January 2012

The Mediating Role of Regulatory Focus in the Relationship between Transformational/ Transactional Leadership and Follower Work Outcomes

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by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Psychology
College of Arts and Sciences
University of South Florida

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Date of Approval:
March 2, 2012

Keywords: motivation, promotion focus, prevention focus, leadership styles

Acknowledgements

I would like to acknowledge the members of my dissertation committee for their professional assistance in improving this research. I would like to extend special acknowledgement to my advisor, Russell Johnson, for his guidance, assistance, and mentorship throughout my graduate studies. Thank you to Dr. Katie Cherry, Deacon Michael Straub, and Sidney Fernandes for their assistance with recruitment efforts and to all those who participated in this research. Finally, I am thankful to my husband for his patience and encouragement throughout this process and to my parents for their love and support.

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Abstract

The purpose of this research was to integrate the areas of leadership and motivation by examining how leaders' behaviors affect their followers' regulatory foci. Specifically, a separate laboratory experiment and field survey were conducted to determine whether leader transformational and transactional behaviors shape followers' work-based promotion and prevention regulatory foci, which in turn affect followers' outcomes at work. Overall, there was limited evidence that inspirational motivation and contingent reward leader behaviors were related to follower work-based regulatory focus, and work-based regulatory focus was related to several work-related outcomes. The moderating role of chronic regulatory focus on the relationship between leader behaviors and work-based regulatory focus as well as the mediating role of work-based regulatory focus between leader behaviors and work-based outcomes were also explored. Implications and future research are discussed.

Chapter One: Introduction

Leadership is one of the most extensively researched topics in organizational psychology, and substantial empirical evidence has shown the importance of effective leadership for employee and organizational well-being (Bass, 1990). Many studies have examined the effects of leader behavior on follower work performance, including consideration and initiating structure (Judge, Piccolo, & Ilies, 2004) and transformational and transactional leadership (Lowe, Kroeck, & Sivasubramaniam, 1996). In his review of leadership theory and research Bass (1990) broadly defines leadership as "an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the members" (p. 19). This definition underscores the importance of the leader's influence on his or her followers.

Early leadership research focused on trait theories of leadership, which attempted to identify traits that distinguished leaders from non-leaders. Although some characteristics of effective leaders were identified (e.g., dominance and intelligence; Lord, DeVader, & Alliger, 1986), many of these characteristics did not appear to be universal across all leaders (Stogdill, 1948; Mann, 1959). Thus, research began to focus on what leaders *do* rather than who they *are*. Several groups of researchers at Ohio State (Stogdill & Coons, 1957), University of Michigan (Kahn & Katz, 1953), and Harvard (Bales, 1954) attempted to identify specific behaviors leaders could enact to be effective.

They identified two broad categories of behavior: displaying consideration or person-oriented behaviors, and initiating structure or task-oriented behaviors. However, because of researchers' apparent inability to identify the universal characteristics and behaviors of effective leaders, attention turned to situations in which particular behaviors are needed.

Contingency theories were more flexible because they took into account the interplay between the situation and the individual. Examples include Fiedler's (1967, 1971) contingency theory, which predicted that task-motivated leaders would perform best in situations of high or low control whereas relationship-motivated leaders would perform best in situations of moderate control. Similarly, House's (1971) path-goal theory posited that supervisors can enhance the motivation and satisfaction of subordinates by making it easier for them to achieve their task goals and that situational factors interact with leadership styles to determine leader performance. These theories received some empirical support, but overall were not well-supported (House & Aditya, 1997).

Early contingency theories led to the development of new and promising theories of leadership, such as the Theory of Charismatic Leadership, which predicts that charismatic leaders—those who are extremely self-confident, highly motivated to attain influence, and convinced of the moral correctness of their beliefs—are effective because they are more persistent in the face of obstacles (House, 1977). Other leadership theories that arose during this time included Leader-Member Exchange Theory (Graen & Uhl-Bien, 1995), which focuses on the social exchange of psychological benefits or favors between leaders and members, Implicit Leadership Theory (Lord, Binning, Rush, & Thomas, 1978), which views leadership as being defined by followers' perceptions; and

Neocharismatic Theories, which attempt to explain how leaders lead organizations to tremendous accomplishments and garner extraordinary levels of follower motivation and performance. Neocharismatic Theories include the 1976 Theory of Charismatic Leadership (House, 1977); the Theory of Transformational Leadership (Burns, 1978; Bass, 1985); and the Attributional Theory of Charismatic Leadership (Conger & Kanungo, 1987). This class of theories has received a great deal of empirical support across types of leaders and cultures (House & Aditya, 1997). For example, meta-analyses by Lowe, et al. (1996), Patterson, Fuller, Kester, and Stringer (1995), DeGroot, Kiker, and Cross (2000), and Judge, et al. (2004) support the effectiveness of transformational leadership.

However, further research is needed to better understand the mechanism by which transformational leader behaviors affect follower work performance. One possibility is that leaders, particularly transformational leaders, affect motivation-based processes in followers (Lord & Brown, 2004). A great deal of research supports the relationship between transformational and transactional leadership behaviors and aspects of follower self-concept, and Van Knippenberg, Van Knippenberg, De Cremer, and Hogg (2004) suggest that there is some evidence that follower self-concept (e.g., self-efficacy, -esteem, -construal, and –consistency) mediates leadership effects on follower performance.

The purpose of this study is to examine the mediating role of follower regulatory focus, a key motivation-based variable (Higgins, 1997), in relationships of leader transformational and transactional behaviors with follower work outcomes. While there is a growing body of theoretical work explaining such relationships (e.g., Kark & Van Dijk, 2007; Lord & Brown, 2004), empirical research has lagged behind. Thus, I will be testing

several transformational leadership–follower motivation propositions that have not received empirical scrutiny. In addition to their effects on follower motivation, transformational and transactional leadership are of particular interest because there is evidence that they can be learned (e.g., Barling, Weber, & Kelloway, 1996). Understanding how these leadership styles affect motivation-based variables, such as regulatory focus, may aide practitioners in determining when each leadership style would be most effective in a particular situation. Matching leadership styles to particular situations may be possible because, assuming they influence follower regulatory foci, promotion and prevention foci are associated with different information processing styles and performance strategies (Higgins & Speigel, 2004). Thus, promotion and prevention regulatory focus are useful for different types of tasks. Promotion focus is most effective for tasks that involve speed and creativity, whereas prevention focus is most effective for tasks that entail safety and accuracy (e.g. Forster, Higgins, & Bianco, 2003; Friedman & Forster, 2001; Wallace, Johnson, & Frazier, 2008). If leaders can use transformational and transactional leadership to promote a specific regulatory focus, employee performance is likely to be enhanced. In the sections below I review transformational and transactional leadership, their effects on follower motivation, and regulatory focus in particular.

Transformational and Transactional Leadership

Burns (1978) defined transformational leadership as the process by which leaders and followers cause each other to advance to higher levels of morality and motivation. Transformational leaders are those who inspire subordinates and facilitate meaningful changes. Transformational leadership consists of four components: idealized influence,

inspirational motivation, intellectual stimulation, and individualized consideration. *Idealized influence* refers to showing consideration for followers' needs over the leaders' own, sharing risks with followers, and displaying consistent ethics and values. These leaders are admired and respected, and followers want to emulate them. *Inspirational motivation* involves motivating followers through providing meaning and challenge, passing on an attractive vision of the future, and displaying enthusiasm and optimism. *Intellectual stimulation* entails soliciting new ideas and creative solutions from followers and encouraging them to think in new ways to solve problems. Finally, *individualized consideration* refers to leaders' recognition of individuals' need for achievement, and leaders who employ this technique act to provide new opportunities for follower learning and growth.

In contrast, transactional leadership is a leadership style that focuses primarily on economic exchanges between leaders and followers (Bass, 1998). Transactional leaders serve to clarify role and task requirements for subordinates in order to elicit adequate performance. Transactional leadership may take several forms, including the use of contingent reward, active management by exception, and passive management by exception. Through *contingent reward* leaders clarify the requirements for successful task performance, and followers exchange their effort and good performance for rewards and recognition from their leader. This includes praising workers for a job well done and recommending them for pay increases, bonuses, or promotions (Bass, 1985). *Management by exception* occurs when leaders call attention to deviation from norms. In *active management by exception* managers specify standards and actively look for deviations from rules and take corrective action, whereas those who utilize *passive*

management by exception intervene only if problems become serious. Of these forms of transactional leadership, only contingent reward has received consistent support as an effective leadership technique. Contingent reward is positively associated with follower commitment (e.g., Bycio, Hacket, & Allen, 1995), satisfaction (e.g., Podsakoff, Todor, Grover, & Huber, 1984), performance (e.g., Podsakoff, et al, 1984), and citizenship behaviors (e.g., Podsakoff, et al, 1990).

Laissez-faire leadership contrasts with both transformational and transactional leadership, as laissez-faire leadership is essentially the *absence* of leadership. Laissez-faire leaders abdicate responsibility and avoid making decisions altogether (Bass, 1990). They provide little direction to followers and refrain from behaviors typically associated with leadership, such as clarifying expectations and setting goals for followers (Bass, Avolio, Jung, & Berson, 2003). Because laissez-faire leadership is really the absence of leadership it is excluded from theorizing in the present research.

A substantial body of research has examined the effects of transformational and transactional leadership behaviors on follower outcomes. Dimensions of transformational leadership as well as the contingent reward dimension of transactional leadership typically have favorable effects on followers. For example, a meta-analysis by Lowe, et al. (1996) of studies on transformational and transactional leadership using the MLQ reported mean corrected effect sizes of .41, .71, .62, and .60 for the relationship between leader effectiveness and contingent reward, charisma, individualized consideration, and intellectual stimulation, respectively. Only the management by exception dimension of transactional leadership was not significantly related to leader effectiveness. In addition, transformational and transactional leadership are complementary, as each contributes

independently to effective leadership. For example, Waldman, Bass, and Yammarino (1990) reported that followers' performance levels were highest when leaders exhibited both transformational and transactional leadership behaviors. While much research has examined effects of transformational and transactional leader behaviors on distal follower attitudes and behaviors, there is a need to understand why these relationships exist. Further research is needed to understand the cognitive and affective mechanisms that account for the observed behavioral effects. In this next section I discuss some of the motivation-based variables that have been proposed as mediators of the effects of transformational leadership.

Effects of Transformational and Transactional Leadership on Follower Motivation

While ample evidence exists documenting the effects of transformational and transactional leadership on follower performance, (e.g., DeGroot et al., 2000; Lowe et al., 1996), less is known about the mechanisms by which these leadership styles have their effects. Although transformational leadership is often defined in terms of its effects on followers' motivation few studies have examined the underlying processes by which these leadership styles have those effects. Van Knippenberg, van Knippenberg, De Cremer, and Hogg (2004) provided a review of the effects of transformational and charismatic leadership on follower self-concept and called for further research in this area. Their review concluded that several aspects of follower self-concepts may mediate the effects of leadership on follower behavior, including self-construal, self-efficacy, self-esteem, and self-consistency.

In terms of effect on follower self-concepts, Paul, J., Costley, D. L., Howell, J. P., Dorfman, P. W., and Trafimow, D. (2001) showed that charisma and individual

consideration leadership were associated with activation of followers' collective self-concepts, whereas individualized consideration was associated with activation of followers' private self-concepts. Through activating and influencing different levels of followers' self-concepts leaders may have their effects on followers. For example, a leader might emphasize distributive justice, contingent rewards, and individual outcomes for those with individual self-identities. He or she might emphasize procedural justice, group rewards, and organizational outcomes for those with collective self-identities. And he or she might emphasize interactional justice, relationship quality, and dyadic outcomes for those with relational identities.

In addition, a recent meta-analysis by Johnson, Chang, Jackson, and Saboe (2009) reported that transformational and transactional leadership behaviors were significantly related to followers' self-efficacy and self-esteem levels. Specifically, for transformational leadership the estimated corrected population correlation was .19 for self-efficacy and .30 for self-esteem. For contingent reward transactional leadership the estimated corrected population correlation was .11 for self-efficacy and was not significantly related to self-esteem.

Regulatory Focus

Recent research has highlighted the importance of regulatory focus as a key motivation-based variable (e.g., Van Dijk & Kluger, 2004), one that may help explain how transformational and transactional leadership styles are related to follower work outcomes (Kark & Van Dijk, 2007). Central to Higgins' (1997, 1998) regulatory focus theory is the idea that people are motivated to reduce discrepancies between actual and desired end states and increase discrepancies between actual and undesired end states.

More specifically, Higgins' theory differentiates people based on the type of self-regulatory goals they pursue. Self-regulation refers to the process by which people seek to align themselves (e.g., their behaviors and self-conceptions) with appropriate goals or standards (Brockner & Higgins, 2001). According to Higgins, the two types of goals people can pursue are *promotion* and *prevention*.

Promotion goals are concerned with approaching pleasure and striving to achieve an "ideal" self. They include hopes, wishes, and aspirations. Those who are *promotion-focused* eagerly pursue gains and successes (Lockwood, Jordan, & Kunda, 2002). Thus, the presence or absence of positive outcomes is salient to those with *promotion goals*. Promotion-focused individuals show high motivation for tasks framed in terms of promotion (Shah, Higgins, & Friedman, 1998) and focus on strategies aimed at achieving desired outcomes (Higgins, Roney, Crowe, & Hymes, 1994).

In contrast, *prevention goals* are concerned with avoiding pain and meeting the standards of an "ought" self. They include duties, obligations, and responsibilities. *Prevention-focused* individuals strive to avoid negative outcomes and vigilantly avoid losses or failures. Thus, the presence or absence of negative outcomes is salient to those with *prevention goals*. These individuals show high motivation when tasks are framed in terms of prevention (Shah et al., 1998) and focus on strategies that prevent negative outcomes (Higgins, 1997).

Regulatory focus has both state and trait aspects. Research has shown that there are reliable differences among people in their predispositions toward promotion or prevention focus (e.g., Higgins et al., 1997). Several scales have been created to assess chronic regulatory focus, including the Self-Guide Strength measure, which measures the

chronic accessibility of people's ideals and oughts (e.g., Higgins, Shah, & Friedman, 1997), and the Regulatory Focus Questionnaire (RFQ; Higgins et al., 2001), which evaluates people's subjective self-regulatory histories. In addition, there are several scales that assess work-based regulatory focus, including Wallace and Chen's (2006) Regulatory Focus at Work Scale (RWS) and Neubert, Kacmar, Carlson, Chonko, and Roberts' (2008) Work Regulatory Focus Scale (WRF).

While there are individual differences in people's chronic regulatory focus, it can also be influenced by contextual factors. One way researchers have situationally induced regulatory focus is through *priming ideals or oughts* (e.g., Higgins, Roney, Crowe, & Hymes, 1994). For example, Higgins et al. (1994) asked participants to describe personal experiences relevant to either promotion or prevention. As another example Lockwood et al. (2002) primed regulatory focus by asking participants to think about a positive (negative) academic outcome they might want to achieve (avoid) and describe strategies they could use to successfully promote (prevent) that outcome. State regulatory focus can also be influenced by *framing tasks* in terms of gains and successes (promotion) versus losses and failures (prevention). For example, participants might be told that they will receive a certain number of points or amount of money and that they have the potential to either earn more (promotion) or lose (prevention) money or points (e.g., Shah, Higgins, & Friedman, 1998). Finally, some researchers have induced different regulatory foci outside participants' conscious awareness by having them engage in *physical actions* that induce different regulatory foci. Specifically, arm flexion (e.g. pulling) activates a promotion focus, whereas arm extension (e.g. pushing) activates a prevention focus. According to Chen and Bargh (1999) it is easier for people to pull positive items closer to them, while

it is easier for people to push negative items away. Cacioppo, Priester, and Berntson (1993) suggest that this phenomenon can be explained by classical conditioning principles because throughout life arm flexion is associated with the acquisition of desired stimuli, whereas arm extension is associated with rejection of undesired stimuli.

The present study primarily focuses on primed regulatory focus. Specifically, the laboratory study will attempt to demonstrate that transformational and transactional leadership can prime promotion and prevention focus, respectively, in followers. The field study will focus on followers' state-based regulatory focus at work, which I hypothesize is influenced by exposure to transformational and transactional leader behaviors.

Influence of Regulatory Focus on Information Processing, Performance Strategies, and Affect

The type of regulatory focus that people adopt greatly influences their *information processing*, *performance strategies*, and *affect*. In terms of *information processing*, regulatory focus has strong effects on creativity, counterfactuals, generation of alternatives, and predicting different kinds of events. Regarding creativity, promotion focus tends to be more positively associated with creative thought relative to prevention focus. For example, Friedman and Forster (2001) demonstrated that explorative processing elicited by promotion cues facilitated more creative thought than the risk-aversive, perseverant processing style elicited by prevention cues. When generating alternatives (e.g., generating categories or reasons for social behaviors) those who are promotion focused tend to generate more alternatives and accept more explanations as plausible than those who are prevention focused (Liberman, Molden, Idson, & Higgins,

2001). For example, in the face of a highly valued goal promotion focused individuals are motivated when expectancy for success is high, whereas prevention focused individuals view goals as necessities and are thus highly committed regardless of expectancy for success (Shah & Higgins, 1997). In terms of predicting different types of events, those who are promotion focused are more accurate in predicting disjunctive events (e.g., only one condition must be met), resulting in less underprediction; whereas those who are prevention focused avoid impediments and are more accurate in predicting conjunctive events (e.g., several conditions must be met, resulting in less overprediction (Brockner, Paruchuri, Idson, & Higgins, 2002). Finally, regarding response to failure, promotion focus is associated with additive (what would have happened if certain actions were taken) counterfactuals, whereas prevention focus is associated with subtractive (what would have happened if certain actions were not taken) counterfactuals (Roese, Hut, & Pennington, 1999).

The two types of regulatory focus are also differently associated with *performance strategies* including initiation of goal pursuit, speed versus accuracy, risk-taking behaviors, effort following success and failure, and switching between activities. Regarding initiation of goal pursuit those who are prevention focused tend to initiate goal pursuit more quickly to meet minimum standards because goals are viewed as a necessity, whereas those who are promotion focused delay initiating goal pursuit because they view goals as ideals (Freitas, Liberman, Salovey, & Higgins, 2002). Promotion focus is associated with greater speed because doing a task quickly maximizes hits, whereas prevention focus is associated with greater accuracy because accuracy minimizes errors (Forster, et al., 2003). For example, in a “connect-the-dot” task Forster et al. (2003)

demonstrated that promotion focused individuals completed more “connect-the-dot” pictures, but also missed more dots than prevention focused individuals. In terms of risky behaviors promotion focus is associated with more risk-taking because of a concern with achieving hits and avoiding misses, whereas prevention focus is associated with less risk-taking because of a concern with achieving correct rejections and avoiding false hits (Crowe & Higgins, 1997). With respect to decisions to resume an interrupted activity versus switch to a new one or trade in a possessed object for another, promotion focused individuals are open to change and more likely to switch to a new activity or object than prevention focused individuals (Liberman, Idson, Camacho, & Higgins, 1999). When considering changing plans promotion focused individuals are less susceptible to the sunk cost effect due to omission (e.g., less likely to stick to the old plan and miss an opportunity), whereas prevention focused individuals are less susceptible to the sunk cost effect due to commission (e.g., less likely to stick to old plan and waste additional resources; Higgins, et al., 2001). Lastly, regulatory focus affects the amount of effort exerted after different kinds of feedback. Those who are promotion focused exert more effort after success feedback, whereas those who are prevention focused exert more effort after failure feedback. In two experiments Van Dijk and Kluger (2004) found that relatively high levels of motivation were induced by failure feedback under prevention focus and by success feedback under promotion focus.

