Introduction

Theories of work motivation have long recognized the importance of discrepancies between one's goal and actual performance in determining behavior. Proponents of these theories suggest that it is not an individual's performance level per se that is important; rather it is the discrepancy between the person's performance and relative goal that affects motivation (Bandura, 1991; Campion & Lord, 1982; Locke & Latham, 1990). They propose that, more often than not, people monitor the match between desired goals and their actual behavior. When a discrepancy is observed between a desired goal and actual performance, individuals are likely to engage in behavior that will reduce or eliminate the discrepancy (Bandura, 1991; Campion & Lord, 1982; Carver & Scheier, 1981; Locke & Latham, 1991; Williams, Donovan, & Dodge, 2000). This link between failing to reach a goal and consequential reactions in pursuit of goal attainment suggests that a state of discrepancy increases motivation.

The motivational impact of goal-performance discrepancies (GPDs) can clearly be seen in the well supported propositions of the goal setting theory (GST). GST argues that individuals are more engaged by challenging performance goals (i.e., specific and difficult) and tasks that are associated with discrepancies rather than easy goals, which are associated with little or no discrepancies (Locke, Shaw, Saari, & Latham, 1981). Originally, it was proposed that larger discrepancy experiences were associated with motivational properties that directed individuals to enhance their performance toward goal attainment whereas, smaller discrepancies were argued to be weakly associated with motivational properties (Locke et al., 1981). However, research on self-regulation has shown that large discrepancies can often also lead to strategies of goal attainment characterized by downward goal revision (Bandura, 1991; Campion & Lord, 1982; Williams et al., 2000).

Much of the research to date has examined how the effects of GPDs influence subsequent performance on similar or identical tasks however, very few studies have examined how the effects of GPDs might carryover across different tasks within a performance context. It would be of interest to further examine whether effects of discrepancies on a given task can spillover to influence performance on a separate, distinct task. Research conducted on the mechanics of motivational spillover in multiple goal setting situations is essential if we want to continue to understand the motivational processes of individuals who pursue multiple goals in performance settings.

The present study attempts to extend the goal-setting research by investigating motivational spillover across tasks. Although past research has indicated that GPDs are likely to influence subsequent behaviors on a single task (Austin & Vancouver, 1996; Kluger & Denisi, 1996), it is also likely that the motivational properties associated with GPDs on one task can affect performance on an altogether separate task. In the following, the influence of GPDs on behavior in performance settings will be described based on propositions outlined by the control theory (CT) and social-cognitive theory (SCT).

Theoretical Framework of GPD

Control theory (CT). According to CT, when an individual receives feedback that their performance has fallen below the standard or goal, their initial reaction is to attempt to make cognitive or behavioral adjustments to reduce the discrepancy (Carver & Scheier, 1981). This line of thought is based on a cybernetic model, emphasizing the notion that relevant environments are monitored via some sensor function (Powers, 1973). When the sensor yields a signal (feedback), which is below a referent, standard, or desired state (goal) that discrepancy or error triggers a self-correcting motivation. More specifically, the onset of motivational processes, triggered by a GPD, creates a sense of disturbance in individuals. This sense of disturbance directs individuals to increase efforts or to engage

in downward goal revision in such a way that reduces or eliminates discrepancies and alleviates distressed feelings. CT asserts that individuals must actively focus their attention inward and pursue the goals that are important to them in order for self-corrective motivation to be activated (Carver & Scheier, 1981; Powers, 1973). Proponents of the theory do not stress the importance of cognitive and affective reactions to GPD however emphasize the 'automatic' behavioral reaction toward correcting performance to restore system balance (Carver & Scheier, 1981; Powers, 1973).

Social cognitive theory (SCT). SCT postulates that self-regulation of behavior encompasses four steps: goal establishment, goal-observation, goal-evaluation, and self-reaction (Bandura, 1986). After individuals set goals and monitor their behavior (self-observation) they make comparisons between their actual performance and desired goals (goal evaluation) (Bandura, 1986). An individual's perception and subsequent reaction of the goal-evaluation outcome are key components of SCT in predicting discrepancy reduction behaviors. One outcome of GPDs, characterized as a cognitive consequence, is a change in level of self-efficacy. Bandura (1991) defines self-efficacy as an individual's perception about his/her capabilities toward their own performance. Another cognitive consequence associated with GPDs, is a change in affect, defined as the level of satisfaction associated with performance on a task (Bandura, 1991). If a positive GPD is perceived from the goal-evaluation step then individuals feel satisfied and experience increased levels of self-efficacy. On the other hand, if a negative GPD is perceived then individuals feel dissatisfied and experience diminished levels of self-efficacy (Bandura, 1991).

SCT also acknowledges that the relationship between GPDs and subsequent self-efficacy and task related affect is likely to depend upon the attributions made by individuals concerning the perceived causes of their performance (Bandura, 1991). Casual attributions are defined as an individual's belief concerning the causes of his/her performance (Weiner & Sierad, 1975). Attributions

made for perceived causes of performance are proposed to moderate both the relationship between GPDs and self-efficacy and the relationship between GPDs and affect (Bandura, 1986). Individuals who attribute successful performance to internal and stable causes (i.e., ability) are more likely to experience heightened self-efficacy and increased self-satisfaction. On the other hand, those individuals who perform poorly and attribute their performance to stable and internal causes are more likely to experience diminished self-efficacy and decreased self-satisfaction (Bandura, 1991; Mone & Baker, 1992; Thomas & Mathieu, 1994). In sum, changes in affect (satisfaction vs. dissatisfaction) and changes in efficacy (low vs. high self-efficacy), as a consequence of GPDs, are impacted by the attributions individuals make about the perceived causes of their behavior.

The similarity of research findings in the area of goal-behavior discrepancies, in line with CT and SCT, is compelling, as these theories share several key elements. First, they argue that individuals tend to engage in setting goals and exerting effort toward goal attainment. Second, they purport that individuals monitor the discrepancies between their actual performance and the standard they set for themselves. Third, they assert that these discrepancy states activate motivational processes that direct individuals to respond in different ways.

Responses to Negative GPD

When individuals experience goal failure their initial reaction is to reduce or eliminate discrepancies, which stems from a desire to alleviate dissatisfaction with substandard performance (Austin & Vancouver, 1996; Kluger & Denisi, 1996). Theoretically, initial negative goal-performance discrepancies produce behavioral changes (i.e., increased effort), while persistent negative discrepancies produce cognitive changes (i.e., downward goal revision) (Campion & Lord, 1982). As such, an individual's response directed at reducing a discrepancy may include working harder (behavioral response) or setting an easier goal (cognitive response), depending on the magnitude and

frequency of goal failure. For the most part, the larger and more frequent the occurrence of the failure the more individuals are apt to acclimatize (lower their goals). On the contrary, individuals who experience infrequent or minimal failure on a task are apt to increase efforts to minimize discrepancies. Both behavioral and cognitive responses will be described in more detail in the following.

Behavioral response. GST and CT argue that individuals who experience negative GPDs initially are more likely to make behavioral changes (i.e., increase effort) in order to meet a desired goal (Carver & Scheier, 1981; Locke & Latham, 1991). This is in comparison to individuals who experience consecutive negative GPDs and consequently revise their goals downward when it is clear that goal attainment is improbable (Bandura, 1991; Campion & Lord, 1982; Locke & Latham, 1991). The notion that individuals are likely to exert more effort to achieve a goal after receiving negative goal-performance feedback has been well supported in previous research (Bandura & Cervone, 1983; Campion & Lord, 1982; Carver & Scheier, 1982; Williams et al., 2000).

Research indicates that individuals exert more effort in the presence of small goal failures as well as initial large goal failures (Bandura & Cervone, 1983; Campion & Lord, 1982; Williams et al., 2000). Campion and Lord (1982) found that undergraduate students who experienced sizable and frequent negative discrepancies between their desired goal and actual performance on an exam subsequently increased their effort in attempt to meet their goal on the next exam. They indicated that students exerted more effort after negative discrepancies on exams because they were trying to compensate for their previous substandard performance.

More recently, Williams et al. (2000) found that track athletes who experienced small GPDs were more likely to exert effort to meet their goals in subsequent meets. In 50.4% of occasions, individuals who received negative performance feedback held goals constant and increased efforts in

order to attain goals. These findings indicate that when goals are perceived as attainable, individuals are likely to demonstrate persistence toward meeting their desired goal. Even when a larger negative discrepancy between actual performance and a desired goal was experienced, individuals tended to exert more effort toward reaching the goal, especially when goal attainment was perceived to be within their reach.

Cognitive responses. SCT and CT argue that severe disturbance associated with large, consistent discrepancies coupled with the perceived unlikelihood of goal attainment signals a need for corrective behavior, characterized by goal revision. Research supporting both CT and SCT has found that individuals are more likely to engage in cognitive forms of discrepancy reduction, particularly goal revision, when negative GPDs are large and consistent across performance trials (Bandura & Cervone, 1986; Campion & Lord, 1982; Carver & Scheier, 1982; Mone & Baker, 1992; Williams, et al., 2000).

Recently, Williams et al. (2000) found that on 30.8 % of occasions, track and field athletes experiencing negative GPDs revised their goals downward when performance was highly discrepant from their current goal. In fact, they found that the size of the negative GPD was proportionate to the amount by which individuals decreased their goals during the season. Similarly, Campion & Lord (1982) found that undergraduates who experienced large negative and consecutive failures on exam grades during a semester set easier goals for course grades, whereas small and inconsistent discrepancies did not provoke cognitive changes. They indicate that the closer the semester neared, individuals revised their goal downward for overall course grades because they became convinced that achieving their initial goal was improbable. The researchers assert that once individuals experience large and consistent negative GPDs and perceive that they cannot be eliminated by increased levels of

effort, setting easier goals is the surest route to increase the chances of goal attainment (Campion & Lord, 1982).

Another cognitive response to large and consistent negative goal discrepancies is goal abandonment (i.e., quitting). When increasing effort or setting easier goals are not perceived as solutions to eliminate large and steady discrepancies, feelings of helplessness arise (Mikulincer, 1988). In this case, goal abandonment is the discrepancy reduction strategy that individuals will most likely employ (Mikulincer, 1988). According to the learned helplessness theory, individuals who perceive goals to be difficult or impossible, and experience repeated failure are more likely to feel that no response will control future outcomes (Abramson, Seligman, & Teasdale, 1978). One finding indicates that when individuals experience large and steady negative discrepancy states, they perceive that setting easier goals will facilitate goal attainment, unless individuals become convinced that goal attainment is beyond their control, in which in this case, helplessness will intensify (Mikulincer, 1988). When feelings of helplessness heighten individuals tend to react by avoiding or abandoning goals (i.e., quitting).

Research on behavioral and cognitive responses to negative GPDs has provided valuable insight for predicting behavior in goal-setting contexts. Past research indicates that individuals who "just miss" reaching a goal are more likely to become fueled by a minimal state of discrepancy and work harder to compensate for their shortcomings (Bandura & Cervone, 1983; Campion & Lord, 1982; Williams et al., 2000). On the contrary, individuals who miss their goal by a "long shot" and consistently fail to reduce or eliminate discrepancies on subsequent trials are more likely to become convinced that goal attainment is beyond their ability, and will set easier goals or abandon their goal if feelings of helplessness arise (Campion & Lord, 1982; Mikulincer, 1988; Williams et al; 2000).

Taken together, the conditions under which behavioral vs. cognitive responses occur depend primarily on the magnitude and frequency of the negative GPD.

Consequences of Negative GPDs.

The magnitude and frequency of negative GPDs have additionally been shown to be associated with an individual's affective state and self-efficacious beliefs concerning their performance (Bandura & Cervone, 1983; Mone & Baker, 1992; Thomas & Mathieu, 1994). Several studies show that negative GPD states have consequential effects on mood states and on self-efficacy such that when individuals receive discrepant information about their performance in relation to their goals, beliefs about their own capabilities and their mood states are likely to change (Bandura & Cervone, 1983; Mone & Baker, 1992; Thomas & Mathieu, 1994). Specifically, large and consistent negative GPD are associated with a decrease in self-efficacy, and an increase in negative affect and dissatisfaction (Bandura & Cervone, 1983; Mone & Baker, 1992; Thomas & Mathieu, 1994).

Decreased self-efficacy. SCT argues that large negative GPDs tend to influence cognitive mechanisms by directly threatening self-perceptions and self-evaluations (Bandura, 1986). Consequently, the larger the negative discrepancy, the more detrimental effects it will have on the level of an individual's self-efficacy. Bandura and Cervone (1983) found that when individuals perceived their performance on an ergometer task (a bike pedaling task involving pulling and pushing two arm levers) to be largely substandard, their beliefs about their own capabilities to attain the goal in the future decreased. Similarly, Thomas and Mathieu (1994) also argue that negative GPDs are antecedents of negative self-efficacious perceptions. They found that students who performed poorly on an exam reported lower levels of self-efficacy, whereas students who deviated minimally from their desired goal reported no changes in level of self-efficacy. Interestingly, they also found that casual attributions moderated the relationship between negative GPDs and self-efficacy such that individuals

who experienced large goal failures, and attributed those failures to stable factors, reported lower levels of self-efficacy compared to individuals who attributed their failures to unstable factors. Overall, negative GPDs have been shown to have consequential effects on self-evaluations by producing decreased levels of self-efficacy (Bandura, 1989; Gist & Mitchell, 1992; Locke & Latham, 1990).

