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The influence of positive performance appraisal ratings and regulatory focus on motivation to improve or maintain performance

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THE INFLUENCE OF POSITIVE PERFORMANCE APPRAISAL RATINGS AND REGULATORY FOCUS ON MOTIVATION TO IMPROVE OR MAINTAIN PERFORMANCE

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The present study was designed to test the anecdotal supposition that excellent performance appraisal ratings do not motivate employees to improve or maintain performance as much as good performance appraisal ratings. Self-regulatory focus theory (Higgins, 1997, 1998) predicts that high levels of motivation are induced either by failure under prevention focus or by success under promotion focus. Using a 2 x 2 completely randomized design, this study examined the effects of regulatory focus and performance appraisal ratings on motivation to improve or maintain performance. Research participation credit was used to manipulate regulatory focus, and bogus performance feedback was used to manipulate appraisal ratings. It was hypothesized that regulatory focus and performance appraisal ratings would interact, such that individuals under a promotion focus would be more motivated by *excellent* appraisal ratings, while individuals under a prevention focus would be more motivated by *good* appraisal ratings. Undergraduate psychology students participated in the computer-based study. Each participant read a set of instructions for an analytical word problem task that primed either promotion or prevention focus. Participants then solved a set of analytical word

problems and received either a *good* or *excellent* rating on their performance. Motivation to improve or maintain performance was assessed using a three-item Likert-type measure. Participants then solved a second set of word problems. Task performance, a behavioral outcome of motivation to improve or maintain performance, was also assessed. Results did not provide support for the study hypothesis. Participants assigned to the prevention focus manipulation reported higher levels of motivation than did participants in the promotion focus manipulation. In addition, participants in the *excellent* rating condition reported levels of motivation similar to participants in the *good* rating condition. Task performance was not influenced by the study manipulations. Implications for management and organizations are discussed.

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CHAPTER I

Introduction

That people need to receive feedback about how well they are performing their jobs is one of the most widely accepted beliefs among social scientists and business researchers (Ilgen & Davis, 2000). Perhaps the single most important source of performance feedback for employees is the performance appraisal. Performance appraisal is a ritual among organizations in which employee job performance is evaluated at one or more times throughout a given year.

Performance appraisals can vary in how they are conducted across and even within organizations. However, typical performance appraisal instruments ask raters, usually managers or supervisors, to compare an employee's performance to a set of standards established by the organization. Managers indicate the extent to which an employee's performance meets these standards by rating the employee's performance along one or more dimensions of the job. A common method is to use a rating scale in which low values on the scale represent poor performance (e.g., a *1* on a 5-point scale) and high values represent excellent performance (e.g., a *5* on a 5-point scale).

Performance appraisals serve at least two purposes for an organization. One purpose, referred to as the administrative purpose, is to determine employee pay raises and performance bonuses. Many organizations tie monetary incentives directly to the results of the performance appraisal. Another purpose of performance appraisals is to provide feedback to employees with regard to how consistent their performance is with the expectations of the organization, commonly referred to as the developmental purpose

of performance appraisal. The intention in this case is that employees will use the feedback as a means to correct or change any dimensions of job performance on which they had been rated low. Although the administrative purpose of performance appraisals is an interesting research topic, the focus of this thesis is instead on the developmental aspect of performance appraisal.

The fundamental assumption behind the developmental aspect of performance appraisals is that employees can be motivated by knowing where their performance is relative to organizational expectations. Intuitively, one would expect that employees would be more motivated by receiving positive appraisal feedback than negative appraisal feedback. Positive appraisal feedback should increase employee self-esteem and, consequently, motivation through the recognition the employee receives for "a job well done."

Although receiving performance feedback should be motivating to employees, one of the biggest criticisms of performance appraisals is that they do little, if anything, to motivate employees. Anecdotal evidence suggests that some managers believe that employees who receive excellent appraisal ratings will become complacent and "slack off." Other manager beliefs are that "no one is perfect," and average ratings will give employees "something to work for." Because many organizations tie performance appraisals to pay increases, some managers may give average ratings to keep within the organization's budgeting requirements. In any case, anecdotal evidence suggests that many managers rate employee performance as average or good even if the performance is truly outstanding or excellent.

Employees, on the other hand, might acknowledge that they want to receive excellent appraisal ratings if their performance warrants them. From an employee's perspective, performance that is rated as excellent should be just as motivating as performance that is rated as good, given that both ratings are examples of positive feedback. Some employees, however, may not react to positive feedback the same way as other employees, depending on how they view the work itself. For example, employees who are given a large amount of freedom to choose their work tasks may be more motivated by positive feedback than those who do not have much leeway in choosing their work tasks.

In this introductory chapter, I have suggested that a bias many managers may have when conducting performance appraisals is not rewarding excellent employee performance with excellent appraisal ratings. The implicit assumption is that employees are not motivated by excellent feedback. Managers, however, may not be totally at fault in making this assumption. For example, some employees who see their work tasks as something they do not have much control over may not be as motivated by receiving excellent feedback relative to good feedback. In the following chapters, I will describe the performance appraisal process and some concerns associated with this process. I will also review some of the research evidence for the motivational effects of performance feedback in general. Finally, I will introduce the concept of regulatory focus, which suggests that an employee's motivation is influenced by the requirements of the work task itself, and its implications for individual reactions to performance feedback.

CHAPTER II

The Appraisal of Employee Performance

In the introductory chapter, I suggested that providing feedback to employees in organizations is important. Perhaps the most significant source of feedback for employees is the performance appraisal. This chapter will describe the organizational concept of performance appraisal and its implications for employee motivation.

Performance appraisal is an important part of human resources decisions (Lawler, Mohrman, & Resnick, 1984), and the proper appraisal of employee performance is fundamental for human resources management in any organization (Rosinger, Meyers, & Girard, 1982). Indeed, performance feedback has consistently been shown to be a major contributor to employee motivation and performance (Greller & Herold, 1975; Ilgen, Fisher, & Taylor, 1979). Some managers and supervisors who are responsible for providing ratings for performance appraisals, however, do not like conducting performance appraisals. McGregor (1957) suggested that managers do not like giving performance appraisal ratings because they are reluctant to give negative feedback. Recent surveys have found that performance appraisals are viewed as unsuccessful and employers are dissatisfied with them (Bernardin, Hagan, Kane, & Villanova, 1998). These results should not be surprising, however, given that some managers do not know how to conduct performance appraisals and are hesitant to learn (Schuster, 1985).

In their analysis of the predictors of rating avoidance by supervisors, Fried, Tiegs, and Bellamy (1992) found that supervisors avoid performance appraisal because it is time-consuming and it puts too much responsibility in their hands. Bernardin et al.

(1998) suggested that the current air of discontent with performance appraisals is not helped by the incomprehensible research on the process in academic journals. On the other hand, according to Bernardin and associates, practitioner magazines seem to pour out an endless amount of ideas and anecdotal evidence of little quality.

A common aspect of performance appraisal is the employee feedback that accompanies the evaluation. Although assumed to be a beneficial part of the performance appraisal process, Meyer, Kay, and French (1964) found little improvement in performance after feedback meetings and suggested that employee defensiveness may be the problem. Many studies, however, have shown performance feedback to be beneficial to employees (Becker & Klimoski, 1989; Kluger & DeNisi, 1998; Smither, London, Vasilopoulos, Reilly, Millsap, & Salvemini, 1995; Stephan & Dorfman, 1989; Taylor, Fisher, & Ilgen, 1984; Walker & Smither, 1999). Reilly, Smither, and Vasilopoulos (1996) provided evidence that performance feedback is sometimes useful in subsequent performance: low performers benefit, average performers do not benefit, and superior performers do not think performance feedback is necessary.

Much of the research on performance appraisal has been devoted to the different purposes it may serve. Cleveland, Murphy, and Williams (1989) suggested that the two most important uses of performance appraisal are for employee development and administration purposes. Murphy and Cleveland (1991) posited that if the purpose of the appraisal is employee development, managers tend to give ratings that are more critical or harsh. The authors also suggested that if the purpose of the appraisal is to motivate the employee, managers tend to give either low or high ratings regardless of actual

performance. The implication, according to Murphy and Cleveland, is that raters are more interested in the impact of the ratings rather than the accuracy of the ratings.

Another concern with performance appraisal systems is rater error, which includes central tendency errors and leniency errors. Central tendency errors result when managers do not give ratings at either extreme (e.g., *excellent* or *poor*), but rather give ratings that tend to be in the middle (e.g., *average* or *good*). Gray (2002) pointed to a possible reason for this, suggesting that because most companies tie performance appraisals to pay increases, company budgeting processes require that most employees' ratings should be in the good or average category.

Leniency errors, or rating inflation, are a frequent complaint about performance appraisals (Ilgen & Feldman, 1983). That is, raters tend to give high ratings to most employees for one reason or another. Murphy and Cleveland (1995) estimated that 80% of all ratings done on a 7-point scale are either a 6 or 7. Many researchers have found rating inflation rampant within the military (e.g., Bjerke, Cleveland, Morrison, & Wilson, 1987), although Murphy and Cleveland (1995) suggested that rating inflation occurs in the public and private sector as well. One reason that this problem has not been explored may be that researchers tend to group *good* and *excellent* ratings together when looking at rating inflation. Other than the oft-cited examples of rating inflation in the military, however, very few studies actually show that a significant number of employees are given the highest attainable ratings on their performance appraisals. Murphy and Cleveland (1995) support this notion by suggesting that although there is no lack of

speculation, there has been little empirical work on the reasons behind apparent rater errors such as rating inflation.

