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## Regulatory Focus as a Mediator of the Influence of Initiating Structure and Servant Leadership on Employee Behavior

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In this research, the authors test a model in which the regulatory focus of employees at work mediates the influence of leadership on employee behavior. In a nationally representative sample of 250 workers who responded over 2 time periods, prevention focus mediated the relationship of initiating structure to in-role performance and deviant behavior, whereas promotion focus mediated the relationship of servant leadership to helping and creative behavior. The results indicate that even though initiating structure and servant leadership share some variance in explaining other variables, each leadership style incrementally predicts disparate outcomes after controlling for the other style and dispositional tendencies. A new regulatory focus scale, the Work Regulatory Focus (WRF) Scale, also was developed and initially validated for this study. Implications for the results and the WRF Scale are discussed.

*Keywords:* regulatory focus, servant leadership, initiating structure

The role of leadership in preventing bad and promoting good behavior at work is concisely expressed in the practitioner assertion that in the minds of most employees, "What is right is what the guy above you wants" (Jackall, 1988, p.109). The behavior of leaders communicates powerfully what is important and how others should behave. Bandura's (1986) social cognitive theory describes how individuals learn by attending to and observing the behavior of role models. In organizations, the behavior of role models who are high in status or power receives particular attention and is replicated because it may be perceived as an endorsement of specific beliefs and norms regarding what is appropriate or important (Bandura, 1986; Brockner & Higgins, 2001; Kark & Van Dijk, 2007).

One mechanism by which leaders influence others is through inducing a specific self-regulatory focus in the minds of employees. In Higgins' (1997, 1998) Regulatory Focus Theory (RFT), promotion focus and prevention focus are described as two orthogonal self-regulatory mindsets with different causes. Although a person may have a disposition favoring one regulatory focus

(Higgins, Roney, Crowe, & Hymes, 1994), situational triggers can evoke one focus over another (Crowe & Higgins, 1997).

Prevention focus is evoked when needs for security, attention to losses, or the fulfillment of duties and obligations are emphasized, whereas promotion focus is evoked when needs for growth, attention to gains, or the attainment of aspirations and ideals are emphasized (Higgins, 1997, 1998). In turn, individuals who are prevention focused tend to be more conservative and less open to creativity and innovation, whereas individuals who are promotion focused tend to exhibit "exploratory" behaviors, such as creativity and innovation (Förster, Friedman, & Liberman, 2004).

Although experimental studies have supported the assertion that regulatory focus can be induced in people and influence their subsequent behavior, few studies have investigated the antecedents of people's regulatory focus in the workplace (Brockner & Higgins, 2001; Lee, Aaker, & Gardner, 2000). Furthermore, regarding the critical influence of leaders as role models, research has yet to determine whether leaders influence employees by shaping followers' regulatory focus (Brockner & Higgins, 2001).

The purpose of this research is to test a model based on RFT. The model, shown in Figure 1, depicts employees' regulatory focus at work mediating the influence of leadership on employee behavior. Specifically, we examine two leadership styles—initiating structure and servant leadership—that we expect to exert different influences on regulatory focus and, in turn, will differentially affect employee creativity, helping, in-role performance, and deviant behavior.

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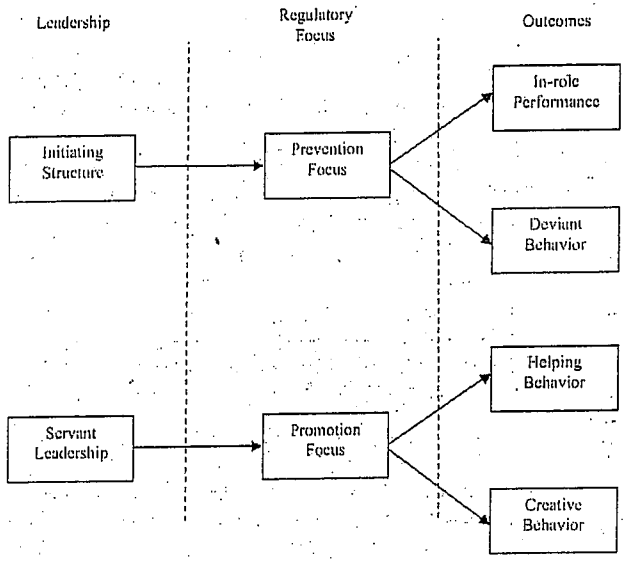


Figure 1. The mediating effect of leader-induced regulatory focus on individual outcomes.