Increased negative affect. Researchers have shown that negative GPDs also produce increased levels of negative affect and dissatisfaction (Bandura & Cervone, 1983; Carver & Scheier, 1981; Locke & Latham, 1990). Based on an individual's appraisal of performance relative to personal goal levels, individuals experience some level of affective reaction (Bandura, 1986). Meeting or exceeding a goal may create a sense of attainment and satisfaction within a person. On the other hand, failing to reach a goal may create frustration, depression, and dissatisfaction (Bandura & Cervone, 1983). Research consistent with CT and SCT indicates that as the magnitude and frequency of negative GPDs increases the level of negative affect will increase and the level of postive affect will decrease. (Bandura & Cervone, 1983; Carver & Scheier, 1981; Locke & Latham, 1990).

Bandura and Cervone (1983) found that individuals were more self-dissatisfied when they perceived their performance on an ergometer task to be largely discrepant from a desired goal in comparison to individuals who did not perceive a large discrepancy. Similarly, Mone and Baker (1992) found that students who experienced large negative GPDs on an exam reported higher levels of negative affect whereas students who experienced minimal levels of negative GPDs reported no changes in affective responses. Interestingly, they also found that casual attributions moderated the relationship between negative GPDs and level of negative affect such that individuals who experienced large goal failures, and attributed those failures to internal causes, reported higher levels of negative affect compared to individuals who attributed their failures to external causes. In general,

the more discrepant individuals perceive their performance to be in comparison to a desired goal the less satisfied they will feel about their level of performance and the less positive they may feel toward attaining their goal.

The consequential effects of negative GPDs described above may have several implications for how behavioral and cognitive responses come into play. SCT argues that people choose how to respond to negative GPDs partially based on perceptions of self-efficacy and affective states (Bandura, 1986). For instance, when individuals receive discrepant information about their performance in relation to their goals, efficacious beliefs and affective states associated with goal failure will guide their behavior. Previous findings indicate that efficacious beliefs and affective states may work separately or jointly to determine what responses (behavioral vs. cognitive) will be used to eliminate discrepancies (Bandura & Cervone, 1983).

Implications of Consequences of Negative GPDs

It is argued that individuals who experience negative GPDs and are able to maintain high levels of self-efficacy and low levels of negative affect will more than likely increase efforts to reduce discrepancies (Bandura & Cervone, 1983; Mone & Baker, 1992). However, as noted previously, in the presence of large and consistent negative discrepancies, it is difficult to maintain heightened levels of self-efficacy and positive affect (Mone & Baker, 1992; Thomas & Mathieu, 1994). Thus, it is more likely that when an individual's performance falls markedly short of their goal, levels of self-efficacy will decrease and levels of negative affect will increase. This ultimately exemplifies the process of de-motivation (Bandura, 1991). More often than not, decreased levels of self-efficacy and increased levels of negative affect resulting from large and consistent negative GPDs, will have an impact on goal setting such that individuals will set lower goals for themselves (Bandura, 1991; Carver, Blaney, & Scheier, 1979; Kernis, Zuckerman, Cohen, & Spadafora, 1982; Williams et al., 2000). Setting

easier goals after sizable and frequent failure is a common cognitive response when discrepancy elimination is the objective (Bandura, 1991). In the following, the impact of mood and self-efficacy, as consequences of negative GPDs, on goal setting will be discussed in more detail.

Self-efficacy and goal setting. SCT argues that self-efficacy influences the choices people make, their aspirations, how much effort they exert, and how long they persevere in the face of obstacles (Bandura, 1991). In addition, self-efficacy is theorized to affect goal-setting processes within performance contexts (Bandura, 1991). For instance, the more capable individuals judge themselves to be, the higher the goals they set for themselves. On the other hand, the less capable individuals judge themselves to be, the lower the goals they set for themselves.

As mentioned before, whether negative discrepancies between personal standards and attainment are motivating or discouraging is partly determined by the magnitude and frequency of discrepancies and partly influenced by an individual's belief that they can attain the goals they set for themselves. Those who are assured of their capabilities exert more effort when they experience goal failure and are more likely to persist until they succeed (Bandura & Cervone, 1983; 1986). In contrast, those who attain doubts about their own capabilities are likely to be dissuaded by goal failure (Bandura & Cervone, 1986; Mikulincer, 1988), and are more likely to engage in downward goal revision on subsequent performance tasks (Carver et al., 1979; Kernis et al., 1982). According to these studies, low levels of self-efficacy, after extensive and continual failure on subsequent tasks, has a detrimental effect on motivation such that it triggers individuals to set easier goals for themselves.

Mood and goal setting. Although previous research has shown that negative GPDs directly induce affective responses and self-dissatisfaction (Mone & Baker, 1992; Thomas & Mathieu, 1994) few studies to date have been conducted to test whether negative affect impacts goal setting. In order to address this shortcoming, Hom and Arbuckle (1988) examined the role of mood states in goal

setting situations. They found that mood states have a distinctive effect on goal setting, such that children in a negative mood state produced significantly lower goals than children in a happy mood state.

A theoretical perspective for the influence of mood on goal setting can be drawn from a growing body of literature on affect (Isen, 1984; Morris, 1990). A functional perspective toward affect at work argues that positive mood states (i.e., elation and distress) may signal the availability of physical and psychological resources, thereby increasing motivational states. Conversely, negative mood states (i.e., anxiety and distress) may signal the unavailability of resources, thereby decreasing motivational states (Morris, 1990). Another perspective purposed by Isen (1984) theorizes that emotional responses include cognitive processes that tend to prompt compatible thought and behavior. He argues that mood states are theorized to be indicative of task-specific self-efficacy beliefs such that positive moods cue high self-efficacy beliefs, while negative moods, cue low self-efficacy beliefs (Isen, 1984). Based on these perspectives, it is reasonable to conclude that mood states induced by goal failure may have de-motivating effects.

Of particular interest however, is the relationship between induced mood states and subsequent goal setting. To date, evidence demonstrating that negative mood states direct individual's to engage in setting lower goals than positive mood states is limited to one study (Hom & Arbuckle, 1988). Since goal failure has similar effects on both affective and cognitive mechanisms, efficacious self-beliefs and mood states should influence goal-setting similarly. Consistent with Bandura (1991) and Isen (1984), the impact of goal failure, especially that which directly threatens an individual's self-concept and induces doubts about his/her own capabilities, will more than likely result in negative mood states (Bandura, 1991). Needless to say more research would help clarify the influential role of mood states in goal setting performance contexts.

Multiple Goal Settings

The research conducted on negative goal-behavior discrepancies has considerable implications for motivational processes on single goal situations in the work place. Most importantly, enhanced productivity may be evidenced when individuals set challenging goals, increase their efforts when a minimal discrepancy between actual performance and desired goals is present, *and* obtain enhanced levels of self-efficacy and mood toward goal attainment. Although we are moderately certain of the effects of negative GPDs on self-regulatory processes in single goal situations, we are relatively unaware of how negative GPDs impact behavior in multiple goal situations. Undoubtedly, individuals in organizational settings, more often than not, work toward achieving multiple goals at a time, not just a single goal.

Only a few studies have examined the role of GPDs in multiple-goal scenarios, and the primary focus has been on goal hierarchies and priority setting (Campion & Lord 1982; Kernan & Lord, 1990). Campion and Lord (1982) found that outcomes of lower order goals determined the levels of higher order goals, such that consecutively failing to meet goals on exam grades directed individuals to lower goals on course grades. Kernan and Lord (1990) found that individuals gave more priority to goals that were associated with small discrepancies compared to large discrepancies. The researchers suggested that smaller discrepancies were more attractive to individuals because goal attainment was more proximal. Despite these findings, questions about whether motivational processes from one goal outcome effectively spillover to affect goal-associated behavior on a distinct task remains largely unanswered.

Spillover of Motivational Processes.

The main objective of the present study is to investigate the effects of spillover across multiple tasks in a performance context. Investigating what motivational processes take place between the

completion of one task and the start of a different task, and how inter-task performance impacts self-regulatory behaviors is the next crucial step in broadening our understanding of work motivation. To date, very few studies have focused on the effects of spillover in multiple goal environments. However, research conducted on spillover in similar goal settings dates back more than half a century (Bandura & Cervone, 1983; Campion & Lord, 1982; Festinger, 1942a; Jucknat, 1937).

When researchers in the field of motivation and personality first started conducting studies on goals and performance they noticed that performance outcomes on one task "transferred over" in such a way to affect level of aspiration (i.e., goal striving behavior) for a subsequent task (Jucknat, 1937). In her study, she used similar paper and pencil mazes for both tasks and found that reactions to success and failure on the first task differentially affected the levels of aspiration for the second task. More specifically, negative reactions to failure on the first series of mazes "transferred over" and resulted in decreased levels of aspiration on the second series of mazes. Similarly, positive reactions to success on the first series of mazes "transferred over" and resulted in increased levels of aspiration on the second series of mazes (Jucknat, 1937, p. 170).

In another study, Festinger (1942a) reported similar findings. He used two series of mazes; in the first condition both series of mazes were solvable and in the second condition both were unsolvable. Findings show that the level of aspiration shifted downward from one series to the next in the unsolvable condition and shifted upward in the solvable condition, characterizing a transfer in motivation. More specifically, 64 % of individuals in the unsolvable condition reduced their level of aspiration (i.e., goal) from one series to the next, and 51% raised their level of aspiration in the solvable condition from one series to the next.

Since these initial studies, researchers in the field of motivation have used different terminology and slightly altered definitions to describe the process that Festinger (1942a) and Jucknat

(1937) termed *transfer of motivation*. Today researchers use *motivational spillover* to describe the impact of goal performance outcomes of one task on the motivational processes for subsequent distinct tasks (Radosevich, 1998; Williams & Alliger, 1994). Spillover effects that stem from failure on one task are characterized as deleterious in that they hinder performance on distinct tasks (Williams & Alliger, 1994). The occurrence of spillover is apparent when changes in motivational processes take place between failure on one task and performance on another. Theoretically, spillover can also have positive consequences on performance, particularly when individuals exceed their goals and experience heightened mood and high self-efficacy (Bandura, 1991). Although it was originally proposed that motivational spillover was largely dependent on task similarity, such that spillover was more likely to evidenced only when the degree of similarity between the nature of tasks was large (Jucknat, 1937), these initial propositions have no bearing on the more recent empirical evidence that indicates that motivational spillover can also take place between distinct tasks (Carver et al. 1979; Kernis et al., 1982; Radosevich, 1998; Williams & Alliger, 1994).

Most research on spillover effects has been conducted in the work-family context (Repetti, 1989; Williams, Suls, Alliger, Learner, & Wan, 1991; Williams & Alliger, 1994). In general, most studies report that failure outcomes are more likely to spillover and influence performance on subsequent tasks as opposed to success outcomes (Radosevich, 1998; Williams & Alliger, 1994). Repetti (1989) found that male air traffic controllers experiencing a negative mood during the day affected the nature and quality of their interactions with family members that evening. In another direct test of mood spillover, Williams et al. (1991) reported that time played a key role in determining whether spillover would occur. Specifically, they showed that negative mood states had a tendency to spill over from one context to the next within a day, but not across days. Williams and Alliger (1994)

reported that negative mood does spillover from work to family, and inversely from family to work, but positive moods had no effect.

Fewer studies have been conducted examining the effects of spillover in performance contexts. In general, these studies are consistent with the research conducted on motivational spillover in work-family contexts. For the most part, these studies indicate that motivational spillover between two distinct tasks occurs in the presence of negative affect and self-evaluation. In the following, the empirical evidence and implications of motivational spillover in performance contexts across tasks will be discussed in more detail.

The Implications of Motivational Spillover

Spillover effects may have certain implications for the behavioral and cognitive responses evidenced by individuals when setting goals in multiple goal situations. As such, failure on an initial task can lead to motivational decline for another task, especially if low self-efficacy and negative mood are present, and controllable and/or internal attributions are made for performance (Carver et al. 1979; Kernis et al., 1982). Two studies to date have investigated the spillover effects of motivational processes from one task to a different task. Both studies indicate that failure on one task leads to low expectancies and diminished effort on subsequent tasks.

Carver et al. (1979) examined whether outcome expectancies from an initial task would impact persistence on a subsequent task. The initial task was an anagram task, in which students were asked to rearrange letters of each item to form a word. The second task was a design task in which students were asked to trace over the lines of a geometric figure without lifting their pen from the page and without retracting any line segment. Results indicate that after failure on the anagram task, individuals with negative outcome expectancies showed little effort on the design task if they were highly aware of their own present state or behavior. On the other hand, when an individual's outcome

expectancies were positive, self-focused attention lead to enhanced efforts on the design task. Similarly, Kernis et al. (1982) presented students with a maze task, all of which were led to believe that they failed the task. Subjects in the internal expectancy condition were also led to believe that it was unlikely that they would do well on a subsequent design problem task, different in nature from the maze task. On the other hand, subjects in the external expectancy condition were led to believe that the design problems were very difficult to solve. Results indicated that after failing the maze task, subjects, in general, expected to do poorly on the design problem task. They found that when perceived performance on the maze task was low, expectations of performance on the design task were also low. One explanation of why students may not have tried to do well, on a subsequent dissimilar task, is because they may have rationalized that success was not within the boundaries of their control, thereby, exhibiting the typical learned helplessness effect (Kernis et al., 1982).