One reason for rater error may be that managers simply do not like giving excellent ratings. Kennett (2001) suggested that managers' hesitancy to give an outstanding rating evolves from the tendency for managers to praise broadly and give general encouragement to keep up the good work if the employee has done well. Although managers may feel that no one deserves to be rated in the excellent category, employees actually want procedurally just performance appraisal systems (Gabris & Ihrke, 2001). In other words, employees want to be rated excellent if their performance is excellent.

Although it may seem likely that managers have been advised to withhold excellent ratings, a search of the popular management literature did not reveal a single instance of this practice being advised. Moreover, despite anecdotal evidence, research on this topic is practically nonexistent, and consequently, there is no known base rate for the practice of withholding excellent ratings. Several articles, however, have noted that this practice does exist. Consider the following quotes from a study by Mani (2001), in which employees are encouraged to write their perceptions of a performance appraisal system in existence at a southeastern university:

> "It is my opinion that this is a very unfair system...You have some supervisors that, at evaluation time, tell their employees that no matter how good you do your job that there is always room for improvement, and therefore I don't believe in rating an employee as outstanding."

> "My supervisor evaluates me…on job performance she only gives a 'good' she doesn't feel anyone deserves any higher."

Some employees seem to agree with managers:

> "(The) system rewards all employees rated better than good the same. Employees are not motivated to do any better than good to get raises."

Although exploring the reasons behind managers' hesitancy to give excellent ratings is an interesting research question, it is beyond the scope of this thesis. Instead, further discussion of this practice will focus on the consequences of this behavior rather than the explanations behind it.

In this chapter, I detailed some of the problems associated with performance appraisals. Specifically, I have argued that one of the problems with performance appraisals is a type of rater error in which managers do not give *excellent* ratings for excellent performance. In the next chapter, I will review what the literature has to say about the relationship between performance feedback and motivation.

CHAPTER III

Performance Feedback and Motivation

Thus far, I have suggested that managers may not give *excellent* ratings on performance appraisals because they do not feel that employees are motivated by receiving *excellent* ratings. This chapter will review some of the literature regarding the relationship between motivation and performance feedback. I will conclude this chapter by devising a working definition of motivation for the present study.

Motivation is one of the most complex phenomena that affects, and is affected by, numerous factors in today's workplace (Steers, Porter, & Bigley, 1996). Baron (1991) described motivation as one of the most pivotal concerns of modern organizational research. Although numerous authors have attempted to define motivation (e.g., Campbell & Pritchard, 1976; Vroom, 1964), Steers, Porter, and Bigley (1996) suggested that most definitions envision motivation as something that (1) energizes human behavior, (2) directs human behavior, and (3) maintains human behavior. Because task feedback is usually for developmental purposes and provides no external rewards to individuals, the bulk of the feedback research has focused on its effects on intrinsic motivation. Thus, for brevity's sake, I will refer to intrinsic motivation in this chapter simply as motivation.

There has been an extensive amount of research concerning the relationship between motivation and performance feedback. Traditionally, it has long been accepted in the social science literature that feedback enhances motivation. Numerous studies have demonstrated the positive influence of feedback on motivation (e.g., Anderson,

Manoogian, & Reznick, 1976; Arnold, 1976; Deci, 1972; DeNisi, Randolph, & Blencoe, 1982; Enzle & Ross, 1978; Harackiewicz, 1979; Ilgen, Mitchell, & Fredrickson, 1981; Karniol & Ross, 1977; Kim & Schuler, 1979; Vallerand, 1983; Vallerand & Reid, 1984). Arnold (1976), for example, found that participants who received written feedback regarding their performance on a complex computer game were more motivated than those who received monetary rewards for their performance on the game. In a study of the impact of performance appraisals on employee motivation, Inderrieden, Keaveny, and Allen (1988) found that performance feedback was a significant predictor of employee motivation.

A few studies, however, have failed to find a positive relationship between performance feedback and motivation. In a field study of a youth baseball league, Bram and Feltz (1995) found no differences in motivation between players who received feedback regarding their batting performance and those who received no feedback regarding batting performance. Using an electronic stimulus-reaction task, Goudas, Minardou, and Kotis (2000) noticed that neither positive nor negative task feedback had an impact on participant motivation. Harackiewicz, Abrahams, and Wageman (1987) provided evidence that other task variables may be more important than task feedback to subsequent motivation. Their results suggested that task contingencies communicated at the outset of task engagement, such as reward and feedback contingencies, enhanced motivation independently of the feedback received at the conclusion of a task.

Other studies have shown a positive relationship between positive performance feedback and motivation. For example, Harackiewicz (1979) provided evidence that

positive performance feedback on a word-finder task enhanced motivation independent of reward effects. Tang and Sarsfield-Baldwin (1991) found that participants who completed a set of anagrams were more motivated after receiving positive feedback on their task performance than those who received negative feedback on their task performance. In a survey of hospital nurses, Pavett (1983) found that nurses who received frequent positive feedback from their supervisors, coworkers, and clients showed higher levels of motivation than those who received negative feedback or a lack of feedback. Sansone (1986) observed that participants who received positive task feedback on a written trivia task were more motivated than those who received negative task feedback.

Some studies, however, have noted the positive influence of negative feedback on motivation. For example, Anderson and Rodin (1989) provided evidence that mild negative feedback can increase motivation under certain circumstances. Participants who received mild negative feedback on a brain-teaser task, but who also had a choice of problems to solve, no expectations of being evaluated, and received scores privately, were as much or more motivated than participants receiving positive feedback.

Several researchers have proposed that the relationship between performance feedback and motivation is moderated by other variables. Cusella (1982) observed that participants who received feedback on a word puzzle task from an expert source were more motivated than those who received feedback from a low expertise source. Rutherford, Corbin, and Chase (1992) found that performance feedback increased motivation for people with little or no experience with sports or physical activity, but had

no effect on motivation for people with moderate or high experience. The authors suggested that performance feedback may be more beneficial to beginners of a task rather than those who have experience with a task. Deci (1971, 1972) found that the effects of performance feedback may depend on the gender of the receiver. He found that positive feedback increased motivation for males, but decreased motivation for females. Although these results are based on only two studies, Deci (1971, 1972) nonetheless provided some evidence that gender moderates the effect of feedback on motivation. Results from Harackiewicz and Larson (1986) suggested that feedback has more of an influence on motivation when the receivers of feedback are high in self-confidence. That is, participants who had higher self-confidence were more motivated by performance feedback than those with lower self-confidence. In a similar finding, Tang (1990) found that Taiwanese participants with a low work ethic were more motivated by receiving feedback on an anagram task than were participants with a high work ethic. The author suggested that individuals with a high work ethic are equally motivated regardless of feedback. In a review of the feedback literature, Ilgen and Davis (2000) posited that three dispositional variables moderated the relationship between performance feedback and motivation: self-efficacy, goal orientation, and self-regulatory focus.

The results of the studies reviewed in this chapter are mixed. One reason for the inconsistent findings may be the numerous ways in which motivation is measured. The investigators in these studies measured motivation using various methods, including task enjoyment (Harackiewicz, 1979; Harackiewicz, Abrahams, & Wageman, 1987; Harackiewicz & Larson, 1986; Harackiewicz, Manderlink, & Sansone, 1984; Sansone,

1986), time spent on the task during a free-choice period (Cusella, 1982; Harackiewicz, 1979; Tang, 1990), volunteering (Harackiewicz, 1979), and task interest (Tang & Sarsfield-Baldwin, 1991). Although each of these operationalizations has its own merits, each one is limited in its explanation of future behavior. Indeed, Arnold (1976) called for an end to these operationalizations more than two decades ago, citing a lack of evidence that these measures adequately predicted future task behavior.

Although academic and scholarly journals are saturated with feedback and motivation research, there is clearly much more to be learned. Perhaps one impediment to our understanding of this topic is the lack of agreement as to the definition of motivation. Several theories of work motivation, such as equity theory and goal-setting theory, have been established to guide researchers in measuring employee motivation (Ambrose & Kulik, 1999). Much of the research on motivation has attempted to classify motivation in terms of the source, such as intrinsic or extrinsic motivation, while other studies have examined motivation as the likelihood of performing a task in the future.

For the purposes of this thesis, I will limit my discussion of motivation to what I call motivation to improve or maintain performance. This definition takes into account that tasks performed on the job are likely to be performed again in the future, especially if the task is a part of the job description and is evaluated during the performance appraisal process. Therefore, motivation to perform the task again is irrelevant in this sense. Also, distinguishing between intrinsic or extrinsic motivation is unnecessary because performance appraisals can be externally rewarding, if used for pay increases, or internally rewarding, if used for developmental feedback, or both. One of the

fundamental purposes behind performance appraisal is to motivate employees to improve or maintain their job performance in the next appraisal period. Thus, motivation is defined in this thesis as the intention to exert effort to improve or maintain task performance.

While there are numerous studies examining the influence of feedback on subsequent task performance, this effect, although an important one, is not a central focus of this thesis. Task performance, however, has traditionally been theorized to be a behavioral consequence of motivation. Thus, I would like to point to an influential article by Kluger and DeNisi (1996), which provided a historical review of the effects of feedback on performance. Kluger and DeNisi performed a meta-analysis of almost 24,000 observations of feedback interventions and found that feedback decreased subsequent performance in over one- third of the cases. The authors inferred that feedback sign or other feedback theories could not explain these findings. In response, Kluger and DeNisi proposed a Feedback Intervention Theory (FIT).