Regulatory focus is also associated with the *experience and appraisal of certain emotions*. Brockner and Higgins (2001) assert that during the self-regulatory process people make inferences about the effectiveness of their self-regulatory efforts, which gives rise to their experience of emotion. Specifically, emotional experiences of

promotion-oriented persons vary along a cheerfulness-dejection dimension, where positive feedback (successful self-regulation) elicits feelings of cheerfulness, and negative feedback (unsuccessful self-regulation) elicits feelings of dejection or disappointment. Emotional experiences of prevention-oriented persons vary along a quiescence-agitation dimension, where positive feedback gives rise to feelings of calm, and negative feedback gives rise to feelings of anger or fear. In addition to effects on experienced emotions, regulatory focus also affects appraisal of emotions. In a series of five studies Shah and Higgins (2001) demonstrated that promotion focused individuals are more efficient in appraising along cheerfulness-dejection dimensions, whereas prevention focused individuals are more efficient in appraising along quiescence-agitation dimensions. Using fMRI techniques Touryan, Johnson, Mitchell, Farb, Cunningham, and Raye (2007) provide further evidence of the relationship between regulatory focus and emotional appraisal, demonstrating that regulatory focus influences encoding of, and memory for, emotional words. Specifically, participants first wrote about hopes and aspirations (promotion) or duties and obligations (prevention), and on a subsequent evaluation task brain activity was greatest when evaluation task words were focus consistent (positive words with promotion, negative words with prevention).

Regulatory Focus at Work

Regulatory focus has received attention in the work realm as well. According to Ajzen and Fishbein's (1977) compatibility principle, attitude-behavior relationships are strongest when the specificity of attitudes and the behavior of interest are matched. Thus, a work-specific measure of regulatory focus should predict workplace criteria better than a more general one. Wallace and Chen (2006) created the Regulatory Focus at Work

Scale (RWS) for this purpose, and Wallace et al. (2008) conducted a series of validation studies to demonstrate relationships between workplace regulatory focus and important work criteria. In a sample of Unites States military personnel Wallace et al. (2008) generalized findings from non-work research regarding the relationship between regulatory foci and productivity and safety performance to the workplace. Specifically, they found that workplace promotion focus was significantly positively related to productivity performance and negatively related to safety performance, whereas workplace prevention focus was significantly positively related to safety performance but not significantly related to productivity performance. In a sample of employees of a large building facilities and maintenance organization both forms of regulatory focus were significantly positively related to task performance (Wallace et al., 2008). Finally, in a sample of employees from a second facilities and maintenance organization workplace promotion focus was significantly positively related to intrapersonal and organizational citizenship, whereas workplace prevention focus was significantly negatively related to intrapersonal citizenship and not significantly related to organizational citizenship (Wallace et al., 2008). Further, workplace regulatory focus predicts additional variance in safety, productivity, task, and citizenship performance beyond trait-like regulatory focus, suggesting that work-specific regulatory focus is a distinct form of regulatory focus (Wallace et al., 2008).

In terms of the stability of one's workplace regulatory focus, like other work-related attitudes (e.g., job satisfaction; Staw & Ross, 1985), it appears to be moderately stable across time (Brockner & Higgins, 2001). For example, Johnson and Chang (2008) reported test-retest reliabilities of .75 (over 4 weeks) and .62 (over 8 weeks) for

employees' chronic promotion focus, and .76 (over 4 weeks) and .72 (over 8 weeks) for their chronic prevention focus. Work-based regulatory focus is comprised of a blend of stable personal attributes, such as personality and basic needs and values, as well as situational stimuli like leadership and work climate (Wallace & Chen, 2006). For example, Higgins (1997) suggests that feedback from a boss to an employee or from a teacher to a student can induce promotion or prevention focus. Thus, while regulatory focus tends to be stable across time, salient situational cues at work may prime specific foci. If leaders are able to influence follower regulatory focus, it may have important implications for follower work motivation and behaviors, including goal-setting, expectancy valence, and acceptance of organizational change (Brockner & Higgins, 2001). For example, goal-setting theory states that people are more committed to goals when they perceive great consequences for success or failure, and research indicates that greater value is placed on goal pursuits in situations of regulatory fit versus misfit (Higgins, Idson, Freitas, Speigel, & Molden, 2003). Therefore, matching incentive systems to an individual's chronic regulatory focus may signal a goal as important, resulting in a higher level of goal acceptance. According to *expectancy-valence theory* (Vroom, 1964) when the reward value of outcomes is high, expectations of success greatly influence motivation, whereas when reward value is low success expectancies have little influence on motivation. Promotion focus entails approaching a desired end state, and the influence of success expectancies on motivation should follow the predictions of expectancy valence theory. However, because prevention goals are often viewed as necessities (i.e., must avoid an undesired end state at all costs) expectancy information may be less relevant. Thus, success expectancies should be less motivating

for those with prevention focus who place a very high value on outcome valence (Brockner & Higgins, 2001). *Resistance to organizational change* may be rooted in different underlying emotions depending on regulatory focus. Prevention-focused employees may resist change because they feel nervous or worried that they won't be able to live up to new responsibilities, whereas promotion-focused employees may feel disappointed or discouraged that their previous hopes and wishes for themselves and their organization will have no chance for fulfillment. Managers' understanding of underlying emotions is likely to be important in addressing employee resistance to change.

Because of the wide ranging effects of regulatory focus on individuals' information processing, performance strategies, and affect, understanding these motivational processes may help provide a better understanding of employees' behavior at work, particularly with regard to the effects of leadership styles on followers, which is discussed next.

Leadership and Regulatory Focus

Several studies have demonstrated that individuals' regulatory focus can be manipulated and affect their subsequent behavior. For example, Higgins and Silberman (1998) found that long-term role models, such as a caretaker, can influence children's regulatory focus. Further, Lockwood et al. (2002) demonstrated in a series of three studies that participants were motivated most by role models who endorsed regulatory strategies that fit with the participants' own. Specifically, promotion-focused participants were most inspired by role models who endorsed strategies for achieving success, whereas prevention-focused participants were most inspired by role models who endorsed strategies for avoiding failure. These results held true for both primed and

chronic regulatory focus. However, little research has examined antecedents of regulatory focus in the workplace (Brockner & Higgins, 2001). In addition, although regulatory focus has been studied in conjunction with work-related factors including decision making (e.g., Crowe & Higgins, 1997), goal attainment (e.g., Forster, Higgins, & Idson, 1998), and creativity (e.g., Friedman & Forster, 2001) the theory has only recently been applied to the leadership arena (e.g., Kark & Van Dijk, 2007; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008).

According to levels of self-concept theory (e.g., Lord & Brown, 2004) the self-concept refers to the storehouse of people's knowledge about themselves, including their goals, values, and social roles. This self-relevant knowledge structure gives meaning to information, organizes memories, informs perceptions of oneself and others, and regulates cognition and behavior (Lord & Brown, 2004; Markus, 1977; Oyserman, 2001). Although the self-concept contains all self-relevant knowledge humans are limited information processors, and therefore, only subsets of this information are available, depending on the identity level that is most important. This activated portion of the self-concept that guides action and understanding on a moment-to-moment basis is known as the working self-concept (Kihlstrom & Klein, 1994) and is integral in the leadership process because leaders can activate, create, and influence aspects of the subordinate's working self-concept (Lord & Brown, 2004). Regulatory focus is one dimension of followers' self-concept that has received little attention in the leadership arena.

Although extant research indicates that transformational and transactional leadership styles have distinct effects on follower motivation and performance little research has attempted to uncover the process by which these leadership styles have their

effects. Several researchers have called attention to regulatory focus as a potential explanation for the motivational and performance-related effects of these leadership styles. Specifically, Brockner and Higgins (2001; pp. 58-59) suggest that transformational and transactional leadership may be distinguishable based on their unique effects on follower regulatory focus. Additionally, Kark and Van Dijk (2007) suggest that leaders may exert their influence through their effects on followers' regulatory focus, and their propositions served as a basis for the proposed model (see Figure 1.1).

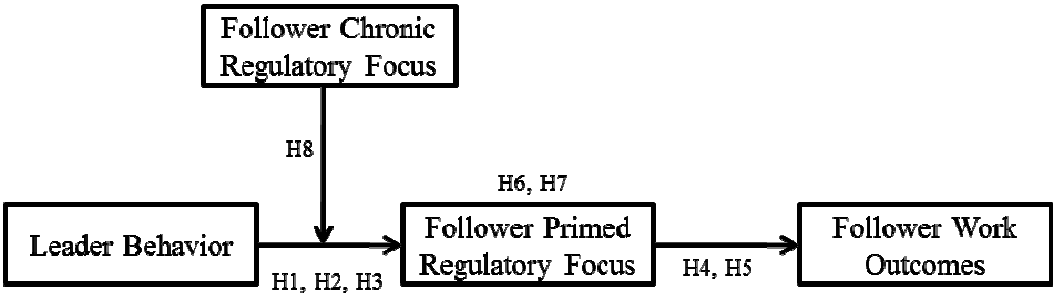


Figure 1.1. The proposed model.

Transformational Leadership and Regulatory Focus

One potential mechanism by which transformational leadership has its effects on followers is by priming certain regulatory foci. Specifically, transformational leadership is likely to elicit a promotion focus in followers, whereas transactional leadership is likely to elicit a prevention focus in followers.

It is important to note, however, that transformational and transactional leadership are independent styles. That is, a leader can engage in both styles simultaneously, engage in only one form, or engage in neither. Thus, a leader who displays both transformational

and transactional leadership styles may by extension activate both promotion and prevention foci in his or her followers. The aim of this research was to examine the effects of each leadership style on follower regulatory focus.

Transformational leaders who focus on ideals, achievement, and positive visions of the future are likely to make these ideas salient in their followers, thus eliciting a focus on the ideal self. They motivate followers through appealing to their higher values and idyllic notions of how things should be, and they create a verbal image of an idealized future that they may work toward together. These leaders are likely to frame the situation in terms of what can be gained by attaining goals or what the organization/work group might become. Emphasis on these desirable end states and what might be gained is consistent with a promotion focus.

Idealized influence. The idealized influence dimension involves emphasizing collective goals, sharing risks with followers, and displaying ethical conduct. Leaders who utilize idealized influence are admired and respected, and followers want to emulate them. Because working toward desired outcomes, such as striving for group goals or emulating a respected leader, are consistent with promotion focus idealized influence was expected to have a positive relationship with follower primed promotion focus.

Inspirational motivation. Leaders who utilize inspirational motivation provide meaning and challenge for their followers, articulate a vision of an ideal future, display optimism and enthusiasm, and encourage followers to envision attractive future states. Envisioning and working toward a desirable end state is consistent with a promotion focus as promotion focused individuals focus on strategies aimed at achieving desired

outcomes (Higgins et al., 1994). Therefore, inspirational motivation was expected to have a positive relationship with follower primed promotion focus.

Intellectual stimulation. The intellectual stimulation aspect of transformational leadership challenges followers to re-examine their assumptions about their work and rethink how it can be performed (Podsakoff etl al., 1990). Because it entails soliciting new ideas and creative solutions from followers and because promotion focus is associated with greater creativity (e.g., Friedman & Forster, 2001) intellectual stimulation was expected to have a strong relationship with follower primed promotion focus.

Individualized consideration. The individualized consideration component of transformational leadership entails a nurturing of individual employees' needs, and Higgins (1998) demonstrated that a focus on nurturance need can activate promotion focus. Therefore, individualized consideration was expected to be positively associated with follower primed promotion focus.

> *Hypothesis 1: Transformational leadership will be associated with followers' leader-primed regulatory focus. Specifically, (a) idealized influence, (b) inspirational motivation, (c) intellectual stimulation, and (d) individualized consideration will prime a promotion focus.*

The inspirational motivation dimension of transformational leadership is particularly likely to affect follower promotion focus because of the shared ideas between the two constructs. Specifically, promotion regulatory focus is associated with approaching desired outcomes, and through inspirational motivation leaders outline an idealized future and motivate followers to work toward an ideal future state.

> *Hypothesis 2: Leader inspirational motivation behaviors will have stronger effects on followers' leader-primed regulatory focus than leader idealized influence, intellectual stimulation and individualized consideration behaviors.*

Transactional Leadership and Regulatory Focus

In contrast, transactional leaders who focus on responsibilities, obligations, and accuracy are likely to make these ideas salient in their followers, thus eliciting a focus on the ought self. These leaders engage in monitoring in order to control members of their work groups and preserve the status quo. They ensure that existing procedures are followed correctly and duties are met. Thus, followers are likely to be attuned to fulfillment of expectations and work obligations.

Contingent reward. The contingent reward aspect of transformational leadership entails recognizing followers' effort and good performance and recommending them for pay increases, bonuses, or promotions. Workers receive these things when they fulfill obligations and task requirements. This focus on obligations and fulfilling expectations is consistent with prevention focus. However, supervisory praise, pay increases, bonuses, and promotions are all desirable outcomes, and striving for desired outcomes is associated with promotion focus. Therefore, contingent reward was expected to be positively related to both follower primed promotion and prevention focus.

Active management by exception. Leaders using this style only provide feedback when subordinates make a mistake or do not fulfill expectations. Thus, the situation is framed in terms of loss, likely leading to prevention focus and avoidance of a negative outcome (e.g., being reprimanded by one's supervisor). Because this style of leadership focuses on loss and mistakes, active management by exception is especially likely to be linked to follower primed prevention focus.

> *Hypothesis 3: Transactional leadership will be associated with followers' leader-primed regulatory focus. Specifically, (a) contingent reward will prime both a*

promotion and prevention focus and (b) active management by exception will prime a prevention focus.

Regulatory Focus and Work Outcomes

Creativity. In terms of *creativity*, because promotion focus tends to be more positively associated with creative thought relative to prevention focus (e.g., Friedman & Forster, 2001) promotion focus was expected to be positively related to workplace creativity, whereas prevention focus was expected to be negatively related to workplace creativity.

Preference for Stability versus Change. In terms of *preference for stability versus change*, promotion focused individuals are more likely to switch to a new activity or trade in a possessed object for another than prevention focused individuals (Liberman, et al, 1999). Therefore, prevention focus was expected to be associated with a preference for change, whereas prevention focus was expected to be associated with a preference for stability.

Sensitivity to Positive and Negative Work Outcomes. Promotion focused individuals tend to be more sensitive to positive outcomes, whereas prevention focused individuals tend to be more sensitive to negative outcomes. Those who are promotion focused are more attentive to positive feedback and remember more positive events, whereas those who are prevention focused are more attentive to negative feedback and remember more negative events (Van Dijk & Kluger, 2004; Higgins & Tykocinski, 1992). Thus, promotion focus is expected to be more strongly related to *sensitivity to positive work outcomes*, and prevention focus was expected to be more strongly related to *sensitivity to negative work outcomes*.

Risk-taking. Promotion focus is associated with more *risk-taking* due to concern with achieving hits and avoiding misses, whereas prevention focus is associated with less risk-taking due to a concern with achieving correct rejections and avoiding false hits (e.g., Crowe & Higgins, 1997). Thus, promotion focus was expected to be positively related to risk-taking behavior, whereas prevention focus was expected to be negatively related to risk-taking behavior.

Safety versus Production Performance. Promotion focus is associated with greater *speed* because doing a task quickly maximizes hits, whereas prevention focus is associated with greater *accuracy* because accuracy minimizes errors (e.g., Forster, et al, 2003). Promotion focused workers who are concerned with doing their job quickly are likely to have high levels of production, whereas prevention focused workers who are focused on doing tasks accurately and without mistakes are likely to have high levels of safety. Therefore, promotion focus was expected to be positively related to *safety performance*, and prevention focus was expected to be positively related to *production performance* in the workplace.

Positive and Negative Affectivity. In terms of *positive affectivity* (PA) and *negative affectivity* (NA), promotion focus is associated with feelings of elation and dejection, which belong to the positive affectivity dimension, whereas prevention focus is associated with feelings of calm and anxiety, which belong to the negative affectivity dimension (e.g., Watson, Wiese, Vaidya, & Tellegen, 1999). Thus, promotion focus was expected to be positively related to PA at work, whereas prevention focus was expected to be positively related to NA at work.

Organizational Commitment. Van Dijk and Kluger (2004) suggested that promotion focus is positively related to *affective commitment* because promotion-focused individuals are guided by inner ideals and more likely to be committed to an organization in an autonomous form. Prevention focused individuals are more influenced by social pressure and an attempt to fulfill obligations and avoid negative outcomes, and therefore are likely to be committed to an organization because of a sense of obligation to others (*normative commitment*) or necessity (*continuance commitment*).

Therefore, I hypothesized:

Hypothesis 4: Follower leader-primed promotion focus will be positively associated with a) work-related creativity, b) preference for change at work, c) sensitivity to positive work outcomes, d) risk-taking behaviors, e) workplace speed/productivity, f) positive affectivity at work, and g) affective organizational commitment.

Hypothesis 5: Follower leader-primed prevention focus will be a) negatively associated with workplace creativity, b) positively associated with a preference for stability at work, c) positively associated with a sensitivity to negative work outcomes, d) negatively associated with risk-taking behaviors, e) positively associated with workplace safety/accuracy, f) positively associated with negative affectivity at work, and g) positively associated with normative and continuance organizational commitment.

Hypothesis 6: Follower leader-primed promotion focus will mediate the relationship between transformational leadership and a) work-related creativity, b) preference for change at work, c) sensitivity to positive work outcomes, d) risk-taking behaviors, e) workplace speed/productivity, f) positive affectivity at work, and g) affective organizational commitment.

Hypothesis 7: Follower leader-primed prevention focus will mediate the relationship between transactional leadership and a) workplace creativity, b) preference for stability at work, c) sensitivity to negative work outcomes, d) risk-taking behaviors at work, e) workplace safety/accuracy, f) negative affectivity at work, and g) normative and continuance organizational commitment.

Individuals react differently to the same leadership behaviors (Yammarino, Dubinsky, Comer, & Jolson, 1997). One reason for this may be their chronic regulatory

focus. Although regulatory focus is malleable and work-based regulatory focus is likely influenced by one's leader, followers' differing chronic regulatory foci may make them more or less receptive to certain kinds of leader behaviors. Those who have a tendency to be promotion-oriented will likely be more receptive to leadership behaviors that are consistent with eagerly moving toward a desired outcome, whereas those who have a tendency to be prevention-oriented will likely be more receptive to leadership behaviors that are consistent with fulfilling obligations and avoiding negative outcomes. Consistent with this idea, Lockwood, et al (2002) provided evidence of regulatory fit, that participants were best motivated by role models who endorsed strategies that fit with the participants' own. Therefore, I hypothesized:

> *Hypothesis 8: Followers' chronic regulatory focus will moderate the relationship between leader behaviors and followers' primed regulatory focus, such that (a) the effect of leader transformational and contingent reward behaviors will be stronger when the follower has a strong (vs. weak) chronic promotion focus and (b) the effect of leader contingent reward and active management by exception behaviors will be stronger when the follower has a strong (vs. weak) chronic prevention focus.*

To summarize, the proposed research aimed to integrate the areas of leadership and motivation, specifically by examining how leaders affect their followers' regulatory focus. I hypothesized that leader behaviors shape followers' regulatory foci, which in turn affects follower outcomes at work. In addition, the relationships between leader behaviors and state-based regulatory focus were expected to be moderated by follower chronic regulatory focus. These hypotheses are illustrated in Figure 1. This research is important in further uncovering the mechanism by which transformational and transactional leadership have their effects on followers' work outcomes and in better understanding the role of regulatory focus in the workplace. To test these assumptions I

conducted a laboratory experiment and a field survey study. The goal of the laboratory experiment was to demonstrate in a controlled laboratory setting that leadership behaviors impact people's state-based regulatory focus. The goal of the field survey study was to test the full model in an applied sample of leader-follower pairs. Each study is described in turn below.

