Goal Commitment	0	-.22**	-.16**	.17**	.25**	.17**	.61**			
9 Exam Grade	-.05	.03	-.06	.39**	.13*	.14*	.08	.10		
10 Course Grade	-.07	.03	-.13*	.24**	.16*	.28**	.04	.04	.64**	
Mean	4.39	3.89	3.89	24.9	52.9	4.55	3.81	3.03	38.5	2.88
s.d.	.57	1.28	3.63	4.98	4.87	.53	.44	.45	5.57	.87

Note. Due to missing data, sample sizes in this matrix range from 262 to 310.

*$p<.05$ **$p<.01$

Table 2

Correlation Matrix of Study Variables at Time 2

Variables	1	2	3	4	5	6	7	8	9	10
1 Explanatory Style										
2 Constraints	.05									
3 BDI	.23**	.26**								
4 Wesman	-.05	-.07	-.10							
5 Exam Grade Goal	0	0	-.07	.16**						
6 Course Grade Goal	-.02	-.12	-.10	.25**	.50**					
7 Exam Goal Commitment	.01	-.27**	-.18**	.06	.15*	.31**				
8 Course Goal Commitment	-.06	-.26**	-.13**	.20**	.29**	.25**	.58**			
9 Exam Grade	.09	-.03	-.08	.30**	.23**	.32**	.15*	.15*		
10 Course Grade	-.07	.06	-.13*	.24**	.23**	.40**	.20**	.19**	.70**	
Mean	4.39	4.12	4.89	24.9	50.7	4.25	4.25	4.13	40.7	2.8
s.d.	.57	1.18	3.6	4.98	5.04	.59	.48	.35	5.85	.87

Note. Due to missing data, sample sizes in this matrix vary from 262 to 310. *$p<.05$ **$p<.01$

Table 3

Correlation Matrix of Study Variables at Time 3

Variables	1	2	3	4	5	6	7	8	9	10
1 Explanatory Style										
2 Constraints	.02									
3 BDI	.23**	.21**								
4 Wesman	0	-.08	.10							
5 Exam Grade Goal	-.02	-.17**	-.15*	.18**						
6 Course Grade Goal	-.16*	-.14*	-.15*	.33**	.47**					
7 Exam Goal Commitment	-.08	-.17**	-.22**	.10	.27**	.47**				
8 Course Goal Commitment	-.02	-.24**	-.08	.18**	.14*	.07	.47**			
9 Exam Grade	-.06	-.11	-.07	.26**	.16**	.34**	.20**	.14*		
10 Course Grade	-.07	.12	-.13*	.24**	.27**	.52**	.24**	.15*	.74**	
Mean	4.39	3.75	4.89	24.9	50.1	4.25	4.33	3.38	44.0	2.8
s.d.	.57	1.18	3.6	4.98	5.18	.65	.48	.35	6.65	.87

Note. Due to missing data, sample sizes in this matrix vary from 262 to 310. *$p<.05$ **$p<.01$

Table 4

Mean Exam Grade Goal Scores and Course Grade Goal Scores as a Function of Explanatory Style and Situational Constraints (Time 1)

		Situational Constraints	
Dependent Variable	Explanatory Style	Low	High
Exam Grade Goal	Optimistic	52.95	52.81
		(4.41)	(5.34)
	Pessimistic	52.73	53.07
		(5.07)	(4.79)
Course Grade Goal	Optimistic	4.58	4.53
		(.50)	(.53)
	Pessimistic	4.57	4.58
		(.53)	(.56)

Note. Standard deviations appear in parentheses, total N=263. (exam grade goals can range from a low of zero to a high of 60).

Table 5

Mean Exam Goal Commitment Scores and Course Goal Commitment Scores as a Function of Explanatory Style and Situational Constraints (Time 1)

Dependent Variable	Explanatory Style	Situational Constraints: Low	Situational Constraints: High
Exam Goal Commitment	Optimistic	3.89	3.70
		(.48)	(.47)
	Pessimistic	3.92	3.77
		(.36)	(.41)
Course Goal Commitment	Optimistic	4.12	3.92
		(.42)	(.47)
	Pessimistic	4.10	3.96
		(.47)	(.43)

Note. Standard deviations appear in parentheses, total N=263. (Both commitment scores range from a low of 1 to a high of 5).

Table 6

Mean Exam Scores and Course Grade Scores as a Function of Explanatory Style and Situational Constraints (Time 1)

		Situational Constraints	
Dependent Variable	Explanatory Style	Low	High
Exam Score	Optimistic	38.83	38.87
		(5.02)	(5.87)
	Pessimistic	38.08	38.84
		(5.46)	(5.89)
Course Grade Score	Optimistic	2.91	2.90
		(.87)	(.87)
	Pessimistic	2.81	2.94
		(.88)	(.90)

Note. Standard deviations appear in parentheses, total N=263. (Exam scores range from 0 to 60; course grade scores can range from 0 to 4, with a 4 being equal to an A).