The learned helplessness literature suggests that if individuals experience sizable failure on a task, attribute the failure to internal and stable causes (i.e., ability, task difficulty), and become convinced that no response will control future outcomes then feelings of worthlessness and reduced motivation will arise (Mikulincer, 1988). In one study, amount of failure was manipulated and subjects reported an increase in effort following small failures, but reported feelings of helplessness following larger amounts of failure (Pittman & Pittman, 1979). Another study reported that exposure to a single failure on a configuration discrimination task improved performance however, exposure to four failures impaired performance among individuals who expected outcomes to be controllable (Mikulincer, 1988). Furthermore, Kernis et al. (1988) reported that negative GPD on a maze task affected goal setting on a design problem task such that individuals experiencing failure and attributing it to internal causes on the first task were more likely to expect poor performance outcomes on the second task. It can be deduced from these studies that negative outcomes characterized by

diminished motivation and increased helplessness, after large and consistent goal failures, may have detrimental effects on motivational processes for goal setting on subsequent tasks.

Failure tolerance. On the other hand, evidence suggests that generally, minimal amounts of failure (i.e., missing goal attainment by less than 10%) will not lead individuals to experience diminished motivation, rather it will produce a 'reactance' affect which may lead to increases in effort and persistence toward goal attainment instead of reduced effort and/or helplessness (Bandura & Cervone, 1986; Campion & Lord, 1982; Mikulincer, 1988). Previous research suggests that individuals obtain varying levels of error sensitivities, which differentially predicts how they will behave if discrepancies are detected (Hyland, 1988). Error sensitivity has been defined as error salience, in that the more salient a given discrepancy between an individual's actual performance and their desired goal, the greater the intensity of behavior generated to achieve the goal (Carver & Scheier, 1982). For instance, an individual who detects a large discrepancy between her goal and her actual performance on an exam, and obtains a high level of error sensitivity for academic performance, will more than likely be motivated to reduce the discrepancy. Given this, Hyland (1988) suggests that discrepancy tolerance is a function of both individual difference variables as well as situational variables such that individuals will be more likely to tolerate goal failures when levels of error sensitivity are low and the magnitude of discrepancy is minimal.

Previous studies suggest that sizable goal failures have more influence on cognitive responses to GPDs than small failures do (Bandura & Cervone, 1986; Campion & Lord, 1982; Mikulincer, 1988). When individuals perceive small negative discrepancies they are less likely to react in ways characterized by goal revision as when a large negative discrepancy is experienced, specifically because small failures can be endured and even accepted. Williams et al. (2000) showed that individuals were tolerant of negative performance discrepancies for similar tasks such that they

reduced GPDs by 26%. They suggest that not only were the participants tolerant of GPDs but they were motivated by them as well. Individuals who indicated a tolerance for the GPDs also reported increased exertion toward goal attainment in subsequent performance trails. In other words, individuals who experienced small GPDs increased their efforts instead of setting easier goals in order to reduce the size of the discrepancy (Williams et al., 2000). These findings are congruent with SCT, which asserts that reducing the total amount of GPDs would take away feelings of challenge and opportunity for positive self-evaluations, therefore individuals are likely to exemplify some level of tolerance for GPDs (Bandura, 1991).

Altogether, these findings suggest that individuals who experience large and consistent goal failures are likely to experience diminished motivation characterized by setting easy goals for subsequent tasks whereas individuals who experience minimal negative GPDs are not likely to experience diminished motivation, rather they will increase efforts to reduce negative GPDs. Based on these findings it is hypothesized that individuals experiencing a large, negative GPD on a given task will set a lower goal on a subsequent distinct task compared to individuals experiencing a small negative GPD (***Hypothesis 1***).

Mechanisms Behind Negative GPD Spillover

There may be several reasons why motivational spillover effects may be evidenced from one task to the next. In the present study the mediating roles of mood states and self-efficacy will be examined in order to potentially explain why the performance outcome of an initial task influences the performance outcome of a separate subsequent task. Both variables have been demonstrated to influence the relationship between GPD and goal revision in single task situations in previous research. I expand on these relationships in the following, and attempt to extend GST, as I offer hypotheses regarding the mediating effects of responses to discrepancy states in inter-task situations.

Mood states. One potential explanation for the motivational spillover effect phenomenon is induction of negative mood. The impact of mood induction on goal setting has been largely ignored in research on GST and SCT. Again, Hom and Arbuckle (1988) indicate that mood states have a distinctive effect on goal setting, such that children in a negative mood state produce significantly lower goals than children in a happy mood state. This finding is consistent with theoretical notions that an individual's choice of goal difficulty could be expected to vary with mood state (Locke et al., 1981). More specifically, a positive affective state should generate a higher goal, thereby increasing performance levels, whereas a negative affective state should generate a lower goal, thereby decreasing performance levels.

In a study using an older sample (i.e., undergraduate students) mood spillover was directly tested between the completion of one task and the start of a similar task (Radosevich, 1998). Findings showed that negative mood experienced by individuals during the first task spilled over slightly to the second task, after being interrupted on the first task. Results did not show any support for spillover of positive mood between tasks.

Given these findings it is likely that negative mood states will effectively spillover across tasks and subsequently influence motivational processes in a negative manner. If so, spillover effects will have certain implications for goal setting in inter-task situations such that negative moods or a decrease in positive mood, that results from poor outcomes on one task and effectively spillover, will have an impact on goal setting for another task. This inference leads to the following hypotheses (see Figure 1):

> Large and consistent negative GPDs will result in an increase in negative mood and a decrease in positive mood. Small negative GPDs will have no effect on mood ***(Hypothesis 2a).***

Increased negative mood and decreased positive mood will be associated with setting a low goal for a second distinct task **(*Hypothesis 2b*).**

The relationship between negative GPDs and goal setting on the second task will be partially mediated by increased negative mood and decreased positive mood experienced on the initial task **(*Hypothesis 2c*).**

Generalized self-efficacy. Another potential explanation for the motivational spillover effect is decreased levels of generalized self-efficacy (GSE). SCT argues that self-efficacy beliefs vary on three different dimensions: (a) level or magnitude (level of task difficulty), (b) strength (expectancy of performing at a certain level at task), and (c) generality (the extent to which beliefs about capabilities generalize across tasks and situations) (Bandura, 1986). It is the third dimension, generality, which is emphasized as potentially explaining the motivational spillover effect from one task to a different, distinct task.

Individuals who have low, and generally stable, levels of self-efficacy are easily discouraged by failures, whereas those who are assured by their capabilities for goal attainment are not as discouraged (Bandura, 1986). If individuals with low levels of GSE encounter difficult obstacles, they may doubt their capabilities and therefore decrease their efforts on similar and different tasks because they perceive that they cannot succeed, regardless of their efforts. As such when repeated negative GPDs are experienced, individuals may have a strong tendency to view themselves as incapable of meeting demands across activities because they associate poor performance on one task to be related to poor performance on another (Bandura, 1991). This self-hindering process, portrayed by the spillover effects of GSE, can potentially impact goal-setting processes across an array of tasks.

Several researchers have focused on differentiating GSE from specific task efficacy (Eden & Aviram, 1993; Eden & Kinnar, 1991; Eden & Zuk, 1995). Some suggest that GSE differs from

specific self-efficacy in that it is characterized as motivational trait rather than a state, thus more resistant to transient changes (Gardener & Pierce, 1998; Judge, Locke, & Durham, 1997). Other researchers differentiate between the constructs, regarding to GSE as general *knowledge* about oneself (i.e., I am a good worker) and referring to SSE as an *appraisal* about oneself in a social context (i.e., I will fail on this task). Taken together both of these views draw upon similar conclusions: An individual's GSE is not tied to specific situations or behavior rather it is a trait-like characteristic that generalizes to a variety of situations.

Very little research to date has been conducted on the effects of GSE in organizational settings. However, several researchers indicate that the most powerful antecedent of GSE is the aggregation of previous experiences (Bandura, 1977; Shelton, 1990, Thomas & Mathieu, 1994). Shelton (1990) suggests that GSE emerges over one's life span as one accumulates success and failures across different task domains. Thus, as successful outcomes accumulate and positive vicarious experiences persist, GSE augments. Likewise, as individuals begin to experience consistent failures and accumulate negative experiences, GSE may begin to diminish.

Despite the adverse effects negative previous experiences may have on one's level of GSE, other researchers have found that GSE can act as an effective shield against ego-bruising outcomes and events (Brockner, 1988). In support of the plasticity hypothesis, Brockner (1988) theorizes that individuals with low levels of GSE are more susceptible to negative external influences than individuals with high levels of GSE (Brockner, 1988). Given this, one can infer that individuals who experience sizable and consistent goal failures as well as obtain low levels of GSE are more prone to experience the adverse effects of negative GPDs compared to individuals with high levels of GSE, who are less susceptible to the negative external influences (Brockner, 1988). It is important to note however, that individuals who have high levels of GSE are not always protected from negative

outcomes. It is theorized that individuals who repeatedly experience negative outcomes on a given task may experience a decrease in task specific self-efficacy, which can effectively spillover to influence levels of GSE (Brockner, 1988; Shelton, 1990). As such individuals who experience sizable, consistent goal failures are likely to experience a change in global self-efficacy if levels of specific self-efficacy decline sufficiently and spillover to reduce levels of GSE.

Drawing from the large body of literature on GPDs it is theorized that if motivational spillover effects are to occur from performance on one task to performance on another, the impact of negative GPD will have to be severe enough to influence a change in levels of GSE (Bandura, 1986; 1991; Chen, Gully, & Eden, 2001). Since an individual's perceptions about his/her general capabilities are somewhat stable, any changes in GSE will more than likely be evident in the presence of large and steady goal failures. Subsequently, as an individual's belief in their overall competence begins to decline, cognitive reactions (i.e., setting easier goals) may be triggered in response to reducing large negative discrepancies (Bandura, 1991; Chen et al., 2001; Williams et al, 2000).

The present study is unique, in that it attempts to examine the mediating role of GSE on goal setting across two different tasks. As mentioned above GSE is a global trait that if penetrated sufficiently, will be responsive to discrepancy feedback. As such, large and consecutive goal failure on one task may have negative effects on GSE, which in turn may lead to engagement of low goal setting on a subsequent task. Based on this, the following hypotheses are offered (see Figure 1):

Large and consistent negative GPDs will result in decreased levels of GSE whereas small negative GPDs will have no effect on GSE **(*Hypothesis 3a*).**

Decreased levels of GSE will be associated with setting a low goal for a second distinct task **(*Hypothesis 3b*).**

The relationship between negative GPDs and goal setting on the second task will be partially mediated by GSE **(*Hypothesis 3c*).**

Moderating Effects

Causal attributions. Learned helplessness theorists suggest that in addition to experiencing large and consistent amounts of failure, individuals who make internal attributions, and expect outcomes to be uncontrollable, are more likely to decrease goals and exhibit substandard performance on a subsequent task than individuals who do not engage in these behaviors (Mikulincer, 1988; Pittman & Pittman, 1979; Roth & Kubal, 1975). Many studies on goal setting have focused their attention on the role of causal attributions in motivation. For example, Kernis et al. (1982) found that subjects with an external reason (i.e., effort) for an expected failure persisted for a longer period of time than did subjects with an internal reason (i.e., ability). Mone and Baker (1992) and Thomas and Mathieu (1994) found that students who experienced negative goal discrepancies and attributed it to stable causes indicated lower levels of self-efficacy compared to students who attributed their performance to unstable causes. Incongruent with these findings, Williams et al. (2000) found that stability attributions did not play a role between goal-performance discrepancy and goal revision. In their study, they found that track and field athletes who perceived low control over the causes of their performance revised their goal downward. Whereas upward goal revision was evidenced for individuals who perceived high control over the causes of their performance. Moreover, Bandura and Wood (1989) found that individuals who viewed an organization as controllable had higher levels of perceived self-efficacy in managing the organization, whereas individuals who viewed an organization as uncontrollable had lower levels of perceived self-efficacy.

Based on these findings, and those of others who have noted that some participants may perceive ability as changeable or malleable (cf. Dweck & Leggett, 1988; Russell, 1982), the role of

controllability as a moderator between negative GPD and goal revision will be the focus of the present study. According to Williams et al. (2000), "differences in perceived controllability may be more crucial determinants of goal revision than perceived locus of causality" (p. 176). Thus, it is hypothesized that causal attributions will moderate the relationships between negative GPD and cognitive consequences such that individuals who attribute large and consistent negative GPD to uncontrollable causes on one task will experience lower levels of generalized self-efficacy (***Hypothesis 4a***).

In their study, Mone & Baker (1992) found that internal attributions (i.e., ability) moderated the relationship between GPD and affective responses such that individuals who attributed large discrepancies to internal attributions reported negative affect. According to the learned helplessness theory, it is reasonable to infer that attributions characterized by perceived uncontrollability will also influence affective states similarly to that of internal attributions (Mikulincer, 1988). Theorists suggest that feelings of helplessness arise in the presence of perceived uncontrollability, diminished self-worth, and deteriorating affect, however no studies to date have examined the association between individuals who perceive that they have no control over their outcomes and the occurrence of negative affect. Because differences in perceived controllability may be more crucial determinants of goal revision (Williams et al., 2000), the goal of the present study is to explore whether attributions associated with uncontrollability effect mood states. Thus, it is hypothesized that individuals who attribute large and consistent negative GPDs to uncontrollable causes on one task will experience increased levels of negative mood (***Hypothesis 4b***).