Chapter Two: Study 1 Method

Because of the inability of cross-sectional research to demonstrate causality, a laboratory study was conducted as a first step to demonstrate that leadership behaviors can have an effect on follower regulatory focus. A sampling of outcomes that were feasible to test in a laboratory setting was included in the laboratory experiment.

Participants

Participants included a total of 208 undergraduate students at a large research university. Participants were 64.8% female with a mean age of 19.88 (*SD* = 1.56). The race/ethnicity breakdown was 79.1% White/Caucasian, 9.3% Black/African American, 3.8% Hispanic or Latino(a), 3.3% Asian, 0.5% American Indian or Alaska Native, .5% Hawaiian or Other Pacific Islander, 1.6% Other, and .5% unreported. About half (51.1%) of participants were currently employed. Analyses were performed on the 182 participants who were present for and completed both experiment sessions. Participants were randomly assigned to Group A (Transformational Leader), Group B (Contingent Reward Leader), or Group C (Active Management by Exception Leader), resulting in 58 participants in Group A, 62 participants in Group B, and 62 participants in Group C.

Procedure

The laboratory study took place over two sessions. In the first session participants completed a survey about themselves that included items assessing chronic regulatory focus. Between two and four days later participants reported to a second session. To

enhance the realism of the situation in the second session participants received an introduction explaining that they were to role play as new employees of a home design magazine where they would be addressed by a company leader and also complete a series of tasks to determine their areas of strength and weakness for their new job. Participants were then presented with a vignette, which consisted of a memo from their "CEO" using either a transformational (Condition A), contingent reward (Condition B), or active management by exception (Condition C) leadership style. The participants were instructed to read the vignette and imagine the situation as if they were personally experiencing it as described. Immediately after reading the vignette participants were asked to spend five minutes writing a description of the leadership style of the leader based on the memo, which served to ensure that participants attended to the information in the memo. Participants then completed the leadership style manipulation check.

Next, regulatory focus measures were administered, including one explicit (e.g., RWS scale) and one implicit (e.g., word completion) measures. Finally, participants engaged in a series of tasks in order to assess a sampling of regulatory-focus relevant outcomes suitable for measurement in the laboratory setting. The study design was between-subjects, such that each participant was primed with only one style of leadership. At the end of the second session participants were debriefed about the purpose of the study. The vignettes administered to participants are provided in Appendix A.

Manipulation of Independent Variable

Leadership style served as a between-subjects independent variable in the laboratory experiment. Participants were randomly assigned to one of the three leadership style conditions: transformational (Condition A), contingent reward (Condition B), or

active management by exception (Condition C). For simplicity, the four dimensions of transformational leadership were combined into one condition as each of these dimensions were hypothesized to have the same effects on participants' regulatory foci and outcomes. The contingent reward and active management by exception dimensions of transactional leadership were separated into two conditions as they were expected to have differing relationships with participants' regulatory foci and outcomes. Because *active* and *passive* management by exception leader behaviors are incompatible (actively looking for mistakes versus failing to intervene unless problems become serious) only *active* management by exception behaviors were included in Condition C.

Dependent Measures

Chronic regulatory focus. Participants' chronic regulatory foci were assessed using Lockwood, Jordan, and Kunda's (2002) self-report scale. Nine items each assessed promotion and prevention focus. A sample prevention focus item is "I am anxious that I will fall short of my responsibilities and obligations," and a sample promotion focus item is "I frequently imagine how I will achieve my hopes and aspirations." These items were rated on a 5-point Likert-type scale. Coefficient alpha reliabilities were .86 and .73, for promotion and prevention focus, respectively.

Leadership style manipulation check. Participants completed a shortened version of the MLQ as a manipulation check to assess the leader behavior manipulation. These items were rated on a 5-point Likert-type scale. Five items assessed different aspects of transformational leadership, and the mean of these five items was used for the transformational leadership style manipulation check. One item each assessed contingent reward leadership and active management by exception leadership. Coefficient alpha

reliability for the transformational items was .51. However, because only a sampling of items from each subdimension was included a low reliability was expected.

Primed regulatory focus. Wallace and Chen's (2006) Regulatory Focus at Work Scale (RWS) was used as an explicit measure of participants' primed regulatory focus. Six items each were used to assess promotion and prevention foci in a work setting. A sample promotion focus item is "accomplishing a lot," and a sample prevention focus item is "completing tasks correctly." These items were rated on a 5-point Likert-type scale. Coefficient alpha reliabilities were .76 for promotion and prevention focus.

In addition, primed regulatory focus was assessed implicitly using Johnson's word completion items. Johnson's (2006) word completion task consists of 22 word fragments created in such a way that participants can form promotion-oriented and/or prevention-oriented words. Promotion and prevention foci scores were created by calculating the proportion of promotion and prevention-oriented words participants generated out of all words generated. Thus, higher scores indicate greater accessibility of the regulatory focus in question.

Creativity. Creativity was assessed following methods similar to Friedman and Forster (2001). Participants were asked to think of and write down as many creative uses for a fruit bowl as they could. They were asked to refrain from listing typical uses or from listing uses that were virtually impossible. Participants were interrupted after two minutes and told to stop generating uses and move on to the next portion of the study. To obtain an objective assessment of creativity, three independent scorers rated the creativity of each participant-generated use on a scale from 1 (very uncreative) to 9 (very creative). Mean creativity scores and the total number of creative responses were assessed for each

participant. Consistent with Friedman and Forster (2001) creative responses were defined as those that received an average rating of 6 or higher.

Sensitivity to positive and negative outcomes. Sensitivity to positive/negative outcomes were assessed via a word search task. Participants were presented with a word search including equal numbers of words related to positive and negative outcomes and asked to circle as many words as they could find in the allotted time. The words consisted of 16 positive and 16 negative words from Baldwin, Baccus, and Fitzsimons (2004). Scores were calculated by dividing the number of positive words circled by the number of positive and negative words circled. Thus, a score above .5 indicated a greater ratio of positive to negative words, which was taken to indicate sensitivity to positive outcomes. A score below .5 indicated a greater ratio of negative to positive words, which was taken to indicate sensitivity to negative outcomes.

Preference for stability versus change. Preference for stability versus change was assessed using the Conservation and Openness to Change dimensions from Schwartz' value inventory (Schwartz, 1992). Each value in this inventory was accompanied by a descriptive phrase, and participants were asked to rate how important each value was to him or her using a 5-point scale from -1 (opposed to my values) to 0 (not important) to 5 (this value is of supreme importance to me). Conservation values consisted of conformity, security, and tradition. Openness to Change values consisted of self-direction and stimulation. Coefficient alpha reliabilities were .72 and .83 for conservation and openness to change, respectively.

Risk-taking. Risk-taking was assessed using a series of five risk-taking questions from Demaree, DeDonno, Burns, Feldman, and Everhart (2009). Specifically, for each

question participants were asked to select which type of bonus they would prefer to receive: either choice (a), “Receive a guaranteed [$X]”, or choice (b), “Have a [Y%] chance of winning $1000 and a [100-Y%] chance of winning $0.” In order of presentation the values of X were 100, 300, 500, 700, and 900, and the values of Y were 10, 30, 50, 70, and 90. The wording of the items was modified to fit the context of the laboratory study. Specifically, items were framed as choices of a bonus program at the mock company. The total number of gambles selected out of five were calculated and used to assess risk-taking behavior.

Productivity/speed versus safety/accuracy. Speed and accuracy were assessed using a proofreading task similar to Forster, et al. (2003). Specifically, participants were presented with a passage of text and asked to circle the errors in the passage but not actually correct them. Participants were instructed to complete the task as quickly and accurately as possible. They were stopped by the experimenter after four minutes. Following Forster et al. (2003) speed was defined as the number or errors found by a participant in the given time, and accuracy was defined as the percentage or errors found by a participants among existing errors for the lines completed when the participant stopped.

Positive and negative affectivity. State levels of positive and negative affectivity were assessed using Watson, Clark, and Tellegen’s (1988) 20-item Positive and Negative Affectivity Schedule (PANAS). Ten items each assessed positive and negative affectivity. Participants were presented with adjectives and asked to indicate to what extent he or she felt this way “right now, that is, at the present moment.” A sample positive affectivity item is “enthusiastic,” and a sample negative affectivity item is

“scared.” These items were rated on a 5-point Likert-type scale. Coefficient alpha reliabilities were .79 and .84 for positive and negative affectivity, respectively.

Chapter Three: Study 1 Results and Discussion

Preliminary Analyses

First, data were inspected for violations of assumptions of correlation and regression analyses. Data are assumed to be normally distributed when utilizing Pearson's product moment correlation. To check this assumption, normality was verified by graphically examining the distribution and examining skewness and kurtosis values of each variable for each group. The data were examined for the presence of outliers. When conducting regression analysis linearity, normality of residuals, and homoscedasticity of residuals are assumed. The data was checked for violations of these assumptions using the procedures outlined in Cohen, Cohen, West, and Aiken (2003). There was no indication that assumptions of correlation and regression analyses were violated.

Descriptive statistics were calculated, including means, standard deviations, and coefficient alpha reliabilities where appropriate. The results can be found in Tables 3.1 and 3.2.

Manipulation Check

Participants completed a shortened version of the MLQ as a manipulation check to assess the leader behavior manipulation. A one-way ANOVA was used to test for differences in perceptions of transformational leadership among the three experimental groups. Perceptions of leaders' transformational behaviors significantly differed across the three experimental groups, F (2, 179) = 44.29, p <.001). Bonferroni post hoc comparisons

revealed that, as expected, Group A (M = 4.46, SD = 0.46) had significantly higher ratings of transformational leadership perceptions than Group B (M = 3.62, SD = 0.70), $t(118) = 7.61$, $p < .01$, and Group C (M = 3.30, SD = 0.84), $t(118) = 9.24$, $p < .01$.

Table 3.1. *Study 1 means and standard deviations by condition.*

	Experimental Group					
	Group A (Transformational)		*Group B (Transactional)*		*Group C (Active MbE)*	
	M	*SD*	*M*	*SD*	*M*	*SD*
Chronic Regulatory Focus						
1. Chronic Promotion	4.21	0.63	4.32	0.44	4.20	0.46
2. Chronic Prevention	3.31	0.57	3.43	0.67	3.28	0.58
Manipulation Check						
3. Transformational	4.46	0.46	3.62	0.70	3.30	0.84
4. Contingent Reward	3.14	1.21	4.63	0.79	2.90	1.33
5. Active Mgt by Exception	2.59	1.24	2.54	1.25	4.90	0.43
Primed Regulatory Focus						
6. Explicit Primed Promotion	3.89	0.59	3.88	0.59	3.83	0.67
7. Explicit Primed Prevention	4.54	0.44	4.62	0.37	4.63	0.37
8. Implicit Primed Promotion	0.26	0.10	0.28	0.12	0.29	0.14
9. Implicit Primed Prevention	0.17	0.11	0.16	0.10	0.17	0.10
Outcomes						
10. Creativity Average	5.80	1.51	5.71	1.33	5.44	1.61
11. Creativity Number	2.12	1.49	2.52	1.78	2.27	1.69
12. Preference for Stability	2.17	0.42	2.19	0.45	2.15	0.45
13. Preference for Change	2.34	0.53	2.41	0.38	2.35	0.47
14. Sens. to Pos/Neg Outcomes	0.57	0.20	0.45	0.17	0.43	0.19
15. Risk-taking	1.33	1.00	1.68	1.62	1.19	1.27
16. Speed	19.64	7.00	19.52	8.20	20.79	6.74
17. Accuracy	0.91	0.31	0.90	0.32	0.98	0.27
18. Positive Affectivity	3.02	0.79	3.31	0.98	3.16	0.84
19. Negative Affectivity	1.39	0.43	1.39	0.48	1.37	0.47

Note: For Sens. to Pos/Neg Outcomes a score below .50 indicates greater sensitivity to negative outcomes, and a score above .50 indicates a greater sensitivity to positive outcomes.

A second one-way ANOVA was used to test for differences in perceptions of contingent reward leadership among the three experimental groups. Perceptions of leaders' contingent reward behaviors significantly differed across the three experimental groups, F (2, 179) = 42.22, p <.01). Bonferroni post hoc comparisons revealed that, as expected,

Group B (M = 4.63, SD = 0.79) had significantly higher ratings of contingent reward leadership perceptions than Group A (M = 3.14, SD = 1.21) $t(118) = -8.05$, $p < .01$, and Group C (M = 2.90, SD = 1.33), $t(122) = 8.79$, $p < .01$. A third one-way ANOVA was used to test for differences in perceptions of active management by exception leadership among the three experimental groups. Perceptions of leaders' active management by exception behaviors significantly differed across the three experimental groups, F (2, 178) = 103.17, p <.001). Bonferroni post hoc comparisons revealed that, as expected, Group C (M = 4.90, SD = 0.43) had significantly higher ratings of active management by exception leadership perceptions than Group A (M = 2.59, SD = 1.24), $t(118) = -13.81$, $p < .01$, and Group B (M = 2.54, SD = 1.25), p<.01, $t(121) = -14.09$, $p < .01$. Taken together, these results indicate that the experimental manipulation was successful.

Table 3.2. *Study 1 correlations and alphas.*

	1	2	3	4	5	6	7	8	9	10
Chronic Regulatory Focus										
1. Chronic Promotion	(.86)									
2. Chronic Prevention	.12	(.73)								
Manipulation Check										
3. Transformational	.03	.08	(.51)							
4. Contingent Reward	.09	.10	.18*	NA						
5. Active Mgt. by Exc.	-.09	.13	-.23**	-.18*	NA					
Primed Regulatory Focus										
6. RWS - Promotion	.15*	.13	0.07	.14	.06	(.76)				
7. RWS - Prevention	.16*	.11	.13	.15*	.09	.36**	(.76)			
8. RWS WC - Promotion	.07	.02	-.13	-.08	.03	.02	.11	NA		
9. RWS WC - Prevention	-.04	-.01	-0.03	-.08	-.04	.03	.03	.02	NA	
Outcomes										
10. Creativity Average	-.13	-.01	-.01	.02	-.05	-.00	.01	.03	-.02	NA
11. Num. Creative Resp.	-.02	-.03	-.12	.01	.05	.02	.03	-.05	.04	.52**
12. Preference for Stability	.31**	.11	.13	.13	.08	.18*	.31*	-.05	-.07	.00
13. Preference for Change	.29**	.06	.04	.16*	.03	.28**	.25**	-.07	-.10	.02
14. Sens. to Pos. Outcomes	-.01	-.05	-.02	-.01	-.08	.08	.10	.07	-.03	.14
15. Risk-taking	.08	.01	-.02	.06	-.12	-.16*	-.15*	-.05	-.03	-.06
16. Speed	.01	-.01	-.07	-.09	.01	-.05	-.00	.03	.00	.21**
17. Accuracy	.03	-.13	-.14	-.17*	-.01	.01	.07	.07	.00	.19*
18. Positive Affectivity	.23**	.01	.07	.06	-.03	.06	.25**	.14	-.14	.00

19. Negative Affectivity	-.06	.18*	-.04	.06	.05	-.03	-.03	.01	.12	-.05

Note: N = 182. Coefficient alphas are presented in parentheses along the diagonal. *p<.05 **p<.01

Table 3.2 *(continued)*.

	11	12	13	14	15	16	17	18	19
11. Num. Creative Resp.	NA								
12. Preference for Stability	.11	(.72)							
13. Preference for Change	.18*	.17*	(.83)						
14. Sens. to Pos. Outcomes	-.01	.06	0.01	NA					
15. Risk-taking	-.01	-.10	.04	-.08	NA				
16. Speed	.25**	-0.03	-0.09	-.12	.09	NA			
17. Accuracy	.22**	-.06	.03	-.16*	.11	.68**	NA		
18. Positive Affectivity	.04	.17*	.12	.14	-.10	-.16*	-.10	(.79)	
19. Negative Affectivity	-.06	-.07	-.03	-.13	.16*	-.01	-.15*	.08	(.84)

Note: N = 182. Coefficient alphas are presented in parentheses along the diagonal. *p<.05 **p<.01

Control Variables

Age, gender, and ethnicity were examined prior to focal analyses as potential control variables. Using the correlation matrices, each demographic variable was examined as a potential control variable. In order to preserve statistical power only demographic variables that were significantly related to study variables were controlled for during hypothesis testing. Several relationships were significant. Participant age correlated with sensitivity to positive outcomes at .29 (p < .05). Participant gender correlated with preference for change at .15 (p < .05), with speed at .17 (p < .05), with average creativity ratings at .29 (p < .05), and with the number of creative responses at .27 (p < .05). Participant ethnicity correlated with explicit primed prevention focus at .17 (p < .05). However, while these correlations were statistically significant they were small (all <.3). These correlations were not deemed practically significant, and therefore were not used as control variables in subsequent analyses.

Confirmatory Factor Analysis

Before hypotheses were tested a confirmatory factor analysis was performed to assess the factor structure of the data. Prior to the confirmatory factor analysis scales with a large number of variables were parceled in order to provide fewer indicators and a more favorable participant to item ratio. The confirmatory factor analysis included chronic regulatory foci, primed regulatory foci, values, and positive and negative affectivity. Variables with a single indicator were not included. Eight factors were specified: chronic promotion focus, chronic prevention focus, explicit primed promotion focus, explicit primed prevention focus, preference for stability, preference for change, positive affectivity, and negative affectivity. Items loaded only on their respective factors. All factor loadings were significant ($p > .01$), and the confirmatory factor analysis produced acceptable fit with an RMSEA of .04, CFI of .95, TLI of .94, SRMR of .06, and $\chi^2_{(349\ df)} = 472.45$.

Hypothesis Testing[1]

Hypotheses were tested in MPlus6 using path analysis techniques. Path analysis was chosen because it allows for simultaneous tests of multiple hypotheses, which is more parsimonious than conducting separate tests. In addition, path analysis provides fit indices, which give information about the plausibility of the model as a whole.

Leadership and Regulatory Focus. Hypotheses 1 and 3, regarding the relationships between leadership condition and primed regulatory foci, were tested simultaneously using path analysis. The hypothesized model specified that promotion

[1] Note that hypothesis 2, regarding the relative effects of the individual dimensions of transformational leadership, was tested in the field survey study only. Hypothesis 8, regarding the moderating effect of chronic regulatory focus on the relationship between leader behaviors and primed regulatory, was tested in the lab study only.

focus would be primed in participants in the transformational leader condition (Group A), participants' promotion and prevention foci would be primed in the contingent reward leader condition (Group B), and participants' prevention focus would be primed in the active management by exception condition (Group C).

Because condition is a categorical variable dummy codes were created in order to make comparisons among conditions. Specifically, one set of dummy codes was created in order to compare the transformational leadership condition to the active management by exception condition and the contingent reward condition. The values of Dum1 were 0 for transformational, 0 for contingent reward, and 1 for active management by exception. The values of Dum2 were 0 for transformational, 1 for contingent reward, and 0 for active management by exception. A significant beta weight for Dum1 would indicate that transformational leadership and active management by exception leadership had significantly different effects on regulatory foci. A significant beta weight for Dum2 would indicate that transformational leadership and contingent reward leadership had significantly different effects on regulatory foci.