Regulatory Focus and Leader Role Modeling of Initiating Structure and Servant Leadership

RFT stems from the "notion that people are motivated to minimize discrepancies between actual and desired end states (i.e., seek pleasure) and maximize the discrepancy between actual and undesired end states (i.e., avoid pain)" (Meyer, Becker, & Vandenberghe, 2004, p. 996). The orientation toward seeking pleasure is considered a promotion focus, whereas the orientation toward avoiding pain is considered a prevention focus (Higgins, 1997, 1998). Compared with prevention-focused individuals, promotion-focused individuals are more likely to focus attention on (a) nurturance needs rather than security needs (Higgins et al., 1994), (b) hopes and aspirations rather than rules and responsibilities (Higgins et al., 1994), and (c) gains rather than losses (Shah, Higgins, & Friedman, 1998). These two mindsets are both goal-directed, but the difference in orientation of being either promotion or prevention focused stems from disparate causes and results in dissimilar behavioral manifestations (Brockner & Higgins, 2001; Higgins, 1997, 1998).

Regulatory focus can be both a chronic disposition influenced by personality (Wallace & Chen, 2006) and early life experiences (Higgins, 1997, 1998), as well as a psychological state that can be primed or evoked by situational cues (e.g., Friedman & Förster, 2001; Liberman, Idson, Camacho, & Higgins, 1999). In organizational settings, situational cues take on added importance as employees seek out information related to behavioral expectations and their potential consequences (James, James, & Ashe, 1990; Scott & Bruce, 1994). Situational cues that emphasize nurturance needs, attainment of ideals, and potential gains tend to induce a promotion mindset, whereas situational cues that emphasize security needs, fulfillment of obligations, and potential losses tend to induce a prevention mindset (Higgins, 1997, 1998). For example, Wallace and Chen (2006) found that safety climate in an organization was positively related to prevention focus. More specific to

leadership, Kark and Van Dijk (2007) have argued that transformational leaders are likely to evoke a promotion focus in followers, whereas transactional leaders are likely to evoke a prevention focus.

Although little research exists that directly investigates the behavior of organizational leaders in shaping employees' regulatory focus (Wu, McMullen, Neubert, & Yi, 2008), there is evidence that long-term role models, such as a caretaker, influence the regulatory focus of children (Higgins & Silberman, 1998). Further, there is some research to suggest that short-term role models can have a similar influence on regulatory focus (Lockwood, Jordan, & Kunda, 2002). Higgins (2000) introduced the concept of regulatory fit to explain the subconscious process of adaptation in which people adjust their thinking to become more congruent with the demands of their environment. Regulatory fit has been described as the mechanism that explains how employees adapt to the demands of their work situation (Camacho, Higgins, & Luger, 2003; Lee & Aaker, 2004). In particular, a leader's pattern of behavior is a salient work environment cue that is likely to evoke a promotion focus or prevention focus in organizational members (Brockner, Higgins, & Low, 2004).

Initiating Structure and Prevention Focus

Initiating structure is a leadership style that is oriented toward defining performance, goal, and role expectations and constraints (Fleishman, 1973, 1998), and that is focused on directing and structuring subordinates' tasks (Bass, 1990). At its core, structuring behavior is focused on organizational members meeting and adhering to expectations (Halpin, 1957). Judge, Piccolo, and Ilies (2004, p. 36) described initiating structure as one of the "forgotten ones" of historical leadership research that in retrospect has significant predictive validity for important leadership outcomes, such as follower performance. The utility of initiating structure in predicting performance outcomes suggests that it remains an important leadership style (Keller, 2006).

Initiating structure directly defines expectations but also indirectly communicates the value of compliance with or deviation from expectations. In particular, organizational members are keenly aware of behaviors that are rewarded or punished (Kanfer, 1990). In this sense, initiating structure is transactional in emphasizing expectations and consequences. Much like transactional behaviors, structuring behaviors focus on clarifying what to do to get the task accomplished—behaviors that are likely to elicit a prevention focus (Kark & Van Dijk, 2007).