Method

Participants

Two hundred and twenty two undergraduates from a large southeastern university enrolled in introductory to management courses and an introductory to human resource management course volunteered to participate in the present study. A moderated multiple regression power analysis was conducted utilizing the procedures outlined in Jaccard, Turisi, and Wan (1990) to determine the sample size that would be necessary in the present study to achieve a power level of .80, with an alpha level of .05. The use of these estimates indicates that approximately 150 participants were needed to have adequate power to find interaction effects. Since the magnitude of the interaction term is difficult to estimate, 222 participants were recruited for the present study. Participants were compensated with extra-credit points, which counted toward their course grade.

Procedure

Upon arrival to a computer laboratory, participants were randomly seated at one of 19 computer stations. About half of the computers were programmed to give large negative GPD feedback and the remaining computers were programmed to give small negative GPD feedback. Next, participants were asked to read an informed consent form and sign if they still chose to participate in the study. Participants were told that the purpose of the study was to examine decision-making processes on task performance. They were also notified that the information they provided would be anonymous, and that their participation was completely voluntary.

Practice Trials. First, participants were asked to fill out two computer-based baseline measures assessing generalized self-efficacy (Appendix D) and mood (Appendix E). Next, the participants were asked to complete a series of four practice trials, two for a stock-predicting computer based task and two for a creativity computer based task. The order of the practice trials alternated from one task to another starting with the creativity task first. Before they could begin each practice trial

participants read through four to five instructional screens to obtain information about how to complete the tasks.

Creativity tasks. The first creativity task was named "Locks". The objective was to name as many "locks" as possible. Participants received immediate feedback after every response was entered. Five points were awarded for a creative response (i.e., Goldilocks, Lockness Monster), one point for a common response (i.e., bike lock, door lock), and zero points if the response did not match up to those responses in the word bank. The second creativity task was named "Bears". The objective was to name as many "bears" as possible. Participants received immediate feedback after every response was entered. Five points were awarded for a creative response (i.e., barefoot, Bering Strait), one point for a common response (i.e., grizzly bear, teddy bear), and zero points if the response did not match up to those responses in the word bank. These creativity tasks were adapted from a workbook for children, in which the activities are designed to be brainstorming in nature, and the objective is to enhance problem-solving skills (Micklus, 1989). Brainstorming tasks were chosen for the present study as these exercises are related to instrinsic motivation (Diehl & Stroebe, 1991; Dennis & Valacich, 1194; Morgan, 1996).

Stock predicting task. This task was devised by Earley, Connolly, and Ekegren (1989) and consists of predicting stock prices for fictitious companies. Participants are asked to predict the stock value for 25 companies given the following pieces of information about each company: (a) the performance of the company's marketing, (b) research and development and (c) production decisions relative to their own division goals. The cues were given in percentages (e.g., "marketing=100%, research and development=120% and production=60%"). The percentages represent how well each department did relative to their own departmental goals. For example when "research and development = 120%" this indicates that the department exceeded their goals by 20%, when "research and

development = 70%' this indicates that the department missed their goals by 30%. Based on this information, participants were asked to predict the value of each company stock within $30 of the correct stock value. Participants were allotted ten seconds to make a prediction and the value of the stocks ranged from $10 to $150. After each prediction was made, immediate feedback was provided indicating whether or not the predicted stock price fell within $30 of the correct stock value. Those predictions that fell within $30 of the correct stock value were awarded with one point. For each practice trial participants were given information about 25 fictitious companies and were instructed to make a prediction for each company.

In order to test the hypothesis that spillover occurs from one task to an altogether separate and distinct task, it was important to choose two tasks that were completely distinct from one another. The creativity and stock predicting tasks were chosen based on the divergent skills necessary to perform well on each task. The stock predicting task is analytical in nature in which individuals must process information based on informational cues about a company to make quick decisions about a stock value. On the other hand, in order to perform well on the creativity tasks individuals must generate innovative ideas and produce creative responses. Huffcutt, Conway, Roth, & Stone (2001) assert that "creativity" reflects the capability to generate innovative solutions. Many argue that creativity is different from the concept of analytic capabilities because it requires the flexibility of thought, originality, and the ability to see beyond current structures (Cohen & Swerdlik, 1999). Based on this, the stock predicting and creativity tasks were chosen as they represent different domains of mental capability or skill sets.

The purpose of administering practice trials for the creativity and stock predicting task was twofold. First, it provided a measure of individual ability for each task that was used to control for predicting personal goal. Second, the immediate and accurate feedback provided in the practice trials

enhanced perceptions that feedback would be indicative of actual performance during performance trials 1-3, thus creating a buffer against any suspicion about the bogus nature of the feedback. Concluding the practice trials, participants were asked to complete a baseline measure of specific self-efficacy for the stock-predicting task.

Performance Trials 1-3

Next individuals were asked to perform a creativity task across three performance trials and record their scores, for each trial, on the Performance Record Form (Appendix G). The creativity task for the first performance trial was named "generals". The objective was to name as many "generals" as possible. The goal for this task was to produce eight creative responses within five minutes. The creativity task for the second performance trial was named "slowpokes". The objective was to name as many things that are slow or that move slowly. The goal for this task was to produce ten creative responses within five minutes. The creativity task for the third performance trial was named "H_2O". The objective was to improvise and say something creative about a glass filled with water (e.g., "wishing well" or "it's refreshing"). The goal for this task was to produce 12 creative responses within five minutes.

These performance trials were different than the creativity task practice trials in three ways: (1) individuals were asked to reach an assigned goal in each performance trial (2) feedback was not administered immediately after each response as in the practice trails, instead feedback was administered at the end of five minutes, once the performance trial had ended, and (3) the feedback administered after each of the three performance trials was not a true representation of the participant's performance, instead participants in each group were administered bogus feedback.

Negative GPD feedback manipulation. Feedback on performance trials 1-3 was manipulated such that only negative feedback was provided to each participant, regardless of actual performance on

the creativity tasks. Participants were not made aware of the feedback manipulation, instead they were led to believe that the computer-generated feedback was indicative of their actual performance for each task. Individuals were randomly placed into one of two experimental groups. One of the groups was administered small negative discrepancy feedback, and the other group was administered large negative discrepancy feedback. Individuals provided with small negative GPD feedback were led to believe that they performed within 11% of the assigned goal for each performance trial. Individuals assigned to a large negative GPD were led to believe that they missed reaching the assigned goal by 20% or more for each performance trial. These cut-offs were derived from a previous study examining the effects of goal performance discrepancy on goal-directed behavior (Bandura & Cervone, 1986).

The type of feedback that was administered for each group slightly differed. Both groups received feedback indicating the extent to which they missed their goal and the corresponding grade percent (i.e.,"you have missed reaching the assigned goal by 40%; your grade percent = 60% (D-)"). However, individuals in the large negative GPD feedback group were also administered normative feedback (i.e.,"your performance on this task was less than average compared to other undergraduate students who have completed this task") and evaluative feedback (i.e.,"your performance on this task was unsatisfactory").

Each group received larger magnitudes of negative GPD feedback as performance trials progressed. For example, after the first performance trial, individuals in the small negative GPD group received feedback that read, "you have missed reaching the assigned goal by 8%; your grade percent = 92% (A-)". For the second performance trial the feedback read,"you have missed reaching the assigned goal by 10%; your grade percent = 90% (A-)". For the third performance trial the feedback read,"you have missed reaching the assigned goal by 11%; your grade percent = 89% (B+)".

Similarly, the negative GPD feedback values in the large goal failure group also increased as performance trials progressed. For example, for the first performance trial the feedback read, "you have missed reaching the assigned goal by 40%; your grade percent = 60% (D-)". For the second performance trial the feedback read, "you have missed reaching the assigned goal by 47%; your grade percent = 53% (F)" For the third performance trial the feedback read, "you have missed reaching the assigned goal by 51%; your grade percent = 49% (F)". In addition to this, the large negative GPD feedback group also received normative and evaluative feedback.

Originally both groups were administered normative and evaluative feedback however, pilot study data revealed that individuals in the small negative GPD feedback group may have been experiencing similar levels of failure inducement as the large negative GPD feedback group. After careful consideration, the decision to drop the normative and evaluative feedback from the small negative GPD feedback group was made, as these types of feedback are often considered to have the most detrimental effect on individual motivational processes (Kluger & Denisi , 1996). Since the primary purpose of the present study was to determine "if" spillover occurs it was not necessary for both groups to receive the exact same type of feedback. More importantly the purpose was to induce as much failure as possible in one group and induce less in a second group and determine whether spillover occurs by comparing groups.

Concluding the three performance trials participants were asked to fill out measures assessing generalized self-efficacy, mood, and causal attribution. Then, participants were led to believe that they would undergo three performance trials for the stock-predicting task. Before this, individuals were asked to fill out a measure assessing specific self-efficacy for the stock-predicting task. After filling out the measure, participants were instructed to set a personal goal for the stock- predicting task. Before setting the goal individuals were asked to read the instructions for the stock-predicting task, as

they were slightly different from the instructions for the practice trials. The instructions read: "use the informational cues to make predictions within $10 of the correct stock value for 30 companies," thus making the task more difficult. Participants were then asked to indicate how many stock values, out of 30, they thought they could predict within $10 of the correct stock value, one being the easiest goal and 30 being the most difficult goal. Once they indicated a personal goal the experiment ended. Before leaving, individuals were asked to complete a self-report manipulation check to assess the success of the feedback manipulation.

Measures

Manipulation check. At the end of the experiment participants were asked to provide responses to four questions assessing the extent to which they believed the feedback they received (see Appendix A). A sample question is "The feedback I received was an accurate evaluation of my performance." Pittman & Pittman (1979) used this manipulation check to determine whether individuals perceive the negative GPD feedback to be valid compared to their perceived level of performance. In the present study responses were made on a two-point scale (1 = disagree, 2 = agree). The possible scores range from 4-8. A score of 4 represents that an individual did not perceive the feedback to be an accurate representation of his/her performance, whereas a score of 8 refers that an individual believes the feedback reflects his/her performance. Originally, responses were made on a five-point scale however, data from the pilot study revealed that the majority of participants were endorsing the response typifying indifference (i.e., "neither agree nor disagree"). This response made it unclear as to whether the feedback was being perceived as accurate, somewhat accurate, or not accurate at all. The use of the two-point forced option scale (i.e., "disagree" or "agree") provided a better indication of how individuals perceived the performance feedback. The reliability of this scale assessed by Cronbach's coefficient alpha was .81.

Performance goal. Participants were instructed to set a performance goal for the stock-predicting task. They were instructed to indicate how many stock values, out of 30, they thought they could predict within $10 of the correct stock value, one being the easiest goal and 30 being the most difficult goal (see Appendix B).

Specific self-efficacy. Task specific self-efficacy (SSE) was assessed using a 10-item scale, based on the self-efficacy scale developed by Phillips and Gully (1997) (see Appendix C). For the purposes of the present study, items were adjusted to reflect participants' beliefs in their abilities to perform the stock-predicting task. The measure included items such as "I feel confident in my ability to perform well on the upcoming stock-predicting task." Responses were made on a five-point scale ranging from (1) "strongly disagree" to (5) "strongly agree". The total self-efficacy score was the computed sum of responses of individual items. The reliability of this scale at Time 1 assessed by Cronbach's coefficient alpha was .81. The reliability of this scale at Time 2 assessed by Cronbach's coefficient alpha was .84.

Generalized self-efficacy. The Generalized Self-Efficacy Scale (Sherer, Maddux, Mercadante, Prentice-Dunn, Jacobs, & Rogers, 1982) was used as a measure of general self-efficacy (see Appendix D). This scale is designed to measure self-efficacy that is not specific to a certain task or situation. The scale measures a broad set of expectations that an individual brings into a novel situation. The self-report measure contains 30 items, 17 of which are scored for generalized self-efficacy. Participants respond to the 17 scored items on a scale from (1) "strongly disagree" to (5) "strongly agree". The possible scores range from 17-85. A score of 17 represents that an individual has very low levels of self-efficacy, whereas a score of 85 refers that an individual has extremely high levels of self-efficacy. Previous studies have shown that this scale is a valid measure of general self-efficacy (Sherer et al., 1982; Sherer & Adams, 1983). The reliability of this scale at Time 1 assessed by Cronbach's

coefficient alpha was .80. The reliability of this scale at Time 2 assessed by Cronbach's coefficient alpha was .84.

Mood. The Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988) was used to measure positive and negative mood (see Appendix E). The PANAS consists of 10 feelings or emotions reflecting negative mood (i.e., distressed, irritable, upset) and 10 feelings or emotions reflecting positive mood (i.e., interested, excited, active). Participants were instructed to indicate the extent to which each item characterized how they felt in general. Responses for each scale were made on a five-point scale (1= very slightly or not at all; 5 = extremely) and were summed to represent the participants' negative/positive mood (possible range for each scale = 0 to 50). The reliability of this scale at Time 1 assessed by Cronbach's coefficient alpha was .75 for the negative affect scale and .87 for the positive affect scale. The reliability of this scale at Time 2 assessed by Cronbach's coefficient alpha was .81 for the negative affect scale and .90 for the positive affect scale.