According to FIT, feedback interventions work by changing the locus of attention among three hierarchically organized levels of control: meta-tasks, task motivation, and task learning. Meta-task processes involve the self, task motivation processes involve the task itself, and task learning processes involve the details of the task. FIT predicts that feedback interventions are more effective at increasing performance as the focus of the feedback moves away from the self to the details of the task. Thus, feedback regarding one's behavior on a certain component of the task should be more effective at increasing subsequent performance than feedback that brings attention to the self, such as normative

feedback in which one's performance is compared directly to that of another. Performance appraisal feedback, then, should be most effective at increasing subsequent performance when the feedback highlights an employee's performance on a certain dimension of a task rather than direct comparison of an employee's performance to that of another employee.

Although there are varied findings in the feedback and motivation literature, the current trend appears to be to examine the moderating effects of dispositional variables, such as self-esteem, self-efficacy, and self-regulatory focus (Ilgen & Davis, 2000). The next chapter of this thesis will follow this line of research and focus on the motivational principle of self-regulatory focus.

Thus far, I have shown the importance of motivation in the workplace and suggested that there is a tendency among managers to assume that employees are more motivated by good or average feedback than excellent feedback. Self-regulatory focus theory (Higgins, 1997, 1998), however, suggests that not all employees will react to positive feedback in the same way. The next chapter will describe self-regulatory focus theory in more detail and the contributions of regulatory focus to the motivation literature.

CHAPTER IV

Regulatory Focus

As I suggested in the previous chapter, people do not always respond to positive feedback in the same way. Although several motivational theories have been suggested over the years, a primary concern of the present research is the motivational concept of self-regulatory focus. The remainder of this chapter will describe the concept of regulatory focus as well as some empirical evidence supporting it.

Much of the early motivation research has assumed that receiving feedback with regard to performance, whether it be good or bad, is consistently motivating for individuals (e.g. Kim & Hamner, 1976; Pritchard, Jones, Roth, Stuebing, & Ekeberg, 1988). However, a meta-analysis of feedback research by Kluger and DiNisi (1996) found that more than one-third of all feedback effects were actually detrimental to subsequent performance compared to no feedback. Thus, feedback itself is not inherently motivating to everyone.

Another assumption that has hindered motivation research is the hedonic principle. The hedonic principle assumes that individuals prefer positive feedback and try to avoid negative feedback. Higgins (1997) suggested that this approach-avoidance model of motivation has been over applied in motivation research and has led to misleading conclusions. Although this principle makes intuitive sense, Higgins argued that social scientists should move beyond the approach-avoidance dichotomy and identify the principles that underlie the different operations of the hedonic principle. He suggested that the hedonic principle should function differently depending on the needs

of the individual, such as survival needs and security needs. In response, Higgins (1997, 1998) developed a theory of self-regulatory focus as a motivational principle. The theory of regulatory focus posits that security-related regulation differs from nurturance-related regulation. Nurturance-related regulation involves what Higgins called a *promotion* focus and security-related regulation is characterized by a *prevention* focus. In a promotion focus, an individual is concerned with advancement, growth, and accomplishment, and the individual's goals are hopes, ideals, and aspirations. A common characteristic of a task with a promotion focus is that it is a task that people "want to do." The strategy in a promotion focus is to approach matches to one's hopes and aspirations. In a prevention focus, an individual is concerned with security, safety, and responsibility, and the individual's goals are duties, oughts, obligations, and necessities. A common characteristic of a task with a prevention focus is that it is a task that people "have to do." The strategy in a prevention focus is to avoid mismatches to one's duties and obligations.

It should be noted at this point that Higgins (1997, 1998) proposed regulatory focus as either a trait or a state variable. As such, regulatory focus can be measured as a dispositional variable or manipulated as a state variable. Thus, the trait versus state debate is not applicable to the concept of regulatory focus. For the purposes of this study, all references to the nature of regulatory focus reflect Higgins's (1997, 1998) sentiments.

Although the implications of regulatory focus for motivational research in industrial and applied psychology are numerous, much of the research on the topic has been conducted in other settings (e.g., developmental, cognitive, etc.). The seminal work on the effects of regulatory focus and performance feedback on motivation was

conducted by Van-Dijk and Kluger (2000). The next section will describe their unique contribution to the motivation literature.

Van-Dijk and Kluger's (2000) Study. Van-Dijk and Kluger hypothesized that the variability in the effects of positive and negative feedback could be explained by self-regulatory focus theory. Specifically, they expected to find that people would be more motivated by failure under a prevention focus or success under a promotion focus. To test their hypothesis, Van-Dijk and Kluger conducted a series of experiments that manipulated feedback sign (positive and negative) and regulatory focus (promotion and prevention).

In the first experiment, 131 students (88 MBA students and 43 undergraduates) were asked to imagine that they were working in a job and their supervisor commented on their task performance. The authors manipulated regulatory focus by telling half of the participants to imagine that they were working in a job that they "had to keep" for financial reasons (prevention focus). The other half of participants were told to imagine that they were working in a job that they had always "desired to have" and that they would aspire to advance and develop within that job (promotion focus). To manipulate feedback sign, the authors told half of the participants to imagine that their boss just told them that they "failed" in their task performance (negative feedback) and the other half that they "excelled" in their task performance (positive feedback). Van-Dijk and Kluger defined motivation as "intention to exert effort." Thus, they measured motivation by asking participants a one-item question: "Relative to your effort in your job thus far, how much effort are you intending to give next?" Participants provided their response to this

question using an 11-point scale ranging from "much less" (-5) to "about the same" (0) to "much more" (5).

The results of the first experiment supported Van-Dijk and Kluger's (2000) hypothesis. Participants who received the promotion focus manipulation were more motivated by positive feedback than negative feedback. However, participants who received the prevention focus manipulation were more motivated by negative feedback than positive feedback.

In a second experiment, the authors aimed to replicate these findings by examining the needs aspect of self-regulation. Van-Dijk and Kluger (2000) asked 171 participants (72 MBA students and 99 undergraduate students) to imagine that they were working on a project and their supervisor commented on their task performance. The authors manipulated regulatory focus by asking half of the respondents to imagine that they were assigned a safety and security project in their organization (prevention focus) and the other half of the participants to imagine that they were assigned to handle a career-development project for their organization (promotion focus). The authors manipulated feedback sign by telling participants to imagine that after one month their project was either "failing" or "succeeding." The researchers assessed motivation again using a one-item measure of intention to exert effort, which read, "Relative to your effort in this project thus far, how much effort are you intending to give next?" Participants provided their response using an 11-point scale ranging from "much less" (-5) to "about the same" (0) to "much more" (5).

The authors found results identical to the first experiment. Participants who received the promotion focus manipulation were more motivated by positive feedback than negative feedback, while participants who received the prevention focus manipulation were more motivated by negative feedback than positive feedback.

In their discussion, Van-Dijk and Kluger suggested that positive feedback increases motivation relative to negative feedback for a task that people "want to do," but decreases motivation for a task that people "have to do." They also suggested that their results provide support for Higgins's self-regulatory focus theory.

Van-Dijk and Kluger's (2000) findings clearly fly in the face of decades of feedback and motivation research. There are, however, a few limitations of Van-Dijk and Kluger's study. First, the authors asked that participants imagine a scenario in which they received feedback. While an imagined scenario may be similar to actual events, I suggest that this is definitely not a one-to-one relationship. There may be countless other variables that would have an effect on feedback in an actual work setting, such as the proximity of the supervisor, the relationship between supervisor and subordinate, the way in which the feedback was delivered, or expectations of future relationships.

Second, Van-Dijk and Kluger (2000) used a one-item measure of motivation as their dependent variable. The internal consistency of a one-item measure cannot be meaningfully interpreted. The validity of a one-item measure is also called into question, given the difficulty of capturing the entire construct of motivation in one question.

Finally, the authors operationally dichotomized feedback sign into broad terms, such as "fail" versus "excel" and "fail" versus "succeed." Although these terms reflect

positive and negative feedback, they appear on the surface to reflect extreme values of positive and negative. For example, "fail" versus "excel" suggests no variation in positive or negative outcomes, only the extremes of the possible outcomes.

In this chapter, I introduced the concept of regulatory focus and some of the implications for motivation research. This chapter also reviewed a key research study that examined the moderating effects of regulatory focus on performance feedback and motivation. In Chapter II, I suggested that there is a tendency among managers to withhold excellent performance appraisal ratings because they believe employees cannot be motivated by excellent ratings. In Chapter III, I reviewed some of the literature that examined the relationship between performance feedback and motivation. The findings of this review were mixed, although recent research has concentrated on several dispositional variables as moderators of the relationship between feedback and motivation (Ilgen & Davis, 2000). Chapter IV reviewed one of these variables, self-regulatory focus, and its moderator effects on the relationship between performance feedback and motivation. The next chapter summarizes the research reviewed thus far and provides a testable research hypothesis for the present study.

CHAPTER V

Purpose of Investigation

Performance appraisals are an important source of feedback for employees in organizations. Some managers who provide appraisal ratings, however, believe that employees cannot be motivated by receiving excellent ratings, so they tend to give good or average ratings. Unfortunately, the research on the relationship between performance feedback and motivation has provided mixed results. Some studies suggest that feedback enhances motivation while others suggest no relationship. Many research studies have found a positive relationship between positive feedback and motivation, yet some studies suggest that mild negative feedback can enhance motivation. The most compelling evidence thus far is that the relationship between feedback and motivation is moderated by other variables. These moderators may include dispositional variables such as self-efficacy, goal orientation, and self-regulatory focus (Ilgen & Davis, 2000).

