

Journal of Applied Psychology

When Is Success Not Satisfying? Integrating Regulatory Focus and Approach/Avoidance Motivation Theories to Explain the Relation Between Core Self-Evaluation and Job Satisfaction

D. Lance Ferris, Russell E. Johnson, Christopher C. Rosen, Emilija Djurdjevic, Chu-Hsiang (Daisy) Chang, and James A. Tan

Online First Publication, September 10, 2012. doi: 10.1037/a0029776

CITATION

Ferris, D. L., Johnson, R. E., Rosen, C. C., Djurdjevic, E., Chang, C.-H. (D.), & Tan, J. A. (2012, September 10). When Is Success Not Satisfying? Integrating Regulatory Focus and Approach/Avoidance Motivation Theories to Explain the Relation Between Core Self-Evaluation and Job Satisfaction. *Journal of Applied Psychology*. Advance online publication. doi: 10.1037/a0029776

When Is Success Not Satisfying? Integrating Regulatory Focus and Approach/Avoidance Motivation Theories to Explain the Relation Between Core Self-Evaluation and Job Satisfaction

D. Lance Ferris
The Pennsylvania State University

Russell E. Johnson
Michigan State University

Christopher C. Rosen and Emilija Djurdjevic
University of Arkansas

Chu-Hsiang (Daisy) Chang
Michigan State University

James A. Tan
St. Cloud State University

Integrating implications from regulatory focus and approach/avoidance motivation theories, we present a framework wherein motivational orientations toward positive (approach motivation orientation) or negative (avoidance motivation orientation) stimuli interact with workplace success to mediate the relation of core self-evaluation (CSE) with job satisfaction. Using data collected from supervisor-subordinate dyads (Sample 1) and time-lagged data (Sample 2), we found that the results from two studies indicated that the interaction of workplace success and avoidance motivation orientation mediated relations of CSE with job satisfaction. Although approach motivation orientation did not interact with workplace success, it did mediate the CSE-job satisfaction relation on its own. Implications for the CSE and approach/avoidance literatures are discussed.

Keywords: core self-evaluation, approach/avoidance, regulatory focus, job satisfaction, motivation

Core self-evaluation (CSE; Judge, Locke, & Durham, 1997) represents a latent construct accounting for the shared variance among four self-evaluative traits: self-esteem, generalized self-efficacy, emotional stability, and locus of control (Judge, Erez, Bono, & Thoresen, 2003). Defined as “fundamental assessments that people make about their worthiness, competence, and capabilities” (Judge, Bono, Erez, & Locke, 2005, p. 257), CSE was proposed to account for dispositional effects on job satisfaction. In this regard, CSE has proven successful, with studies supporting the relation of CSE with job satisfaction (Brown, Ferris, Heller, &

Keeping, 2007; Chang, Ferris, Johnson, Rosen, & Tan, 2012). Noting that much of the CSE literature draws upon approach and avoidance—or sensitivity toward positive and negative stimuli, respectively—Ferris and colleagues (Chang et al., 2012; Ferris et al., 2011) proposed conceptualizing CSE from an approach/avoidance perspective, arguing that high CSE individuals are more likely to adopt approach motivation orientations and less likely to adopt avoidance motivation orientations. Supporting this view, they found approach/avoidance orientations mediated the relation of CSE with job satisfaction.

While an approach/avoidance perspective on CSE is useful, a simple mediation model fails to incorporate theoretical work on promotion focus and prevention focus, which predicts that the effects of approach/avoidance motivation orientations (or promotion and prevention regulatory focus) are themselves moderated (Higgins, 2001). In particular, effects of approach/avoidance motivational orientations within a domain depend on *success* in that domain (Higgins, 1997). A more complete integration of CSE within approach/avoidance paradigms therefore necessitates a moderated mediation model wherein CSE’s effects are mediated by the interaction of motivation orientation and workplace success.

We test such a model to explicate CSE’s relation with job satisfaction. In particular, we argue that high CSE individuals are more likely to adopt approach and less likely to adopt avoidance motivation orientations at work. These motivation orientations subsequently interact with workplace success to mediate the effect of CSE on job satisfaction. In testing this model, we make a number of theoretical and empirical contributions. First, we inte-

D. Lance Ferris, Smeal College of Business, The Pennsylvania State University; Russell E. Johnson, Broad College of Business, Michigan State University; Christopher C. Rosen and Emilija Djurdjevic, Sam M. Walton College of Business, University of Arkansas; Chu-Hsiang (Daisy) Chang, Department of Psychology, Michigan State University; James A. Tan, G. R. Herberger Business School, St. Cloud State University.