Causal attributions. Causal attributions were measured with Russell's (1982) causal attributions scale, which uses bipolar items with a 7-point Likert-type scale. Two items reflecting controllable attributions, identified by Williams et al.'s (2000) factor analysis, will be used in the present study to assess controllability (i.e., performance caused by something I can control vs. something I cannot control) (see Appendix F). These items ask the extent to which participants feel that performance is caused by something that is under their control and changeable (1 =strongly disagree, 7= strongly agree). The reliability of this scale assessed by Cronbach's coefficient alpha was .60. The low reliability of this measure could be explained by the small number of items used on the scale.

Results

Table 1 reports the means, standard deviations, and intercorrelations for all variables examined. Table 2 reports the means and standard deviations for all variables for each experimental group.

Manipulation Check

Descriptive statistics were computed to determine the mean and standard deviation for the entire sample on the manipulation check. Overall, participants perceived that the feedback was an accurate representation of their actual performance ($M = 6.26$, $SD = 1.59$), although this value was only slightly higher than the midpoint (i.e., 6). An independent sample t-test was conducted to determine whether there was a difference between conditions for the manipulation check. Results showed that individuals in the small negative GPD groups perceived the feedback to be a more accurate representation of their performance ($M = 6.98$, $SD = 1.29$) than individuals in the large negative GPD group ($M = 5.52$, $SD = 1.53$, $t[219] = 7.66$, $p < .001$, $d = 1.04$). This finding could be explained by an incongruence of feedback with past performance such that individuals who performed well on the creativity practice trials were less inclined to believe the negative GPD feedback for the performance trials. However, although within group correlations for the manipulation check and creativity task practice trial 1 ($r = -.14$, $p > .10$) and creativity task practice trial 2 ($r = -.02$, $p > .85$) were in the expected direction, they did not approach significance. A more plausible explanation for this finding can be drawn from previous literature which suggests that individuals are more likely to believe performance feedback that is positive, or in this case minimally discrepant from an assigned goal (i.e., missed the goal by 10% compared to missed the goal by more than 20%; Austin & Vancouver, 1996; Bandura & Cervone, 1986).

Despite the low scores on the manipulation check for the large negative feedback group, results suggest that individuals' behavioral and motivational processes were affected by the large negative feedback. For example, analyses were conducted to determine whether the large negative GPD had an

impact on the amount of effort one expended from the first performance trial to the last. It was assumed that individuals in large negative GPD group would increase effort initially but eventually decrease efforts after experiencing largely negative repetitive feedback. Effort has been shown to be directly related to feedback such that individuals who experience GPDs are likely to expend more effort in subsequent trials in trying to attain the goal. However, when feedback is perceived as largely negative and repetitive over successive performance episodes, it is improbable that individuals will further increase their effort. (Williams et al., 2000; Bandura & Cervone, 1996; Mikulincer, 1988; Campion & Lord, 1982). In the present study effort was assessed after each performance trial by counting the number of total responses produced. The more responses produced for each trial suggests the more effort was exerted by an individual for that trial. A paired sample t-test was conducted to test whether individuals within the large negative GPD group significantly increased or decreased effort from one performance trial to the next. Results showed that individuals in the large negative GPD group exhibited increases in effort from performance trial 1 to 2 ($t[109] = -9.019$, $p<.001$; $d = .86$) but not for performance trial 2 to3 ($t[109] = -1.049$, $p> .25$; $d = .09$). On the other hand, small negative GPD group exhibited increases in effort from performance trial 1 to 2 ($t[111] = -11.471$, $p<.001$) and for performance trial 2 to 3 ($t[111] = -2.968$, $p<.001$). These findings indicates that the level of effort after the first performance trial, among individuals in the large negative GPD group, increased in response to the introduction of the negative GPD manipulation. However, effort leveled off after the second performance trial, which suggests that individuals in the large negative GPD group were being influenced by the induced GPD. Although this finding does not explain why differences between groups on the manipulation check were evident, it does indicate that the large negative feedback impacted levels of effort expenditure from one trial to the next, thus suggesting that the feedback was taken into consideration by individuals. However, given the problem of between group differences on

the manipulation check measure it was decided that manipulation check scores would be controlled for in the testing of the study hypotheses.

Test of the Hypotheses

In order to test hypotheses one through four, independent sample t-tests, paired sample t-tests, and hierarchical regression analyses were conducted on the data provided by the present sample. Tables 3-8 reports the results from hierarchical regression analyses. Prior to testing the hypotheses, all baseline variables measures (i.e., at Time 1) were examined to demonstrate that they did not significantly differ between groups. Results from independent sample t-tests showed that there were no differences between groups on initial GSE (t[220]= .959, p > .30), initial positive mood (t[220] = -.746, p > .45), initial negative mood (t[220] = .471, p > .60), nor on ability for practice trial 1 (i.e., stock predicting task) (t[220] = 1.069, p > .25) or practice trial 2 (i.e., stock predicting task) (t[220] = .343, p > .70).

Hypothesis 1. The first hypothesis stated that individuals experiencing a large negative GPD on a given task would set a lower goal on a subsequent distinct task compared to individuals experiencing a small negative GPD. A hierarchical regression analysis was conducted to determine the effect of GPD group on performance goal after controlling for initial GSE, mood, ability (i.e., ability on the stock predicting task in practice trials 1 and 2), and manipulation check scores. Table 3 indicates that experimental group did not account for a significant portion of the variance in performance goal after controlling for these variables.

Further analysis showed that performance goals set by individuals in the large negative GPD group did not differ from the performance goals set by individuals in the small negative GPD group, t(219) = .340, p > .70; d = .05. Overall, these results do not support hypothesis 1 and indicate that motivational spillover from one task to a subsequent distinct task was not evident through goal setting.

Hypothesis 2. Hypothesis 2a stated that large negative GPDs would result in an increase in negative mood and a decrease in positive mood and that small negative GPDs would have no effect on mood**.** A paired sample t-test was conducted to test whether mood states changed from Time 1 (i.e., before the feedback manipulation) to Time 2 (i.e., after the feedback manipulation) for each group. Results indicate that there was a significant difference in positive mood (t[109] = 6.815, p<.001; d = .47) and negative mood (t[109] = -4.092, p<.001; d = .45) from Time 1 to Time 2 for the large negative GPD group but there was no significant difference in positive mood (t[111] = .217, p > .80; d = .02) nor negative mood (t[111] = 1.211, p > .20; d = .07) for the small negative GPD group, thus supporting hypothesis 2a. Between group analyses showed that individuals in the large negative GPD group experienced more negative mood (t[220] = -3.242, p<.05; d = .44) and less positive mood (t[220] = 2.487, p<.05; d = .33), after the feedback manipulation, compared to individuals in the small negative GPD group. These findings suggest that large negative GPDs had an impact on mood whereas small negative GPDs did not.

Hypothesis 2b stated that increased negative mood and decreased positive mood would be associated with setting a low goal for a second distinct task. Table 1 shows that only positive mood at Time 2 was significantly correlated to performance goal (r = .18, p < .01), however a hierarchical regression analysis, in which performance goal was regressed onto negative and positive mood, after controlling for initial GSE, mood, and ability, showed that neither positive nor negative mood were significant predictors of an individual's performance goal (see Table 4). These results show no support for hypothesis 2b.

Hypothesis 2c stated that the relationship between negative GPDs and goal setting on the second task would be partially mediated by increased negative mood and decreased positive mood experienced on the initial task. This hypothesis was not tested given that there was no evidence for a

relationship between GPDs and goal setting nor for mood and goal setting. Thus support for hypothesis 2c was not found.

Hypothesis 3. Hypothesis 3a stated that large negative GPDs would result in decreased levels of GSE whereas small negative GPDs would have no effect on GSE. A paired sample t-test was conducted to test whether GSE changed from Time 1 (i.e., before the feedback manipulation) to Time 2 (i.e., after the feedback manipulation) for each group. Results indicate that there was no significant difference in GSE from Time 1 to Time 2 for the small negative GPD group ($t[111] = .682$, $p > .45$; $d = .04$) nor for the large negative GPD group ($t[109] = .187$, $p > .85$; $d = .01$).

Hypothesis 3b stated that decreased levels of GSE would be associated with setting a low goal for a second distinct task. Table 1 indicates a significant positive relationship between GSE and performance goal ($r = .15$, $p < .05$) such that when levels of GSE decrease, levels of performance goals also decreased. A hierarchical regression analysis was conducted, in which performance goal was regressed onto GSE (i.e., Time 2), after controlling for initial GSE, mood, and ability. Table 5 reveals that GSE was a significant predictor of an individual's performance goal ($\Delta R^2 = .026$, $p < .05$; $\beta = .26$, $p < .05$). This finding provides support for hypothesis 3b.

Hypothesis 3c stated that the relationship between negative GPDs and goal setting on the second task would be partially mediated by GSE. This hypothesis was not tested given that there was no evidence for a relationship between GPDs and goal setting nor for GPD and GSE, thus support for hypotheses 3c was not found.

Hypothesis 4. Hypothesis 4a stated that causal attributions would moderate the relationships between negative GPD and cognitive consequences such that individuals who attribute large and consistent negative GPD to uncontrollable causes on one task will experience lower levels of GSE. This hypothesis was tested by conducting a hierarchical regression analysis, in which GSE was

regressed onto causal attribution in the first step, a dummy coded vector created for experimental group in the second step, and regressed onto an interaction variable created for experimental group X causal attribution in the third step. Table 6 reveals that there was no support for the moderation of causal attribution in the relationship between GPD and GSE.

Hypothesis 4b stated causal attributions would moderate the relationships between negative GPD and mood state such that individuals who attribute large and consistent negative GPDs to uncontrollable causes on one task will experience increased levels of negative mood. The same hierarchical regression analysis used in the previous hypothesis was used to test hypothesis 4b. Table 7 reveals that a significant amount of variance in negative mood was accounted for by causal attribution (R^2= .044, p < .01, β = -.21, p < .01) and by GPD group (ΔR^2 = .023, p < .05, β = .16, p < .05). However, results did not show support for the moderation of causal attribution in the relationship between GPD and negative mood, thus showing no support for hypothesis 4b.

Supplementary analyses.

Motivational spillover. Further supplementary analyses were conducted to detect whether motivational spillover occurred in the present sample by examining the differences between experimental groups on specific self-efficacy (SSE). Since levels of GSE were not impacted by the large, consistent negative GPDs from Time 1 to Time 2, it was decided that a more fruitful exploration of the motivational mechanisms driving spillover would include the examination of SSE. SSE assesses an individual's perception of his/her own capability for a specific task at hand, and has been shown to be impacted by performance feedback more readily than GSE (Bandura, 1986; Stajkovic & Luthans, 1998; Eden & Zuk, 1995). Previous research suggests that as an individual experiences negative GPDs, his/her level of self-efficacy for that task will decrease, similarly, as an individual experiences positive GPDs, his/her level of self-efficacy will increase for the task (Williams et al, 2000; Bandura,

1991; Mikulincer, 1998, Bandura & Cervone, 1983). On the other hand, GSE is not tied to specific situations but rather it is a trait-like characteristic that generalizes to a variety of situations and is thus more resistant to the detrimental effects of negative feedback for a particular task (Chen, Gully, & Eden , 2001; Eden & Zuk, 1995; Sherer et al., 1982).

Table 2 indicates that the mean for SSE (i.e., at Time 2) for the large negative GPD group (M = 33.90, SD = 6.46) is lower than the mean for the small negative GPD group (M = 35.44, SD = 5.65). A hierarchical regression analysis was conducted to determine the effect of GPD group on SSE at Time 2 (i.e., after the negative feedback manipulation for the creativity task) after controlling for initial GSE, SSE, mood, and ability. Table 8 indicates that experimental group accounted for a significant portion of the variance in SSE at Time 2 after controlling for these variables (ΔR^2 = .025, p < .05 β = -.16, p < .001).

An independent sample t-test showed significant differences between groups on SSE at Time 2 such that individuals in the large negative GPD group indicated experiencing decreased levels of SSE for the stock predicting task after the feedback manipulation compared to individuals in the small negative GPD group (t[220] = 1.887, p<.05, d = .25). A paired sample t-test analysis indicated that levels of SSE for the stock predicting task decreased from Time 1 to Time 2 in the large negative GPD group (t[109] = 4.20, p<.001, d = .26) whereas no change was found in the levels of SSE from Time 1 to Time 2 in the small negative GPD group (t[111] = -1.85, p > .20; d = .07). Altogether these findings are important because they suggest evidence for motivational spillover such that large negative feedback on the creativity task leads to a decrease in SSE associated with the stock-predicting task. That is, large failure feedback on the creativity tasks effectively "spilled over" to produce a motivational decline such that diminished levels of SSE for the stock-predicting task were evidenced.

Relationships between motivational mechanisms and goals. Given that very few studies have examined motivational spillover across two different tasks, further exploration of the relationship between mood and SSE were examined in an effort to provide a better understanding of "how" spillover occurs. Table 1 indicates five significant relationships that are worthy of reporting in attempting to understand the underlying processes of motivational spillover. As noted previously in hypothesis 2a, GPD group and mood were significantly related such that individuals who received large negative GPD feedback experienced increased levels of negative mood ($r = .21$, $p<.001$) and decreased levels of positive mood ($r = -.17$, $p<.001$).