Table 7

Mean Exam Grade Goal Scores and Course Grade Goal Scores as a Function of Explanatory Style and Situational Constraints (Time 2)

		Situational Constraints	
Dependent Variable	Explanatory Style	Low	High
Exam Grade Goal	Optimistic	50.82	50.42
		(4.76)	(5.27)
	Pessimistic	50.28	51.39
		(4.04)	(5.55)
Course Grade Goal	Optimistic	4.23	4.21
		(.60)	(.58)
	Pessimistic	4.23	4.21
		(.51)	(.60)

Note. Standard deviations appear in parentheses, total N=263. (Exam grade goals range from 0 to 60; course grade goals range from a low of 1 to a high of 5).

Table 8

Mean Exam Goal Commitment Scores and Course Goal Commitment Scores as a Function of Explanatory Style and Situational Constraints (Time 2)

Dependent Variable	Explanatory Style	Situational Constraints: Low	Situational Constraints: High
Exam Goal Commitment	Optimistic	4.29	4.19
		(.44)	(.40)
	Pessimistic	4.37	4.19
		(.38)	(.46)
Course Goal Commitment	Optimistic	4.29	4.09
		(.48)	(.49)
	Pessimistic	4.16	4.05
		(.41)	(.47)

Note. Standard deviations appear in parentheses, total sample size=263. (Both commitment scores are on a 5-point scale with a score of 1 reflecting low commitment and a 5 reflecting high commitment).

Table 9

Mean Exam Scores and Course Grade Scores as a Function of Explanatory Style and Situational Constraints (Time 2)

Dependent Variable	Explanatory Style	Situational Constraints: Low	Situational Constraints: High
Exam Score	Optimistic	40.02	41.44
		(6.73)	(5.71)
	Pessimistic	40.46	40.63
		(6.45)	(4.93)
Course Grade Score	Optimistic	2.86	2.91
		(.88)	(.85)
	Pessimistic	2.90	2.87
		(.84)	(.85)

Note. Standard deviations appear in parentheses, total sample size=263. (Exam scores range from 0 to 60; course grade scores range from 1 to 5, with 1 = F, 2 = D, 3 = C, 4 = B, and 5 = A).

Table 10

Mean Exam Grade Goal Scores and Course Grade Goal Scores as a Function of Explanatory Style and Situational Constraints (Time 3)

		Situational Constraints	
Dependent Variable	Explanatory Style	Low	High
Exam Grade Goal	Optimistic	50.81	49.40
		(5.40)	(4.90)
	Pessimistic	50.89	49.72
		(4.54)	(5.83)
Course Grade Goal	Optimistic	4.37	4.25
		(.65)	(.65)
	Pessimistic	4.25	4.17
		(.58)	(.69)

Note. Standard deviations appear in parentheses, total N=263. (Exam grade goals vary from 0 to 60; course grade goals range from a low of 1 to a high of 5).

Table 11

Mean Exam Goal Commitment Scores and Course Goal Commitment Scores as a Function of Explanatory Style and Situational Constraints (Time 3)

		Situational Constraints	
Dependent Variable	Explanatory Style	Low	High
Exam Goal Commitment	Optimistic	4.47	4.24
		(.48)	(.56)
	Pessimistic	4.37	4.26
		(.48)	(.41)
Course Goal Commitment	Optimistic	3.55	3.31
		(.35)	(.31)
	Pessimistic	3.42	3.31
		(.35)	(.36)

Note. Standard deviations appear in parentheses, total N=263. (Both commitment scores range from a low of 1 to a high of 5).

Table 12

Mean Exam Scores and Course Grade Scores as a Function of Explanatory Style and Situational Constraints (Time 3)

Dependent Variable	Explanatory Style	Situational Constraints: Low	Situational Constraints: High
Exam Score	Optimistic	46.46	42.96
		(5.84)	(7.30)
	Pessimistic	43.59	43.55
		(6.03)	(6.68)
Course Grade Score	Optimistic	3.13	2.73
		(.85)	(.84)
	Pessimistic	2.90	2.86
		(.86)	(.91)

Note. Standard deviations appear in parentheses; total N=263. (Exam scores can vary from 1 to 60; course grade scores vary from 1 to 5, with 1 being equal to an F and 5 being equal to an A).

Table 13

Mean Exam Grade Scores and Course Grade Scores as a Function of Exam Grade Goal and Exam Goal Commitment (Time 1)

		Exam Goal Commitment	
Dependent Variable	Exam Grade Goal	Low	High
Exam Score	High	38.53	39.55
		(5.32)	(5.94)
	Low	37.52	38.39
		(5.48)	(4.93)
Course Grade Score	High	2.90	3.08
		(.78)	(.89)
	Low	2.79	2.63
		(.82)	(.93)

Note. Standard deviations appear in parentheses; total N=263. (Exam scores range from 0 to 60; course grade scores range from 1 to 5, where a score of 5 equals an A).

Table 14

Mean Exam Grade Scores and Course Grade Scores as a Function of Exam Grade Goal and Exam Goal Commitment (Time 2)

		Exam Goal Commitment	
Dependent Variable	Exam Grade Goal	Low	High
Exam Score	High	40.17	42.23
		(5.51)	(6.23)
	Low	39.18	38.56
		(4.95)	(6.05)
Course Grade Score	High	2.85	3.12
		(.88)	(.85)
	Low	2.45	2.72
		(.87)	(.72)

Note. Standard deviations appear in parentheses; total N=263. (Exam scores range from 1 to 60; course grade scores range from 1 to 5, with 5 being equal to an A).