The purpose of this investigation is two-fold. The first purpose is to determine if individuals given an *excellent* rating for their performance on a task are any less motivated to improve or maintain performance than those individuals who are given a *good* rating. Because the research indicates that not everyone reacts to positive feedback the same way, it will then be necessary to examine the effects of performance feedback on motivation in terms of self-regulatory focus. In their study, Van Dijk and Kluger (2000) dichotomized feedback sign in their experiments into positive versus negative. Thus, the second purpose is to take Van-Dijk and Kluger's research a step further in explaining the effect of variations of positive feedback and regulatory focus on

motivation. Specifically, does regulatory focus moderate the effect of *excellent* versus *good* performance appraisal ratings on motivation?

At this point, it is necessary to address a conceptual issue that is crucial to the hypothesis of the present study. One advantage of dichotomizing feedback, as Van-Dijk and Kluger (2000) did, was that the feedback given was unambiguously positive or negative. That is, they used terms such as "fail" and "excel," which are unmistakable examples of negative and positive feedback. Because the present study will extend the spectrum of positive feedback from *excellent* to *good* appraisal ratings, it is essential to understand how people interpret a *good* rating. A *good* rating can be interpreted differently depending on how closely it matches the expectations of the target. For example, some individuals who believe their performance on a task was *excellent* may get a lower rating (e.g., a *good* rating). Accordingly, their expectation of being recognized for excellent performance has been violated, and they may be likely to view the *good* rating as negative feedback, even though *good* is usually considered positive. For this reason, it is necessary to assess how the study participants perceive a *good* rating. This was assessed by measuring the affective reactions of study participants. Individuals with a promotion focus would be expected to be less motivated by a *good* rating only if they see the rating as negative feedback. On the other side of the same coin, individuals with a prevention focus will be more motivated by a *good* rating only if they also see the rating as negative feedback.

Research to date on performance appraisals has not examined the motivational effects of *good* versus *excellent* ratings. However, based on the general finding that

positive feedback tends to enhance motivation and the expectation that people view excellent feedback as more positive than good feedback, I expected that individuals receiving *excellent* performance ratings would be motivated as much, if not more, than individuals receiving *good* performance ratings.

Because the research evidence suggests that positive feedback is more motivating for promotion focused individuals than prevention focused individuals (Van-Dijk & Kluger, 2000), I expected that individuals with a promotion focus would be more motivated to improve or maintain performance than will individuals with a prevention focus. I also expected that among promotion focused individuals, those who receive *good* performance ratings would be less motivated to improve or maintain performance than those receiving *excellent* performance ratings. Among prevention focused individuals, those receiving *excellent* ratings were expected to be less motivated to improve or maintain performance than those receiving *good* performance ratings.

> *Hypothesis*: Regulatory focus will interact with performance appraisal ratings to affect motivation. In the promotion focus condition, participants receiving *good* ratings will be less motivated to improve or maintain performance than those receiving *excellent* ratings. In the prevention focus condition, participants receiving *excellent* ratings will be less motivated to improve or maintain performance than those receiving *good* ratings.

Chapter VI

Method

Overview of Methodological Strategy

This investigation utilized a 2 x 2 completely randomized design. The independent variables were regulatory focus (promotion and prevention) and performance appraisal ratings (good and excellent). All study materials were presented on a computer screen using MediaLab®, an experimental research software program. Participants provided their responses to the measures using a computer mouse and keyboard.

Participants

Undergraduate college students at a public, Midwestern university were solicited to participate in this study. Participants were solicited through a sign-up sheet that requested participants for a study on task performance. Each participant was compensated for his or her participation with extra-credit points that counted toward his or her grade in an undergraduate psychology course. An alternative activity to receive extra credit was provided by their course instructor for those who did not wish to participate. Participants were treated in accordance with the "Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 1992).

The present study consisted of 120 participants. Forty of the participants were male (33.3%) and 80 were female (66.7%). The mean age of the participants was 22 years, with the youngest participant being 18 and the oldest 51. Eighty-five percent of participants (102) indicated their racial/ethnic heritage as Caucasian and 15% of

participants indicated they were of minority status (6 African Americans, 4 Hispanic Americans, 3 Asian American/Pacific Islanders, and 5 Other).

Design

The experimental design was a 2 x 2 completely randomized design. The independent variables were regulatory focus (promotion and prevention) and performance appraisal rating (good and excellent). The dependent variables were self-reported motivation to improve or maintain performance and task performance.

Manipulation of Independent Variables

Regulatory focus was manipulated using instructions that primed the regulatory focus of participants. Performance appraisal ratings were manipulated by providing participants with bogus appraisal ratings regarding their task performance.

Regulatory focus. Regulatory focus was manipulated using the following instructions (adapted from Freitas, Liberman, Salovey, & Higgins, 2002):

> In this experiment, you will be asked to solve a set of word problems. After solving the first set, you will be asked to solve a second set of word problems. Each problem or group of problems is based on a passage or a set of conditions. You may wish to draw a diagram to answer some of the problems. Choose the *best* answer for each question by clicking the box next to the answer using the left button of the computer mouse.

The second sentence was included to ensure that participants recognized that their performance would be evaluated a second time, thus leaving participants a reason to improve or maintain performance.

Participants in the promotion-focused condition received these additional instructions:

> You will begin the experiment with one extra credit hour in your "account." For every two correct answers provided, five minutes of extra credit will be added to your account. Your goal is to provide as many correct answers as you can. You can earn a minimum of one hour of extra credit and a maximum of two hours for completing both sets of questions, depending on how well you do at providing correct answers.

Participants in the prevention-focused condition received these additional instructions:

> You will begin the experiment with two extra credit hours in your "account." For every two incorrect answers, five minutes of extra credit will be deducted from your account. Your goal is to avoid as many incorrect answers as you can. You can earn a minimum of one extra credit hour and a maximum of two hours for completing both sets of questions, depending on how well you do at avoiding incorrect answers.

Performance appraisal ratings. Performance appraisal ratings were manipulated by giving participants bogus feedback via the computer regarding their task performance. Participants saw a Likert-type rating scale at the top of the screen, with anchors from 1 to 5, with 1 associated with *poor* overall task performance and 5 associated with *excellent* overall task performance. Participants in the *good* rating condition saw an associated rating of *good* (4) below the rating scale. This rating was followed by a short description

of what a 4 represented in relation to the performance other study participants. Participants in the *excellent* rating condition saw an associated rating of *excellent* (5). This rating was followed by a description of what a 5 represented in relation to the performance of other study participants.

Task

The task in this study required participants to answer two sets of twelve multiple choice analytical reasoning questions. The questions were selected from a pool of questions found in a book of logic and reasoning puzzles (Learning Express, 1999) (see Appendix A for the complete set of questions). An internal consistency estimate of reliability was calculated for each of the two sets of questions, $\alpha = .74$ and $\alpha = .77$, respectively. Each question appeared on consecutive computer screens, and participants answered each question by selecting from among four multiple choice options. Participants selected their answer by clicking the left mouse button on the box that corresponded with that answer.

Dependent Measures

Participants completed a three-item measure of motivation to improve or maintain performance and a three-item measure of negative affect. The response scale for all items on both measures was a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A behavioral outcome of motivation to improve or maintain performance, task performance, was also assessed in this study. Task performance was measured by the number of correct responses to the second set of reasoning problems.

Motivation to improve or maintain performance. Motivation to improve or maintain performance was measured using a scale constructed by the author. This scale consisted of three items (e.g., I will put forth the effort needed to get an "excellent" rating on the next set of word problems). Participants' scores on the scale were calculated by summing the responses made for each item. An internal consistency estimate of reliability was calculated, $\alpha = .70$. See Appendix B for the complete measure of motivation to improve or maintain performance.

Negative affect. Participant affect was measured using a scale constructed by the author. This scale consisted of three items (e.g., How pleased or displeased are you with your performance?) Participants' scores were calculated by summing the responses made for each item. An internal consistency estimate of reliability was calculated, $\alpha = .85$. See Appendix C for the complete measure of negative affect.

Task performance. Task performance was assessed by adding the number of correct responses to the second set of reasoning problems. The computer program automatically scored each problem and added each correct answer to form a composite score of task performance.

Procedure

Participants were solicited through a sign-up sheet that contained a brief description of the study, dates and times the study would be conducted, and a tear-off reminder slip. Participants were contacted by telephone the evening prior to their scheduled date of participation to remind them of the time and place of the study.

The experiment consisted of individual sessions, although sometimes another participant worked in the same room. Upon arriving at the study location, participants were seated at a computer terminal, where all study materials and instructions were displayed. Participants were asked to read and sign a voluntary consent form and were given a copy of the form to keep for themselves. After signing the consent form, participants were verbally instructed to direct their attention to the computer screen, which at this point contained only the title of the study. Participants were verbally instructed to scroll through the screens at their own pace and carefully read the instructions and respond to the required fields.

All study participants were shown a set of instructions on the computer screen that described the analytical reasoning task, including a sentence that reminded participants that they would be asked to provide their answers to a second set of analytical reasoning questions. Participants in the promotion focused condition were instructed that they would begin the experiment with one hour of extra credit in their "account", and they could earn five minutes of extra credit for every two correct answers, up to a maximum of two hours of extra credit. Thus, their goal was to provide as many correct answers as possible. Participants in the prevention focused condition were instructed that they would begin the experiment with two hours of extra credit in their "account", and five minutes of extra credit would be deducted for every two incorrect answers, with a minimum of one hour of extra credit. Thus, the goal for prevention focused participants was to avoid as many incorrect answers as they could.