Table 1 also shows a positive relationship between positive mood (i.e., at Time 2) and SSE (i.e., Time 2) ($r = .25$, $p<.001$) and a negative relationship between negative mood and SSE ($r = -.20$, $p<.001$). These estimates suggest that as positive mood decreases, after receiving negative feedback on the creativity performance trials, levels of SSE associated with the stock-predicting task also decrease. Inversely, as negative mood increases, after receiving negative feedback on the creativity performance trials, levels of SSE associated with the stock-predicting task decrease. Lastly, Table 1 shows a positive relationship between SSE (i.e., Time 2) and performance goals ($r = .42$, $p<.001$) such that as levels of SSE decrease, level of performance goals for the stock-predicting task also decreases.

Altogether, these findings suggest that the relationship between mood and goal-setting may be mediated by SSE (see Figure 2). The results of a path analysis examining this proposed model suggest that large failure feedback on the creativity tasks leads to increased negative mood and decreased positive mood, which can effectively "spill over" to produce diminished levels of SSE associated with the stock-predicting task. As such this decline in SSE may impact the level at which individuals set performance goals. However, results from the present study do not lend support for this mediated model, given that goals were not impacted by the GPD conditions.

Discussion

The purpose of the present study was to determine whether setting goals for a task could be influenced by performance feedback from a distinct task. Based on a review of SCT, cognitive consequences associated with large negative GPD can lead individuals to set low goals for themselves (Bandura, 1991). Previous research has shown that large goal failures have a deleterious effect on levels of self-efficacy and affect, which can cause individuals to become de-motivated for a particular task (Bandura, 1986; 1991; Locke & Latham ,1990; Bandura & Cervone; 1983; Campion & Lord, 1982). The few studies to date that have investigated the effects of goal failure in a multiple goal setting suggest that large negative GPDs in one task domain can impact the motivational mechanisms associated with a distinct, unrelated task domain (Kernis et al., 1981; Carver et al. 1979). Despite the small amount of significant findings yielded in the present study, these findings lend some support for the occurrence of motivational spillover across task domains.

Findings and Conclusions

Hypothesis 1. It was first hypothesized that individuals experiencing a large negative GPD on the creativity tasks would set a lower goal on a subsequent stock predicting task compared to individuals experiencing a small negative GPD. In contrast to this prediction, participants who experienced large negative feedback set similar levels of performance goals to those participants who experienced small negative feedback. This finding suggests that motivational spillover from one task domain to another was not evidenced through the performance goals established by individuals.

One potential reason for this finding is that scores on the manipulation check significantly differed between GPD groups such that individuals in the small negative GPD group perceived the feedback to be a more accurate representation of their performance on the creativity task compared to individuals in the large negative GPD group. Since individuals in the large negative GPD group did

not perceive their performance feedback as being very accurate, the detrimental impact on their motivational processes might have only been minimal. However further analyses revealed that consistent and large negative GPD feedback did in fact have an impact on individuals' cognitive responses underlying motivational processes. These findings (which will be discussed later) indicate that the large negative feedback had deleterious effects on levels of self-efficacy and mood. Given this, it is not likely that the lack of difference in performance goals between groups is attributable to individuals in large negative GPD group perceiving the feedback as inaccurate.

A more probable explanation as to why individuals in both experimental groups set comparable goals is because feedback for the first set of tasks (i.e., creativity task) may not have been detrimental enough to drive individuals to set low goals for the second unrelated task (i.e., stock-predicting task). Previous research has shown that when the degree of similarity between the nature of the tasks is large, motivational spillover is likely to occur in the presence of negative feedback. However, it seems logical that when the degree of similarity between two tasks is very small that the magnitude of the negative feedback must be larger and the consistency greater in order for spillover to occur by means of performance goals.

As such, the findings from the present study may suggest that in order to observe any spillover effects at the goal-setting level, from one task domain to another, feedback must be perceived as largely negative and repetitive, severely penetrating and causing detriment to an individual's motivational processes. In the present sample, it is apparent that cognitive responses declined after the feedback manipulation in the large GPD group, however it is improbable that all individuals experienced a sense of severe diminished motivation. Some individuals who experienced large negative GPD feedback were more prone to set challenging goals than easy goals for themselves on the stock-predicting task. For example, some individuals set the most challenging goal on the stock-

predicting task after receiving the large negative GPD feedback. This may suggests that individuals in the large GPD group tried to compensate for their poor performance on the creativity task by setting harder goals for themselves on the stock-predicting task. Previous studies have indicated that individuals who do not experience de-motivation after receiving negative GPD feedback will try to compensate for their poor performance by setting higher goals for themselves on a subsequent task (Hyland, 1988; Campion & Lord, 1982; Carver & Scheier, 1982). In the present study, this may be a plausible explanation as to why mean differences on performance goals were not evidenced between experimental groups.

Hypothesis 2. The second set of hypotheses specified a mediating relationship between GPDs and performance goals through negative and positive mood. First, hypothesis 2a stated that large negative GPDs would result in an increase in negative mood and decrease in positive mood, and that small negative GPDs would have no effect on mood. Results indicated that individuals who were administered large negative feedback for the creativity tasks experienced an increase in negative mood and a decrease in positive mood. This change was not evidenced for individuals in the small negative GPD group. This finding suggests that affective states are negatively impacted when individuals receive large and negative GPD feedback, but remain stable when individuals receive small negative GPD feedback. This finding supports previous research consistent with CT and SCT, which indicates that as the magnitude of negative GPDs increases the level of negative affect will increase and the level of positive affect will decrease (Bandura & Cervone, 1983; Carver & Scheier, 1981, Locke & Latham, 1990). Bandura (1986) asserts that based on an individual's appraisal of performance relative to personal goal levels, individuals experience some level of affective reaction. In general, the more discrepant individuals perceive their performance to be in comparison to a goal, the less satisfied they

will feel about their level of performance and the less positive they may feel toward attaining their goal.

Hypothesis 2b stated that increased negative mood and decreased positive mood would be associated with setting a low goal for the stock predicting task. In contrast to this postulation, neither negative mood nor positive mood significantly predicted performance goal. Despite the changes in mood levels after the large negative feedback manipulation, individuals did not engage in setting easy goals. These results indicate that mood is not directly related to goal-setting. These findings are inconsistent with previous research that suggests that mood states influence goal-setting processes. For example, Hom & Arbuckle (1988) found that children in a negative mood state produced lower goals than children in a happy state. No studies to date have reproduced this finding with an adult sample. The present study suggests that negative nor positive mood directly influences individuals to set easy or difficult goals for themselves, however based on supplementary analysis, it is possible that mood states can indirectly impact goal-setting through SSE (see Figure 2). More studies investigating the impact of positive and negative mood on goal-setting processes in adults must be conducted before any firm conclusions can be drawn from the present study.

Hypothesis 3. The third set of hypotheses specified a mediating relationship between GPD and performance goals through GSE. Hypothesis 3a stated that large negative GPDs would result in decreased levels of GSE whereas small negative GPDs would have no effect on GSE. In contrast to the prediction, the large negative feedback did not have the intended effect on levels of GSE. As such individuals did not report feeling less confident in their general abilities after largely failing to attain their goals on the creativity tasks.

Perhaps one explanation is that since GSE is characterized as a trait-like characteristic, not tied to a specific situation, the negative GPD feedback may not have been severe enough to influence a

change in GSE (Bandura, 1986; 1991; Chen, Gully, & Eden, 2001). Previous studies suggest that the impact of negative GPDs for a particular task has to be severe enough to influence a change in levels of GSE (Eden & Zuk, 1995; Sherer et al., 1982). Given that an individual's perceptions about his/her general capabilities are somewhat stable and global, any changes in GSE will be evidenced if goal failures are perceived to be large and consistent. Thus, it is plausible that in the present study, levels of GSE remained stable because individuals did not perceive the large negative feedback across the three performance trials to be consistent or large enough. Perhaps more than three performance trials were necessary in the present study to induce such failure in order to evidence changes in GSE.

Hypothesis 3b stated that decreased levels of GSE would be associated with setting a low goal for a second distinct task. In support of this hypothesis, findings revealed that individual levels of GSE predicted performance goals. As such, individuals who reported higher levels of GSE were more likely to set difficult goals for the stock-predicting task whereas individuals who reported lower levels of GSE were more likely to set easy goals for the stock-predicting task. This finding is in support of the SCT literature, which suggests that as individuals with low levels of GSE encounter difficult obstacles or repeated failure they may doubt their general capabilities and thus engage in downward goal-setting (Bandura, 1986). On the other hand, individuals with high levels of GSE are assured by their capabilities and are more likely to set challenging objectives for themselves (Brockner, 1988).

Hypothesis 4. The fourth set of hypotheses specified that the relationships between negative GPD and cognitive responses would be moderated by causal attributions. Hypothesis 4a & b stated that individuals who attribute large and consistent negative GPDs to uncontrollable causes on the creativity task will experience lower levels of GSE and higher levels of negative mood. Results did not show support for moderation for either of these predictions, suggesting that cognitive responses to negative GPDs were not impacted by whether an individual attributed them to controllable or

uncontrollable causes. This finding could be attributable to the low reliability estimate yielded for the causal attribution measure. This measure was only two items in length and yielded a coefficient alpha of .60, which likely undermined any effects that could have been produced by causal attribution.

Motivational Spillover. Although the following findings were exploratory in nature, it is important to discuss them in this section as they provide preliminary evidence of motivational spillover. As previously noted, SSE was selected to explore the occurrence of motivational spillover for two reasons. First, spillover was not evidenced through the performance goals, as originally hypothesized. Second, because SSE has been shown to be directly related to performance goals, and precedes them in the causal chain of self-regulatory models that outlines the motivational process (Williams et al., 2000; Bandura, 1986; 1991; Bandura & Cervone, 1983; 1986). Given this, it was hypothesized that GPD for the creativity task would influence levels of SSE for the stock-predicting task. Results from a regression analysis revealed that individuals who experienced large goal failure on the creativity tasks reported experiencing low levels of self-efficacy associated with the stock-predicting task. Analyses also revealed that levels of SSE associated with the stock-predicting task dropped significantly over time when individuals were exposed to large negative GPDs for the creativity task whereas individuals who were exposed to small goal failure on the creativity task did not report lower levels of SSE for the stock-predicting task at Time 2.

These findings support previous literature indicating that motivation successfully spills over from one task to a separate task. Over half a century ago, Jucknat (1937) and Festinger (1942a) found that reactions to success and failure on a maze task differentially affected the levels of aspiration for a second maze task. More specifically, performance outcomes for the first task "transferred over" in such a way to affect level of aspiration for a subsequent task. Since then, two studies have set out to examine this process of *transferred motivation* across distinct task domains (Carver et al, 1979; Kernis et al.,

1982). These studies found that spillover effects that stemmed from failure on one task were deleterious in that they hindered outcome expectancies and effort expenditure for a subsequent distinct task.

The present study is unique in that it was set out to examine spillover effects of motivational mechanisms that impact the goal-setting process. It was found that large and consistent goal failures on any given task will have negative consequences on levels of self-efficacy for an altogether distinct task. Moreover, as individuals experience this decline in their level of SSE, due to repeated failures on a different task, the manner in which they engage in goal-setting could possibly be affected, although data from the present study can not support this finding. The model depicted in Figure 1, based upon a path analysis, is a tentative representation of how GPDs for one task can influence performance goals for a distinct task. This model suggests that large negative GPDs for one task negatively impacts mood states, which could potentially have a detrimental effect on SSE for a separate, distinct task. This decline in level of SSE could possibly result in individuals establishing easy goals for themselves on a separate distinct task. It should be noted that this model should be interpreted cautiously, as results from the present study cannot provide support for the mediated model. Future research should attempt to examine this model to gain further understanding of the mechanics underlying the process of motivational spillover from one task domain to another.

Contributions

The findings from the present study contribute to the goal-setting literature in several ways. The first finding revealed that GSE is directly related to self-set goals such that individuals with higher levels of confidence about their general abilities are more likely to set high goals for themselves on any given task, whereas individuals with lower levels of confidence about their general abilities are more likely to set low goals for themselves. This result confirms many previous findings suggesting

that the manner in which individuals judge themselves on their own capabilities is an important factor in determining the level of the performance goal they set (Williams et al, 2000; Bandura, 1991; Bandura & Cervone, 1983; 1986).

The second finding revealed that individuals who experience large negative goal failure may be subject to fluctuations in mood, such as increased negative mood and decreased positive mood. This lends support to both self-regulation models and previous studies that emphasize the role of mood when examining the mechanisms of motivational processes. Several studies have examined mood as a cognitive consequence to negative performance feedback in the work motivation literature (Mone & Baker, 1992; Locke & Latham, 1990; Bandura, 1991; 1986; Bandura & Cervone, 1983; Carver & Scheier, 1982). These findings suggest that the more discrepant individuals perceive their performance to be in comparison to their desired goal the more frustrated and less satisfied they will feel.

Lastly, the third finding revealed that motivational spillover does occur as changes in the motivational processes take place between failure on one task and perceptions of ability to do well on another. This finding is the most important one of all because it declares that mechanisms of motivation for one task can be a function of goal performance outcomes from a separate unrelated task. More specifically, one's confidence in their ability to do well for any given assignment or job may be tied to whether large negative performance feedback was perceived on a distinct assignment or job.

Although earlier studies suggested that motivational spillover was largely dependent on task similarity (Jucknat, 1937; Festinger, 1942a), the findings from the present study reveal that motivation mechanisms successfully spillover from one task to another, given that feedback is largely negative and repetitive in nature. Consequently, one could expect that failing repeatedly on one task will have negative effects on their levels of confidence for a separate task. Only two other studies have

examined the effects of motivational spillover across distinct tasks (Carver et al, 1979; Kernis et al., 1982). These studies' findings are congruent with those of the present study such that individuals who experienced large goal failure for a given task experienced diminished levels of expectancy outcomes for a subsequent distinct task.