Table 15

Mean Exam Grade Scores and Course Grade Scores as a Function of Exam Grade Goal and Exam Goal Commitment (Time 3)

		Exam Goal Commitment	
Dependent Variable	Exam Grade Goal	Low	High
Exam Score	High	43.53	45.71
		(6.46)	(6.60)
	Low	42.42	44.25
		(6.39)	(6.16)
Course Grade Score	High	2.84	3.27
		(.93)	(.81)
	Low	2.61	2.69
		(.80)	(.74)

Note. Standard deviations appear in parentheses; total N=263. (Exam scores range from 1 to 60; course grade scores can range from 1 to 5, with a score of 5 being equal to an A).

Table 16

Mean Exam Grade Scores and Course Grade Scores as a Function of Course Grade Goal and Course Goal Commitment (Time 1)

		Course Goal Commitment	
Dependent Variable	Course Grade Goal	Low	High
Exam Score	High	38.75	40.01
		(5.37)	(5.30)
	Low	37.51	37.95
		(5.36)	(6.32)
Course Grade Score	High	3.01	3.16
		(.81)	(.86)
	Low	2.70	2.49
		(.75)	(.95)

Note. Standard deviations appear in parentheses. (Exam scores range from 1 to 60; course grade scores range from 1 to 5, with 5 being equal to an A).

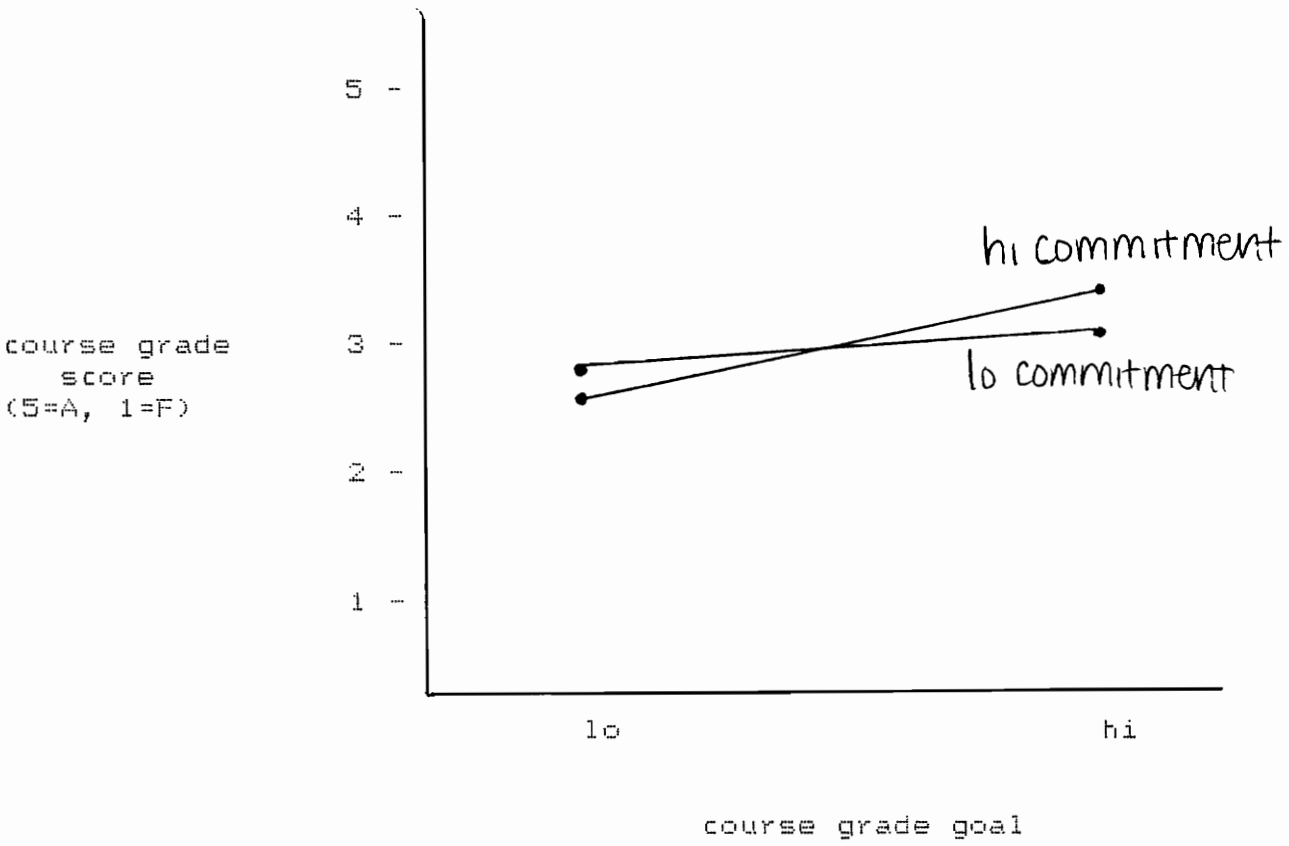

Figure 1. Mean course grade scores as a function of course grade goal and course goal commitment (Time 1).