Leaders occupy positions of influence within organizations such that their behavior is readily observed, attended to, and likely to be replicated (Wood & Bandura, 1989). To the extent that a leader focuses on the responsibilities and expectations of organizational members, this evokes attention to obligations or what ought to be done (Kark & Van Dijk, 2007). A leader whose behavior is oriented toward "oughts" and duties is likely to induce in organizational members a prevention mindset of ensuring security, avoiding losses, and fulfilling obligations (Higgins, 1997, 1998).

Prevention Focus and In-Role Performance

Individuals with a prevention focus tend to notice and recall information related to the costs of loss, failure, or punishment

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(Higgins & Tykocinski, 1992). Prevention-focused individuals are likely to value safety and follow rules (Kark & Van Dijk, 2007). They approach tasks with vigilance and concern themselves with accuracy (Förster, Higgins, & Bianco, 2003). Furthermore, prevention-focused individuals are concerned with what they ought to do, acting out of obligation and in accordance with expectations (Higgins, 1997, 1998). Hence, individuals with a prevention focus act in a manner that avoids negative outcomes and complies with explicit expectations or policies (Higgins et al., 1994). This suggests that employees with a prevention focus would fulfill explicit performance expectations and avoid deviations from work role and other organizational expectations. Thus, we predicted the following hypothesis.

*Hypothesis 1:* Organizational members' prevention focus will mediate the relationship between initiating structure and in-role performance.

#### *Prevention Focus and Deviant Behavior*

Deviant behavior is an intentional violation of organizational norms or standards of appropriate behavior (Robinson & Bennett, 1995). It is destructive deviance if that behavior has the potential to cause the organization or its members harm or loss (Warren, 2003). Organizational deviance, such as stealing or withholding effort, is typically not targeted at any one person but instead is directed toward the organization (Colbert, Mount, Harter, Witt, & Barrick, 2004; Robinson & Bennett, 1995). In this study, we are concerned with the relationship of destructive organizational deviance to regulatory focus. Organizational members with a prevention focus are likely to be aware of and avoid destructive organizational deviance given that it represents a departure from explicit or implicit expectations, obligations, or norms, and if discovered is likely to be punished, incurring a real or perceived sense of public failure or loss. Thus, we predicted the following hypothesis.

*Hypothesis 2:* Organizational members' prevention focus will mediate the relationship between initiating structure and deviant behavior.

#### *Servant Leadership and Promotion Focus*

Whereas the dominant emphasis in structuring behavior is on completing the task, adhering to policies and laws, or fulfilling obligations, there is much less attention given to doing good, promoting vitality, and helping others (Cameron, 2006). Servant leadership, as proposed by Robert Greenleaf (1977/2002), is a leadership style that emphasizes the moral high ground of doing good to others now and into the future. A servant leader "listens well and feels the human condition. Servant leaders are concerned with the least privileged in society and strive to help others grow as persons" (Ciampetro-Meyer, Brown, Browne, & Kubasek, 1998, p. 1734). Servant leadership is not passive or powerless; it is characterized as "personal power consciously controlled and generously shared, not foregone" (Molyneaux, 2003, p. 360). In addition, the servant leader exercises foresight in encouraging others to be mindful of and to plan for future opportunities (Greenleaf, 1977/2002).

Although sharing some conceptual similarities with transformational, consideration, and ethical leadership behavior, servant lead-

ership behavior is distinct in being more focused on promoting the interests of others, particularly employees and the community (Bass, 2000; Brown, Trevino, & Harrison, 2005; Ehrhart, 2004; Graham, 1991). This altruistic and service orientation is prominent in other conceptualizations of servant leadership (Barbuto & Wheeler, 2006; Dennis & Bocarnea, 2004). Specifically, Barbuto and Wheeler (2006) described servant leadership as including an altruistic calling, which is the motivation of leaders to put others' needs and interests ahead of their own, and organizational stewardship, which is orienting others toward benefiting and serving the community. A servant leader is one who places a primary emphasis on employee growth and service to others as worthwhile ends in and of themselves (Graham, 1991; Greenleaf, 1977/2002; Spears, 1998). We submit that the behaviors of servant leaders in modeling ethics, consideration, inclusiveness, and fairness in their work context, as well as emphasizing employee development and service to the community (Barbuto & Wheeler, 2006; Ehrhart, 2004), are likely to induce in organizational members the promotion focus of nurturing others, attaining ideals, and pursuing growth (Kark & Van Dijk, 2007).