Given that this is one of the few studies, to date, that has examined motivational spillover across distinct task domains, these findings provide some insight to what conditions are necessary for the occurrence of spillover. First, individuals must perceive feedback to be largely discrepant from the desired goal and must perceive it to be repetitive in nature. Discrepancy feedback that is considered minimal (i.e. failed to reach the goal by less than 12%) will not have any detrimental effects on cognitive responses whereas discrepancy feedback that is considered to be largely negative (i.e., failed to reach the goal by more than 20%) will have deleterious effects on cognitive responses. Second, large negative discrepancy feedback must penetrate sufficiently in order to cause detriment to the cognitive responses that underlie motivational processes. Without sufficient penetration, cognitive responses such as mood and SSE associated with an unrelated task will not be hindered. More importantly, in order for spillover to occur across task domains it is necessary for the motivational mechanisms associated with a given task to diminish as a function of GPD for an unrelated task.

Altogether, organizations should be aware that motivational processes are not isolated within the parameters of a given task at hand. Feedback that is perceived as largely negative and discrepant from the desired goal can be extremely detrimental. So much so that it may affect the level of confidence an individual possesses about his/her ability to do well on an unrelated assignment. The present study provides new evidence that motivational spillover by means of SSE can occur while individuals work on separate and unrelated tasks. The goal-setting literature would benefit from future

research that focuses on investigating how levels of SSE for a given task, that have been negatively influenced by unrelated large negative GPDs, can impact different behavioral responses for that task.

Limitations

This present study is not without its limitations. One concern is the generalizability of the findings, given the nature of the tasks performed. Although it was necessary to include novel tasks to increase the probability that individuals would perceive the bogus GPD feedback to be accurate, it is questionable whether these tasks are generalizable to organizational settings. The tasks used in the present study are not likely equivalent in nature to the tasks required in an organizational setting. Future research should replicate and extend the present study by utilizing other tasks that are not computer-based and more representative of on-the-job assignments. Future research should also replicate and extend the present study by utilizing a sample other than college undergraduates, such as individuals currently working in an organizational setting. Replication and extensions of this study using other tasks and other samples are still needed before firm conclusions and implications can be drawn from this research.

A second limitation to the present study concerns the bogus feedback. There was a potential for individuals, before even entering the experimental setting, to be informed that bogus performance feedback would be provided to them throughout the study. An attempt to avoid this from happening was made by debriefing all participants from the same class, at one time, and asking individuals not to exchange any of the information provided to them in the debriefing session with other students. However, there was still the potential for individuals from one class, who were already de-briefed, to inform students from another class, who had not yet participated, about the nature of the study. The potential exchange of information between students concerning the nature of the study would severely harm the integrity of the present research. One example of this is that individuals might have distorted

their responses in such a way to be consistent with the goals of the study. Future research that uses bogus feedback should focus on controlling for response distortion, which can ultimately lead to decreases in internal validity.

In sum, this study provides new evidence that extends the goal-setting literature. Given this, follow-up research in this area is necessary and encouraged. More specifically, future research should replicate and extend the present study to address the issues mentioned above and to draw firm conclusions about the occurrence of motivational spillover across task domains, and the mechanisms that underlie this process.

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Table 1

Intercorrelations Between Variables

Variable	M	SD	1	2	3	4	5	6	7	8
1. PreGSE	66.87	8.35	.80							
2. PreNM	14.33	4.32	-.25**	.75						
3. PrePM	27.20	7.49	.27**	.07	.86					
4. CTPract1	22.73	11.98	.11*	-.03	.14*	-				
5. CTPract2	27.59	15.47	.03	-.02	-.04	.40**	-			
6. SPTPract1	17.25	3.05	.03	-.01	-.01	.07	.05	-		
7. SPTPract2	17.70	2.85	.10	.00	.00	.13*	.09	.44**	-	
8. PreSSE	35.28	5.94	.15*	-.04	.18**	.21**	.04	.32**	.41**	.81
9. PerfEffort1	17.75	3.05	.11*	-.03	.17**	.24**	.35**	.10	.17*	.10*
10. PerfEffort2	26.74	11.24	.06	-.02	-.03	.26**	.27**	.02	.19**	.08
11. PerfEffort3	28.32	11.20	.06	-.04	.10	.24**	.27**	.05	.16*	.08
12. PostGSE	66.64	8.41	.79**	-.26**	.22	.13*	.01	.02	.07	.19**
13. PostNM	15.21	5.10	-.20**	.56**	.14*	-.10	-.08	-.09	.02	-.17**
14. PostPM	25.36	8.23	.25**	.12*	.71**	.23**	.06	.10	.05	.28**
15. PostSSE	34.68	6.10	.14*	-.15*	.10	.03	-.04	.32**	.37**	.77**
16. CA	8.51	3.12	.14*	-.04	.03	.02	.06	.14*	.05	.08
17. Goal	17.34	5.52	.07	.04	.13*	.09	.06	.27**	.27**	.34*
18. GPDGroup	-	-	-.07	.03	.05	.01	-.10	.07	-.02	.05
19. MC	6.26	1.29	.07	-.04	.01	-.06	.09	.12	.02	-.02

Table 1 continued

Variable	9	10	11	12	13	14	15	16	17	18	19
9. PerfEffort1	-										
10. PerfEffort2	.60**	-									
11. PerfEffort3	.55**	.62**	-								
12. PostGSE	.09	.12*	.03	.84							
13. PostNM	.06	-.07	-.09	-.25**	.81						
14. PostPM	.16**	.08	.19**	.24**	-.05	.90					
15. PostSSE	.12**	.05	.01	.22**	-.20**	.25**	.84				
16. CA	.03	-.04	.06	.08	-.21*	.12*	.11	.60			
17. Goal	.23**	.05	.08	.15*	-.06	.18**	.42**	.11	-		
18. GPDGroup	.08	.00	-.07	-.05	.21**	-.17**	-.13*	-.33*	-.02	-	
19. MC	-.02	-.11	.00	.03	-.16*	.12	.01	.33**	-.01	-.46**	.81

Note. $N = 222$ for all variables except for Goal (n = 221). PreGSE = Generalized Self-Efficacy before the feedback manipulation, PreNM = Negative Mood before the feedback manipulation, PrePM = Positive Mood before the feedback manipulation, CTPract1 = Creative Task Practice Trial 1, CTPract2 = Creative Task Practice Trial 2, SPTPract1 = Stock Predicting Task Practice Trial 1, SPTPract2 = Stock Predicting Task Practice Trial 2, PreSSE = Specific Self-Efficacy before the feedback manipulation, PerfEffort1 = Number of responses produced for Performance Trial 1, PerfEffort2 = Number of responses produced for Performance Trial 2, PerfEffort3 = Number of responses produced

for Performance Trial 3, PostGSE = Generalized Self-Efficacy after the feedback manipulation, PostNM = Negative Mood after the feedback manipulation, PostPM = Positive Mood after the feedback manipulation, PostSSE = Specific Self-Efficacy after the feedback manipulation, CA = Causal Attribution, Goal = Performance Goal set for the stock-predicting task after the feedback manipulation, GPDGroup = Goal Performance Discrepancy Group (1 = small negative GPD group; 2 = large negative GPD group). All estimates corresponding to GPDGroup are point biserial correlations. MC = Manipulation Check

*correlation is significant at the .05 alpha level (1-tailed)

**correlation is significant at the .01 alpha level (1-tailed)

Table 2

Means and Standard Deviations for Variables

	Large Negative GPD		Small Negative GPD	
Variable	Means	SD	Means	SD
PreGSE	66.33	8.07	67.40	8.61
PreNM	14.19	3.97	14.46	4.64
PrePM	27.58	7.43	26.83	7.56
CTPract1	22.86	12.19	22.61	11.82
CTPract2	26.09	15.07	29.07	15.77
SPTPract1	17.03	3.15	17.46	2.93
SPTPract2	17.64	3.06	17.77	2.67
PreSSE	35.55	6.28	35.02	5.58
PerfEffort1	18.34	7.53	17.17	6.68
PerfEffort2	26.49	11.37	26.45	11.15
PerfEffort3	27.51	11.47	29.11	10.90
PostGSE	66.24	8.48	67.03	8.36
PostNM	16.31	5.36	14.13	4.60
PostPM	23.99	7.84	26.71	8.40
PostSSE	33.90	6.46	35.44	5.65
CA	7.46	3.19	9.54	2.69
Goal	17.21	5.30	17.46	5.74

Note. $N = 222$ for all variables except for Goal (n = 221). PreGSE = Generalized Self-Efficacy before the feedback manipulation, PreNM = Negative Mood before the feedback manipulation, PrePM = Positive Mood before the feedback manipulation, CTPract1 = Creative Task Practice Trial 1, CTPract2 = Creative Task Practice Trial 2, SPTPract1 = Stock Predicting Task Practice Trial 1, SPTPract2 = Stock Predicting Task Practice Trial 2, PreSSE = Specific Self-Efficacy before the feedback manipulation, PerfEffort1 = Number of responses produced for Performance Trial 1, PerfEffort2 = Number of responses produced for Performance Trial 2, PerfEffort3 = Number of responses produced for Performance Trial 3, PostGSE = Generalized Self-Efficacy after the feedback manipulation, PostNM = Negative Mood after the feedback manipulation, PostPM = Positive Mood after the feedback manipulation, PostSSE = Specific Self-Efficacy after the feedback manipulation, CA = Causal Attribution, Goal = Performance Goal set for the stock-predicting task after the feedback manipulation.

Table 3

Hierarchical Regression Examining the Contribution of Goal-Performance Discrepancy (GPD) in the Prediction of Performance Goal

Step	Variable(s) entered	*b*	β	R^2	ΔR^2	F_{change}
1	Intitial GSE	.00	-.04			
	Initial negative mood	.00	-.05			
	Initial positive mood	.10*	.14*			
	SPT Practice Trial 1	.35**	.19**			
	SPT Practice Trial 2	.35*	.18*			
	Manipulation check	-.15	-.04	.121	.121	4.91***
2	GPD	-.49	-.04	.123	.002	.38

Note. $N = 222$ for all variables except for Performance Goal (n = 221). b = the unstandardized regression coefficient for the variable of interest. β = the standardized regression coefficient for the variable of interest. R^2 = the proportion of variance in the dependent variable accounted for by all predictors in the regression equation. ΔR^2 = the incremental variance accounted for by the predictor variables entered at each step. F_{change} = the F ratio to assess the significance of the incremental variance accounted for. * denotes a statistic that is significant at the .05 level. ** denotes a statistic that is significant at the .01 level. *** denotes a statistic that is significant at the .001 level.

Table 4

Hierarchical Regression Examining the Contribution of Negative and Positive Mood at Time 2 in the Prediction of Performance Goal

Step	Variable(s) entered	*b*	β	R^2	ΔR^2	F_{change}
1	Intitial GSE	.00	.00			
	Initial negative mood	.00	-.05			
	Initial positive mood	.10*	.14*			
	SPT Practice Trial 1	.34**	.18**			
	SPT Practice Trial 2	.35*	.18*	.119	.119	5.81***
2	Negative mood	.00	-.04			
	Positive mood	.00	.10	.127	.008	.92

Note. $N = 129$. b = the unstandardized regression coefficient for the variable of interest. β = the standardized regression coefficient for the variable of interest. R^2 = the proportion of variance in the dependent variable accounted for by all predictors in the regression equation. ΔR^2 = the incremental variance accounted for by the predictor variables entered at each step. F_{change} = the F ratio to assess the significance of the incremental variance accounted for. * denotes a statistic that is significant at the .05 level. ** denotes a statistic that is significant at the .01 level. *** denotes a statistic that is significant at the .001 level.

Table 5

Hierarchical Regression Examining the Contribution of Generalized Self Efficacy (GSE) at Time 2 in the Prediction of Performance Goal

Step	Variable(s) entered	*b*	β	R^2	ΔR^2	F_{change}
1	Intitial GSE	.00	.00			
	Initial negative mood	.00	-.05			
	Initial positive mood	.10*	.14*			
	SPT Practice Trial 1	.34**	.18**			
	SPT Practice Trial 2	.35*	.18*	.119	.119	5.81***
2	GSE	.17*	.26*	.145	.026	6.48*

Note. $N = 129$. b = the unstandardized regression coefficient for the variable of interest. β = the standardized regression coefficient for the variable of interest. R^2 = the proportion of variance in the dependent variable accounted for by all predictors in the regression equation. ΔR^2 = the incremental variance accounted for by the predictor variables entered at each step. F_{change} = the F ratio to assess the significance of the incremental variance accounted for. * denotes a statistic that is significant at the .05 level. ** denotes a statistic that is significant at the .01 level. *** denotes a statistic that is significant at the .001 level.

Table 6

Regression Examining the Moderating Influence of Causal Attributions (CA) on the Relationship Between Goal-Performance Discrepancy (GPD) and Generalized Self-Efficacy (GSE)

Step	Variable(s) entered	*b*	β	R^2	ΔR^2	F_{change}
1	CA	.21	.07	.006	.006	1.39
2	GPD	-.38	-.02	.001	.000	.10
3	CA X GPD	.26	.14	.002	.002	.47

Note. $N = 129$. b = the unstandardized regression coefficient for the variable of interest. β = the standardized regression coefficient for the variable of interest. R^2 = the proportion of variance in the dependent variable accounted for by all predictors in the regression equation. ΔR^2 = the incremental variance accounted for by the predictor variables entered at each step. F_{change} = the F ratio to assess the significance of the incremental variance accounted for.