Table 17

Mean Exam Grade Scores and Course Grade Scores as a Function of Course Grade Goal and Course Goal Commitment (Time 2)

Dependent Variable	Course Grade Goal	Course Goal Commitment: Low	Course Goal Commitment: High
Exam Score	High	39.33	41.13
		(6.35)	(5.77)
	Low	36.75	36.88
		(5.74)	(5.60)
Course Grade Score	High	2.57	2.92
		(.75)	(.84)
	Low	2.00	2.12
		(.74)	(.70)

Note. Standard deviations appear in parentheses. (Exam scores range from 1 to 60; course grade scores range from 1 to 5, with 5 being equal to an A).

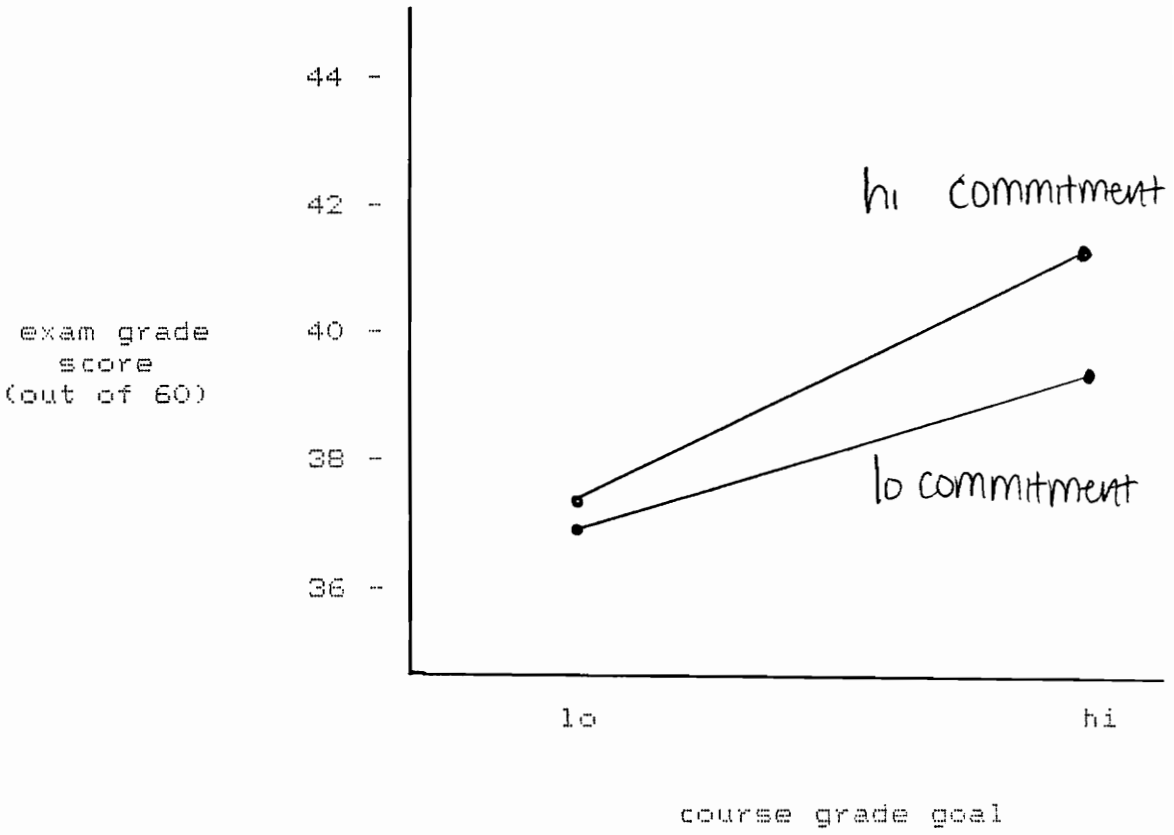

Figure 2. Mean exam grade scores as a function of course grade goal and course goal commitment (Time 2)

Table 18

Mean Exam Grade Scores and Course Grade Scores as a Function of Course Grade Goal and Course Goal Commitment (Time 3)

		Course Goal Commitment	
Dependent Variable	Course Grade Goal	Low	High
Exam Score	High	43.60	46.21
		(6.41)	(6.34)
	Low	40.56	39.55
		(7.29)	(6.25)
Course Grade Score	High	2.89	3.18
		(.83)	(.82)
	Low	2.89	2.27
		(.58)	(.65)

Note. Standard deviations appear in parentheses. (Exam scores range from 1 to 60; course grade scores range from 1 to 5, with 5 being equal to an A).