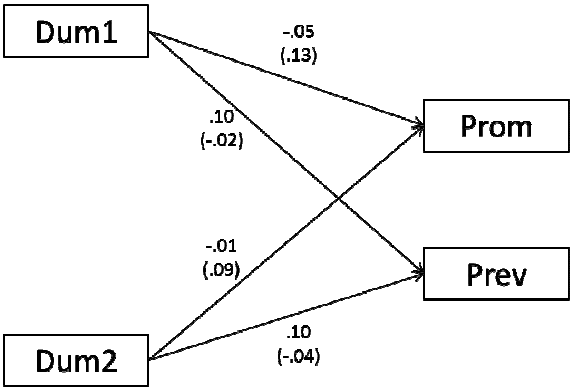
A second set of dummy codes was created in order to compare the contingent reward condition to the active management by exception condition. The values of Dum1 were 0 for transformational, 0 for contingent reward, and 1 for active management by exception. The values of Dum2 were 1 for transformational, 0 for contingent reward, and 0 for active management by exception. A significant beta weight for Dum1 would indicate that contingent reward leadership and active management by exception leadership had significantly different effects on regulatory foci.

Results of analyses including the first set of dummy codes are reported in Table 3.3 and Figure 3.1. Results of analyses including the second set of dummy codes are reported in Table 3.4 and Figure 3.2. None of the beta weights were significant, indicating that Hypotheses 1 and 3 were not supported.

Table 3.3. *Path analysis results for first set of dummy codes (TF compared to MbEA and TF compared to CR).*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Explicit RF			
Dum1 to Prom	-.06	.11	-.05
Dum2 to Prom	-.01	.11	-.01
Dum1 to Prev	.09	.07	.10
Dum2 to Prev	.08	.07	.10
Implicit RF			
Dum1 to Prom	.03	.02	.13
Dum2 to Prom	.02	.02	.09
Dum1 to Prev	-.00	.02	-.02
Dum2 to Prev	-.01	.02	-.04

Note: N = 182. Prom = Primed Promotion Regulatory Focus; Prev = Primed Prevention Regulatory Focus. *p <.05 **p <.01 ***p <.001.



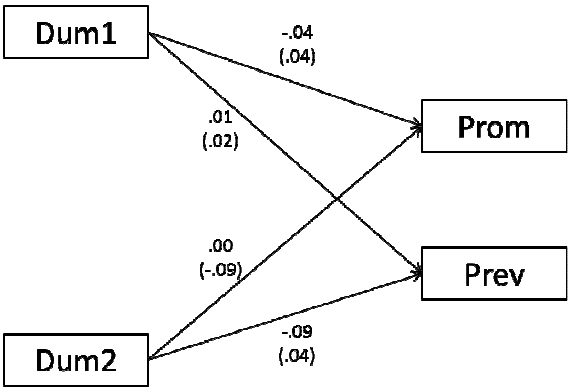
Note: Prom = Primed promotion focus, Prev = Primed prevention focus. Coefficients without parentheses represent standardized regression weights for explicit primed regulatory focus, and coefficients in parentheses represent standardized regression weights for implicit primed regulatory focus.

Figure 3.1. Path model for first set of dummy codes (TF compared to MbEA and TF compared to CR).

Table 3.4. *Path analysis results for second set of dummy codes (CR to MbEA).*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Explicit RF			
Dum1 to Prom	-.06	.11	-.04
Dum2 to Prom	.00	.11	.00
Dum1 to Prev	.01	.07	.01
Dum2 to Prev	-.08	.07	-.09
Implicit RF			
Dum1 to Prom	.01	.02	.04
Dum2 to Prom	-.02	.02	-.09
Dum1 to Prev	.00	.02	.02
Dum2 to Prev	.01	.02	.04

Note: N = 182. Prom = Primed Promotion Regulatory Focus; Prev = Primed Prevention Regulatory Focus. *p <.05 **p <.01 ***p <.001.



Note: Prom = Primed promotion focus, Prev = Primed prevention focus. Coefficients without parentheses represent standardized regression weights for explicit primed regulatory focus, and coefficients in parentheses represent standardized regression weights for implicit primed regulatory focus.

Figure 3.2. Path model for second set of dummy codes (CR to MbEA).

Regulatory Focus and Work Outcomes. Hypotheses 4 and 5, regarding the relationships between primed regulatory focus and work outcomes, were also tested using path analysis. Separate analyses were conducted for the explicit and implicit measures of primed regulatory focus. In all analyses the number of creative responses and the average

creativity ratings were allowed to correlate with one another. Speed and accuracy scores were also allowed to correlate with one another. A strong positive relationship emerged between the two variables, so they were allowed to correlated in the model. This somewhat unexpected positive correlation may be due to the fact that motivated participants worked quickly and accurately, whereas unmotivated participants whose only goal was to receive extra credit worked slowly and carelessly. Hypotheses 4 and 5 received partial support.

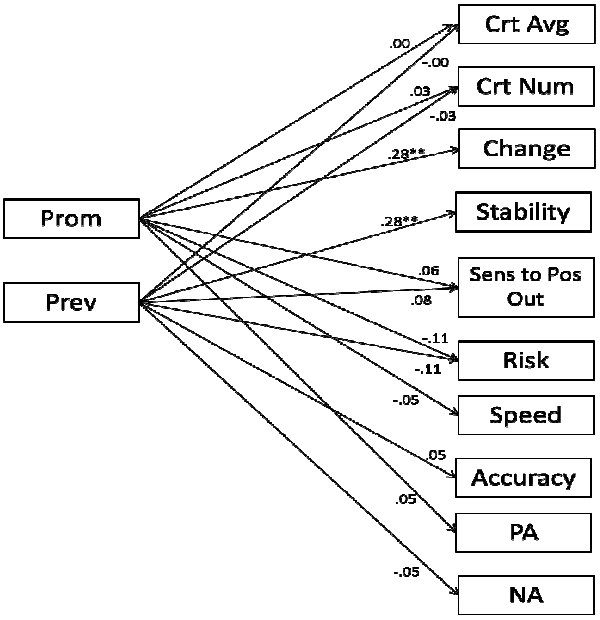
Specifically, explicit promotion focus was significantly related to preference for change ($\beta = .28$, $p < .01$) in partial support of Hypothesis 4b, and explicit prevention focus was significantly related to preference for stability ($\beta = .28$, $p < .01$) in partial support of Hypothesis 5b. Full results are reported in Table 3.5 and Figure 3.3. Fit statistics for this model were as follows: RMSEA = .10, CFI = .96, TLI = .51, and SRMR = .03. Implicit promotion focus was significantly related to positive affectivity ($\beta = .15$, $p < .01$) in partial support of Hypothesis 4f. Full results are reported in Table 3.6 and Figure 3.4. Fit statistics for this model were as follows: RMSEA = .10, CFI = .96, TLI = .51, and SRMR = .03.

For exploratory purposes a baseline model was tested with paths from both regulatory foci to both outcomes in order to determine whether there were any non-hypothesized significant relationships. Two additional paths were significant: prevention focus to preference for change and prevention focus to positive affectivity. The practical significance of these findings is further examined in the general discussion. Full results are reported in Tables 3.7 and 3.8.

Table 3.5. *Study 1 hypothesized relationships between explicit primed regulatory focus and work outcomes.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Promotion Paths			
Crt. Avg.	-.00	.19	.00
Crt. Num.	.07	.21	.03
Change	.21**	.05	.28**
Sens. to Pos. Outcomes	.02	.02	.06
Risk	-.24	.17	-.11
Speed	-.55	.66	-.05
PA	.07	.11	.05
Prevention Paths			
Crt. Avg.	-.02	.31	-.00
Crt. Num.	-.15	.33	-.03
Stability	.31**	.08	.28**
Sens. to Pos. Outcomes	.03	.04	.06
Risk	-.38	.27	-.11
Accuracy	.04	.04	.05
NA	-.06	.09	-.05

Note: N = 182. *p<.05 **p<.01 ***p<.001.



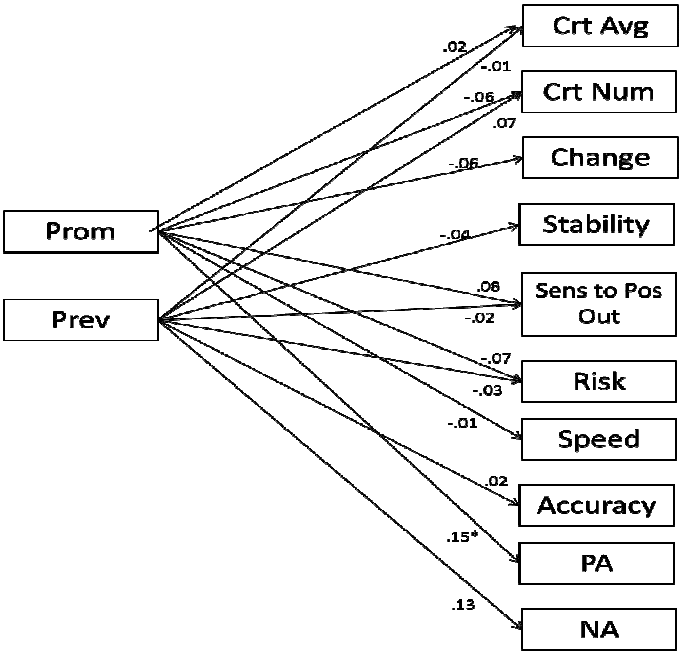
Note: Prom = Explicit primed promotion focus, Prev = Explicit primed prevention focus, Crt Avg = Average creativity rating, Crt Num = Number of creative responses, Change = Preference for change, Stability = Preference for stability, Sens to Pos Out = Sensitivity to positive outcomes (higher value indicates sensitivity to positive outcomes, whereas lower value indicates sensitivity to negative outcomes), Risk = Risk-taking, PA = Positive affectivity, and NA = Negative affectivity.

Figure 3.3. Study 1 hypothesized relationships between explicit primed regulatory focus and work outcomes.

Table 3.6. *Study 1 hypothesized relationships between implicit primed regulatory focus and work outcomes.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Promotion Paths			
Crt. Avg.	.20	.89	.02
Crt. Num.	-.78	.98	-.06
Change	-.22	.28	-.06
Sens. to Pos. Outcomes	.12	.11	.08
Risk	-.74	.79	-.07
Speed	-.77	3.24	-.01
PA	1.10*	.52	.15*
Prevention Paths			
Crt. Avg.	-.08	1.04	-.01
Crt. Num.	1.14	1.12	.07
Stability	-.15	.31	-.04
Sens. to Pos. Outcomes	-.03	.13	-.02
Risk	-.41	.95	-.03
Accuracy	.05	.16	.02
NA	.58	.32	.13

Note: $N = 182$. *$p<.05$ **$p<.01$ ***$p<.001$.



Note: Prom = Implicit primed promotion focus, Prev = Implicit primed prevention focus, Crt Avg = Average creativity rating, Crt Num = Number of creative responses, Change = Preference for change, Stability = Preference for stability, Sens to Pos Out = Sensitivity to positive outcomes (higher value indicates sensitivity to positive outcomes, whereas lower value indicates sensitivity to negative outcomes), Risk = Risk-taking, PA = Positive affectivity, and NA = Negative affectivity.

Figure 3.4. Study 1 hypothesized relationships between implicit primed regulatory focus

and work outcomes.

Table 3.7. *Study 1 baseline model of relationships between explicit primed regulatory focus and work outcomes.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Promotion Paths			
Crt. Avg.	-.02	.19	-.01
Crt. Num.	.04	.22	.01
Change	.17*	.06	.22**
Stability	.06	.05	.08
Sens. to Pos. Outcomes	.02	.02	.05
Risk	-.26	.17	-.12
Speed	-.62	.95	-.05
Accuracy	-.01	.04	-.01
PA	-.05	.11	-.03
NA	-.01	.06	-.02
Prevention Paths			
Crt. Avg.	.06	.30	.02
Crt. Num.	.09	.34	.02
Change	.20*	.09	.17*
Stability	.31**	.08	.28**
Sens. to Pos. Outcomes	.04	.04	.08
Risk	-.35	.27	.11
Speed	.30	1.48	.02
Accuracy	.05	.06	.07
PA	.58**	.17	.26**
NA	-.03	.09	.03

Note: $N = 182$. *$p<.05$ **$p<.01$ ***$p<.001$.

Mediating Role of Regulatory Focus. According to Baron and Kenny's (1986) guidelines for testing mediation, several assumptions must be met. First, the independent variable (leader behavior) is significantly related to the mediator (primed regulatory focus). Second, the independent variable (leader behavior) is significantly related to the criterion variable (work outcome). Third, the mediator (primed regulatory focus) is significantly related to the criterion variable (work outcome). Finally, the relationship between the independent variable (leader behavior) and the criterion variable (work outcome) is significantly reduced when the effects of the mediator variable (regulatory focus) are controlled. Because tests of Hypotheses 1 and 3, regarding the relationships

between leader behavior and participant regulatory foci, were not supported mediation analyses were not conducted. Therefore, Hypotheses 6 and 7 were not supported.

Table 3.8. *Study 1 baseline model of relationships between implicit primed regulatory focus and work outcomes.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Promotion Paths			
Crt. Avg.	.36	.91	.03
Crt. Num.	-.63	1.01	-.05
Change	-.23	.28	-.06
Stability	-.16	.27	-.05
Sens. to Pos. Outcomes	.10	.11	.06
Risk	-.59	.81	-.05
Speed	2.16	4.47	.04
Accuracy	.17	.18	.07
PA	1.02	.53	.14
NA	.00	.28	.00
Prevention Paths			
Crt. Avg.	-.19	1.05	-.01
Crt. Num.	.65	1.17	.04
Change	-.44	.32	-.10
Stability	-.29	.31	-.07
Sens. to Pos. Outcomes	-.06	.13	-.03
Risk	-.31	.94	-.02
Speed	.08	5.18	.00
Accuracy	.02	.21	.01
PA	-1.17*	.61	-.14*
NA	.53	.32	.12

Note: $N = 182$. *$p<.05$ **$p<.01$ ***$p<.001$.

Moderating Role of Chronic Regulatory Focus. In order to test the moderation hypothesis (H8), that followers' chronic regulatory focus would moderate the relationship between leader behaviors and followers' leader-primed regulatory focus I first centered the moderator variables and created interaction terms. Specifically, I centered chronic promotion focus and chronic prevention focus, and then created two interaction terms by multiplying the centered moderator (chronic promotion or prevention focus) with each of the two dummy codes. Analyses included paths from dummy codes, moderator, and two interaction terms to the primed regulatory focus of interest. If one or both interaction

terms were significant this indicated a significant moderator effect, and further analyses were conducted to interpret the nature of the interaction.

The dummy coding method (i.e., two sets of dummy codes) used for Hypotheses 1 and 3 was used for these analyses. Separate analyses were conducted for each set of dummy codes. Results of these analyses indicated two significant interactions. Analyses for the first set of dummy codes indicated a significant interaction between Dum2 and chronic prevention focus on implicit primed prevention focus ($\beta = -.27$, $p < .05$). Analyses for the second set of dummy codes indicated a significant interaction between Dum2 and chronic prevention focus on implicit primed prevention focus ($\beta = .22$, $p < .05$). Full results are reported in Tables 3.9 and 3.10. Significant interactions were plotted using values that were one standard deviation above and below the predictor means. Because Dum2 from the first and second sets of analyses represented a comparison between transformational and contingent reward leadership only one of these interactions was plotted. Although the difference between the two slopes was significant, as indicated by the significant interaction, neither simple slope was significant. Specifically, the slope at +1 SD was -.18 (*ns*), and the slope at -1 SD was .14 (*ns).* Moderation analyses are presented in Tables 3.9 and 3.10, and the significant interaction is plotted in Figure 3.5.

To summarize, Hypotheses 1 and 3, regarding the relationship between leader behaviors and primed regulatory focus, were not supported. Hypotheses 4 and 5, regarding relationships between primed regulatory focus and work-based outcomes, received limited support in that explicit promotion focus was related to preference for change (H4b), implicit promotion focus was related to positive affectivity (H4f), and explicit prevention focus was related to preference for stability (H5b). Hypotheses 6 and

7, regarding the mediating role of primed regulatory focus, was not supported. Hypothesis 8, regarding the moderating role of chronic regulatory focus, received partial support.

Table 3.9. *Moderation analyses for first set of dummy codes.*

Path	Raw Regression Weight	Standard Error	Standardized Reg. Weight
Explicit Regulatory Focus			
Dum1 to Primed Prom	-.05	.11	-.04
Dum2 to Primed Prom	-.02	.11	-.01
Chr. Prom to Primed Prom	-.02	.12	-.02
D1 x Chr. Prom to Pr. Prom	.38	.20	.17
D2 x Chr. Prom to Pr. Prom	.14	.20	.06
Dum1 to Primed Prev	.09	.07	.11
Dum2 to Primed Prev	.07	.07	.09
Chr. Prev to Primed Prev	-.07	.08	-.10
Dum1 x Chr. Prev to Pr. Prev	.08	.12	.07
Dum2 x Chr. Prev to Pr. Prev	.20	.11	.20
Implicit Regulatory Focus			
Dum1 to Primed Prom	.03	.02	.13
Dum2 to Primed Prom	.02	.02	.06
Chr. Prom to Primed Prom	.01	.03	.05
D1 x Chr. Prom to Primed Prom	-.04	.04	-.08
D2 x Chr. Prom to Primed Prom	.06	.04	.12
Dum1 to Primed Prev	-.00	.02	-.02
Dum2 to Primed Prev	-.01	.02	-.03
Chr. Prev to Primed Prev	.03	.02	.19
D1 x Chr. Prev to Primed Prev	-.02	.03	-.06
D2 x Chr. Prev to Primed Prev	-.07*	.03	-.27*

Note: $N = 182$. *$p<.05$ **$p<.01$ ***$p<.001$.

Table 3.10. *Moderation analyses for second set of dummy codes.*

Path	Raw Regression Weight	Standard Error	Standardized Reg. Weight
Explicit Regulatory Focus			
Dum1 to Primed Prom	-.04	.11	-.03
Dum2 to Primed Prom	-.01	.11	.01
Chr. Prom to Primed Prom	.09	.16	.08
D1 x Chr. Prom to Primed Prom	.27	.22	.12
D2 x Chr. Prom to Primed Prom	-.11	.20	-.06
Dum1 to Primed Prev	.02	.07	.03
Dum2 to Primed Prev	-.07	.07	-.08
Chr. Prev to Primed Prev	.13	.07	.21
D1 x Chr. Prev to Primed Prev	-.12	.11	-.11
D2 x Chr. Prev to Primed Prev	-.20	.11	-.16
Implicit Regulatory Focus			
Dum1 to Primed Prom	.01	.02	.05
Dum2 to Primed Prom	-.02	.02	-.08
Chr. Prom to Primed Prom	.06	.03	.24
D1 x Chr. Prom to Primed Prom	-.08	.05	-.18
D2 x Chr. Prom to Primed Prom	-.04	.04	-.12
Dum1 to Primed Prev	.00	.02	.01
Dum2 to Primed Prev	.01	.02	.03
Chr. Prev to Primed Prev	-.04*	.02	-.23*
D1 x Chr. Prev to Primed Prev	.06	.03	.18
D2 x Chr. Prev to Primed Prev	.07*	.03	.22*

Note: $N = 182$. *$p<.05$ **$p<.01$ ***$p<.001$.