Table 7

Regression Examining the Moderating Influence of Causal Attributions (CA) on the Relationship Between Goal-Performance Discrepancy (GPD) and Negative Mood

Step	Variable(s) entered	*b*	β	R^2	ΔR^2	F_{change}
1	CA	-.34**	-.21**	.044	.044	10.21**
2	GPD	1.64*	.16*	.067	.023	5.41*
3	CA X GPD	.00	.02	.068	.000	.01

Note. $N = 129$. b = the unstandardized regression coefficient for the variable of interest. β = the standardized regression coefficient for the variable of interest. R^2 = the proportion of variance in the dependent variable accounted for by all predictors in the regression equation. ΔR^2 = the incremental variance accounted for by the predictor variables entered at each step. F_{change} = the F ratio to assess the significance of the incremental variance accounted for. * denotes a statistic that is significant at the .05 level. ** denotes a statistic that is significant at the .01 level.

Table 8

Hierarchical Regression Examining the Contribution of Goal-Performance Discrepancy (GPD) in the Prediction of Specific Self-Efficacy (SSE)

Step	Variable(s) entered	*b*	β	R^2	ΔR^2	F_{change}
1	Initial GSE	.00	.00			
	Initial negative mood	-.16**	-.11**			
	Initial positive mood	.00	-.02			
	Initial SSE	.75***	.73***			
	SPT Practice Trial 1	.12	.06			
	SPT Practice Trial 2	.00	.03	.616	.616	57.38***
2	GPD	-.19***	-.16***	.641	.025	15.01***

Note. $N = 129$. b = the unstandardized regression coefficient for the variable of interest. β = the standardized regression coefficient for the variable of interest. R^2 = the proportion of variance in the dependent variable accounted for by all predictors in the regression equation. ΔR^2 = the incremental variance accounted for by the predictor variables entered at each step. F_{change} = the F ratio to assess the significance of the incremental variance accounted for. * denotes a statistic that is significant at the .05 level. ** denotes a statistic that is significant at the .01 level. *** denotes a statistic that is significant at the .001 level.

Figure 1. Hypothesized mediating role of generalized self-efficacy (GSE) and positive and negative mood in the relationship between negative goal performance discrepancy (GPD) on one task and goal setting for a subsequent, distinct task.

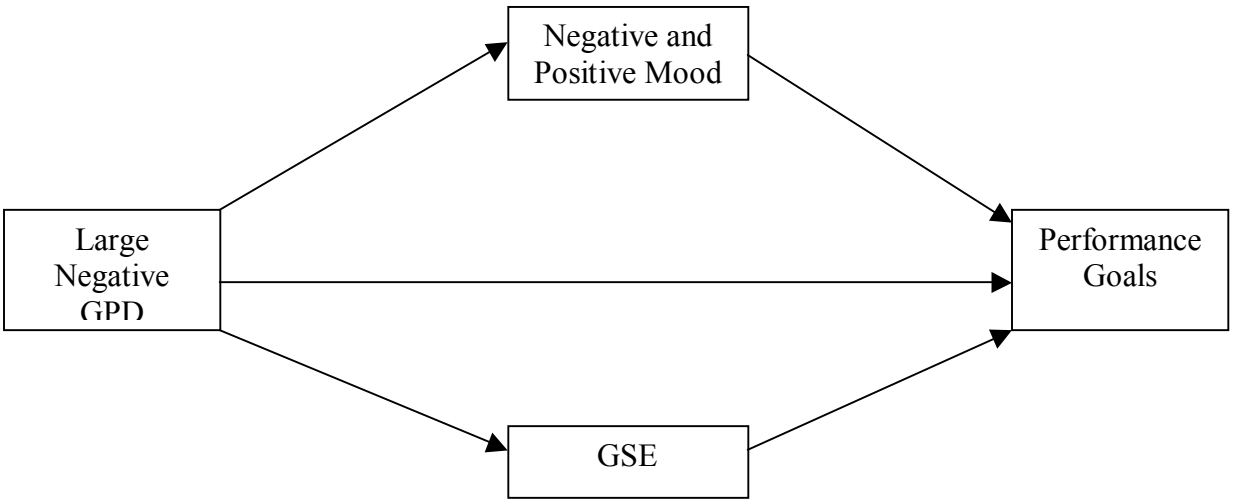
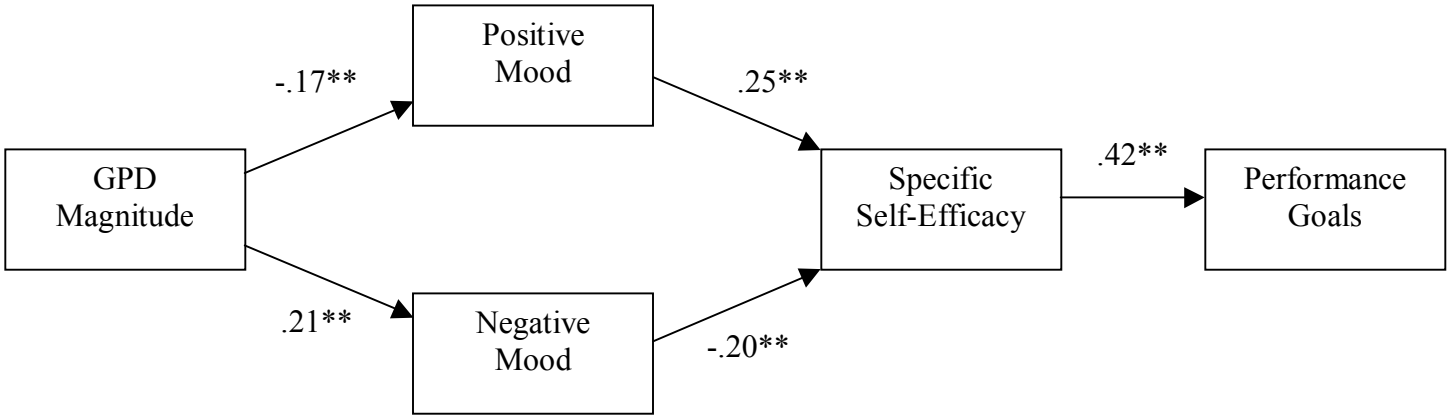


Figure 2. Mediating role of specific self-efficacy in the relationship between mood and performance goals.



Appendix A

Manipulation Check

1	2
disagree	agree

1. The feedback I received was an accurate evaluation of my performance.

2. I believe that the feedback I was given on my performance does not reflect the level at which I performed.

3. My performance on the task I just completed seems to be accurately reflected by the feedback I received.

4. I believe that I performed better than what the feedback suggested.

Appendix B

Personal Goal Questionnaire

Task: Use the informational cues to make predictions about the stock values for each of the 30 fictitious companies.

Please indicate how well you think you can perform on this task.

My goal is to predict _____ stock value(s) within $10 of the correct stock value.

(The most difficult goal is to predict 30 stock values within $10 of the correct value, and the easiest goal is to predict 1 stock value within $10 of the correct value).

Appendix C

Specific Self-Efficacy Scale

Instructions: Please use the following scale to indicate how well each statement fits you. There are no right or wrong answers.

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

1. I feel confident in my ability to perform well on the upcoming stock market task.
2. I think that I can eventually earn a satisfactory score on this activity.
3. I am not confident that I will do as well on this activity as I would like.
4. I don't feel as if I am capable of performing as well on the stock market task as other applicants.
5. I am a faster learner for this type of activity, in comparison to other people.
6. I am not sure I can ever do well on the stock market task, no matter how much practice I get.
7. I would have to practice for a long time to be able to do well on this activity.
8. I think that my performance will be adequate on the stock market task.
9. I am sure that I can learn the skills covered on this activity in a relatively short period of time.
10. On average, other applicants are probably not as capable of doing as well on this activity I am.

Appendix D

General Self-Efficacy Scale

Instructions: Please use the following scale to indicate how well each statement fits you. There are no right or wrong answers.

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

1. I like to grow house plants.
2. When I make plans, I am certain I can make them work.
3. One of my problems is that I cannot get down to work when I should.
4. If I can't do a job the first time, I keep trying until I can.
5. Heredity plays a major role in determining one's personality.
6. It is difficult for me to make new friends.
7. When I set important goals for myself, I rarely achieve them.
8. I give up on things before completing them.
9. I like to cook.
10. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come see me.
11. I avoid facing difficulties.
12. If something looks complicated, I will not even bother to try it.
13. There is some good in everybody.
14. If I meet someone interesting who is very hard to make friends with, I'll soon stop trying to make friends with that person.
15. When I have something unpleasant to do, I stick to it until I finish it.
16. When I decide to do something, I go right to work on it.
17. I like science.
18. When trying to learn something new, I soon give up if I am not initially successful.
19. When I'm trying to become friends with someone who seems

uninterested at first, I don't give up easily.

20. When unexpected problems occur, I don't handle them well.
21. If I were an artist, I would like to draw children.
22. I avoid trying to learn new things when they look too difficult for me.
23. Failure just makes me try harder.
24. I do not handle myself well in social gatherings.
25. I very much like to ride horses.
26. I feel insecure about my ability to do things.
27. I am a self-reliant person.
28. I have acquired my friends through my personal abilities at making friends.
29. I give up easily.
30. I do not seem capable of dealing with most problems that come up in my life.

Appendix E

Positive and Negative Affect

Instructions: This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

_____ interested	_____ irritable
_____ distressed	_____ alert
_____ excited	_____ ashamed
_____ upset	_____ inspired
_____ strong	_____ nervous
_____ guilty	_____ determined
_____ scared	_____ attentive
_____ hostile	_____ jittery
_____ enthusiastic	_____ active
_____ proud	_____ afraid

Appendix F

Causal Attribution Scale

Instructions: Please use the following scale to indicate how well each statement fits you. There are no right or wrong answers.

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	neither agree nor disagree	slightly agree	moderately agree	strongly agree

1. I feel that my performance on this task was caused by something that was under my own control.

2. I feel that my performance on this task is something that I am able to change.

Appendix G

Performance Record Form

I.D #_____

STOCK PREDICTING TASK	CREATIVITY TASK
Performance Trial 1	Performance Trial 1
Grade Percent: _____	Grade Percent: _____
Performance Trial 2:	Performance Trial 2:
Grade Percent: _____	Grade Percent: _____
Performance Trial 3:	Performance Trial 3:
Grade Percent: _____	Grade Percent: _____

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Virginia Tech, Blacksburg, VA 2003-Present
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Virginia Tech, Blacksburg, VA 2000- 2003
M.S., Industrial/Organizational Psychology
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University of Miami, Coral Gables, FL May 1999
B.S., Psychology, Cum Laude, General Honors
GPA: 3.65

WORK EXPERIENCE

Virginia Tech 2002-Present
Graduate Research Assistant
- Developed measures assessing attitudes regarding farm work safety
- Translated measures into Spanish
- Cross-validated Spanish and English measures
- Interviewed English and Spanish speaking farm workers

Virginia Tech 2002-Present
Graduate Teaching Assistant
- Designed and presented weekly lectures on topics related to experimental and applied areas of psychological research for Introduction to Psychology recitation sessions
- Prepared supplemental materials and visuals to enhance understanding and reiterate course goals
- Utilized a highly interactive lecture style to create a participative atmosphere and promote effective learning
- Assigned grades to students based on level of performance on quizzes, essays, and assignments
- Tutored students on an individual basis when difficulty grasping the material was made evident

Royal Caribbean Cruise Lines, International, Miami, FL Summer 2001
Management Consultant

- Designed a development and training program including a 360° online feedback assessment component for shipboard managers
- Designed a training series focused on strengthening work-related competencies via goal-setting and self-monitoring techniques
- Trained supervisors in coaching techniques aimed to assist managers in setting goals, and developing competencies.
- Performed a comprehensive assessment of the onboard applicability of the training and development program by interviewing more than 30 shipboard managers.
- Generated a budget report for the development and training program.
- Supervised meetings with other department heads aimed at promoting the development and training program

Organizational Performance Dimensions, Coral Gables, FL 1999-2000
Management Consultant

- Co-authored presentation on 'Bipolar Styles of Managing Employees' emphasizing communication problems evident in today's dynamic work environment at the American Psychological Society, 2000.
- Lectured on employment discrimination, positive discipline, conducting dismissals, and employee trust during a training program for technical-oriented managerial positions
- Assisted in designing a workshop for improving communication and leadership skills, and conflict resolution for managerial positions
- Conducted detailed interviews with employees from various positions to accurately identify duties/responsibilities
- Created comprehensive job descriptions for numerous organizations of varying industries
- Assisted in designing a point-merit system to systematically evaluate positions based on competency factors
- Conducted statistical analysis to create salary structures based on archival data and aforementioned point-merit system
- Contributed toward the design of a 360-degree performance appraisal system utilized by various organizations

PROFESSIONAL MEMBERSHIPS

- SIOP: Society for Industrial Organizational Psychology
- APA: American Psychological Association
- Psi Chi: The National Honor Society in Psychology

SKILLS

- Computer Skills: Microsoft Word, Excel, PowerPoint. SPSS, LISREL, SAS
- Languages: fluent in Spanish