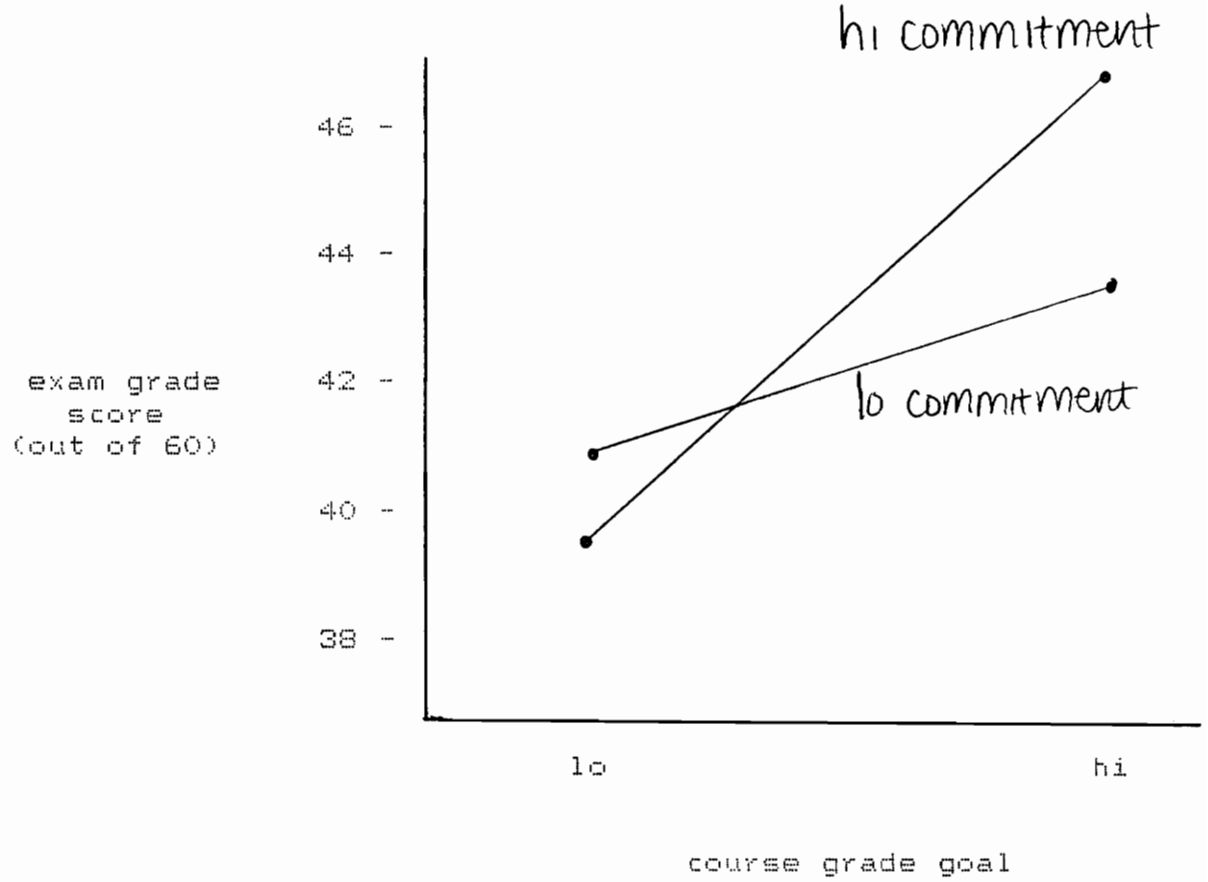

Figure 3. Mean exam grade scores as a function of course grade goal and course goal commitment (Time 3).

Table 19

Mean Course Grade Goal Scores and Course Goal Commitment Scores as a Function of Explanatory Style and Situational Constraints (Subsample)

		Situational Constraints	
Dependent Variable	Explanatory Style	Low	High
Course Grade Goal	Optimistic	4.25	4.37
		(.65)	(.65)
	Pessimistic	4.25	4.18
		(.58)	(.68)
Course Goal Commitment	Optimistic	4.24	4.14
		(.52)	(.44)
	Pessimistic	4.17	4.11
		(.62)	(.62)

Note. Standard deviations appear in parentheses, total N=130. (Goals and commitment scores can range from a low of zero to a high of 5).

Table 20

Mean Course Grade Scores as a Function of Explanatory Style and Situational Constraints (Subsample)

		Situational Constraints	
Dependent Variable	Explanatory Style	Low	High
Course Grade Score	Optimistic	2.82	3.04
		(.87)	(.90)
	Pessimistic	2.77	3.06
		(.87)	(.88)

Note. Standard deviations appear in parentheses, total N=130. (Course Grade scores range from a low of 1 to a high of 5; with a 5 being equal to an A).

APPENDIX A: EXAM GRADE GOAL AND COURSE GRADE GOAL

A. The next PSYC 2004 exam will have 60 items. Please indicate, with respect to the number of items correct out of 60, your goal for this upcoming exam.

_____ items correct out of 60

B. Please indicate your course grade goal for PSYC 2004 by blackening in the appropriate circle on your opscan.

1 = A 2 = B 3 = C 4 = D

APPENDIX B: WESMAN PERSONNEL CLASSIFICATION TEST

PART I

Write answers here

1. ..... is to side as ceiling is to .....
   1. flow 2. fit 3. wall 4. industry
   A. far B. top C. iron D. plaster

2. ..... is to agreement as expert is to .....
   1. treaty 2. denial 3. experiment 4. amateur
   A. import B. skillful C. extant D. proud

3. ..... is to beanstalk as Aladdin is to .....
   1. cornstalk 2. Jack 3. story 4. climb
   A. camel B. genie C. Arab D. lamp

4. ..... is to sit as bed is to .....
   1. stand 2. run 3. chair 4. rest
   A. lie B. mattress C. pillow D. night

5. ..... is to work as recreation is to .....
   1. hour 2. salary 3. occupation 4. home
   A. employ B. play C. dilation D. enjoyment