The authors thank Tau Li, Espo F. Oscar, Oliver Rosen, Kit Shatner, and the members of the Singapore Management University Research Seminar Series for their comments and assistance with preparing the article. We would also like to thank the Sutton Fund and the University of Arkansas for financial support.

Correspondence concerning this article should be addressed to D. Lance Ferris, Smeal College of Business, The Pennsylvania State University, 434 Business Building, University Park, PA 16802. E-mail: lanceferris@gmail.com

grate the hierarchical model of approach/avoidance motivation (HMAAM; Elliot, 2006) with regulatory focus theory (RFT; Higgins, 1997). Both of these theories share a focus on approach/avoidance constructs but have evolved to focus on separate issues; we illustrate how these two theories relate and can be integrated to create novel hypotheses. Second, our work both contributes to and extends approach/avoidance perspectives on CSE because we take advantage of the predictions born out of this integration to better understand CSE's effects. Finally, we provide empirical tests of unexamined proposals that the effects of approach/avoidance orientations on job satisfaction are moderated by workplace success.

The Hierarchical Model of Approach/Avoidance Motivation

Approach and avoidance, or a sensitivity to positive and negative stimuli, respectively, have been proposed as general organizing principles guiding the relation of individual differences and motivation constructs to various outcomes (Elliot & Church, 1997; Elliot & Thrash, 2002). In particular, Elliot proposed that humans have two separate biologically based approach and avoidance temperaments whose effects are manifested in personality traits, affective dispositions, and motivation systems. Approach and avoidance temperaments form the most distal or upper level of the HMAAM; at the lowest level are outcomes such as performance, satisfaction, or well-being. The influences of approach and avoidance temperaments on outcomes are mediated by mid-level motivation mechanisms: general approach or avoidance *motivation orientations* (i.e., mental frameworks individuals apply to particular domains such as education) regarding positive or negative stimuli (Elliot & McGregor, 2001). These motivation orientations are generally thought to relate to approach/avoidance temperaments in a congruent fashion, with approach (avoidance) temperaments relating to approach (avoidance) motivation orientations (Elliot & Thrash, 2002).

Ferris and colleagues (2011; Chang et al., 2012) have suggested CSE can be viewed from a HMAAM framework, arguing CSE represents an indicator of approach and avoidance temperaments. Examining the loading of CSE on latent approach and avoidance temperament factors, their results indicated CSE loaded strongly on *both* approach and avoidance factors: individuals with high (low) CSE therefore are more (less) likely to adopt approach goals and less (more) likely to adopt avoidance goals. They also found that CSE had positive and negative relations with work-related approach and avoidance motivations, respectively, which in turn mediated CSE's effects on performance. We expected CSE to relate similarly to work-based approach/avoidance motivation orientations in the present study.

Regulatory Focus Theory

Like the HMAAM, approach/avoidance themes form a large part of RFT. In particular, RFT outlines a noncausal hierarchy wherein behavior is directed toward positive or negative “goals, standards, or reference points” (Scholer & Higgins, 2008, p. 490), referred to as the *regulatory reference* or the *system level* that forms the top level of the hierarchy. Higgins' main insight, however, was that we can achieve a given outcome through two paths, referred to as one's *regulatory focus* or the *strategic level* and

representing the second level in Higgins' hierarchy.¹ In particular, individuals can either adopt a promotion focus—defined as “self-regulation . . . concerned with the presence and absence of positive outcomes”—or a prevention focus—defined as “self-regulation . . . concerned with the absence and presence of negative outcomes” (Higgins, 2000, p. 1219). For example, to achieve a positive system level goal, one can either *approach* or *promote* a match with the positive end state or one can *avoid* or *prevent* a mismatch with the positive end state. Thus, if a goal (or regulatory reference) at the system level is to be a good worker, you can achieve this by adopting at the strategic level either a regulatory focus directed toward promoting a match with the goal (e.g., “To be a good worker, I will gain five new clients weekly”) or a regulatory focus directed toward preventing a mismatch with the goal (e.g., “To be a good worker, I will ensure I lose no clients”).

In RFT, whether one adopts a promotion or prevention regulatory focus is determined by things such as task instructions, the nature of the task, or individual differences (Higgins, 1997). With respect to the latter, Higgins introduced the notion of *chronic regulatory focus*, or chronic individual differences in tendencies to adopt either a promotion or prevention focus at the strategic level. In particular, individuals with a chronic promotion (prevention) focus typically adopt a promotion (prevention) focus at the strategic level. Whether one has a chronic promotion or prevention focus depends on childhood influences such as parental styles that emphasize the presence or absence of positive stimuli, satisfaction of nurturance needs, and focus on attaining ideals and advancement, or parental styles that emphasize the presence or absence of negative stimuli, satisfaction of safety needs, and focus on safety and responsibility (Higgins, 1997).