#### *Promotion Focus and Helping*

Individuals with a promotion focus attend to goals related to ideals and growth or advancement (Higgins, 1997, 1998). As such, they tend to notice and recall information and emotions related to benefits of success and positive outcomes, and they direct their actions toward promoting these desired outcomes (Higgins et al., 1994; Higgins, Shah, & Friedman, 1997; Higgins & Tykocinski, 1992). Promotion-focused individuals direct energy toward pursuing opportunities to grow, gain, or achieve aspirations, and they direct energy away from maintaining the status quo. This mindset is likely to manifest itself in cooperative and creative behavior that goes beyond minimum role expectations.

Helping behavior is a promotion oriented behavior directed toward others. Van Dyne and LePine (1998) defined helping behavior as "promotive behavior that emphasizes small acts of consideration. Helping is cooperative behavior that . . . builds and preserves relationships; and it emphasizes interpersonal harmony" (p. 109). The response that people have to their immediate leaders influences their willingness to help others and to promote the welfare of the overall organization (Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Rhoades & Eisenberger, 2002; Shanock & Eisenberger, 2006). Leaders who treat those they lead with respect and further their growth likely engender positive attitudes and promotion-oriented extrarole behavior, such as helping coworkers (Podsakoff et al., 2000; Tierney, Bauer, & Potter, 2002). Thus, we predicted the following hypothesis.

*Hypothesis 3:* Organizational members' promotion focus will mediate the relationship between servant leadership and helping behavior.

#### *Promotion Focus and Creativity*

Creativity involves the process of producing fresh or novel ideas (Amabile, 1988; Farmer, Tierney, & Kung-McIntyre, 2003; Mumford & Gustafson, 1988), whereas innovation involves both the production and implementation of useful ideas (Kanter, 1988;

Scott & Bruce, 1994; Van de Ven, 1986). Despite this difference, creativity and innovation are similar in being related to a mindset that recognizes and seeks novel opportunities for growth and gain (Amabile, 1996; Tierney, Farmer, & Graen, 1999). A flexible mindset and a willingness to take risks are essential characteristics of individuals who propose and implement novel ideas that are contrary to agreed-upon ways of doing things (Baer, Oldham, & Cummings, 2003; Tierney et al., 1999).

The relationship of a promotion focus mindset to creative behavior has been demonstrated in laboratory experiments in which participants induced to have a promotion focus generated more diverse response categories in a sorting task (Crowe & Higgins, 1997) and outperformed their prevention-induced counterparts in tasks requiring creative insight and idea generation (Friedman & Förster, 2001). Promotion-focused individuals are likely to be more creative and innovative because of their exploratory orientation and pursuit of ideals and gains. Leaders who model promotion-focused behavior evoke a congruent focus in employees that encourages creative behavior (Wu et al., 2008). Thus, we predicted the following hypothesis.

*Hypothesis 4:* Organizational members' promotion focus will mediate the relationship between servant leadership and creative behavior.

### Method

We tested our predictions in two phases. In Phase 1, we developed a scale to capture the RFT dimensions of prevention and promotion focus, as no existing scale captures the full complement of these dimensions. In Phase 2, we used our scale to test our hypotheses.

#### *Phase 1: Development and Validation of the Work Regulatory Focus (WRF) Scale*

Our goal in Phase 1 was to develop a measure of the two dimensions of RFT, promotion and prevention, from the perspective of an individual at work. We named our measure the WRF Scale. We designed the WRF Scale to improve on existing scales by fully representing the multiple aspects of each of the dimensions of RFT. For example, the promotion-focus side of WRF incorporates achievement, ideals, and gains, whereas the prevention-focus side of WRF incorporates security, oughts, and losses. Previous scale development in this area (Higgins et al., 2001; Wallace, Chen, & Kanfer, 2005) has failed to include the underlying complexity of the definitions of RFT as provided by Higgins (1997, 1998) and Brockner and Higgins (2001). Further, the WRF Scale was designed to be more contextual in nature, as it was developed to capture the degree of regulatory focus that is evoked in a work setting. Thus, our items all focus on work-related situations and ask our respondents to consider their behaviors at work. This makes our scale conceptually distinct from the Regulatory Focus Questionnaire (RFQ), which was developed as an events reaction questionnaire to "assess individual's subjective histories of success or failure in promotion and prevention self-regulation" (Higgins et al., 2001, p. 7). The scale was developed in two stages.