6. ..... is to hogs as beef is to .....
   1. sow 2. bacon 3. boar 4. sty
   A. stew B. steak C. cattle D. hoof

7. ..... is to white as ebony is to .....
   1. house 2. shirt 3. ivory 4. luster
   A. fat B. black C. skeleton D. tree

8. ..... is to tree as skin is to .....
   1. leaf 2. acorn 3. root 4. bark
   A. rind B. peel C. cheat D. man

9. ..... is to boy as Mary is to .....
   1. man 2. lad 3. John 4. football
   A. dishes B. sew C. aunt D. girl

10. ..... is to sphere as square is to .....
    1. circle 2. peri 3. world 4. oval
    A. cube B. foot C. polygon D. angle

11. ..... is to hook as bear is to .....
    1. fish 2. bait 3. worm 4. eye
    A. honey B. cub C. trap D. fur

12. ..... is to man as aunt is to .....
    1. foot 2. uncle 3. male 4. young
    A. woman B. old C. mother D. nephew

13. ..... is to Bell as phonograph is to .....
    1. radio 2. telephone 3. telegraph 4. airplane
    A. Morse B. Marconi C. Whitney D. Edison

14. ..... is to bore as rivet is to .....
    1. weary 2. drill 3. ennui 4. hole
    A. bolt B. fascinate C. join D. screw

15. ..... is to hot as ice is to .....
    1. cold 2. shore 3. sign 4. food
    A. drink B. stone C. winter D. steam

16. ..... is to yellow as turquoise is to .....
    1. emerald 2. rose 3. topaz 4. gloss
    A. jewel B. pale C. blue D. ornate

17. ..... is to flowers as frame is to .....
    1. rose 2. vase 3. weed 4. seed
    A. wood B. gilt C. fix D. painting

18. ..... is to paper as worm is to .....
    1. tree 2. ink 3. wrap 4. letter
    A. fish B. wriggle C. silk D. bird

19. ..... is to attic as bottom is to .....
    1. roof 2. house 3. cellar 4. window
    A. wide B. well C. top D. black

20. ..... is to baker as ink is to .....
    1. flour 2. cake 3. bread 4. pastry
    A. printer B. paper C. pen D. lead

21. ..... is to newspaper as manager is to ..... 21._____

1. reporter	2. column	3. advertising	4. editor
A. president	B. publisher	C. store	D. employer

22. ..... is to executive as Congress is to ..... 22._____

1. business	2. president	3. treasurer	4. representative
A. committee	B. court	C. legislature	D. senator

23. ..... is to back as near is to ..... 23._____

1. rear	2. retreat	3. behind	4. front
A. dear	B. far	C. before	D. beyond

24. ..... is to fight as episode is to ..... 24._____

1. round	2. boxer	3. gloves	4. gong
A. grave	B. whiskey	C. serial	D. peach

25. ..... is to cutlery as cup is to ..... 25._____

1. sword	2. bleeding	3. knife	4. hardware
A. crockery	B. plate	C. ladle	D. saucer

26. ..... is to fish as mallard is to ..... 26._____

1. rod	2. perch	3. hunt	4. bait
A. hammer	B. quack	C. bird	D. bruiser

27. ..... is to Wellington as Lee is to ..... 27._____

1. Washington	2. Napoleon	3. Gage	4. Howe
A. Grant	B. Lincoln	C. Jackson	D. Nelson

28. ..... is to Holland as Flemish is to ..... 28._____

1. Dutch	2. windmill	3. dike	4. Netherlands
A. Antwerp	B. Hague	C. Finland	D. Belgium

29. ..... is to war as day is to ..... 29._____

1. fight	2. battle	3. soldier	4. nation
A. night	B. sun	C. hour	D. week

30. ..... is to hindrance as discord is to ..... 30._____

1. obstacle	2. rear	3. sour	4. chord
A. melody	B. reject	C. sweet	D. contention

31. ..... is to multiplication as quotient is to ..... 31._____

1. addition	2. product	3. proportion	4. times
A. answer	B. ratio	C. division	D. subtraction

32. ..... is to none as many is to ..... 32._____

1. zero	2. half	3. all	4. two
A. few	B. every	C. each	D. most

33. ..... is to files as books are to ..... 33._____

1. rasp	2. manicure	3. clerk	4. correspondence
A. pages	B. library	C. authors	D. learning

34. ..... is to egg as plant is to ..... 34._____

1. ham	2. fried	3. fowl	4. yoke
A. ivy	B. sow	C. seed	D. garden

35. ..... is to hill as crest is to ..... 35._____

1. mountain	2. summit	3. climb	4. ant
A. wave	B. high	C. ocean	D. fall

36. ..... is to play as music is to ..... 36._____

1. piano	2. dialogue	3. game	4. actor
A. sweet	B. concert	C. sonnet	D. orchestra

37. ..... is to phlegmatic as gushing is to ..... 37._____

1. husky	2. rheumatic	3. pneumatic	4. apathetic
A. elusive	B. pouting	C. effusive	D. griping

38. ..... is to loom as turn is to ..... 38._____

1. weave	2. flax	3. spin	4. linen
A. lathe	B. revolve	C. reverse	D. direction

39. ..... is to sword as mortar is to ..... 39._____

1. sheath	2. blade	3. rapier	4. hilt
A. shell	B. cannon	C. rifle	D. shot

40. ..... is to Z as initial is to ..... 40._____

1. Y	2. A	3. E	4. X
A. name	B. signature	C. final	D. unknown

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

APPENDIX C: ACADEMIC ATTRIBUTIONAL STYLE QUESTIONNAIRE (AASQ)

INTERPRETATION OF ACADEMIC EVENTS

Please try to imagine yourself in the situations that follow. If such a situation were to happen to you, what would you feel would have caused it? While events have many causes, we want you to pick only one--the major cause if this event happened to you.