Integrating RFT and the HMAAM

As this review suggests, RFT and HMAAM possess common themes—both outline how individual differences predict strategies or motivations individuals typically use and incorporate sensitivity to positive and negative stimuli (see Table 1).

The Role of Individual Differences in RFT and the HMAAM

In the HMAAM, individual differences are represented by approach/avoidance temperaments (and indicators thereof, e.g., CSE), which are biologically based sensitivities to positive and negative stimuli. In RFT, individual differences are represented by chronic regulatory focus. Notably, approach/avoidance temperament's emphasis on sensitivity to positive and negative stimuli is also reflected in how promotion and prevention foci are conceptualized (see prior definitions). However, chronic promotion and

¹ A third level subordinate to the strategic level—the *tactic level*—has also been proposed (see Scholer & Higgins, 2008, for more information). At this level, specific tactics used to achieve the strategies (i.e., the regulatory focus) are delineated. Given that in this study we did not delve into specific tactics used to achieve strategies, we do not discuss this further; however, it should be noted that just as promotion and prevention strategies can be used to achieve either positive or negative regulatory references, so too can promotion and prevention tactics be used to achieve either promotion or prevention regulatory strategies (see Scholer, Zou, Fujita, Stroessner, & Higgins, 2010, for an example).

Table 1

Summary of the Hierarchical Model of Approach/Avoidance Motivation (HMAAM) and Regulatory Focus Theory (RFT)

Variable	HMAAM	RFT
General structure	Motivation orientations mediate the effects of approach/avoidance temperaments on outcomes A causal hierarchy wherein approach/avoidance temperaments influence the adoption of congruent approach/avoidance motivation orientations	Individuals adopt a promotion or prevention focus at the strategic level to achieve regulatory references or outcomes at the system level A noncausal hierarchy wherein either a promotion or prevention focus may be adopted in service of a regulatory reference
Role of individual differences	Represented by biologically based approach/avoidance temperaments and indicators thereof (e.g., core self-evaluation) Individual differences act as differences in sensitivity to positive and negative stimuli	Represented by chronic promotion or prevention regulatory focus Individual differences act as differences in sensitivity to positive and negative stimuli, as well as concern with one's ideal self (chronic promotion focus) and one's ought self (chronic prevention focus)
Comparison of motivation orientations and strategic level	Motivation orientations are broad response patterns/mental frameworks for goal pursuit	Strategic level is "the general plans or means for goal pursuit" (Scholer & Higgins, 2008, p. 490)

Note. Each theory contains elements not discussed here (e.g., ideographic goals and tactics); for parsimony, this table highlights the most germane aspects of each theory for the present paper and is not meant to comprehensively review both theories. For a more complete description of each theory, see Elliot & Thrash, 2002, 2010; Higgins, 1997; Scholer & Higgins, 2008.

prevention foci also encompass the extent to which individuals seek to achieve their *ideal* or *ought* selves. For example, Higgins (2000, p. 1219) noted that "certain modes of caretaker-child interaction increase the likelihood that children will acquire strong promotion concerns reflecting hopes, wishes, and aspirations for them (strong ideals) or strong prevention concerns reflecting beliefs about their duties, obligations, and responsibilities (strong oughts)." This latter definition adds a concern with hopes, wishes, and aspirations (i.e., one's ideal self) or with duties, obligations, and responsibilities (i.e., one's ought self) to chronic promotion and prevention focus, respectively. Thus, by definition chronic promotion and prevention focus encompasses both identical as well as unique aspects (e.g., ideals and oughts) vis-à-vis approach/avoidance temperaments.

This dual focus on approach/avoidance temperament and ideal-ought selves is problematic for measuring chronic promotion-prevention orientation, with some measures focusing on ideal-ought selves and others on approach/avoidance temperament (Summerville & Roese, 2008). However, at a theoretical level, regulatory focus research often centers on how chronic promotion and prevention foci represent sensitivity to positive and negative stimuli (Higgins, Shah, & Friedman, 1997) and how such foci fit with tasks focused on positive or negative stimuli (e.g., Shah, Higgins, & Friedman, 1998), raising questions of how integral ideal and ought selves are to measures of regulatory focus. We believe ideal and ought selves need not be considered a critical part of chronic promotion-prevention focus measures; rather, caretaker-child interactions that emphasize ideals or oughts can lead to a chronic promotion or prevention focus (Higgins, 1997). Although priming ideals or oughts may induce sensitivity to positive or negative stimuli (Higgins, Roney, Crowe, & Hymes, 1994), we view the effects of promotion and prevention focus as owing to sensitivity to positive or negative stimuli rather than ideal-ought selves.