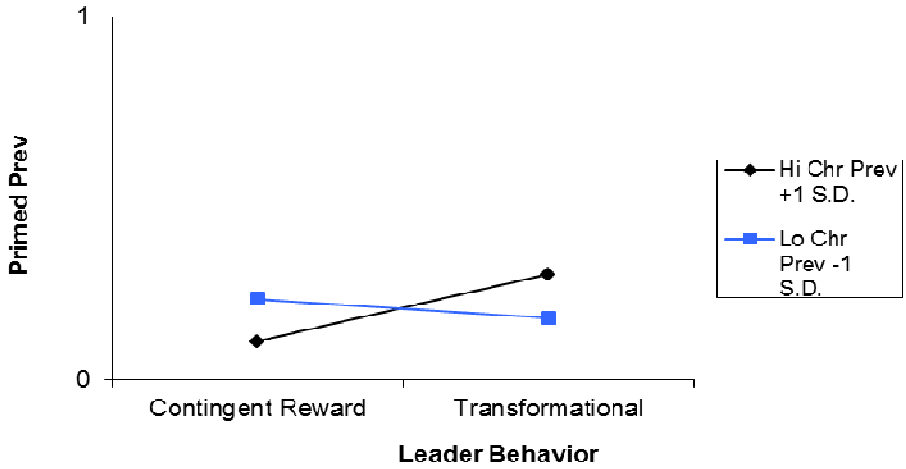


Figure 3.5. Interactive effects of leader behavior and chronic prevention focus on implicit primed prevention focus.

Chapter Four: Study 2 Method

In Study 2 the full model illustrated in Figure 1 on page 24 was tested using a cross-sectional applied sample.

Participants

Participants included individuals who worked at least 20 hours per week and their work supervisors. Participants were recruited through multiple sources, including personal and business contacts, and employed students enrolled in undergraduate and graduate university courses. A concerted effort was made to recruit non-traditional students who are older and have more work experience than the typical undergraduate by distributing surveys in late night classes. The target sample size was no fewer than 120 participants as is recommended in order to derive a stable solution in path analysis (Kline, 2004). A total of 330 individuals completed the subordinate portion of the survey. Of those, 44.94% of supervisors completed their portion of the survey, resulting in a total of 145 matched subordinate-supervisor pairs. Cases with more than three missing data points for either the subordinate or supervisor survey were dropped, resulting in 137 matched pairs. Subordinates were mostly female (74.50%) and majority white (83.21%). The average age of subordinates was 22.23 (*SD* = 6.43). They mostly worked part-time (79.41%), and they worked an average of 26.21 hours per week (*SD* = 8.50). Subordinates had worked in their current organization an average of 22.43 months (*SD* =

22.33) and an average of 19.93 months (*SD* = 21.57) with their current supervisor. Supervisors were majority female (56.72%) and white (78.10%). They mostly worked full-time (97.00%), and they worked an average of 45.42 hours per week (*SD* = 9.74). Supervisors' average age was 37.47 (*SD* = 11.37), and they had worked in their current organization an average of 94.33 months (*SD* = 81.75). Participants worked in a variety of industries, most commonly food services, retail, education, and health care or social services.

Procedure

Data were collected using the online survey hosting service SurveyMonkey. Each subordinate completed the online survey and provided contact information for his or her supervisor. Subsequently, supervisors received an email asking for their participation in the online survey. Supervisors who did not complete the survey were sent one follow up email as a reminder to participate.

In order to identify supervisor-subordinate dyads, supervisor and subordinate responses were matched based upon identical numerical codes on both surveys in the dyad. Specifically, the supervisor and subordinate responses were merged to create a dataset with each dyad representing one case in the dataset. This dataset was used for all subsequent analyses.

Measures

Leadership style. Participants assessed their supervisors' leadership style using the MLQ—Form 5x (Avolio & Bass, 2002). Four subscales assessed transformational leadership: idealized influence (eight items, e.g., "models ethical standards"), inspirational motivation (four items, e.g., "emphasizes the collective mission), intellectual

stimulation (four items, e.g., “suggests new ways”), and individualized consideration (four items, e.g., “individualizes attention”). Two subscales assessed transactional leadership: contingent reward (four items, e.g., “rewards achievement”) and active management by exception (four items, e.g., “focuses on mistakes”). Coefficient alpha reliabilities for subdimensions of transformational leadership were .80, .82, .69, .65 for idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, respectively. The coefficient alpha reliability for all transformational items was .91. Coefficient alpha reliabilities for contingent reward and active management by exception were .72 and .63, respectively.

Work-based regulatory focus. Subordinates completed Wallace and Chen’s (2006) Regulatory Focus at Work Scale (RWS), described above in Study 1. Coefficient alpha reliabilities were .87 and .81 for promotion and prevention focus, respectively.

Creativity. Subordinates’ creativity was assessed using three items from Oldham and Cummings (1996). An example item is “how creative is this person’s work?” Both supervisors and subordinates provided these ratings. Coefficient alpha reliabilities were .89 for supervisory ratings and .62 for subordinates’ ratings.

Sensitivity to positive and negative outcomes. Subordinates’ sensitivity to positive and negative outcomes was assessed using a method similar to Van Dijk and Kluger (2004). Specifically, two items assessed subordinates’ reactions to positive and negative feedback from their supervisors: “Imagine your boss has just told you that you failed in your task performance. Relative to your effort in your job thus far, how much effort would you intend to invest next?” and “Imagine your boss has just told you that you

excelled in your task performance. Relative to your effort in your job thus far, how much effort would you intend to invest next?"

Preference for stability versus change. Subordinates' preference for stability versus change was assessed using the Conservation and Openness to Change dimensions from Schwartz' value inventory (Schwartz, 1992) described above in Study 1. Coefficient alpha reliabilities were .64 for stability and .77 for openness to change.

Risk-taking/risk-aversion. Subordinates' risk-taking was assessed using a series of five risk-taking questions from Demaree, DeDonno, Burns, Feldman, and Everhart (2009) described above in Study 1.

Safety and productivity performance. Subordinates' safety performance was assessed using the eleven item Compliance with Safety Behaviors Scale (Hays, Perander, Smecko, & Trask, 1998), which was chosen because of its use with both blue and white collar workers. A sample item is "Overlooks safety procedures in order to get his or her job done more quickly (reversed)." Coefficient alpha reliabilities were .85 for supervisory ratings and .89 for subordinates' ratings. Productivity performance was assessed using Wallace, Johnson, and Frazier's (2008) five item measure of productivity performance. Sample items are "finishes work tasks ahead of others" and "fails to meet deadlines (reverse scored). Both supervisors and subordinates provided these ratings. Coefficient alpha reliabilities were .88 for supervisory ratings and .70 for subordinates' ratings.

Positive and negative affectivity. A short version of Watson, Clark, and Tellegen's (1988) Positive and Negative Affectivity Schedule (PANAS), described in Study 1, was used to assess subordinates' positive and negative affectivity at work (Kercher, 1992). Instructions were modified to ask participants to indicate to what extent they experience

those emotions in their current job. Coefficient alpha reliabilities were .83 and .84 for positive and negative affectivity, respectively.

Organizational commitment. Subordinates rated their affective, normative, and continuance organizational commitment measured using Meyer and Allen's (1997) revised scales. Six items each assessed affective organizational commitment (e.g., "My organization has a great deal of personal meaning for me"), normative organizational commitment (e.g., "This organization deserves my loyalty"), and continuance organizational commitment (e.g., "Right now staying with my organization is a matter of necessity as much as desire"). Coefficient alpha reliabilities were .80, .85, and .80 for affective, normative, and continuance organizational commitment, respectively.

Chapter Five: Study 2 Results and Discussion

Preliminary Analyses

Data were inspected for violations of assumptions of correlation and regression analyses, and there was no indication that assumptions of correlation and regression analyses were violated. Scale scores were created for each of the study variables. After reverse scoring appropriate items, scale scores were created by taking the average response across items for each measure.

Descriptive statistics, including means, standard deviations, and coefficient alpha reliabilities where appropriate, are reported in Table 5.1.

Control Variables

Age, gender, ethnicity, and tenure were examined prior to focal analyses as potential control variables. Using the correlation matrices, each demographic variable was examined as a potential control variable. In order to preserve statistical power only demographic variables that were significantly related to study variables were controlled for during hypothesis testing. Several relationships were significant. Subordinate tenure correlated with leader ratings of safety performance at -.29 ($p < .05$). Leader tenure correlated with subordinate ratings of safety performance at .25 ($p < .05$). Subordinate age correlated with leader ratings of creativity at -.21 ($p < .05$), with preference for change at .17 ($p < .05$), with subordinate ratings of safety at .19 ($p < .05$), with leader ratings of productivity performance at -.20 ($p < .05$), and with continuance organizational

commitment at .21 ($p < .05$). Subordinate ethnicity[2] correlated with leader ratings of creativity at -.17 ($p < .05$). Subordinate gender correlated with preference for stability at .21 ($p < .05$) and with subordinate ratings of safety at .23 ($p < .05$). Leader age correlated with leader ratings of creativity at .19 ($p < .05$) and with subordinate ratings of safety performance at .22 ($p < .05$). Leader ethnicity correlated with leader ratings of creativity at -.23 ($p < .05$) and with subordinate ratings of creativity at .18 ($p < .05$). However, while these correlations were statistically significant they were small (all < .30). These correlations were not deemed practically significant, and therefore were not used as control variables in subsequent analyses.

Confirmatory Factor Analysis

Before hypotheses were tested a confirmatory factor analysis was performed to assess the factor structure of the data. Prior to the confirmatory factor analysis scales with a large number of variables were parceled in order to provide fewer indicators and a more favorable participant to item ratio. Exploratory factor analyses with maximum likelihood extraction and varimax rotation as well as reliability analyses were first conducted to ensure that all items were good indicators for their respective constructs. Based on the results of the exploratory factor analyses parcels were created, which consisted of the average of several items. Each of the parcels contained at least one item that had a high factor loading.

[2] For these analyses ethnicity was treated as a dichotomous variable, where 1 = Caucasian/White and 2 = all other ethnicities.

Table 5.1. *Study 2 means, standard deviations, correlations, and alphas.*

	M	*SD*	1	2	3	4	5	6	7	8
MLQ										
1. Transformational	3.90	0.58	(.91)							
2. Idealized Influence	3.89	0.62	.92**	(.80)						
3. Inspir. Motivation	4.04	0.74	.83**	.69**	(.82)					
4. Intellectual Stim.	3.80	0.69	.86**	.70**	.67**	(.69)				
5. Indiv. Consideration	3.89	0.71	.81**	.66**	.52**	.65**	(.65)			
6. Contingent Reward	4.09	0.69	.78**	.73**	.69**	.62**	.61**	(.72)		
7. Active Mgt by Exc.	3.15	0.77	.23**	.28**	.10	.15	.22**	.28**	(.63)	
Work Based Regulatory Focus										
8. Sub. Promotion	3.89	0.75	.35**	.30**	.42**	.28**	.21*	.35**	.11	(.87)
9. Sub. Prevention	4.47	0.48	.36**	.30**	.36**	.34**	.26**	.28**	.02	.58**
Outcomes										
10. Creativity (Sup.)	4.12	0.89	.05	.05	.04	-.04	.14	.10	.01	0.11
11. Creativity (Sub.)	3.54	0.99	.30**	.23**	.30**	.25**	.28**	.17*	.09	.19*
12. Sens. to Neg. Out.	4.48	0.79	.22*	.17	.23**	.20*	.17	.25**	-.06	.29**
13. Sens. to Pos. Out.	3.74	0.75	.37**	.30**	.38**	.30**	.32**	.33**	.05	.39**
14. Stability	1.94	0.78	.26**	.26**	.18*	.30**	.16	.31**	.08	0.12
15. Change	2.17	0.81	.33**	.26**	.27**	.32**	.32**	.23**	-.07	.35**
16. Risk-taking	1.36	1.12	.07	.10	.03	.04	.04	.11	.05	.04
17. Safety Perf. (Sup.)	4.79	0.68	.12	.05	.13	.16	.11	.03	-.02	.03
18. Safety Perf. (Sub.)	4.44	0.87	.14	.05	.17*	.26**	.06	.05	.01	.12
19. Prod. Perf. (Sup.)	4.34	0.64	.07	.10	.02	-.02	.10	.10	-.07	.16
20. Prod. Perf. (Sub.)	4.25	0.51	.17	.16	.11	.15	.14	.12	.04	.42**
21. Pos. Affectivity	3.72	0.72	.54**	.52**	.41**	.44**	.46**	.45**	.08	.41**
22. Neg. Affectivity	1.73	0.64	-.13	-.13	-.11	-.07	-.12	-.13	.07	.02
23. Aff. Org. Commit.	3.52	0.82	.39**	.32**	.18*	.38**	.48**	.31**	-.01	.14
24. Norm. Org. Commit.	3.30	0.95	.33**	.28**	.21*	.27**	.36**	.25**	.25**	.15
25. Cont. Org. Commit.	3.17	0.92	.15	.09	.07	.15	.24	.13	.27**	-.15

Note: N = 137 matched supervisor-subordinate pairs. Coefficient alphas are presented in parentheses along the diagonal. *p<.05 **p<.01

Table 5.1 *(Continued).*

	9	10	11	12	13	14	15	16	17	18
9. Sub. Prevention	(.81)									
Outcomes										
10. Creativity (Sup.)	.02	(.89)								
11. Creativity (Sub.)	.12	.14	(.62)							
12. Sens. to Neg. Out.	.22**	.24**	-.03	NA						
13. Sens. to Pos. Out.	.27**	.03	.18*	.27**	NA					
14. Stability	.20*	-.08	.13	.31**	.23**	(.64)				
15. Change	.29**	.08	.43**	.13	.33**	.21*	(.77)			
16. Risk-taking	.13	.09	.15	-.01	.11	.09	.19*	NA		
17. Safety Perf. (Sup.)	.21*	-.08	.12	.12	-.03	.11	.06	-.02	(.85)	
18. Safety Perf. (Sub.)	.24**	-.03	.09	.09	.15	.13	.16	.03	.20*	(.89)
19. Prod. Perf. (Sup.)	.15	.32**	.02	.19*	.13	-.08	.10	.00	.12	-.11
20. Prod. Perf. (Sub.)	.34**	.04	.10	.17*	.20*	.16	.18*	-.06	.03	.18*
21. Pos. Affectivity	.41**	.14	.28**	.25**	.39**	.35**	.35**	.25**	.01	.11
22. Neg. Affectivity	-.09	-.09	.02	-.23**	-.02	-.13	-.03	-.03	-.12	-.07
23. Aff. Org. Commit.	.19*	.13	.32**	.15	.24**	.22**	.40**	.07	.15	.09
24. Norm. Org. Commit.	.15	.21*	.28**	.31**	.20*	.21*	.24**	.12	.26**	.13
25. Cont. Org. Commit.	-.09	-.12	.14	.08	.15	.06	-.07	.06	-.03	.00

Note: N = 137 matched supervisor-subordinate pairs. Coefficient alphas are presented in parentheses along the diagonal. **p*<.05 ***p*<.01

Table 5.1 *(Continued).*

	19	20	21	22	23	24	25
19. Prod. Perf. (Sup.)	(.88)						
20. Prod. Perf. (Sub.)	.21*	(.70)					
21. Pos. Affectivity	.03	.25**	(.83)				
22. Neg. Affectivity	-.10	-.16	-.05	(.84)			
23. Aff. Org. Commit.	.16	.13	.54**	-.09	(.80)		
24. Norm. Org. Commit.	.15	.11	.38**	-.12	.57**	(.85)	
25. Cont. Org. Commit.	-.01	.01	.07	.10	.24**	.38**	(.80)

Note: N = 137 matched supervisor-subordinate pairs. Coefficient alphas are presented in parentheses along the diagonal. **p*<.05 ***p*<.01

Four separate confirmatory factor analyses (CFAs) were conducted: one for leader behavior variables, one for regulatory foci, one for leader-rated work outcomes, and one for subordinate-rated work outcomes. Variables that were measured with a single item were not included.

For the leader behaviors CFA idealized influence, inspirational motivation, individualized consideration, intellectual stimulation, contingent reward, and active management by exception were specified as factors. In addition, transformational leadership was specified as a higher order factor that contained the four transformational leadership factors. All factor loadings were significant (p <.01), and fit indices were as follows: RMSEA = .07, CFI = .88, TLI = .87, SRMR = .07, $\chi^2_{(245\ df)} = 402.79$.

For the regulatory foci CFA two factors were specified: work-based promotion focus and work-based prevention focus. All factor loadings were significant (p <.01), and fit indices were as follows: RMSEA = .09, CFI = .98, TLI = .97, SRMR = .04, $\chi^2_{(8\ df)} = 16.26$.

Three factors were specified in the leader-rated outcomes CFA: creativity, safety, and productivity performance. Two productivity performance items were allowed to correlate because both items were reverse scored. All factor loadings were significant (p <.01), and fit indices were as follows: RMSEA = .06, CFI = .98, TLI = .97, SRMR = .05 $\chi^2_{(50\ df)} = 71.52$.

Eight factors were specified in the subordinate-rated outcomes CFA: creativity, safety performance, productivity performance, positive affectivity, negative affectivity, affective organizational commitment, normative organizational commitment, and continuance organizational commitment. All factor loadings were significant (p <.01), and fit indices were as follows: RMSEA = .08, CFI = .84, TLI = .82, SRMR = .08, $\chi^2_{(406\ df)} = 765.53$.

Hypothesis Testing

Leadership and Regulatory Focus. Hypotheses 1 and 3, regarding the relationships between leadership condition and work-based regulatory foci, were tested simultaneously using path analysis. The hypothesized model specified that subdimensions of transformational leadership would relate to work-based promotion regulatory focus, contingent reward leadership would relate to work-based promotion and prevention regulatory focus, and active management by exception leadership would relate to work-based prevention regulatory focus. Hypotheses 1 and 3 received partial support. Specifically, the inspirational motivation facet of transformational leadership was significantly related to subordinate work-based promotion focus ($\beta = .23$, $p < .05$), contingent reward was significantly related to subordinate work-based promotion focus ($\beta = .32$, $p < .05$), and contingent reward was significantly related to subordinate work-based prevention focus ($\beta = .31$, $p < .05$). Fit statistics for the hypothesized model were as follows: $\chi^2_{(5\ df)} = 10.68$, RMSEA = .09, CFI = .93, TLI = .82, and SRMR = .05. Full results are reported in Table 5.2 and Figure 5.1.

For exploratory purposes a baseline model was tested with paths from each leadership dimension to both regulatory foci in order to determine whether any non-hypothesized relationships emerged. No additional paths were significant. Full results are reported in Table 5.3 and Figure 5.2.

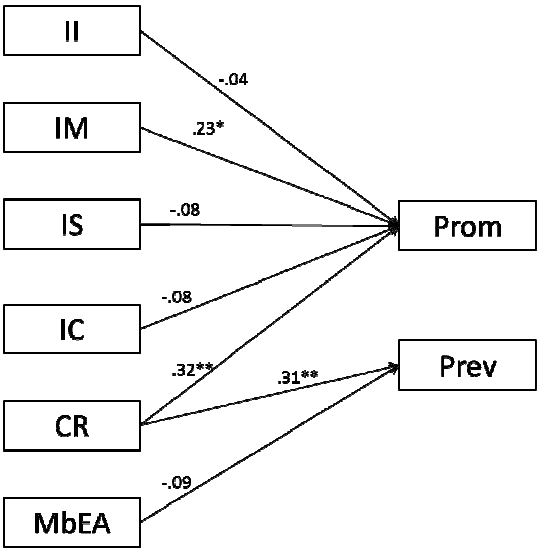
Hypothesis 2, regarding the relative effects of inspirational motivation and other transformational leadership dimensions, was supported as inspirational motivation was the only transformational leadership dimension that significantly predicted subordinate promotion focus. These results suggest that inspirational motivation is, in fact, more

important in predicting subordinate promotion focus than other dimensions of transformational leadership.