Please write this cause in the blank provided after each event. Then we want you to answer three questions about the cause your provided. First, is the cause of this event something about you or something about other people or circumstances? Second, is the cause of this event something that will persist across time or something that will never again be present? Third, is the cause of this event something that affects all situations in your life or something that only affects just this type of event?

To summarize, we want you to:

1. Read each situation and vividly imagine it happening to you.

2. Decide what you feel would be the one major cause of the situation if it happened to you.

3. Write the cause in the blank provided.

4. Answer three questions about the cause.

1. You cannot get all the reading done that your instructor assigns.

   A. Write down the one major cause:

   B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

   totally due to others 1 2 3 4 5 6 7 totally due to me

   C. In the future, will this cause again be present? (circle one number)

   never present 1 2 3 4 5 6 7 always present

   D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

   just this situation 1 2 3 4 5 6 7 all situations

2. You fail a final examination.

   A. Write down the one major cause:

   B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

   totally due to others 1 2 3 4 5 6 7 totally due to me

   C. In the future, will this cause again be present? (circle one number)

   never present 1 2 3 4 5 6 7 always present

   D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

   just this situation 1 2 3 4 5 6 7 all situations

3. You show up for a class and find to your surprise that there is a quiz.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

4. You are on academic probation.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

5. You do not have high enough grades to switch to your desired major.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

6. You cannot solve a single problem in a set of twenty assigned as homework.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

You are dropped from the university because your grades are to low.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

You cannot get started writing a paper.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

9. You cannot find a book in the library.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

10. The required textbook for a course is unavilable in the school bookstore.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

11. You get a D in a course required for your major.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

12. You cannot understand the points a lecturer makes.

A. Write down the one major cause:

B. Is the cause of this due to something about you or something about other people or circumstances? (circle one number)

totally due to others	1	2	3	4	5	6	7	totally due to me

C. In the future, will this cause again be present? (circle one number)

never present	1	2	3	4	5	6	7	always present

D. Is this cause something that affects just this type of situation, or does it also influence other areas of your life? (circle one number)

just this situation	1	2	3	4	5	6	7	all situations

APPENDIX D: BECK DEPRESSION INVENTORY (short form)

Thoughts and Feelings

Instructions: This is a questionnaire. On the questionnaire are groups of statements. Please read the entire group of statements in each category. Then pick out the one statement in that group which best describes the way you feel today, that is, right now!! Circle the letter beside the statement you have chosen. If several statements in the group seem to apply equally well, circle each one.

BE SURE TO READ ALL THE STATEMENTS IN EACH GROUP BEFORE MAKING YOUR CHOICE.

1.
A I am so sad or unhappy that I cannot stand it.
B I am blue or sad all the time and I can't snap out of it.
C I feel sad or blue.
D I do not feel sad.

2.
A I feel that the future is hopeless and that things cannot improve.
B I feel I have nothing to look forward to.
C I feel discouraged about the future.
D I am not particularly pessimistic or discouraged about the future.

3.
A I feel I am a complete failure as a person.
B As I look back on my life, all I can see is a lot of failures.
C I feel I have failed more than the average person.
D I do not feel like a failure.

4.
A I am dissatisfied with everything.
B I don't get satisfaction out of anything anymore.
C I don't enjoy things the way I used to.
D I am not particularly dissatisfied.

5.
A I feel as though I am very bad or worthless.
B I feel quite guilty.
C I feel bad or unworthy a good part of the time.
D I don't feel particularly guilty.

6.
A I hate myself.
B I am disgusted with myself.
C I am disappointed in myself.
D I don't feel disapppointed in myself.

7.
A I would kill myself if I had the chance.
B I have definite plans about committing suicide.
C I feel I would be better off dead.
D I don't have any thoughts of harming myself.

8.
A I have lost all of my interest in other people and don't care about them at all.
B I have lost most of my interest in other people and have little feeling for them.
C I am less interested in other people than I used to be.
D I have not lost interest in other people.

9.
A I can't make any decisions at all anymore.
B I have great difficulty in making decisions.
C I try to put off making decisions.
D I make decisions as well as ever.

10.
A I feel that I am ugly or repulsive-looking.
B I feel that there are permanent changes in my appearance and they make me look unattractive.
C I am worried that I am looking old or unattractive.
D I don't feel that I look any worse that I used to.

11.
A I can't do any work at all.
B I have to push myself very hard to do anything.
C It takes extra effort to get started at doing something.
D I can work about as well as before.

12.
A I get too tired to do anything.
B I get tired from doing anything.
C I get tired more easily than I used to.
D I don't get any more tired than usual.