Participants then answered a set of 12 multiple choice analytical reasoning questions. Participants provided their answer to each question by selecting from among four answer options. Correct responses were tabulated automatically by the computer; participants did not know whether their response had been scored correct or incorrect. After answering the first four questions, participants were reminded of how much extra credit they could gain or lose per question depending upon their study condition.

After providing their solutions, all participants received bogus feedback regarding their task performance via the computer screen. Upon receiving the bogus feedback, all participants provided their responses to the measure of motivation to improve or maintain performance and the negative affect measure. After completing the measures, participants completed a second set of 12 analytical reasoning questions. The procedure was the same as for the first set of questions. Task performance was measured by the number of correct responses to the second set of reasoning problems. Upon completion of the second set of questions, each participant was debriefed and dismissed. All participants received the full two hours of extra credit for their participation.

Chapter VII

Results

Descriptive Analyses

Manipulation checks. Fifty-eight (97%) of the 60 participants who received a 4 (good) correctly indicated that they had received a rating of 4. The other two who received a 4 incorrectly indicated that they had either received a rating of 3 (average) or a 5 (excellent). Sixty (100%) of the 60 participants who received a 5 (excellent) correctly identified their rating condition. This manipulation check indicates that participants were cognizant of the ratings they received while completing the dependent measures.

When asked the question, How many hours of extra credit were in your account when you started the experiment, 52 (87%) of the 60 participants who were in the prevention focus manipulation correctly responded that they started the experiment with two hours of extra credit. Of the other eight participants in the prevention focus condition, one indicated he/she started the experiment with one hour of extra credit and seven indicated they started the experiment with no extra credit. Twenty-seven (45%) of the 60 participants who were in the promotion focus manipulation correctly responded that they started the experiment with one hour of extra credit. Of the other 33 participants in the promotion focus condition, 24 indicated they had started the experiment with no extra credit and nine indicated they had started with two hours of extra credit. The number of incorrect responses to this manipulation check is troublesome and may be due in part to the ambiguity of the question. This leaves open the possibility that the regulatory focus manipulation was not effective.

Word problem difficulty. On a scale from 1 (very easy) to 7 (very hard), participants gave the word problems an average difficulty rating of 3.7 (SD = 1.23) (see Table 1 for cell means and standard deviations of study variables). A two-way ANOVA revealed that participants' ratings of word problem difficulty did not differ by study condition. Tests for main effects of regulatory focus and rating were not significant, $F(1, 116) = .00$, *ns*, and $F(1, 116) = .06$, *ns*, respectively, nor was a test for an interaction between regulatory focus and rating, $F(1, 116) = .46$, *ns*. On average, participants did not find the word problems particularly difficult or easy.

Rating accuracy. To ensure that participants believed the ratings they received, they were asked to indicate the extent to which they agreed with the rating, the extent to which the rating was accurate, and the rating they would have given themselves. On a scale from 1 (strongly disagree) to 7 (strongly agree), on average, participants indicated that they agreed with the rating they received (M = 5.76, SD = 1.14). However, a two-way ANOVA revealed significant differences in agreement between study conditions. Specifically, prevention focus participants (M = 5.98, SD = 1.03) agreed more with their ratings than did promotion focus participants (M = 5.53, SD = 1.20), $F(1, 116) = 5.03$, $p < .05$, and participants in the excellent rating condition (M = 6.00, SD = 1.24) agreed with their ratings more than those in the good rating condition (M = 5.52, SD = .98), $F(1, 116) = 5.80$, $p < .05$. A test for an interaction between regulatory focus and rating was not significant, $F(1, 116) = .56$, *ns*).

On a scale from 1 (very inaccurate) to 7 (very accurate), on average, participants indicated that they believed the rating they received (M = 5.78, SD = .97). Results of a

two-way ANOVA showed that participants in the prevention focus condition ($M = 6.00$, $SD = .92$) believed their ratings more than those in the promotion focus condition ($M = 5.57$, $SD = .98$), $F(1, 116) = 6.45$, $p < .05$. Tests of a main effect for rating and an interaction between regulatory focus and rating were not significant, $F(1, 116) = 2.44$, *ns*, and $F(1, 116) = 3.82$, *ns*, respectively.

When asked to rate their own performance, 62% of participants (74) gave themselves a rating of 4 (good), 26% (31) gave themselves a 5 (excellent), 12% (14) gave themselves a 3 (average), and one participant gave him/herself a rating of 2 (marginal). A two-way ANOVA on the self-ratings revealed significant differences among study conditions. That is, an interaction was found between regulatory focus and rating, $F(1, 116) = 12.53$, $p < .01$, such that among prevention focus participants, those who received an *excellent* rating ($M = 4.67$, $SD = .48$) gave themselves higher ratings than those who received a *good* rating ($M = 3.80$, $SD = .61$), and in a similar pattern, promotion focused participants who received an *excellent* rating ($M = 4.10$, $SD = .61$) rated their performance significantly higher than promotion focused participants who received a *good* rating ($M = 3.93$, $SD = .45$). As for main effects, prevention focus participants ($M = 4.23$, $SD = .70$) gave themselves significantly higher ratings than promotion focus participants ($M = 4.02$, $SD = .54$), $F(1, 116) = 4.80$, $p < .05$. Also, participants in the excellent rating condition ($M = 4.38$, $SD = .61$) rated their performance significantly higher than those in the good rating condition ($M = 3.87$, $SD = .54$), $F(1, 116) = 27.30$, $p < .01$. This observed main effect is consistent with the expectation that individuals will rate their own performance in accordance with their assigned ratings. Although it

appears that, overall, participants believed the ratings they received were accurate, the observed differences among study conditions may reveal unintended manipulation effects.

Test of Assumption Underlying Study Hypothesis

The assumption that participants would perceive a *good* rating as somewhat negative was tested by conducting an ANOVA of participants' scores on the negative affect measure. Higher scores on the measure reflect more negative affective reactions of participants (see Table 2 for the complete ANOVA table for participant affect). The results of this analysis revealed that participants in the good condition ($M = 8.85$, $SD = 3.09$) scored significantly higher on the negative affect measure than did those in the excellent condition ($M = 4.42$, $SD = 2.40$), $F(1, 116) = 77.61$, $p < .01$. Tests for a main effect of regulatory focus and an interaction between regulatory focus and rating were not significant, $F(1, 116) = 2.32$, *ns*, and $F(1, 116) = .44$, *ns*, respectively. Thus, although participant affect in both rating conditions was generally positive, the assumption that participants would perceive a *good* rating as somewhat negative feedback compared to an *excellent* rating was supported.

Test of the Study Hypothesis

The study hypothesis predicted an interaction between regulatory focus and performance appraisal ratings such that promotion focused participants who received a *good* rating would be less motivated to improve or maintain performance than those receiving *excellent* ratings and prevention focused participants who received *excellent* ratings would be less motivated to improve or maintain performance than those receiving

good ratings (see Figure 1 for a graph of the means in each condition). A two-way ANOVA did not provide support for the study hypothesis, $F(1, 116) = .24$, *ns* (see Table 2 for the complete ANOVA table for participant motivation). However, participants in the prevention focus condition ($M = 17.10$, $SD = 2.52$) were significantly more motivated than those in the promotion focus condition ($M = 16.02$, $SD = 3.03$), $F(1, 116) = 4.48$, $p < .05$, which is contrary to the expectation that, overall, promotion focused participants would be more motivated since only positive feedback was used in the present study. A test for a main effect of rating was not significant, $F(1, 116) = .47$, *ns*.

Task Performance

The effects of regulatory focus and performance ratings on task performance were assessed by conducting an analysis of covariance (ANCOVA) on performance scores on the second half of word problems (i.e., after the manipulation) (see Table 3 for the complete ANCOVA table for task performance). This analysis was conducted by using the performance scores on the first set of word problems (i.e., before the manipulation) as a covariate (see Figure 2 for a graph of the adjusted task performance means for each condition on the second set of word problems). A linear relationship was observed between task performance on the first and second halves of the word problems, $r = .73$, $p < .01$, and a test of the homogeneity of regression slopes was not significant, $F(3, 112) = .30$, *ns*. Thus, the assumptions of ANCOVA were satisfied. The ANCOVA revealed no interaction between regulatory focus and rating, $F(1, 115) = .96$, *ns*, and no main effects of regulatory focus and rating, $F(1, 115) = .04$, *ns*, and $F(1, 115) = .06$, *ns*, respectively.

To determine the relationship between task performance and motivation in the present study, correlation coefficients were calculated for each study condition controlling for task performance on the first set of word problems. Overall, the correlation between task performance and motivation was -.05, *ns*. The following within-cell correlations were observed between task performance and motivation: prevention focus/good rating, r = -.08, *ns*; promotion focus/good rating, r = -.12, *ns*; prevention focus/excellent rating, r = .05, *ns*; promotion focus/excellent rating, r = .02, *ns*.

Tests of Demographic Effects

Age. Age effects were assessed by conducting an ANCOVA on the dependent variables using age as a covariate. Age was not significantly related to participants' scores on negative affect, $F(1, 115) = .30$, *ns*, motivation, $F(1, 115) = .07$, *ns*, or task performance, $F(1, 115) = 1.66$, *ns*. Thus, the age of the participants was likely not a confound in this study.