Table 5.2. *Study 2 hypothesized relationships between leader behaviors and regulatory foci.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
II to Prom	-.05	.14	-.04
IM to Prom	.24*	.11	.23*
IS to Prom	-.08	.12	-.08
IC to Prom	-.08	.10	-.08
CR to Prom	.35**	.13	.32**
CR to Prev	.21**	.06	.31**
MbEA to Prev	-.06	.05	-.09

Note: N = 137. Prom = Primed Promotion Regulatory Focus; Prev = Primed Prevention Regulatory Focus. p<.10 *p<.05 **p<.01 ***p<.001.



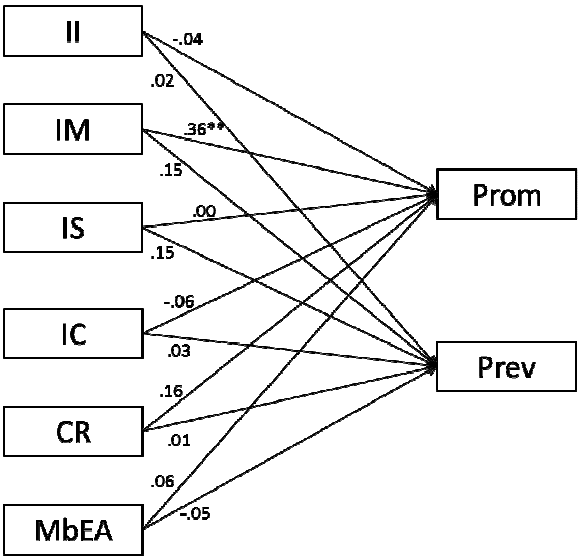
Note: II = Idealized influence facet of transformational leadership, IM = Inspirational motivation facet of transformational leadership, IS = Intellectual stimulation facet of transformational leadership, IC = Individualized consideration facet of transformational leadership, CR = Contingent reward leadership, MbEA = Active management by exception leadership, Prom = Work-based promotion focus, Prev = Work-based prevention focus.

Figure 5.1. Study 2 hypothesized relationships between leader behaviors and regulatory foci.

Table 5.3. *Study 2 baseline model of relationships between leader behaviors and regulatory foci.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
II to Prom	-.05	.17	-.04
IM to Prom	.36**	.12	.36**
IS to Prom	.01	.13	.00
IC to Prom	-.07	.12	-.06
CR to Prom	.17	.14	.16
MbEA to Prom	.05	.08	.06
II to Prev	.02	.11	.02
IM to Prev	.15	.08	.23
IS to Prev	.10	.09	.15
IC to Prev	.02	.08	.03
CR to Prev	.01	.09	.01
MbEA to Prev	-.03	.05	-.05

Note: N = 137. Prom = Primed Promotion Regulatory Focus; Prev = Primed Prevention Regulatory Focus. p<.10 *p<.05 **p<.01 ***p<.001.



Note: II = Idealized influence facet of transformational leadership, IM = Inspirational motivation facet of transformational leadership, IS = Intellectual stimulation facet of transformational leadership, IC = Individualized consideration facet of transformational leadership, CR = Contingent reward leadership, MbEA = Active management by exception leadership, Prom = Work-based promotion focus, Prev = Work-based prevention focus.

Figure 5.2. Study 2 baseline model of relationships between leader behaviors and regulatory foci.

Regulatory Focus and Work Outcomes. Hypotheses 4 and 5, regarding the relationships between work-based regulatory focus and work outcomes, were also tested using path analysis. The hypothesized model could not be identified when all outcomes were included. By systematically adding outcomes to the model until identification problems occurred it was determined that the three organizational commitment dimensions were contributing to model nonidentification. Affective, normative, and continuance commitment were highly intercorrelated, and including any two in the same model caused nonidentification. Therefore, I chose to include affective commitment as it is believed to be the strongest form of commitment with the highest relations to work outcomes (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002).

Hypotheses 4 and 5 received partial support. Specifically, as hypothesized promotion focus was significantly related to subordinate ratings of creativity (H4a; $\beta = .29$, $p < .05$), preference for change (H4b; $\beta = .35$, $p < .05$), sensitivity to positive outcomes (H4c; $\beta = .35$, $p < .05$), subordinate ratings of productivity (H4e; $\beta = .43$, $p < .05$), and positive affectivity (H4f; $\beta = .40$, $p < .05$). Prevention focus, as hypothesized, was significantly related to sensitivity to negative outcomes (H5c; $\beta = .19$, $p < .05$), leader ratings of subordinate safety performance (H5e; $\beta = .21$, $p < .05$), and subordinate ratings of safety performance (H5e; $\beta = .23$, $p < .05$). Full results are reported in Table 5.4 and Figure 5.3.

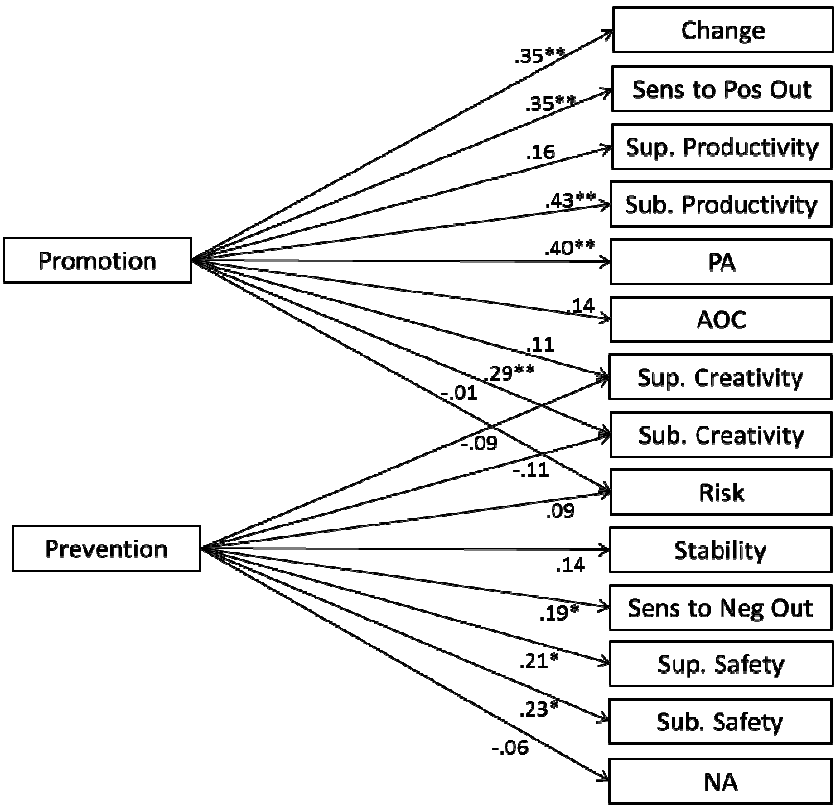
For exploratory purposes a baseline model was tested with paths from each regulatory focus to every work outcome in order to determine whether there were any non-hypothesized significant relationships. The model was not identified when including any of the commitment variables, so the reported baseline model excludes organizational

commitment variables. Two additional paths were significant: promotion focus to sensitivity to negative outcomes and prevention focus to positive affectivity. These unexpected findings are further examined in the general discussion. Full results are reported in Table 5.5.

Table 5.4. *Study 2 path analysis for hypothesized relationships between regulatory foci and work outcomes.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Promotion Paths			
Sup. rated creativity	.14	.12	.11
Sub. rated creativity	.38*	.14	.29**
Change	.38**	.09	.35**
Sens. To Pos. Outcomes	.35**	.08	.35**
Risk	-.02	.16	-.01
Sup. rated productivity	.13	.07	.16
Sub. rated productivity	.29**	.05	.43**
PA	.38**	.08	.40**
AOC	.15	.09	.14
Prevention Paths			
Sup. rated creativity	-.17	.19	-.09
Sub. rated creativity	-.23	.20	-.11
Stability	.23	.13	.14
Sens. To Neg. Outcomes	.31*	.14	.19*
Risk	.22	.24	.09
Sup. rated safety	.31*	.12	.21*
Sub. rated safety	.42*	.15	.23*
NA	-.07	.12	-.06

Note: $N = 137$. $p<.10$ *$p<.05$ **$p<.01$ ***$p<.001$.



Note: Promotion = Work-based promotion focus, Prevention = Work-based prevention focus, Change = preference for change, Sens to Pos Out = Sensitivity to Positive Outcomes, PA = Positive Affectivity, AOC = affective organizational commitment, Risk = Risk-taking, Stability = Preference for stability, Sens to Neg Out = Sensitivity to negative outcomes, NA = Negative affectivity.

Figure 5.3. Study 2 path analysis for hypothesized relationships between regulatory foci and work outcomes.

Table 5.5. *Study 2 baseline model for relationships between regulatory foci and work outcomes.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Promotion Paths			
Sup. rated creativity	.18	.13	.15
Sub. rated creativity	.25	.14	.19
Change	.30**	.11	.27**
Stability	-.00	.11	-.00
Sens. to pos. outcomes	.35**	.10	.35**
Sens. to neg. outcomes	.26*	.11	.25*
Risk	-.09	.16	-.06
Sup. rated safety	-.13	.09	-.14
Sub. rated safety	-.03	.12	-.02
Sup. rated productivity	.10	.09	.12
Sub. rated productivity	.23**	.14	.33**
PA	.26**	.09	.27**
NA	.09	.09	.10
Prevention Paths			
Sup. rated creativity	-.14	.20	-.07
Sub. rated creativity	.02	.21	.01
Change	.22	.17	.13
Stability	.33*	.17	.21*
Sens. to pos. outcomes	.11	.15	.07
Sens. to neg. outcomes	.13	.17	.08
Risk	.39	.24	.17
Sup. rated safety	.41**	.15	.29**
Sub. rated safety	.46*	.19	.25*
Sup. rated productivity	.10	.09	.08
Sub. rated productivity	.16	.10	.15
PA	.39*	.14	.25*
NA	-.19	.14	-.15

Note: $N = 137$. $p<.10$ *$p<.05$ **$p<.01$ ***$p<.001$.

Mediating Role of Regulatory Focus. According to Baron and Kenny's (1986) guidelines for testing mediation, several assumptions must be met. First, the independent variable (leader behavior) is significantly related to the outcome (work outcome). Second, the independent variable (leader behavior) is significantly related to the mediator (regulatory focus). Third, the mediator (regulatory focus) is significantly related to the criterion variable (work outcome). Finally, the relationship between the independent

variable (leader behavior) and the criterion variable (work outcome) is significantly reduced when the effects of the mediator variable (regulatory focus) are controlled.

Tests of Hypotheses 1 and 3 provided evidence for the second assumption. Tests of Hypotheses 4 and 5 provided evidence for the third assumption. For mediation hypotheses in which assumption two or three was not met no further analyses were conducted. However, for instances in which assumptions two and three were met, further analyses were conducted to determine whether assumption one was met. In four instances all three assumptions were met, and mediation analyses were conducted to determine whether the relationship between the leader behavior and work outcome was significantly reduced when controlling for the effects of regulatory focus. Leader behaviors included in the mediation analyses were the inspirational motivation facet of transformational leadership and contingent reward. Work-based promotion and prevention focus were included in mediation analyses. Work outcomes included in the mediation analyses were creativity, sensitivity to positive outcomes, positive affectivity, and sensitivity to negative outcomes.

An initial path model was tested that included paths from leader behaviors to regulatory foci and from regulatory foci to work outcomes. Then direct paths from leader behaviors to work outcomes were added one at a time in order to determine whether model fit improved significantly. Specifically, promotion focus did not mediate the relationship between inspirational motivation and creativity. The relationship between promotion focus and creativity was no longer significant after adding the additional path. Promotion focus partially mediated the relationship between inspirational motivation and sensitivity to positive outcomes. The relationship between promotion focus and

sensitivity to positive outcomes remained significant, but model fit improved significantly ($\Delta X^2 = 4.49$), indicating partial mediation. Promotion focus did not mediate the relationship between contingent reward leader behaviors and positive affectivity (H6f) as the predictor (contingent reward behavior) was not significantly related to the mediator (promotion focus) in the model. Prevention focus did not mediate the relationship between contingent reward leader behaviors and sensitivity to negative outcomes (H7c) as neither the mediator (prevention focus) nor the predictor (contingent reward) had significant relationships with sensitivity to negative outcomes. Full results are reported in Table 5.6.

To summarize, Hypotheses 1 received partial support as leader inspirational motivation behaviors related to subordinates' work-based promotion focus (H1b). Hypothesis 2, regarding the relative effects of transformational leadership dimensions on subordinates' work-based regulatory foci, was supported as inspirational motivation was the only transformational leadership dimension that significantly related to subordinate promotion focus. Hypothesis 3 received partial support as leader contingent reward behaviors related to subordinates' work-based promotion and prevention foci (H3a). Hypothesis 4, regarding the relationship between work-based promotion focus and work outcomes, received partial support as subordinates' work-based promotion focus related to subordinate ratings of creativity (H4a), preference for change (H4b), sensitivity to positive outcomes (H4c), subordinate ratings of productivity performance (H4e), and positive affectivity (H4f). Hypothesis 5, regarding the relationship between work-based prevention focus and work outcomes, received partial support as subordinates' work-based prevention focus related to sensitivity to negative outcomes (H5c) and subordinate

ratings of safety performance (H5e). Hypothesis 6 received partial support as promotion focus partially mediated the relationship between inspirational motivation leadership and sensitivity to positive outcomes. Hypothesis 7 was not supported as prevention focus failed to mediate the relationship between contingent reward leadership and sensitivity to negative outcomes.

Table 5.6. *Study 2 mediation analyses.*

Path	Raw Regression Weight	Standard Error	Standardized Regression Weight
Initial Model			
IM to Prom	.33**	.11	.33**
CR to Prom	.14	.12	.13
CR to Prev	.19**	.06	.28**
Prom to Creativity	.28*	.11	.21*
Prom to Sens to Pos Outcomes	.36**	.08	.36**
Prom to Positive Affectivity	.38**	.08	.40**
Prev to Sens to Neg Outcomes	.31*	.14	.19*
X^2	96.48		
df	14		
IM to Creativity Added			
IM to Prom	.33**	.11	.33**
Prom to Creativity	.16	.12	.12
IM to Creativity	.30*	.13	.22*
ΔX^2	5.55		
IM to Sens to Pos Outcomes Added			
IM to Prom	.33*	.11	.33**
Prom to Sens to Pos Outcomes	.29**	.09	.29**
IM to Sens to Pos Outcomes	.19*	.09	.19*
ΔX^2	4.49		
CR to PA Added			
CR to Prom	.14	.12	.13
Prom to PA	.29**	.08	.31**
CR to PA	.30**	.08	.29**
ΔX^2	12.83		
CR to Sens to Neg Outcomes Added			
CR to Prev	.19**	.06	.28**
Prev to Sens to Neg Outcomes	.25	.14	.16
CR to Sens to Neg Outcomes	.20	.10	.17
ΔX^2	3.67		

Note: N = 137. p<.10 *p<.05 **p<.01 ***p<.001.

Chapter Six: General Discussion

The purpose of this study was to integrate the areas of leadership and motivation by examining how leaders affect their followers' regulatory focus. I hypothesized that leader transformational and transactional behaviors would shape followers' regulatory foci, which would in turn affect follower outcomes at work. In addition, the relationships between leader behaviors and state-based regulatory focus were expected to be moderated by follower chronic regulatory focus. A laboratory experiment was conducted to examine the assumptions in a controlled laboratory setting, and a field survey was conducted to test the full model in a field sample of supervisor-subordinate dyads. This research is important in understanding the mechanism by which transformational and transactional leadership have their effects on followers' work outcomes and in better understanding the role of regulatory focus in the workplace.

Leadership Behaviors and Follower Primed Regulatory Focus

In Study 1 Hypotheses 1 and 3, regarding the relationship between leader behaviors and follower primed regulatory focus, were not supported in a laboratory setting. None of the leader behaviors were related to implicit or explicit measures of primed promotion or prevention focus. One possible conclusion is that leader transformational and transactional behaviors are not important in motivating followers through regulatory focus and that these leader behaviors have their effects through some other mechanism. However, other factors may have played a role, including participants' level of motivation, a relatively weak situation, participants' age and work experience, the time frame of the experiment, and the operationalization of leaderhip behaviors.

Participants were psychology students who received extra credit in their courses for participating in the experiment and received the same number of points no matter the amount of effort they put forth. Therefore, students may not have been motivated to do their very best in the experiment session as they would have been during the orientation period for a real job. Data was screened for random responding, but this would not have eliminated participants who put forth minimal (vs. optimal) effort.

Second, the laboratory environment may not have been strong enough to elicit a particular regulatory focus in participants. Efforts were made to make the laboratory setting as realistic as possible: the experimenter dressed in business attire, each participant was given an employee orientation binder for the mock company with a letter from the CEO, and the experimenter addressed the participants as though they were at a new employee orientation. A manipulation check indicated that participants were able to appropriately identify leader behaviors in the between subjects design. However, it is unclear to what extent participants were able to imagine and fully engage themselves in the role of a new employee in the organization.

Participant characteristics may also have contributed to their inability to imagine themselves in the employee role. If so, then this would have affected study results. Participants were relatively young with an average age of 19.88. They also had relatively little work experience as only about half were currently employed. Thus, most participants could not have had more than a few years of work experience and had likely not held long-term positions. Therefore, these participants compared to others may have had more difficulty imagining themselves in the role of a new employee in the organization.

Another potential explanation for the null findings is that leaders do not have immediate effects on follower regulatory foci. Rather, they shape followers' regulatory foci over a period of time based on many interactions. A laboratory study that includes one memo from a simulated leader may not be a strong enough force to elicit a stable promotion or prevention focus in followers. Within actual supervisor-subordinate dyads, supervisors have much more time and many more opportunities to influence their subordinates.

Finally, the operationalization of leader behaviors may have contributed to the null findings. Leader behaviors in the lab study were operationalized in a very broad way (see Appendix A for the leader messages used in the lab study). As a result participants may not have connected the broad goals communicated by the leader in the memo to their performance on specific tasks. Perhaps, more specific direction from leaders would have a greater effect on follower performance on various tasks. For example, leaders might directly prime promotion (prevention) focus by requesting that followers work quickly (accurately) on a task.

Because of motivation, strength of situation, participant characteristics, time limitations, and the operationalization of leader behaviors, the relationship between leader behaviors and follower regulatory focus is not clear based on the results of the laboratory study alone.

In Study 2 Hypotheses 1 and 3, regarding the effects of leader behaviors on follower regulatory foci, were partially supported. Specifically, the inspirational motivation dimension of transformational leadership was positively related to subordinate promotion focus, and contingent reward leadership was positively related to subordinate

promotion and prevention focus. The finding that of all transformational leadership dimensions only inspirational motivation was related to subordinate regulatory focus supported Hypothesis 2. Although all dimensions of transformational leadership were expected to relate to subordinate promotion focus, inspirational motivation is most closely aligned with promotion focus. Through inspirational motivation leaders encourage followers to work toward an idealized future state, which is consistent with the promotion focus emphasis on ideals and working toward desirable goals. Idealized influence, individualized consideration, and intellectual stimulation dimensions of transformational leadership were not related to promotion focus. Idealized influence focuses on the ethical and moral behavior of the leader, and a focus on moving toward desired goals is not necessary for ethical behavior (in fact, aligning behavior with social and moral norms may represent an ought goal, which is associated with a prevention focus). Individualized consideration involves showing support to followers and treating them as individuals, but nothing is known about the content of the leader's message. Intellectual stimulation involves encouraging followers to reason and problem-solve, but it does not specify problem-solving processes, which could be either gain- or loss-framed. Thus, of all transformational leadership dimensions, inspirational motivation seems most closely aligned with promotion focus.