13.
A I have no appetite at all anymore.
B My appetite is much worse now.
C My appetite is not as good as it used to be.
D My appetite is no worse than usual.

APPENDIX E: COURSE ACHIEVEMENT ENVIRONMENT

COURSE ACHEIVEMENT ENVIRONMENT

INSTRUCTIONS: This questionnaire asks you to describe your circumstances with respect to introductory psychology. Specifically, it asks you to report to what extent certain "resource variables" pose a problem for you at this time. Resource variables are aspects of your situation that can help or hinder your performance in introductory psychology.

As you work through the questionnaire, please repond as accurately as possible to each item. There are no right or wrong answers. Please make DARK MARKS so that scoring errors can be kept to a minimum.

STUDENT ROLE-RELATED INFORMATION: Refers to the information (from instructors, peers, others, course and university policies and procedures, and so forth) needed for you to perform well in introductory psychology (PSYC 2004).

A. To do well in PSYC 2004, STUDENT ROLE-RELATED INFORMATION is:

1. UNIMPORTANT (A) (B) (C) (D) (E) IMPORTANT

B. Availability: STUDENT ROLE-RELATED INFORMATION need to perform as a student in PSYC 2004 is:

2. AVAILABLE (A) (B) (C) (D) (E) UNAVAILABLE

C. Quality: The quality of the STUDENT ROLE-RELATED INFORMATION I receive about PSYC 2004 is:

3. GOOD QUALITY (A) (B) (C) (D) (E) POOR QUALITY

REQUIRED SERVICES AND HELP FROM OTHERS: Refers to the services and help from others (fellow students, graduate teaching assistants, instructors) needed for you to perform well in introductory psychology (PSYC 2004).

A. To do well in PSYC 2004, REQUIRED SERVICES AND HELP FROM OTHERS is:

4. UNIMPORTANT (A) (B) (C) (D) (E) IMPORTANT

B. Availability: REQUIRED SERVICES AND HELP FROM OTHERS needed to perform as a student in PSYC 2004 is:

5. AVAILABLE (A) (B) (C) (D) (E) UNAVAILABLE

C. Quality: The quality of the REQUIRED SERVICES AND HELP FROM OTHERS I receive with respect to PSYC 2004 is:

6. GOOD QUALITY (A) (B) (C) (D) (E) POOR QUALITY

TIME AVAILABILITY: Refers to the availability of time needed to perform student functions of PSYC 2004, taking into consideration time limits, interruptions, unnecessary meetings, and distractions.

A. To do well in PSYC 2004, TIME AVAILABILITY is:

7. UNIMPORTANT (1) (2) (3) (4) (5) (6) (7) IMPORTANT

B. Availability: TIME AVAILABILITY needed to perform as a student in PSYC 2004 is:

8. AVAILABLE (1) (2) (3) (4) (5) (6) (7) UNAVAILABLE

C. Quality: The quality of the TIME AVAILABILITY I receive with respect to PSYC 2004 is:

9. GOOD QUALITY (1) (2) (3) (4) (5) (6) (7) POOR QUALITY

WORK ENVIRONMENT: Refers to the physical aspects (inappropriate workspace, lighting, noise, temperature) that affect your ability to perform student functions in PSYC 2004.

A. To do well in PSYC 2004, WORK ENVIRONMENT is:

10. UNIMPORTANT (A) (B) (C) (D) (E) IMPORTANT

B. availability: WORK ENVIRONMENT needed to perform as a student in PSYC 2004 is:

11. AVAILABLE (A) (B) (C) (D) (E) UNAVAILABLE

C. Quality: The quality of the WORK ENVIRONMENT I receive with respect to PSYC 2004 is:

12. GOOD QUALITY (A) (B) (C) (D) (E) POOR QUALITY

APPENDIX F: EXAM GOAL COMMITMENT QUESTIONNAIRE

Please answer the following five questions in relation to your goal for the next EXAM in PSYC 2004 (blacken one number for each item on the opscan).

1. I think this goal is a good goal to shoot for.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

2. It's unrealistic for me to expect to reach this goal.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

3. It wouldn't take much to make me abandon this goal.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

4. I am strongly committed to pursuing this goal.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

5. Quite frankly, I don't care if I achieve this goal or not.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

APPENDIX G: COURSE GOAL COMMITMENT QUESTIONNAIRE

Please answer the following seven questions in relation to your COURSE GRADE GOAL for PSYC 2004 (circle one number).

1. I am strongly committed to pursuing this course grade goal.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

2. Quite frankly, I don't care if I achieve this course grade goal or not.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

3. It is quite likely that this goal may need to be revised, depending on how things go this semester.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

4. It wouldn't take much to make me abandon this course grade goal.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

5. It's unrealistic for me to expect to reach this course grade goal.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

6. Since it's not always possible to tell how tough courses are until you've been in them awhile, it's hard to take this course grade goal seriously.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

7. I think this course grade goal is a good goal to shoot for.

strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
1	2	3	4	5

VITA

Michele Rozhon was born on December 7, 1966 in Chicago, Illinois. She graduated from Amos Alonzo Stagg High School in 1985. In 1989 she received her Bachelor of Science degree in psychology from Northern Illinois University. In May of 1992 she received her Master of Science degree in industrial/organizational psychology from Virginia Tech.

Michele A. Rozhon