Gender. Gender effects were tested by conducting a three-way ANOVA on the dependent measures, adding gender as a design variable. For participant affect, the gender main effect was not significant, $F(1, 112) = .83$, *ns*, nor were tests of two-way interactions with regulatory focus, $F(1, 112) = .16$, *ns*, and rating, $F(1, 112) = 1.08$, *ns*, or a three-way interaction with regulatory focus and rating, $F(1, 112) = 1.86$, *ns*. A test for a gender main effect on motivation was not significant, $F(1, 112) = .83$, *ns*, nor were the tests for two-way interactions with regulatory focus, $F(1, 112) = .00$, *ns*, and rating, $F(1, 112) = .67$, *ns*, or the test for a three-way interaction among gender, regulatory focus, and rating, $F(1, 112) = 1.52$, *ns*. As for task performance, no gender main effect was

observed, $F(1, 112) = 1.92$, *ns*, as well as no two-way interactions with regulatory focus, $F(1, 112) = .13$, *ns*, and rating, $F(1, 112) = 1.09$, *ns*, and no three-way interaction with regulatory focus and rating, $F(1, 112) = .40$, *ns*. Therefore, there were no gender differences on participants' scores on the dependent measures.

Race. To test for effects of participant race, a three-way ANOVA was conducted on the dependent measures, using race as a design variable. To allow for meaningful statistical comparisons, participants were reclassified as either White or Non-white. No race main effect was found for participant affect, $F(1, 112) = .38$, *ns*, as were no two-way interactions with regulatory focus, $F(1, 112) = .63$, *ns*, and rating, $F(1, 112) = .21$, *ns*, and no three-way interaction with regulatory focus and rating, $F(1, 112) = 1.64$, *ns*. For participant motivation, race was not found to have a main effect, $F(1, 112) = .14$, *ns*, two-way interactions with regulatory focus, $F(1, 112) = .33$, *ns*, or rating, $F(1, 112) = .02$, *ns*, or a three-way interaction with regulatory focus and rating, $F(1, 112) = 1.32$, *ns*. As with the other dependent measures, no significant main, $F(1, 112) = 2.53$, *ns*, two-way interaction, $F(1, 112) = 1.55$, *ns*, and $F(1, 112) = .37$, *ns* (regulatory focus and rating, respectively), or three-way interaction, $F(1, 112) = .06$, *ns*, effects were found for race and task performance. Overall, race did not play a role in participants' scores on the dependent measures.

Chapter VIII

Discussion

Conclusion

The present study was conducted to test the hypothesis that promotion focused individuals are more motivated by *excellent* feedback than *good* feedback, and that prevention focused individuals are more motivated by *good* feedback compared to *excellent* feedback. A critical assumption underlying this hypothesis was that participants would perceive a *good* rating as somewhat negative feedback compared to an *excellent* rating. Although this assumption was met, the results did not support the study hypothesis. Contrary to the study hypothesis, individuals with a prevention focus were more motivated by positive feedback than individuals with a promotion focus. In fact, these results are in direct contrast to Van-Dijk and Kluger's (2000) findings as well as the prediction suggested by self-regulatory focus theory (Higgins, 1997, 1998).

Although motivation is typically viewed in the research literature as an influential factor in task performance (Mitchell, 1997), task performance was not correlated with self-reported motivation in the present study. These results are consistent with what Arnold (1976) characterized as a pattern of weak relationships in the literature between motivation and future task behavior. The lack of relationship in the present study may be due in part to the explicit (i.e., self-report) nature of the motivation measure that was used. Indeed, some researchers have found much larger relationships between implicit attitude measures and measures of behavior (e.g., James, 1998). Thus, task performance

may not have been an appropriate outcome measure of motivation as it was defined in the present study.

Implications for Practical Application

Although the study hypothesis was not supported, there are at least two implications for current management practices that emerge from the present study. First, the finding of approximately equal motivation scores among the participants in the *good* and *excellent* rating conditions suggests that individuals can be motivated by *excellent* feedback. This essentially negates the seemingly widely held belief among managers that workers cannot be motivated by receiving maximally positive performance appraisal ratings. Indeed, these results suggest quite the opposite; that is, people can be motivated by *outstanding* or *excellent* appraisal ratings just as much as *good* ratings. Therefore, managers should adopt a performance appraisal strategy that rewards excellent performance with excellent ratings.

A second implication of the present study is the need for organizations to identify the motivational orientation of their employees. Although a measure of regulatory focus was not utilized in the present study, such a measure could be easily developed for use within organizations. The finding in the present study that individuals with a prevention focus react more positively to positive feedback suggests that organizations should frame employee feedback in prevention focus terms. For example, if an organization is interested in providing developmental feedback as a part of their appraisal system, they might frame the positive feedback by using language that is consistent with a prevention focus (e.g., deadlines, obligations, necessities, etc.).

Limitations of the Present Study

There are at least six possible limitations of the present study. First, the relatively small number of participants ($N = 120$) may have reduced the power of the experimental design to detect a true interaction effect. However, this would not explain findings that are precisely the reverse of those in Van-Dijk and Kluger's (2000) study, in which one experiment consisted of only 131 participants.

Second, the power to detect an interaction effect may have been reduced by using only positive feedback. Specifically, the psychological difference between a 4 (good) and a 5 (excellent) may be too small to detect, especially using only a 7-point scale of motivation. However, this too would not explain findings that are opposite of those reported by Van-Dijk and Kluger (2000).

Third, although Kluger and DeNisi's (1996) FIT argues for providing objective feedback, the methods of the present study necessitated the use of normative feedback. Specifically, when participants were shown their rating, they were also shown a short sentence that indicated how they had performed in relation to other study participants. This method of feedback presentation was necessary given the multiple choice format of the word problem task. That is, participants may have been less likely to believe objective bogus feedback if they held an approximate recollection of the actual number of problems they correctly answered. Therefore, consistent with FIT (Kluger & DeNisi, 1996), normative feedback may have been less meaningful to participants in terms of their perceived performance and subsequent motivation.

Fourth, manipulation checks indicated that the regulatory focus manipulation may not have been effective. Only 45% of participants in the promotion focus condition correctly indicated that they had started the experiment with one hour of extra credit. This finding is puzzling given that previous studies of regulatory focus have used similar manipulations (e.g., Freitas et al., 2002). The problem, however, may have been due to the ambiguity of the question, How many hours of extra credit were in your account when you started the experiment? The failure of the manipulation may also have been due to a lack of participant understanding regarding the extra credit contingencies stated at the outset of the experiment. In other words, the instructions given at the beginning of the experiment have been somewhat confusing to participants. On the other hand, since 87% of participants in the prevention focus condition correctly responded to the manipulation check, the problem seems to be specific to the promotion focus manipulation itself. The ineffectiveness of the promotion focus manipulation may have led to results contradictory to those of previous studies.

Fifth, the argument could be made that, regardless of the regulatory focus manipulation, all participants were actually under a prevention focus. That is, because each participant participated in the study as a means of obtaining extra course credit, it may have been that participants approached the study with a "have to" perspective (i.e., prevention focus). This may have played a role in the ineffectiveness of the promotion focus manipulation.

Finally, the analytical reasoning task used in the present study may have involved an ability component, which may have confounded the study. In other words, if quality

performance on the task was dependent on a high level of ability, this may have affected the results involving task performance, including the relationship between motivation and task performance. For example, all participants completed the task, similar performance scores were found across conditions, and the task was rated as having an average difficulty level, which all may have led to a lack of variability in performance. Thus, the ability requirements of the task itself may have played more of a role in task performance than did the study manipulations.

Future Research Directions

Future research in this area should attempt to replicate Van-Dijk and Kluger's (2000) study. Although they found consistent results over a series of experiments, the results of the present study suggest that their findings with regards to positive feedback do not appear to hold up under closer scrutiny. More specifically, future research should attempt replication across multiple samples, non-student samples, and samples from multiple cultures.

Future studies should also seek to examine the motivational effects of regulatory focus and performance feedback over multiple levels of feedback sign (positive and negative). As previously mentioned, the Van-Dijk and Kluger (2000) study utilized polar extremes of positive and negative feedback (e.g., "fail" versus "excel") while the present study tested only two levels of positive feedback. Further investigations in this area should explore motivational differences at differing levels of feedback sign to better understand the processes involved in individual reactions to feedback under regulatory focus orientations.

Furthermore, additional research is needed that tests the interaction of regulatory focus and different types of feedback (e.g., objective versus normative). For example, the present study utilized normative feedback due to constraints imposed by the methods used, which may have affected the results. Other studies, however, tend to use more objective feedback. The impact of these different types of feedback should be explored as they relate to regulatory focus and motivation.

In addition, more research is needed that examines the affective reactions that result from either regulatory focus orientation. The present study utilized only a negative affect scale, but other affective measures, such as an anxiety or stress scale, could be used in future studies to help understand more about how emotions play a role in regulatory focus. For example, it may be that a prevention focus is more stressful than a promotion focus because of the concern with duties and obligations. However, it may also be that affective reactions are simply byproducts of a regulatory focus orientation and that the downsides of negative affective reactions are outweighed by the positives associated with goal achievement. More studies are needed in this area that can address the affective and emotional states associated with each regulatory focus orientation.

Moreover, further studies are needed to understand the mechanisms underlying the motivation to improve or maintain performance. Since the present study utilized a motivation scale, no open-ended assessments of motivation were incorporated. One possible open-ended question that could be used in future research might ask participants to identify the reasons why they would want to get an excellent rating. Such an open-

ended format should be included in future research to help uncover the processes involved in one's motivation to improve or maintain performance.

Finally, since no empirical studies have examined the cognitive processes involved in the specific rater error proposed at the outset of this thesis, future lines of research should explore these processes to establish their effects on rater judgment and decision-making in the performance appraisal process. In addition, further investigations should utilize sophisticated survey techniques to determine the pervasiveness of this rater error in actual organizations and its impact on employee motivation and morale.