#### *Stage 1: Item Development*

We developed items to capture the two dimensions of RFT. Guided by the theory of regulatory focus, the first three authors independently developed items for the three aspects of promotion focus—achievement, ideals, and gains—and for the three aspects of the prevention focus—security, oughts, and losses. Next, we independently sorted the items into the six subdimensions—combined items—and tweaked the wording until we believed the items reflected the construct of interest. The end result was five items measuring each of the six subdimensions. Although our overall goal was to create a parsimonious two-factor measure, conceptually it was imperative that we included items that tap the different aspects of promotion and prevention to provide the most comprehensive representation of the larger construct.

*Content adequacy.* At this stage it was important to make sure that the items we developed adequately reflected the theoretical construct of interest, so we undertook a content adequacy study. Content adequacy reflects the degree to which the items of a measure are a proper sample of the theoretical content domain of the construct (Schriesheim, Powers, Scandura, Gardiner, & Lankau, 1993). A survey consisting of the 30 WRF items was administered to 28 undergraduates enrolled in an upper level business course at a southern university. Of these, 46% were male, and the average age was 21.39 years.

Each respondent was provided with the definitions of the constructs. After familiarizing themselves with the definitions, respondents read each item and determined which construct it represented. Respondents were given extra credit in their course for completing the survey. The use of college students as content adequacy raters is acceptable, as all that is required of content adequacy judges is that they possess sufficient intellectual ability and that they are free from potential bias (Schriesheim et al., 1993)—two qualities that college students normally possess.

To examine the content validity of the 30 items, we calculated the agreement rate of the content adequacy raters on each item. Results indicated that the agreement rate across the 30 items ranged from 35.7% to 100%. We required that the item agreement rate met or exceeded the cutoff (i.e., 70%) used in previous content adequacy research (Carlson, Kacmar, & Williams, 2000; Schriesheim & Hinkin, 1990). Two prevention items failed to meet the cutoff. We modified the wording of these two items to more clearly represent the constructs.

*Exploratory factor analysis.* A survey consisting of all 30 WRF items was administered to 114 undergraduates enrolled in an upper level business course at a southern university. Of these, 63% were male, and the average age was 22.39 years. Respondents provided their agreement with each item on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

To ensure an acceptable response to item ratio (Hair, Black, Babin, Anderson, & Tatham, 2006), we conducted two exploratory factor analyses using the principal axis factor analysis method—one for the 15 prevention items, and one for the 15 promotion items. In both analyses, our goal was to create a univariate measure for each dimension, so we requested one factor. Results suggested that we eliminate four items from each dimension because of low factor loadings, resulting in 11 items for promotion representing achievement, ideals, and gains, and 11 items for prevention representing security, oughts, and losses.

*Stage 2: Item Refinement and Reduction*

The 22 items retained from Round 1 were taken to the next stage of testing. The goal of this part of the study was to further refine and reduce the scale. Of the items retained from Stage 1, the wording was slightly modified for the four items with the weakest factor loadings to ensure they best represented the definition and adequately reflected the work environment.

Participants were recruited with the assistance of i.think inc. (Dallas, TX), a research services company that specializes in Internet-based services and surveys to gather information from willing and interested participants. Collecting data in this manner is not new, as this approach has been successfully used in the management literature (Judge, Ilies, & Scott, 2006; Piccolo & Colquitt, 2006). One advantage of using a research services company to collect data is that they can prescreen potential respondents on a variety of characteristics to ensure the sample is representative of the population of interest. For our purposes, we required that participants work full time, be located in an organization (i.e., no telecommuters or "road warriors"), and have direct and frequent contact with their immediate boss. For the present study, i.think inc. recruited individuals possessing these characteristics to complete surveys at two time periods. WRF items were included in our survey at both time periods. We used the responses from the second time period for scale validation. The sample included 250 individuals employed full time. The types of jobs participants held ranged from loan underwriter to first-grade teacher to accountant,

with no single job type dominating the sample. Furthermore, the sample included both those who had jobs with supervisory responsibilities (39%) and those who were individual contributors. The sample was 68% male and 32% female, with an average age of 40.44 years. Participants averaged 6.2 years in their current job, and 83% were Caucasian.