Contingent reward leaders' emphasis on fulfilling obligations and avoiding punishment is consistent with a prevention orientation, and their emphasis on praise and rewards is consistent with promotion orientation. As expected, contingent reward leader behaviors were associated with both promotion and prevention focus in followers.

One reason for the nonsignificant relationship between active management by exception and subordinate regulatory foci may be that followers are not at all motivated by these types of leadership behaviors. Prior research has demonstrated that active management by exception leadership is not an effective form of leadership (e.g., Lowe et al., 1996). While leaders who employ active management by exception may focus on avoiding failure and mistakes, it is possible that followers are not motivated by these leaders and fail to adopt the leader's emphasis on avoiding failure.

Overall, evidence for the effects of leader behaviors on follower regulatory foci in Study 2 was mixed, but suggested that inspirational motivation and contingent reward behaviors may be most influential on employees' regulatory focus. Specifically, inspirational motivation leader behaviors were related to subordinate promotion focus, and contingent reward leader behaviors were related to subordinate promotion and prevention focus.

The purpose of conducting separate lab and field studies was to provide stronger evidence upon which to base conclusions. Consistent findings between both studies would have been strong evidence as the strength of each research method offsets the limitations of the other. Significant findings in the laboratory study would have helped determine a causal link between leader behaviors and follower regulatory foci that was not possible to determine with the correlational nature of the field study, whereas field study results were likely more accurate reflections of supervisor-subordinate interactions because they were based on real supervisors and subordinates rather than a role play with an imagined leader. However, inconsistent findings between the lab and field studies are difficult to interpret. The lack of a relationship between leader behaviors and follower

regulatory focus in Study 1 may stem from the aforementioned limitations of the lab study, including participants' lack of motivation, the weak situation, participants' characteristics, and the short time frame. The field study is likely more representative of supervisor-subordinate interactions because they were based on actual supervisor-subordinate dyads. However, as with any self-reported data one cannot be certain of respondents' accuracy. Thus, while relationships between leader behaviors and follower regulatory foci were demonstrated in a field sample, the causal nature of these relationships is still unclear.

Follower Primed Regulatory Focus and Work Outcomes

In Study 1, Hypotheses 4 and 5, regarding the effects of follower primed regulatory focus on work-related outcomes, received very limited support. Specifically, only the explicit measure of promotion focus was positively related to preference for change, providing minimal support for Hypothesis 4b. Only the implicit measure of promotion focus was related to positive affectivity, again providing minimal support for Hypothesis 4f. Finally, only the explicit measure of prevention focus was related to preference for stability, providing minimal support for Hypothesis 5b. Overall, participants' primed regulatory focus was unrelated to work-related outcomes in Study 1.

In Study 2, Hypotheses 4 and 5, regarding the effects of follower primed regulatory focus on work outcomes, received partial support. Specifically, subordinate promotion focus was significantly related to subordinates' (but not supervisors') ratings of creativity in partial support of Hypothesis 4a. Subordinate promotion focus was also significantly related to subordinates' (but not supervisors') ratings of productivity performance in partial support of Hypothesis 4e. Subordinate promotion focus was also

positively related to preference for change, sensitivity to positive outcomes, and positive affectivity, in support of Hypotheses 4b, 4c, and 4f, respectively. Subordinate prevention focus was positively related to supervisor and subordinate ratings of safety performance, in support of Hypothesis 5e. Subordinate prevention focus was also related to greater sensitivity to negative outcomes in support of Hypothesis 5c. Overall, the results of Study 2 suggest that employee regulatory focus has an important impact on work-related outcomes.

Several unexpected findings were observed when exploratory analyses of fully saturated baseline models were conducted. In Study 1 significant positive relationships were observed between explicit primed prevention focus and preference for change and between explicit primed prevention focus and positive affectivity. These relationships were unexpected and inconsistent with existing research. In Study 2 significant positive relationships were observed between work-based promotion focus and sensitivity to negative outcomes and between work-based prevention focus and positive affectivity.

Regarding unexpected findings, the relationship between prevention focus and preference for change was only observed for the explicit measure of primed regulatory focus in Study 1 and was not observed in Study 2. The relationship between promotion focus and sensitivity to negative outcomes was only observed for the work-based measure of promotion focus in Study 2 and was not observed for either measure of promotion focus in Study 1. Based on these inconsistent findings and on prior research these relationships are likely statistical artifacts. The positive relationship between prevention focus and positive affectivity was also unexpected and runs counter to prior research on the relationships between regulatory foci and emotions. Extant research

suggests that negative affectivity emotions, such as nervousness and fear, are associated with escaping threats and avoiding punishment, which are prevention-related goals (see Watson et al., 1999). However, in the present research this relationship was observed with the explicit measure of primed prevention focus in Study 1 and with work-based prevention focus in Study 2. Thus, future research may be warranted to further explore the relationship between prevention focus and positive affectivity.

Again, findings were inconsistent between the laboratory and field studies. In Study 1 subordinate regulatory foci did not have an effect on most work-related outcomes, whereas in Study 2 subordinate regulatory foci affected several work-related outcomes. One possible explanation for these inconsistent results is a lack of fidelity in the lab experiment. These differences may be due to the aforementioned limitations of the laboratory study, such as lack of motivation, participants' inexperience, a weak situation, and a short time frame. Participants in Study 2 were likely motivated to perform well in their jobs, had more work experience, were in a real life setting, and had many more interactions with their supervisors over a longer period of time.

Of the significant hypothesized relationships in the field sample it is interesting that all three performance-related outcomes – creativity, productivity, and safety – were related to promotion and prevention focus as hypothesized. One reason may be that leaders focus their efforts toward motivating employees toward improving these important outcomes. However, it is important to note that only subordinate ratings of these outcomes were significant, whereas leaders' ratings were not significant. Therefore, it is possible that some of these observed relationships may have been inflated by

common method variance owing to the fact that data were collected from a single source (Podsakoff & Organ, 1986).

Mediating Role of Primed Regulatory Focus

In Study 1 Hypotheses 6 and 7, regarding the mediating role of primed regulatory focus in the relationship between leader behaviors and work-related outcomes, were not supported as the criteria for testing for mediation were not met.

In Study 2 the mediation hypotheses were partially supported in that promotion focus partially mediated the relationship between inspirational motivation leadership and sensitivity to positive outcomes. Prevention focus failed to mediate the relationship between contingent reward leadership and sensitivity to negative outcomes.

Although results of mediation analyses provided some support for partial mediation these results should not be taken as definitive evidence for or against mediation. These meditational tests were conducted on nonexperimental field data, and according to Stone-Romero and Rosopa (2011) the validity of mediational analyses of nonexperimental data are highly suspect and should be interpreted with caution.

Moderating Role of Chronic Regulatory Focus

Hypothesis 8, regarding the moderating role of chronic regulatory focus on the relationship between leader behaviors and primed regulatory focus was only tested in Study 1. This hypothesis received very limited support as chronic prevention focus moderated the relationship between leadership styles and implicit primed prevention focus. However, simple slopes analysis revealed that the slopes were not significant.

Comparison with Similar Research

The null findings in the present research were somewhat surprising given that previous field research reported significant relations of leader behavior with regulatory foci and subsequent work-related outcomes. Specifically, in a field study of 250 employees Neubert, Kacmar, Carlson, Chonko, and Roberts (2008) investigated the relationship between leader initiating structure and servant behaviors and followers' regulatory foci. Results indicated that follower prevention focus mediated the relationship between leaders' initiating structure behaviors and followers' in-role performance and deviant behaviors. Follower promotion focus mediated the relationship between leaders' servant behaviors and followers' helping and creative behaviors. One potential explanation for these discrepant findings is that Neubert et al. examined different leader behaviors. Specifically, Neubert et al. examined the influence of initiating structure and servant leadership, whereas the present research examined transformational and transactional leader behaviors. Another possible explanation for the discrepant findings is that all of the data in the Neubert et al. study were self-reported, whereas the present research included performance-based measures in the laboratory study as well as several leader-rated outcomes in the field study. Additionally, the present research used Wallace and Chen's (2006) Regulatory Focus at Work Scale (RWS), whereas Neubert et al. used a newly developed measure of work regulatory focus.

Implications and Future Research

Although these studies did not provide causal evidence that leader behaviors lead to follower work outcomes through the priming of follower regulatory focus, there was some limited evidence that certain leader behaviors are related to follower regulatory focus and that follower regulatory focus is related to some work-related outcomes.

Leader behaviors and followers' work-based regulatory focus. At times leaders may wish to enhance a promotion or a prevention focus in followers. Results of the field study suggest leaders who want to enhance followers' promotion orientation might utilize inspirational motivation and contingent reward behaviors, whereas leaders who want to enhance followers' prevention orientation might utilize contingent reward behaviors. Contingent reward behaviors were associated with both promotion and prevention behaviors, and it is unclear whether certain aspects of contingent reward leadership elicit promotion versus prevention focus. The contingent reward behaviors of giving praise, bonuses, and promotions may increase employee promotion focus, whereas contingent reward behaviors focusing on obligations and task requirements may increase employee prevention focus. Further research is needed to tease apart the effects of various contingent reward behaviors as well as to determine the causal nature of this relationship.

Follower work-based regulatory focus and work-related outcomes. In the present studies promotion and prevention regulatory foci were related to several important work outcomes. In one or both studies work-based promotion focus was related to sensitivity to change (Studies 1 and 2), positive affectivity (Studies 1 and 2), creativity (Study 2 only), productivity (Study 2 only), and sensitivity to positive outcomes (Study 2 only). Work-based prevention focus was related to preference for stability (Study 1 only), safety (Study 2 only), and sensitivity to negative outcomes (Study 2 only). Although leader transformational and transactional behaviors may not be the best way to elicit promotion or prevention orientation, leaders may find other ways to elicit these regulatory foci. For example, leaders who model promotion-oriented behaviors like working toward desired goals may elicit follower promotion focus, whereas leaders who model prevention-

oriented behaviors like meeting deadlines and other obligations may elicit follower prevention focus. Leaders might also use language and symbols associated with a particular regulatory focus. Leaders who discuss accomplishing goals and exciting visions may elicit a promotion focus in followers, whereas leaders who discuss responsibilities, deadlines, and obligations may elicit a prevention focus in followers.

Limitations and Future Research

Several limitations of the present studies have implications for the generalizability of findings and could be improved upon in future research. Limitations of the laboratory study included participants' lack of motivation, their relative work inexperience, a weak situation, and a short time frame. One way to increase participant motivation may be to frame the lab session as a mock interview process in which participants would receive feedback that would prepare them for a real application and interview process. Participants might also be selected based on having had prior work experience so that they are better able to imagine themselves in the mock organization. The laboratory situation might be made stronger and more realistic by role playing with an in-person leader rather than via written communication. Finally, the time frame might be extended so that participants could have more interactions with the leader.

Limitations of the field study included the cross-sectional nature of the design and self-reports of study variables. The cross-sectional design limits the ability to draw causal conclusions from this research, and future research may benefit from the use of a longitudinal design that includes predictors, mediators, and outcomes collected at different points in time. With the use of self-report measures one cannot be certain of the accuracy of the information provided. However, data was collected from employees and

their supervisors, and collecting data from multiple sources reduces threats of same source bias and self-generated validity (see Harrison & McLaughlin, 1996; Harrison, McLaughlin, & Coalter, 1006).

An additional limitation of both studies is that participants were recruited via convenience sampling, rather than through random sampling, and as a result the sample may not be representative of the larger population. The laboratory experiment sample was relatively homogenous and was comprised of mostly White/Caucasian (79.1%) undergraduate students with an average age of 19.88. These participants also had relatively little work experience as only 51.1% were currently employed. Participants in the field survey were also mostly White (83.21% of subordinates and 78.10% of supervisors). Subordinates in the field study worked mostly part-time (79.41%) and were relatively young, with an average age of 22.23. Future research should strive for more representative samples.

However, other laboratory studies have been successful in priming regulatory focus in participants, asking participants to think about outcomes they would like to achieve or avoid (e.g., Lockwood et al., 2002), framing tasks in terms of gains or losses (e.g., Shah et al., 1998), and even having participants flex (to prime promotion) or extend (to prime prevention) their arms (e.g., Cacioppo et al., 1993). In addition, the leadership behaviors manipulation check indicated that participants did attend to the information in the vignettes as their perceptions of leader behaviors were consistent with their assigned condition.

Besides improving upon limitations of the present studies, future research might examine other ways in which regulatory foci affect interactions between leaders and

followers. Prior research has demonstrated the importance of regulatory fit. For example, Lockwood, Jordan, and Kunda (2002) found that participants were motivated by role models whose strategies fit the participants' own chronic regulatory foci. Other research has shown that congruence on other motivational variables, such as self-concept, is related to higher quality exchanges between leaders and followers (Jackson & Johnson, in press). Leader-follower regulatory focus congruence may also improve dyadic interactions.

Conclusions

Overall, the two studies did not provide support for the model proposed by Kark and Van Dijk (2007). There was some evidence that inspirational motivation and contingent reward leader behaviors were related to follower regulatory focus in the field study, although these relationships were not observed in the laboratory study. Follower regulatory focus was also related to several work-related outcomes. However, there was very little evidence for the moderating role of chronic regulatory focus on the relationship between leader behaviors and work-based regulatory focus, and very limited evidence for the mediating role of work-based regulatory focus in the relationship between leader behaviors and work-related outcomes. These studies are an important step in understanding the role of regulatory focus in the workplace. However, results should be interpreted with caution due to the aforementioned limitations. In addition to improving upon these limitations future research may investigate different types of leader behaviors as well as other ways in which regulatory focus may be important in the leader-follower relationship (e.g., regulatory fit).

References

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*, 888-918.

Avolio, B. J., & Bass, B. M. (2002). *Manual for the Multifactor Leadership Questionnaire (Form 5x).* Redwood City, CA: Mindgarden.

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology, 72*, 441-462.

Axtell, C., Wall, T., Stride, C., Pepper, K., Clegg, C., Gardner, P., & Bolden, R. (2002). Familiarity breeds content: The impact of exposure to change on employee openness and well-being. *Journal of Occupational and Organizational Psychology* 75(2): 217–31.

Baldwin, M. W., Baccus, J. R., & Fitzsimons, G. M. (2004). Self-esteem and the dual processing of interpersonal contingencies. *Self and Identity,* 3, 81-93.

Bales, R. F. (1954). In conference. *Harvard Business Review, 32*(2): 44-50.

Barling, J., Weber, T., & Kelloway, E. K. (1996). Effects of transformational leadership training on attitudinal and financial outcomes: A field experiment. *Journal of Applied Psychology, 81*, 827-832.

Bass, B. M. (1985). *Leadership and performance beyond expectation.* New York: Free Press.

Bass, B. M. 1990. *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications (3rd ed.).* New York: Free Press.

Bass, B. M. (1998). *Transformational leadership: Industrial, military and educational impact*. Mahwah, NJ: Erlbaum.

Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology, 83*, 207-218.

Brockner, J., & Higgins, E. T. (2001). Regulatory focus theory: Implications for the study of emotions at work. *Organizational Behavior and Human Decision Processes, 86*, 35-66.

Brockner, J., Paruchuri, S., Idson, L. C., & Higgins, E. T. (2002). Regulatory focus and the probability estimates of conjunctive and disjunctive events. *Organizational Behavior and Human Decision Processes, 87*, 5-24.

Bycio, P. Hackett, R. D., & Allen, J. S. (1995). Further assessments of Bass's (1985) conceptualization of transactional and transformational leadership. *Journal of Applied Psychology, 80*, 468-478.

Burns, J. M. (1978). *Leadership*. New York: Harper & Row.

Cacioppo, J. T., Priester, J. R., & Berntson, G. G. (1993). Rudimentary determinants of attitudes. II: Arm flexion and extension have differential effects on attitudes. *Journal of Personality and Social Psychology, 65*, 5-17.

Chen, M., & Bargh, J. A. (1999). Nonconscious approach and avoidance behavioral consequences of the automatic evaluation effect. *Personality and Social Psychology Bulletin, 25*, 215-224.

Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd Ed). Hillsdale, NJ: Lawrence Erlbaum Associates.

Conger, J. A., & Kanungo, R. (1987). Towards a behavioral theory of charismatic leadership in organizational settings. *Academy of Management Review, 12*, 637-647.

Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes, 69*, 117-132.

DeGroot, T., Kiker, D. S., & Cross, T. C. (2000). A meta-analysis to review organizational outcomes related to charismatic leadership. *Canadian Journal of Administrative Sciences, 17*, 356–371.

Demaree, H. A., DeDonno, M. A**.,** Burns, K. J., Feldman, P., & Everhart, D. E. (2009). Trait dominance predicts risk-taking. *Personality and Individual Differences. 47*, 419-422.

Fiedler, F. E. (1967). *A theory of leadership effectiveness.* New York: McGraw-Hill.

Fiedler, F. E. (1971). Validation and extension of the contingency model of leadership effectiveness: A review of empirical findings. *Psychological Bulletin, 76*, 128-148.

Fiedler, F. E., & Garcia, J. E. (1987). *New Approaches to Leadership, Cognitive Resources and Organizational Performance.* New York: John Wiley and Sons.

Förster, J., Higgins, E. T., & Bianco, A. T. (2003). Speed/accuracy decisions in task performance: Built-in trade-off or separate strategic concerns? *Organizational Behavior and Human Decision Processes, 90*, 148-164.

Forster, J. , Higgins, E. T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the "goal looms larger" effect. *Journal of Personality and Social Psychology, 75*, 1115-1131.

Friedman, R. S., & Forster, J. (2001). The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology, 81*, 1001-1013.

Freitas, A. L., Liberman, N., Salovey, P., & Higgins, E. T. (2002). When to begin?: Regulatory focus and initiating goal putsuit. *Personality and Social Psychology Bulletin, 28*, 121-130.

Gellatly, I .R., Meyer, J. P., & Luchak, A. A. (2006). Combined effects of the three commitment components on focal and discretionary behaviors: A test of Meyer and Herscovitch's propositions. *Journal of Vocational Behavior, 69*, 331-345.

Graen, G.B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly, 6*, 219-247.

Harrison, D. A., & McLaughlin, M. E. (1996). Structural properties and psychometric qualities of organizational self-reports: Field tests of connections predicted by cognitive theory. *Journal of Management, 22*, 313-338.

Harrison, D. A., McLaughlin, M. E., & Coalter, T. M. (1996). Context, cognition, and common method variance: Psychometric and verbal protocol evidence. *Organizational Behavior and Human Decision Processes, 68,* 246-261.

Hays, B. E., Perander, J., Smecko, T., & Trask, J. (1998). Measuring perceptions of workplace safety: Development and validation of the work safety scale. *Journal of Safety Research, 29,* 145 – 161.

Higgins, E. T. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 22, pp. 93-136). New York: Academic Press.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist,* 52, 1280-1300.

Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (vol. 30, pp. 1-46). New York: Academic Press.