General Conclusion

The present study did not provide support for self-regulatory focus theory (Higgins, 1997, 1998) or current research that has supported the theory (e.g., Van-Dijk & Kluger, 2000). However, some obvious implications for management theory and practice emerged from this study. Specifically, the present investigation indicated that management, when allowed by organizational objectives, can and should provide maximally positive feedback to employees when their performance is superior. In light of recent movements to develop motivated and committed employees, the findings of the present study suggest that organizations need to develop feedback and performance appraisal systems that recognize and reward outstanding performance. Finally, although this study emerged from anecdotal evidence, and the prevalence of the practice of withholding maximally positive ratings is unclear, this line of research is worthwhile if this practice affects at least some individuals. Clearly, much more research is needed to fully understand the processes involved in the relationship between performance

feedback and motivation, but hopefully this study helps to uncover one more piece of the puzzle.

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Table 1

Treatment Condition Means and Standard Deviations of Study Dependent Variables

	Regulatory Focus			
	Promotion		Prevention	
Rating	*M*	*SD*	*M*	*SD*
	Word Problem Difficulty[a]			
Good	4.00	1.11	3.83	1.23
Excellent	3.40	1.28	3.57	1.28
	Rating Agreement[b]			
Good	5.37	1.13	5.67	.80
Excellent	5.70	1.26	6.30	1.15
	Rating Belief[c]			
Good	5.60	.81	5.70	1.02
Excellent	5.53	1.14	6.30	.70
	Self-Rating[d]			
Good	3.93	.45	3.80	.61
Excellent	4.10	.61	4.67	.48

(Table 1 continued)

	Regulatory Focus			
	Promotion		Prevention	
Rating	*M*	*SD*	*M*	*SD*
		Negative Affect[e]		
Good	9.40	2.94	8.30	3.19
Excellent	4.63	2.75	4.20	2.01
		Motivation[f]		
Good	15.97	2.75	16.80	2.71
Excellent	16.07	3.33	17.40	2.33
		Task Performance[g]		
Good	9.37	2.85	9.62	2.58
Excellent	9.61	2.37	9.23	2.17

[a]Word Problem Difficulty was measured on a scale from 1 to 7 (very easy to very hard). [b]Rating Agreement was measured on a scale from 1 to 7 (strongly disagree to strongly agree). [c]Rating Belief was measured on a scale from 1 to 7 (very inaccurate to very accurate). [d]Self-Rating was measured on a scale from 1 to 5 (poor to excellent). e Negative Affect was measured using three 7-point scale items; higher values represent more negative affect. [f]Motivation was measured using three 7-point scale items; higher values reflect higher levels of

motivation. [g]Task performance was measured by the number of correct responses to the 12 post-manipulation word problems; adjusted means are presented; higher values represent greater performance.

Table 2

Two-Way Analysis of Variance for Negative Affect and Motivation Scores

Source	df	SS	MS	F	η^2
		Negative Affect			
Regulatory Focus	1	17.63	17.63	2.32	.02
Rating	1	589.63	589.63	77.61**	.40
Regulatory Focus x Rating	1	3.33	3.33	.44	.00
Error	116	881.27	7.60		
Total	119	1491.87			
		Motivation			
Regulatory Focus	1	35.21	35.21	4.48*	.04
Rating	1	3.68	3.68	.47	.00
Regulatory Focus x Rating	1	1.88	1.88	.24	.00
Error	116	910.83	7.85		
Total	119	951.59			

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

Table 3

Analysis of Covariance for Regulatory Focus and Rating

Source	df	SS	MS	F	η^2
		Task Performance			
Pre-Manipulation Performance (Covariate)	1	378.13	378.13	124.32**	.52
Regulatory Focus	1	.11	.11	.04	.00
Rating	1	.17	.17	.06	.00
Regulatory Focus x Rating	1	2.92	2.92	.96	.01
Error	115	349.77	3.04		
Total	119	749.79			

**$p < .01$.

Figure 1. Mean participant motivation as a function of regulatory focus and rating condition.

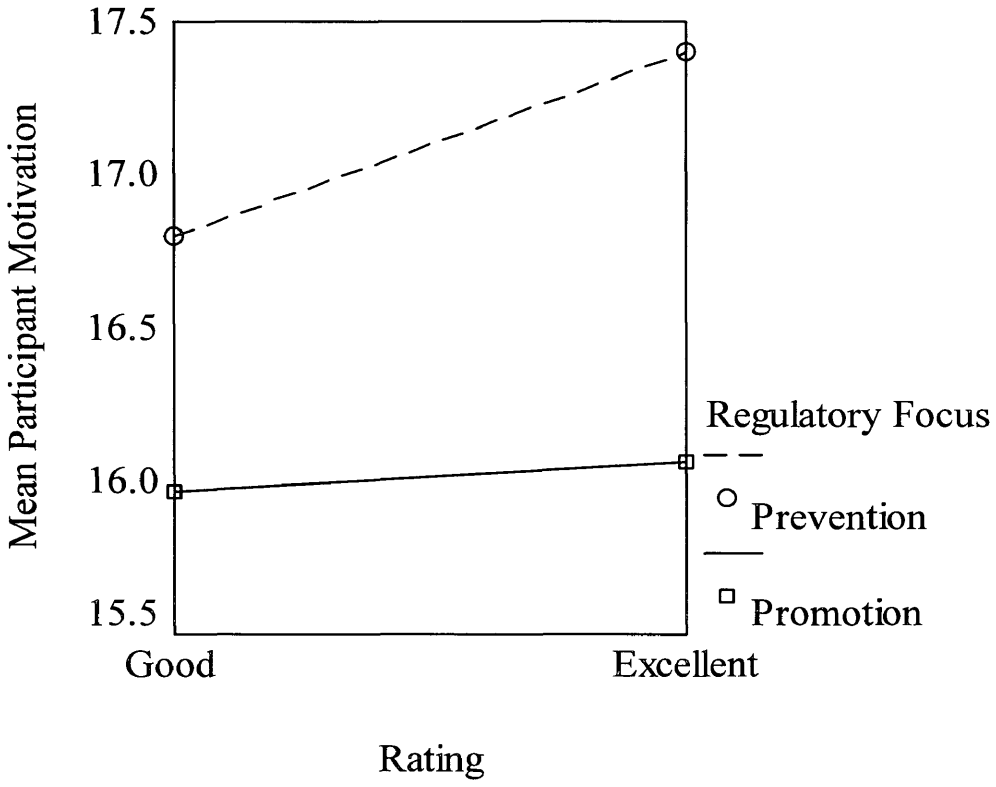
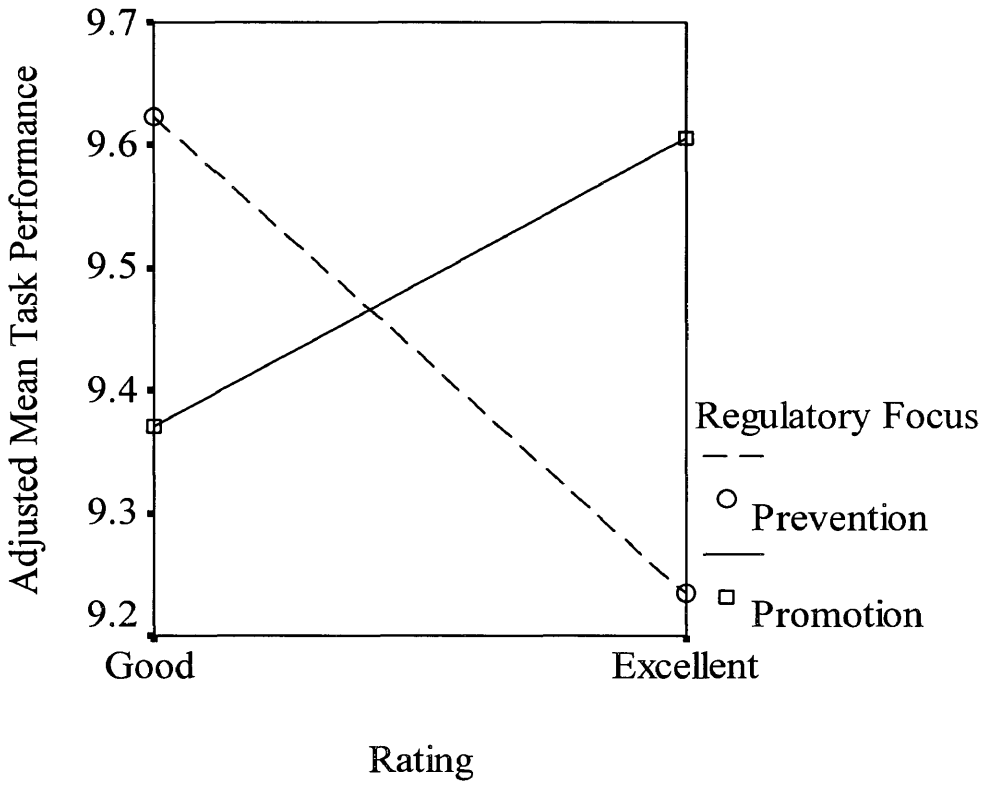


Figure 2. Adjusted mean post-manipulation task performance as a function of regulatory focus and rating condition.



Appendix A

Logic and Reasoning Problems

Note: Correct responses are marked with an asterisk (*)

The word problems on the following screens present you with three true statements: Fact 1, Fact 2, and Fact 3. Then, you are given three more statements (labeled I, II, and III), and you must determine which of these, if any, is also a fact. One or two of the statements could be true; all of the statements could be true; or none of the statements could be true. Choose your answer based solely on the information given in the first three facts.