Approach and Avoidance Motivation in the HMAAM and the Strategy Level in RFT

Motivation orientations from the HMAAM and the strategic level of RFT also exhibit overlap. In particular, the strategic level is "the general plans or means for goal pursuit" (Scholer & Higgins, 2008, p. 490), while motivation orientations have been referred to as similarly broad response patterns or mental frameworks (Button, Mathieu, & Zajac, 1996; VandeWalle, Brown, Cron, & Slocum, 1999). The strategic level and motivation orientation both involve sensitivity toward positive and negative stimuli that is influenced by individual differences or situational characteristics (Higgins, 1997; Payne, Youngcourt, & Beaubien, 2007). Finally, Scholer and Higgins (2008) noted that approach/avoidance motivation orientations and the strategic level of RFT can be characterized as synonymous. Where the two theories have typically diverged is in the operationalization of the strategic level, with the HMAAM involving measures of approach and avoidance general motivation orientations for use in field settings (e.g., class performance; Elliot & Church, 1997) without explicitly differentiating the particular goal or regulatory reference in terms of positive (e.g., achieve good performance) or negative (e.g., avoid bad performance) reference points. On the other hand, RFT typically uses specific assigned reference points and manipulates regulatory focus in experimental settings.

For the present article, two implications stand out from the integration of these theories. First, the integration broadens RFT by suggesting that in addition to chronic regulatory foci, indicators of approach/avoidance temperament—such as CSE—likely influence the adoption of different regulatory strategies at the strategic level. Second, the integration broadens the HMAAM by suggesting that the mediating effects of general motivation orientations are susceptible to boundary conditions postulated in RFT. In particular, RFT suggests that regulatory success (i.e., whether one is doing well in the regulatory domain) moderates the effects of the strategic level on the nature and intensity of hedonic experiences

(Idson, Liberman, & Higgins, 2000). We next consider how regulatory success—a RFT concept—can be applied to a HMAAM perspective on CSE to advance researchers' understanding of how CSE relates to job satisfaction.

CSE and Job Satisfaction: Applying the Integration of RFT and the HMAAM

Defined as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke, 1976, p. 1300), job satisfaction reflects the sum total of hedonic experiences and cognitive beliefs referencing one’s job (Weiss & Cropanzano, 1996). The nature and intensity of hedonic experiences derive from motivational processes (Carver & Scheier, 1998), with Higgins (1997, 2001) arguing hedonic experiences arise as a function of two separate factors. The first is whether one has an approach or avoidance motivation orientation (i.e., promotion or prevention focus at the strategic level, hereafter referred to as approach/avoidance motivation orientation), while the second is experiencing success or failure (i.e., whether one is doing well in the relevant motivational domain). Together, these two factors determine the intensity of the positive or negative tone associated with the hedonic experience.

To illustrate, one employee may take an approach motivation orientation toward his or her job; another may take an avoidance orientation (see Table 2). Success is conceptualized as a *gain* (i.e., receiving the positive outcome one was striving to achieve) for approach-oriented employees, whereas it is conceptualized as a *non-loss* (i.e., not receiving the negative outcome one was striving to avoid) for avoidance-oriented employees. Failure is conceptualized as a *nongain* (i.e., missing out on the positive outcome one was striving to achieve) for approach-oriented employees, whereas it is conceptualized as a *loss* (i.e., receiving the negative outcome one was striving to avoid) for avoidance-oriented employees. Another way to consider these four potential outcomes is in terms of the *presence or absence* of the target of the orientation. In particular, a gain represents the presence of a positive outcome one was seeking (e.g., success at work), while a loss represents the presence of a negative outcome one was avoiding (e.g., failure at work). In each case, what one was seeking to approach or avoid ultimately occurs. In contrast, a nongain represents the absence of a positive outcome, while a nonloss represents the absence of a negative outcome; in each case, what one was seeking to approach or avoid ultimately does not occur. As such, “success” can be represented as either the presence of a positive outcome (gain) or the absence of a negative outcome (nonloss).

“Failure” can be represented as either the presence of a negative outcome (loss) or the absence of a positive outcome (nongain). This distinction is critical when examining hedonic consequences associated with approach and avoidance orientations (Higgins, 1997), as gains and losses produce more intense hedonic experiences than nongains and nonlosses. Called the “feature-positive” principle (Higgins, 2001), this suggests that consequences of an event (hedonic and otherwise) are experienced more intensely when dealing with the presence of an event rather than its absence (Idson et al., 2000).