Higgins, E. T., Friedman, R. S., Harlow, R. E., Idson, L. C., Ayduk, O. N., & Taylor, A. (2001). Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *European Journal of Social Psychology, 31,* 3-23.

Higgins, E. T., Idson, L. C., Freitas, A. L., Speigel, S., & Molden, D. C. (2003). Transfer of value from fit. *Journal of Personality and Social Psychology, 84,* 1140-1153.

Higgins, E. T., Roney, C., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology, 66,* 276–286.

Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology, 72,* 515-525.

Higgins, E. T., & Silberman, I. (1998). Development of regulatory focus: Promotion and prevention as ways of living. In J. Heckhausen & C. S. Dweck (Eds.), *Motivation and self-regulation across the life span* (pp. 78-113). New York, NY: Cambridge University Press.

Higgins, E. T., & Tykocinski, O. (1992). Self-discrepancies and biographical memory: Personality and cognition at the level of psychological situation. *Personality & Social Psychology Bulletin, 18,* 527-535.

House, R. J. (1971). A path goal theory of leader effectiveness. *Administrative Science Quarterly, 16*, 321-338.

House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 189-207). Carbondale, IL: Southern Illinois University Press.

House, R. J. & Aditya, R. N. (1997). The social scientific study of leadership: Quo vadis? *Journal of Management, 23*, 409-473.

Jackson, E. M., & Johnson, R. E. (in press). *When opposites do (and do not) attract: Interplay of leader and follower self-identities and its consequences for leader-member exchange*. *The Leadership Quarterly.*

Johnson, R. E. (2006). *Uncovering the motivational processes underlying justice: The implicit cognitive, affective, and conative effects of experiencing (un)fairness*. Unpublished Doctoral Dissertation, The University of Akron.

Johnson, R. E., & Chang, C.-H. (2008, April). *Development and validation of a work-based regulatory focus scale*. Paper presented at the 23rd Annual Society for Industrial and Organizational Psychology Conference, San Francisco, California.

Johnson, R. E., Chang, C.-H., Jackson, E. M., & Saboe, K. (2009, April). *Effects of leadership on follower self-concept: A meta-analytic investigation*. Poster presented at the 24th Annual Society for Industrial and Organizational Psychology Conference, New Orleans, Louisiana.

Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology, 89*, 36-51.

Kahn, R. L., & Katz, D. (1953). Leadership practices in relation to productivity and morale. In D. Cartwright & A. Zander (Eds.), *Group dynamics*. New York: Harper & Row.

Kark, R., & Van Dijk, D. V. (2007). Motivation to lead, motivation to follower: The role of the self-regulatory focus in leadership processes. *Academy of Management Review, 32*, 500-528.

Kercher, K. (1992). Assessing subjective well-being in the old-old: The PANAS as a measure of orthogonal dimensions of positive and negative affect. *Research on Aging, 14*, 131-168.

Kihlstrom, J.F., & Klein, S.B. (1994). The self as a knowledge structure. In R.S. Wyer, Jr. & T. K. Srull (Eds.), *Handbook of Social Cognition* (2nd ed., pp. 153-208). Hillsdale, NJ: Lawrence Erlbaum Associates.

Kline, R. B. (2005). Principles *and practice of structural equation modeling*, 2nd ed. New York: Guilford.

Liberman, N., Idson, L. C., Camacho, C. J., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology, 80,* 5-18.

Liberman, N., Molden, D. C., Idson, I. C., & Higgins, E. T. (2001). Promotion and prevention focus on alternative hypotheses: Implications for attributional functions. *Journal of Personality and Social Psychology, 80,* 5-18.

Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by Positive or Negative Role Models: Regulatory Focus Determines Who Will Best Inspire Us. *Journal of Personality and Social Psychology, 83*, 854-864.

Lord, R. G., Binning, J. F., Rush, M. C., & Thomas, J. C. (1978). The effect of performance cues and leader behavior on questionnaire ratings of leadership behavior. *Organizational Behavior and Human Decision Processes, 21*, 27-39.

Lord, R. G., & Brown, D. J. (2004). *Leadership processes and follower self-identity*. Mahwah, NJ: Lawrence Erlbaum.

Lord, R. G., DeVader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of the validity generalization procedures. *Journal of Applied Psychology*, *71*, 402-409.

Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness of correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *Leadership Quarterly, 7*, 385-425.

Mann, R. D. (1959). A review of the relationship between personality and performance in small groups. *Psychological Bulletin, 56,* 241-270.

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology, 35,* 63-78.

Meyer, J. P. & Allen, N. J. (1997). *Commitment in the workplace: Theory, research and application.* Thousand Oaks, CA: Sage Publications.

Meyer, J. P., Stanley, D. J., Herscovitch, L., Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61,* 20-52.

Neubert, M. J., Kacmar, K. M., Carlson, D. S., Chonko, L. B., & Roberts, J. A. (2008). Regulatory focus as a mediator of the influence of initiating structure and servant leadership on employee behavior. *Journal of Applied Psychology, 93,* 1220-1233.

Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal, 39,* 607-634.

Oyserman, D. (2001). Self-concept and identity. In A. Tesser & N. Schwarz (Eds.), Blackwell *Handbook of social psychology: Intraindividual processes* (pp. 499-517). Oxford, UK: Blackwell.

Patterson, C., Fuller, J. B., Kester, K., & Stringer, D. Y. (1995, April). A meta-analytic examination of leadership style and selected compliance outcomes. Paper presented at the 10th annual Conference of the Society for Industrial and Organizational Psychology, Orlando, FL.

Paul, J., Costley, D. L., Howell, J. P., Dorfman, P. W., & Trafimow, D. (2001). The effects of charismatic leadership on followers' self-concept accessibility. *Journal of Applied Social Psychology, 31*, 1821-1844.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*, 531-544.

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly, 1*, 107-142.

Podsakoff, P. M., Todor, W. D., Grover, R. A., & Huber, V. L. (1984). Situational moderators of leader reward and punishment behaviors: Fact or fiction? *Organizational Behavior and Human Performance, 34*, 21-63.

Roese, N. J., Hut, T., & Pennington, G. L. (1999). Counterfactual thinking and regulatory focus: Implications for action versus inaction and sufficiency versus necessity. *Journal of Personality and Social Psychology, 77*, 1109-1120.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in Experimental Social Psychology* (vol. 25; pp. 1-65). San Diego, CA: Academic Press.

Shah, J., & Higgins, E.T. (1997), Expectancy x value effects: Regulatory focus as a determinant of magnitude and direction. *Journal of Personality and Social Psychology, 73*, 447-458.

Shah, J., & Higgins, E.T. (2001). Regulatory concerns and appraisal efficiency: The general impact of promotion and prevention. *Journal of Personality and Social Psychology, 80*, 693-705.

Shah, J., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology, 74*, 285–293.

Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept theory. *Organizational Science, 4*, 1-17.

Staw, B. M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied Psychology, 70*, 469-480.

Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology, 25*, 35-71.

Stogdill, R. M., & Coons, A. E. (1957). *Leader behavior: Its description and measurement.* Columbus, OH: Ohio State University Press for Bureau of Business Research.

Stone-Romero, E. F., & Rosopa, P. J. (2011). The relative validity of inferences about mediation as a function of research design characteristics. *Organizational Research Methods, 11*, 326-352.

Tejeda, M. J., Scandura, T. A., & Pillai, R. (2001). The MLQ revisited: Psychometric properties and recommendations. *Leadership Quarterly, 12*, 31-52.

Touryan, S. R., Johnson, M. K., Mitchell, K. J., Farb, N., Cunningham, W. A., & Raye, C. L. (2007). The influence of self-regulatory focus on encoding of, and memory for, emotional words. *Social Neuroscience, 2*, 14-27.

Van-Dijk, D., & Kluger, A. N. (2004). Feedback sign effect on motivation: Is it moderated by regulatory focus? *Applied Psychology: An International Review, 53*, 113-135.

van Knippenberg, D., van Knippenberg, B., De Cremer, D., & Hogg, M. A. (2004). Leadership, self, and identity: A review and research agenda. *Leadership Quarterly, 15*, 825-856.

Vroom, V. H. (1964). *Work and motivation*. New York: Wiley.

Waldman, D. A., Bass, B. M., & Yammarino, F. J. (1990). Adding to contingent–reward behavior: The augmenting effect of charismatic leadership. *Group and Organizational Studies, 15*, 381-394.

Wallace, C., & Chen, G. (2006). A multilevel integration of personality, climate, self-regulation, and performance. *Personnel Psychology, 59*, 529–557.

Wallace, J. C., Johnson, P. D., & Frazier, M. L. (2008). An examination of the factorial, construct, and predictive validity and utility of the regulatory focus at work scale. *Journal of Organizational Behavior, 30*, 805-831.

Watson, D., Clark, L. A., & Tellegen, A. (1988). *Journal of Personality and Social Psychology, 54*, 1063-1070.

Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology, 76*, 820-838.

Yammarino, F. J., Dubinsky, A. J., Comer, L. B., & Jolson, M. A. (1997). Women and transformational and contingent reward leadership: A multiple levels of analysis perspective. *Academy of Management Journal, 40,* 205-222.

Appendix A: Laboratory Study – Leader Vignettes

Group A - Transformational

Sub: Welcome to Magazines Inc.
1 message
Pat Gardner <pat.gardner@magazinesinc.com> **1 day ago**
To: <Undisclosed-Recipient>
My name is Pat Gardner, and I'm the CEO of Magazines Inc. I want to take this opportunity to welcome you on board and present you with some information about our company and management team.
At Magazines, Inc. we present our readers with interesting and up-to-date information on a variety of topics, including fashion, sports, travel, and home design. Our mission is to inform readers and ignite and nourish their passion for various aspects of life. In each of our magazines our team is passionate about sharing their passions and experiences with readers.

Magazines Inc. is one of the largest magazine publishers in the United States. We distribute millions of issues nationwide, and many of our brands continue to gain larger audiences. In 2009, several of our brands were on the Gold Design Awards' Hot List. Over the past decade, we have expanded our business to include online versions of many of our magazines and have since become a leader in the online magazine industry.

Our management philosophy at Magazines Inc. is to lead by upholding ethical standards and providing employees with meaningful goals for the future of Magazines Inc. We strive to treat our employees as individuals and encourage them to seek alternative solutions when problem solving.

Our management team strongly believes that together we can be successful through our shared values and mission. Our managers consider the moral and ethical consequences of their decisions and go beyond their self-interest to serve the good of their work group and the company as a whole.

At Magazines Inc. we are enthusiastic about our growth potential. We have seen a great deal of recent growth and are confident that we will achieve our future goal of expanding our distribution by 300,000 readers over the next year to bring us to the forefront of the magazine publishing industry, and we are excited to achieve this goal.

We believe in treating our employees as individuals. Managers at Magazines Inc. spend much of their time teaching and coaching employees in order to help each employee develop his or her strengths. We have developed an individually tailored training system because we understand that each employee has unique needs, abilities, and aspirations.

We believe in looking at problems from many different angles to generate solutions. Managers consult employees from different areas in order to get several perspectives when making decisions. They encourage employees to re-examine critical assumptions and suggest new ways of completing assignments.

Again, welcome to Magazines Inc. – I look forward to working with you.

Sincerely,
Pat Gardner

Pat Gardner, CEO
Magazines Inc.
phone: 555 555-5555
email: pat.gardner@magazinesinc.com

Group B – Contingent Reward

Sub: Welcome to Magazines Inc.
1 message
Pat Gardner <pat.gardner@magazinesinc.com> **1 day ago**
To: <Undisclosed-Recipient>
My name is Pat Gardner, and I'm the CEO of Magazines Inc. I want to take this opportunity to welcome you on board and present you with some information about our company and management team.

At Magazines, Inc. we present our readers with interesting and up-to-date information on a variety of topics, including fashion, sports, travel, and home design. Our mission is to inform readers and ignite and nourish their passion for various aspects of life. In each of our magazines our team is passionate about sharing their passions and experiences with readers.

Magazines Inc. is one of the largest magazine publishers in the United States. We distribute millions of issues nationwide, and many of our brands continue to gain larger audiences. In 2009, several of our brands were on the Gold Design Awards' Hot List. Over the past decade, we have expanded our business to include online versions of many of our magazines and have since become a leader in the online magazine industry.

Our management philosophy at Magazines Inc. is to reward based on performance. We believe in distributing rewards contingent on employee performance. To that end, we the management team have set the company policies to reward employee performance. First-rate employees are what make the company successful, and high levels of performance are well-compensated.

At Magazines Inc. our management team believes in providing assistance in exchange for efforts. For employees who put forth effort and display a strong work ethic in their jobs, managers are committed to providing high levels of assistance and support.

We believe in being specific about who is responsible for achieving performance targets. Each employee's responsibilities are well-documented in our job descriptions, and each employee receives a quarterly list of performance goals to be achieved individually or with his or her work group. Each employee and/or work group is held accountable for achieving their quarterly performance targets.

We also believe in making it clear what employees can expect to receive when performance goals are achieved. Each quarter, along with performance targets, management specifies corresponding rewards for meeting or exceeding performance targets.

Finally, we believe in expressing our satisfaction when expectations are met. On a day-to-day basis, managers at Magazines Inc. acknowledge and recognize satisfactory performance. Employee achievements are regularly recognized informally and in staff meetings. Each department also recognizes an employee of the month, who is acknowledged within the department and in the company newsletter.

Again, welcome to Magazines Inc. – I look forward to working with you.

Sincerely,

Pat Gardner

Pat Gardner, CEO
Magazines Inc.
phone: 555 555-5555
email: pat.gardner@magazinesinc.com

Group C – Active Management by Exception

Sub: Welcome to Magazines Inc.
1 message

Pat Gardner <pat.gardner@magazinesinc.com> **1 day ago**
To: <Undisclosed-Recipient>
My name is Pat Gardner, and I'm the CEO of Magazines Inc. I want to take this opportunity to welcome you on board and present you with some information about our company and management team.

At Magazines, Inc. we present our readers with interesting and up-to-date information on a variety of topics, including fashion, sports, travel, and home design. Our mission is to inform readers and ignite and nourish their passion for various aspects of life. In each of our magazines our team is passionate about sharing their passions and experiences with readers.

Magazines Inc. is one of the largest magazine publishers in the United States. We distribute millions of issues nationwide, and many of our brands continue to gain larger audiences. In 2009, several of our brands were on the Gold Design Awards' Hot List. Over the past decade, we have expanded our business to include online versions of many of our magazines and have since become a leader in the online magazine industry.

Our management philosophy at Magazines Inc. is to look for deviations from standards and take corrective action when necessary. Our mission at Magazines Inc. is to ensure that every deadline is met and that no mistakes are made. Therefore, we make every effort to find mistakes and correct them.

We believe that it is necessary to focus our primary attention on irregularities, mistakes, and deviations from standards. On a day-to-day basis, managers at Magazines Inc. monitor employees' work for problems and ensure that they are properly resolved. Closer to quarterly deadlines managers inspect each employee's work even more closely to ensure that each issue is free of errors.

Management at Magazines Inc. believes in concentrating our full attention on dealing with mistakes, complaints, and failures. We take customer and co-worker complaints very seriously, and we expend great effort to ensure that every complaint is resolved.

We believe that it is important to keep track of all mistakes in order to determine where errors are likely to occur and prevent them in the future. Managers keep logs of errors, and memos are periodically sent out to employees advising them of common mistakes to avoid.

Finally, we believe in directing employees' attention toward failures to meet standards in order to improve performance. At staff meetings managers focus on unmet standards and missed deadlines, and in annual performance reviews managers discuss with employees their shortcomings and present them with areas for improvement.

Again, welcome to Magazines Inc. – I look forward to working with you.

Sincerely,

Pat Gardner

Pat Gardner, CEO
Magazines Inc.
phone: 555 555-5555
email: pat.gardner@magazinesinc.com

Appendix B: Field Study Participation Request for Organizations

Department of Psychology
College of Arts and Sciences
University of South Florida
4202 E. Fowler Ave., PCD 4118G
Tampa, FL 33620

Dear Supervisor,

My name is Erin Jackson, and I am a PhD candidate in the Psychology Department at University of South Florida. My area of specialization is industrial-organizational psychology, which examines organizational behavior, including employee job attitudes and performance. I am currently completing my dissertation and would like to request your assistance. Below is a summary of my request.

Overview:

An organization is defined by its leaders, and effective leadership is one of the cornerstones to organizational success. Leaders affect employee morale and performance, and two effective forms of leadership are *transformational* and *transactional leadership*. Transformational leaders provide vision, inspire followers, encourage problem solving, and give followers personal attention. Transactional leaders reward followers for their effort and recognize their accomplishments.

In my dissertation I am studying what effects these types of leadership have on employee motivation and performance, specifically *safety, productivity, and commitment to their organization*.

Request:

I would ask that surveys be distributed to employees and their supervisors. Each survey will take about 10-20 minutes to complete. I can provide surveys in an online and/or paper-and-pencil format. All information collected will remain strictly confidential, and only the researcher will have access to the data.

Benefits to You:

In return I would provide:

- A summary of the data, including statistics on employee job attitudes and perceptions of leadership
- Recommendations for improving leadership and employee motivation within your organization based on the data I collect
- I am also willing to collect and report information on other issues that are of specific interest to your organization upon request

Note: In order to uphold confidentiality and encourage honesty in survey responses reported statistics will not include identifying information about individual employees.

Sincerely,

Erin M. Jackson
Phone: 225-241-7587 Email: erinmjackson@gmail.com

Appendix C: Field Study Emails to Supervisors

Dear Supervisor,

You are receiving this email because one of your subordinates has recently contributed to research on leadership in the workplace by completing a survey. Your feedback is requested, which will complement the data provided by your subordinate (data are collected in supervisor-subordinate pairs).

I am a doctoral student at the University of South Florida, and this study is part of my dissertation. Results of this study will provide further understanding of effective leadership in the workplace.

Your participation is voluntary and will only take 5 minutes of your time. If you are interested in participating, please visit the following website:

http://www.surveymonkey.com/s/supervisorsurvey1

You will need to input the following information before beginning the survey:

Employee name:

8-digit code:

Please be assured that all responses you provide are confidential, and the questionnaire resides within a secure site. At no point will your subordinate ever see or have access to your responses. If you have any questions, please feel free to contact me. Thank you in advance for considering this request. By filling out this survey, you will help me complete my dissertation and contribute to our knowledge of leadership in the workplace.

If you would prefer to complete this survey on paper, please reply to this email with your mailing address, and I will mail a copy of the questionnaire to you with a postage-paid return envelope.

Sincerely,

Erin Jackson Walker

About the Author

Erin Jackson Walker received a Bachelor's degree in Psychology and Sociology from Louisiana State University in 2005. She received her Master's degree in Industrial and Organizational Psychology from the University of South Florida in 2008.

While enrolled at the University of South Florida she conducted research in various topics, including leadership, motivation, and healthy aging. She also held a position at Personnel Decisions Research Institutes, Inc., where she gained experience in survey and test development.

She has coauthored numerous technical reports and 13 publications in peer reviewed journals, including *Ledership Quarterly*, *Journal of Occupational and Organizational Psychology*, and *Memory*. She has also presented at several professional conferences, including annual conferences of the Society for Industrial and Organizational Psychology, the American Psychological Association, and the Academy of Management.

Mrs. Walker currently resides in Baton Rouge, Louisiana, where she conducts research in collaboration with the LSU Life Course and Aging Center and teaches psychology at Louisiana State University, Catholic High School, and Saint Joseph's Academy.