*Exploratory factor analysis.* We conducted an exploratory factor analysis of the WRF items using a principal axis factor analysis method and an oblimin rotation on the retained 22 items to isolate items that performed best. For each of the two factors, all items loaded strongly on their assigned factor and did not cross load. Thus, for sake of parsimony and to provide equal representation of the underlying aspects, the top three performing items from each of the six subdimensions were retained. This resulted in a two-factor solution with eigenvalues for the factors of 9.81 and 3.35, respectively. These two factors explained 57.2% of the variance. The final 18 items with their factor loadings on each factor can be found in Table 1. Following each item, the subdimension measured is included (promotion: achievement, ideals, gains; prevention: security, oughts, losses) to demonstrate that each is equally represented. Finally, the two factors correlated at .46, further suggesting two distinct factors. The Cronbach alpha for the prevention scale was .93, and the Cronbach alpha for the promotion scale was .91.

*Content adequacy.* One way to combat common method variance (CMV) issues is to fully pretest and screen items created for a study (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Thus,

Table 1  
*Exploratory Factor Analysis of the Work Regulatory Focus Scale*

Item	Prevention focus	Promotion focus
1. I concentrate on completing my work tasks correctly to increase my job security. (Security)	.890	
2. At work I focus my attention on completing my assigned responsibilities. (Oughts)	.879	-.100
3. Fulfilling my work duties is very important to me. (Oughts)	.814	
4. At work, I strive to live up to the responsibilities and duties given to me by others. (Oughts)	.793	
5. At work, I am often focused on accomplishing tasks that will support my need for security. (Security)	.764	
6. I do everything I can to avoid loss at work. (Losses)	.740	
7. Job security is an important factor for me in any job search. (Security)	.718	
8. I focus my attention on avoiding failure at work. (Losses)	.688	.103
9. I am very careful to avoid exposing myself to potential losses at work. (Losses)	.644	
10. I take chances at work to maximize my goals for advancement. (Gains)	-.149	.899
11. I tend to take risks at work in order to achieve success. (Gains)	-.149	.864
12. If I had an opportunity to participate on a high-risk, high-reward project I would definitely take it. (Gains)		.816
13. If my job did not allow for advancement, I would likely find a new one. (Achievement)		.738
14. A chance to grow is an important factor for me when looking for a job. (Achievement)		.715
15. I focus on accomplishing job tasks that will further my advancement. (Achievement)		.678
16. I spend a great deal of time envisioning how to fulfill my aspirations. (Ideals)	.152	.633
17. My work priorities are impacted by a clear picture of what I aspire to be. (Ideals)	.171	.587
18. At work, I am motivated by my hopes and aspirations. (Ideals)	.234	.567

Note. N = 250. Loadings less than .10 are suppressed.

we assessed the content adequacy of the retained 18 items. To accomplish this, we asked 229 undergraduates enrolled in a principles of marketing course at a southern university to match the final 18 items to either a promotion- or prevention-focus definition. Respondents were given extra credit in their course for completing the survey. The participants were 45% male, and 84% were Caucasian; 95% were juniors and seniors, and they had an average age of 21.07 years. After familiarizing themselves with the two definitions, respondents read the items and indicated to which definition each belonged. Results indicated that the agreement rate across the 18 items averaged 93.1%, with a range from 72.9% to 98.3%. The average agreement rate as well as the agreement rate for each item met or exceeded the cutoff (i.e., 70%) used in previous content adequacy research (Carlson et al., 2000; Schriesheim & Hinkin, 1990).

**Incremental validity.** We conducted a final test of our newly created WRF Scale to explore its incremental validity over the RFQ (Higgins et al., 2001). As noted above, the RFQ was developed as an events reaction questionnaire to "assess individual's subjective histories of success or failure in promotion and prevention self-regulation" (Higgins et al., 2001, p. 7). Thus, although the theory upon which the scales were developed is the same, the goals of the scales differ. This suggests that our scale should explain additional variance over and above that explained by the RFQ. To test this assumption, we ran four regression analyses, one for each of our outcome variables: in-role, deviant, creative, and helping behaviors. In the first step, we included the relevant RFQ dimension of either promotion or prevention focus. In the second step, we added the relevant WRF dimension. Results, shown in Table 2, demonstrate that in all four cases, the WRF Scale explains significant additional variance in each of the dependent variables of interest. In total, our scale development results suggest that the final 18-item WRF Scale shown in Table 1 demonstrates sufficient validity and reliability to be used in subsequent analyses.