1. Fact 1: Jessica has four children.

   Fact 2: Two of the children have blue eyes and two of the children have brown eyes.

   Fact 3: Half of the children are girls.

   If the first three statements are facts, which of the following statements must also be a fact?

   I. At least one girl has blue eyes.

   II. Two of the children are boys.

   III. The boys have brown eyes.

   *a. II only

   b. I and III only

   c. II and III only

   d. None of the statements is a known fact.

2. Fact 1: All hats have brims.

   Fact 2: There are black hats and blue hats.

   Fact 3: Baseball caps are hats.

   If the first three statements are facts, which of the following statements must also be a fact?

   I. All caps have brims.

   II. Some baseball caps are blue.

   IV. Baseball caps have no brims.

   a. I only

   b. II only

   c. I, II, and III

   *d. None of the statements is a known fact.

3. Fact 1: All chickens are birds.

   Fact 2: Some chickens are hens.

   Fact 3: Female birds lay eggs.

   If the first three statements are facts, which of the following statements must also be a fact?

   I. All birds lay eggs.

   II. Hens are birds.

   III. Some chickens are not hens.

   a. II only

   *b. II and III only

c. I, II, and III

d. None of the statements is a known fact

4. Fact 1: Most stuffed toys are stuffed with beans.

   Fact 2: There are stuffed bears and stuffed tigers.

   Fact 3: Some chairs are stuffed with beans.

   If the first three statements are facts, which of the following statements must also be a fact?

   I. Only children's chairs are stuffed with beans.

   II. All stuffed tigers are stuffed with beans.

   III. Stuffed monkeys are not stuffed with beans.

   a. I only

   b. II only

   c. II and III only

   *d. None of the statements is a known fact.

5. Fact 1: Pictures can tell a story.

   Fact 2: All storybooks have pictures.

   Fact 3: Some storybooks have words.

   If the first three statements are facts, which of the following statements must also be a fact?

   I. Pictures can tell a story better than words.

   II. The stories in storybooks are very simple.

   III. Some storybooks have both words and pictures.

a. I only

b. II only

*c. III only

d. None of the statements is a known fact.

6. Fact 1: Robert has four vehicles.

Fact 2: Two of the vehicles are red.

Fact 3: One of the vehicles is a minivan.

If the first three statements are facts, which of the following statements must also be a fact?

I. Robert has a red minivan.

II. Robert has three cars.

III. Robert's favorite color is red.

a. I only

b. II only

c. II and III only

*d. None of the statements is a known fact.

7. Fact 1: Islands are surrounded by water.

Fact 2: Maui is an island.

Fact 3: Maui was formed by a volcano.

If the first three statements are facts, which of the following statements must also be a fact?

I. Maui is surrounded by water.

II. All islands are formed by volcanoes.

III. All volcanoes are on islands.

*a. I only

b. III only

c. I and II only

d. None of the statements is a known fact.

8. Fact 1: All drink mixes are beverages.

Fact 2: All beverages are drinkable.

Fact 3: Some beverages are red.

If the first three statements are facts, which of the following statements must also be a fact?

I. Some drink mixes are red.

II. All beverages are drink mixes.

III. All red drink mixes are drinkable.

a. I only

b. II only

*c. I and III

d. None of the statements is a known fact.

The word problems on the following screens ask you to translate English words into an artificial language. First, you be given a list of three "nonsense" words and their English word meanings. The question or questions that follow will ask you to reverse the process and translate an English word into the artificial language.

9. Here are some words translated from an artificial language:

   spasirquot means doghouse

   torspasir means sheepdog

   torlann means sheepskin

   Which word could mean "housefly"?

   a. spasirhunde

   b. tormill

   *c. quothunde

   d. lannquot

10. Here are some words translated from an artificial language:

   faur means bring

   faury means bringing

   faurend means has brought

   Which word could mean "running"?

   a. sujjfaurend

   *b. sujjy

   c. endesujj

   d. faurmont

11. Here are some words translated from an artificial language:

   boseamint means militant

   insicboca means habitual

   insicamene means habitable

Which word could mean "habitant"?

a. bocabose

*b. insicamint

c. bocamint

d. boseamene

12. Here are some words translated from an artificial language:

eraneacal means shipshape

araperane means relationship

eranealon means shipmate

Which word could mean "checkmate"?

*a. basalon

b. eranearap

c. alonacal

d. arapalon

13. Here are some words translated from an artificial language:

shillenacen means timetable

acenablot means tablecloth

micaerran means groundwater

Which word could mean "water table"?

a. abloterran

b. micashillen

c. acenmica

*d. erranacen

14. Here are some words translated from an artificial language:

jusllagen means obstacle course

lagennamer means coursework

ostofifer means college life

Which word could mean "hard work"?

a. juslnamer

*b. remonamer

c. fiferjusl

d. ostonamer

15. Here are some words translated from an artificial language:

hamomone means last minute

hamomoze means last word

halligun means goodness

Which word could mean "wordiness"?

*a. mozegun

b. hallmoze

c. monemoze

d. mozehalli

16. Here are some words translated from an artificial language:

affongoml means straw hat

affonnagl means strawberry

aftonnagle means raspberry

Which word could mean "hatband"?

a. naglaffon

b. gomlafton

c. affonnagl

*d. gomlnoder

The word problems on the following screens present you with a question based on a series of statements. Choose you answer based solely on the information provided.

17. In a four-day period—Monday through Thursday—each of the following temporary office workers worked only one day, each a different day. Ms. Johnson was scheduled to work on Monday, but she traded with Mr. Carter, who was originally scheduled to work on Wednesday. Ms. Falk traded with Mr. Kirk, who was originally scheduled to work on Thursday. After all the switching was done, who worked on Tuesday?

    a. Mr. Carter

    b. Ms. Falk

    c. Ms. Johnson

    *d. Mr. Kirk

18. The high school math department needs to appoint a new chairperson, which will be based on seniority. Ms. West has less seniority than Mr. Temple, but more than Ms. Brody. Mr. Rhodes has more seniority than Ms. West, but less than Mr.

Temple. Mr. Temple doesn't want the job. Who will be the new math department chairperson?

*a. Mr. Rhodes

b. Mr. Temple

c. Ms. West

d. Ms. Brody

19. Four people witnessed a mugging. Each gave a different description of the mugger. Which description is probably right?

a. He was average height, thin, and middle-aged

*b. He was tall, thin, and middle-aged

c. He was tall, thin, and young

d. He was tall, of average weight, and middle-aged

20. Four defensive football players are chasing the opposing wide receiver, who has the ball. Calvin is directly behind the ball carrier. Jenkins and Burton are side by side behind Calvin. Zeller is behind Jenkins and Burton. Calvin tries for the tackle but misses and falls. Burton trips. A defensive player tackles the receiver. Which one?

a. Burton

b. Zeller

*c. Jenkins

d. Calvin

21. The alarm goes off at the State National Bank. Officer Manson is patrolling in his squad car ten miles away. Officer Fromme is patrolling five miles away, Officer Smith, seven miles. Officer Sexton is farther away than Fromme, but closer than Smith. Approximately how far away from the bank is Sexton?

    a. nine miles

    b. seven miles

    c. eight miles

    *d. six miles

22. Ms. Forest likes to let her students choose who their partners will be; however, no pair of students may work together more than seven class periods in a row. Adam and Baxter have studies together seven class periods in a row. Carter and Dennis have worked together three class periods in a row. Carter does not want to work with Adam. Who should be assigned to work with Baxter?

    *a. Carter

    b. Adam

    c. Dennis

    d. Forest

23. The police are staking out a suspected crack house. Officer Michaels is in front of the house. Office Roth is in the alley behind the house. Office Jensen is covering the windows on the north side, Officer Sheen those on the south. If Officer Michaels switches places with Officer Jensen, and Jensen then switches places with Officer Sheen where is Officer Sheen?

a. in the alley behind the house

b. on the north side of the house

*c. in front of the house

d. on the south side of the house

24. Nurse Kemp has worked more night shifts in a row than Nurse Rogers, who has worked five. Nurse Miller has worked fifteen night shifts in a row, more than Nurses Kemp and Rogers combined. Nurse Calvin has worked eight night shifts in a row, less than Nurse Kemp. How many night shifts in a row has Nurse Kemp worked?

a. eight

*b. nine

c. ten

d. eleven

Appendix B

Measure of Motivation to Improve or Maintain Performance

The following set of statements refers to the amount of time and effort you will put into answering the second set of word problems. Please read each of the following statements carefully and select the response that corresponds to how strongly you agree or disagree with each of the following statements. There are no right or wrong answers.

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

1. I will spend as much time as it takes to get an "excellent" rating on the next set of word problems.

   1 2 3 4 5 6 7

2. I will put forth the effort needed to get an "excellent" rating on the next set of word problems.

   1 2 3 4 5 6 7

3. I intend to think as hard as possible while solving the next set of word problems.

   1 2 3 4 5 6 7

Appendix C

Negative Affect Measure

Before you begin the second set of word problems, we would like to know more about how you feel about the first set of word problems.

1. How pleased or displeased are you with your performance?

1	2	3	4	5	6	7
pleased			neither			displeased

2. How satisfied or dissatisfied are you with your performance?

1	2	3	4	5	6	7
satisfied			neither			dissatisfied

3. How delighted or disappointed are you with your performance?

1	2	3	4	5	6	7
delighted			neither			disappointed