*Phase 2: Test of the Theoretical Model of WRF and Leadership*

*Sample*

The same sample of 250 full-time employees described in Phase 1 was used in Phase 2. Our surveys were administered by i.think inc. at two time periods 3 weeks apart to reduce CMV. The

respondents were required to complete both surveys to be eligible for a payment of \$10. In the first time period, the participants were asked to respond to the WRF items, leadership scales, control variables, and demographic questions. In the second time period, the participants were asked to respond to the outcome variables. Within each survey, the items were randomized to reduce any potential ordering effects.

*Time 1 Measures*

Unless otherwise indicated, all measures used a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were coded such that high scores equate to high levels of the construct of interest. All of the items used in this study to measure key variables of interest can be found in Table 1 or the Appendix.

**Servant leadership.** We used the 14-item Servant Leadership Scale developed by Ehrhart (2004; see the Appendix) to measure servant leadership. The Cronbach alpha for this scale is .96.

**Initiating structure.** We used the 10-item Leadership Behavior Description Questionnaire (LBDQ XII) from Stogdill (1963; see the Appendix) to measure initiating structure. The Cronbach alpha for this scale is .92.

**WRF Scale.** The 18-item scale developed in Phase 1 was used in this study. The Cronbach alpha for promotion was .91, and the Cronbach alpha for prevention was .92. The full set of items can be found in Table 1.

**Dispositional controls.** Consistent with theory indicating dispositional influences on situational regulatory focus, we controlled for general affective disposition and specific chronic regulatory focus (Kark & Van Dijk, 2007). In our regression analyses, we used Watson, Clark, and Tellegen's (1988) 10-item measure of positive affect (PA) to control for a general positive disposition that may contribute to promotion focus, and their 10-item negative affect (NA) measure to control for a general negative disposition that may contribute to prevention focus. We used Higgins et al.'s (2001) RFQ to control for the theoretically specific chronic regulatory focus of individuals. Six items ( $\alpha = .73$ ) measure promotion focus with a sample item being "Compared to most people, are you typically unable to get what you want out of life?" Five items ( $\alpha = .82$ ) represent prevention focus, and a sample item is "Growing up would you ever cross the line by doing things that your parents would not tolerate?" These scales are used as control variables in

Table 2  
Incremental Validity Results for the Work Regulatory Focus (WRF) Scale

Step	In-role			Deviant behavior		
	Adj. R <sup>2</sup>	$\Delta R^2$	B <sup>a</sup>	Adjusted R <sup>2</sup>	$\Delta R^2$	B <sup>a</sup>
Step 1: RFQ prevention	.009	.013	.082	.053	.057***	-.214**
Step 2: WRF prevention	.130	.124***	.353***	.125	.075***	-.275***
Creativity						
Step 1: RFQ promotion	.101	.105***	.146*	.134	.138***	.197**
Step 2: WRF promotion	.275	.175***	.455***	.301	.169***	.446***
Helping behavior						
Step 1: RFQ promotion	.101	.105***	.146*	.134	.138***	.197**
Step 2: WRF promotion	.275	.175***	.455***	.301	.169***	.446***

Note. N = 250. RFQ = Regulatory Focus Questionnaire.  
<sup>a</sup> Standardized betas from the last step.  
 \* p < .05. \*\* p < .01. \*\*\* p < .00.

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our model to ensure that we are isolating only the effect of regulatory focus evoked by the leader in the work situation. Including PA and NA as controls also helps to address the issue of CMV (Podsakoff et al., 2000).

*Time 2 Measures*

*In-role performance.* We measured in-role performance using a seven-item scale ( $\alpha = .82$ ) developed by Williams and Anderson (1991; see the Appendix). This scale focuses on task specific in-role behavior.

*Deviant behavior.* The Deviant Behavior Scale ( $\alpha = .93$ ) was developed by Bennett and Robinson (2000) and consisted of 12 items (see the Appendix).

*Helping behavior.* The Helping Behavior Scale ( $\alpha = .93$ ) was developed and validated by Van Dyne and LePine (1998; see the Appendix). The seven-item scale is used to assess extra role behaviors of a helping orientation.

*Creative behavior.* The Creative Behavior Scale was developed by Scott and Bruce (1994) and includes items related to both creativity and innovation. The items were modified to be self-report rather than supervisor-assessed (see the Appendix). The six-item scale produced a Cronbach alpha of .92.

Results

*Initial Analyses*

Prior to testing our hypotheses, we conducted confirmatory factor analyses (CFAs) on both the leadership scales and the WRF subdimensions (prevention and promotion) to ensure that they were independent and that the items produced the expected factor structures. To conduct our CFAs, we used LISREL 8.80 and a maximum likelihood estimation. We began by estimating a four-factor solution. Two of the factors were for the leadership scales, with the 14 servant leadership items loading on one factor, and the 10 items for initiating structure loading on a second factor. For the WRF scales, following the theoretical foundation of the construct, we calculated subscales for growth, risk, aspiration, security, loss, and duty, and we linked these to either the promotion or prevention factor. Fit indices showed that the four-factor model fit the data (normed fit index [NFI] = .97; comparative fit index [CFI] = .97; root-mean-square error of approximation [RMSEA] = .083), and all of the standardized loadings were significant ( $p < .01$ ). To ensure the two leadership scales and the two WRF scales were distinct, we also estimated a two-factor model, with one factor for leadership, and one for WRF. The fit statistics for the two-factor model were not as strong as the four-factor model (NFI = .90; CFI = .92; RMSEA = .178). Further, the chi-square difference test suggested that the four-factor model was superior to the two-factor model,  $\chi^2_{diff}(5) = 2,499, p < .001$ .

The descriptive statistics for and the correlations among the variables of interest in our study can be found in Table 3. As expected, the leadership scales were significantly correlated even though the CFA results above indicate that the scales are distinct. Thus, to further explore the discriminant validity of these scales, we followed the procedure outlined by Fornell and Larcker (1981) and calculated the square root of the average variance explained for each of the leadership scales as well as the other variables in

Table 3  
Correlations, Means, and Standard Deviations

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Servant leadership	3.42	0.93	.79											
2. Initiating structure	3.60	0.88	0.58***	.74										
3. Creative behavior	3.55	0.90	0.37***	0.22***	.82									
4. Deviant behavior	1.74	0.80	-0.08	-0.23***	0.00	.75								
5. In-role performance	4.49	0.58	0.01	0.17**	0.08	-0.48***	.75							
6. Helping behaviors	3.90	0.86	0.37***	0.29***	0.47***	-0.24	0.31***	.81						
7. WRF promotion	3.64	0.76	0.48***	0.45***	0.51***	-0.18**	0.18**	0.52***	.74					
8. WRF prevention	4.13	0.65	0.32***	0.44***	0.17**	-0.30	0.36***	0.33***	0.52***	.75				
9. RFQ promotion	3.72	0.67	0.24***	0.28***	0.32***	-0.37***	0.39***	0.37***	0.39***	0.37***	.67			
10. RFQ prevention	3.29	0.86	0.00	0.01	0.08	-0.24	0.11	0.09	0.03	0.09	0.29***	.70		
11. Positive affectivity	3.70	0.80	0.32***	0.31***	0.52***	-0.29***	0.27***	0.46***	0.57***	0.41***	0.66***	0.16*	.77	
12. Negative affectivity	4.08	0.71	0.13*	0.19**	0.17**	-0.38***	0.26***	0.19**	0.11	0.18**	0.51***	0.23***	0.47***	.72

Note.  $N = 250$ . Values on the diagonal are the square root of the average variance explained that must be larger than all zero-order correlations in the row and column in which they appear to demonstrate discriminant validity (Fornell & Larcker, 1981). WRF = Work Regulatory Focus Scale; RFQ = Regulatory Focus Questionnaire.  
\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .00$ .

(55)

# 研究方法

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二、請回答以下兩個問題：

1. 請問何謂「共同方法變異」(common method variance)? (15%)
2. 如何預防和矯正「共同方法變異」? (35%)



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問答題：

- 一、何謂「資源基礎觀點」(resource-based view) (10 分)？請以資源基礎觀點，說明企業組織如何透過人力資源的管理以保有「持續競爭優勢」(sustainable competitive advantage) (15 分)。
- 二、現代環境中，組織變革 (organizational change) 對企業經營績效極為重要。請問企業如何透過組織及人力資源的管理，強化其推動組織變革的動態能力 (dynamic capability) (25 分)？
- 三、請問企業綠化有哪些不同的產業型態和意義？(10%)  
在綠色管理模式中，有哪些主要的組織與管理因素？(15%)
- 四、請問台灣企業面對 ECFA 有何機會、威脅與挑戰？(10%)  
企業在管理上，有何再造策略與因應之道？(15%)