This research holds implications for how CSE might relate to job satisfaction through its effects on approach/avoidance motivational orientations toward one’s job. Consistent with the HMAAM and past work (Ferris et al., 2011), we expected high CSE individuals to be more likely to adopt approach motivation orientations and less likely to adopt avoidance motivation orientations (and vice versa for low CSE individuals). Consistent with RFT, this prediction suggests that the effects of CSE on job satisfaction are mediated by the interaction of success at work with the approach and avoidance motivation orientations toward work fostered by CSE. If hedonic intensity is maximized when gains and losses are present, then satisfaction should be most affected when approach-oriented employees experience success at work (i.e., a gain) and when avoidance-oriented employees experience failure (i.e., a loss). In contrast, satisfaction should be least affected when approach-oriented employees experience failure (i.e., a nongain) and avoidance-oriented employees experience success (i.e., a nonloss) because hedonic intensity is minimized when nongains and nonlosses are present. Although this pattern of effects has been hinted at by Brockner and Higgins (2001), it remains untested. Integrating this idea with research suggesting CSE is positively related to approach motivation and negatively related to avoidance motivation (Ferris et al., 2011) indicates a moderated mediation model in which the interaction of approach/avoidance orientations and work success mediate CSE’s effect on job satisfaction.

Hypothesis 1: The effect of CSE on an individual’s job satisfaction will be mediated through the interaction of approach orientations with workplace success such that the indirect effect of CSE on job satisfaction will be stronger when the individual is successful (vs. unsuccessful) at work.

Hypothesis 2: The effect of CSE on an individual’s job satisfaction will be mediated through the interaction of avoidance orientations with workplace success such that the indirect effect of CSE on job satisfaction will be stronger when the individual is unsuccessful (vs. successful) at work.

Table 2
The Meaning of Success and Failure Across Approach and Avoidance Orientations

Variable	Motivation orientation	
	Approach (e.g., achieve maximal performance, obtain bonuses)	Avoidance (e.g., maintain minimal performance standards, avoid reprimands)
Success	Defined as “gain” Presence of positive outcome (named “employee of the month”) High hedonic intensity (positive)	Defined as “nonloss” Absence of negative outcome (retaining a client) Low hedonic intensity (positive)
Failure	Defined as “nongain” Absence of positive outcome (e.g., not named “employee of the month”) Low hedonic intensity (negative)	Defined as “loss” Presence of negative outcome (losing a client) High hedonic intensity (negative)

In the present study, we conceptualized success as achievement of good results in an area where one desires to do positively. Assuming that individuals are motivated to do well in their jobs and careers, we operationalized success using supervisor-rated job performance (Sample 1) and self-rated career performance (Sample 2). Supervisory performance ratings are a fitting proxy for workplace success, as such ratings are heavily influenced by the extent to which subordinates are productive and well liked in the workplace—or whether the employee is achieving both task success and social success (Wayne & Ferris, 1990). However, it has also been argued that given the changing nature of the psychological employment contract between employers and employees—wherein both parties recognize the short-term nature of the relationship—the extent to which people are achieving their career goals irrespective of performance in a specific organization also denotes success (Welbourne, Johnson, & Erez, 1998). For example, one may accept a position knowing it will be challenging and one may not excel in the role but view it as providing skills or connections that ultimately serve career goals within or outside the organization. To assess this broader conceptualization of success, we measured self-rated career role success in Sample 2.

Method

Participants and Procedure

Sample 1. Survey data were collected from 137 matched pairs of employees and their immediate supervisors. The majority of surveys were distributed to business contacts (48%), university alumni (27%), and full-time workers enrolled in evening and weekend master of business administration (14%) and psychology courses (11%) at a university in the southeastern United States.² Initially, 200 surveys containing measures of CSE, motivation orientations, and job satisfaction were distributed to employees, 155 of whom completed and returned the survey. These participants were then given the job performance measure to pass along to their supervisor. Supervisors returned the surveys using a self-addressed, stamped envelope. Of the 155 supervisor surveys distributed, we received useable data from 137 supervisors. We randomly contacted 20% of supervisors to verify that they indeed completed the measure of job performance (all indicated they had).

Sample 2. Participants were recruited using StudyResponse (www.studyresponse.com), a nonprofit service that matches researchers to participants (Stanton & Weiss, 2002). Participants completed three surveys, spaced 1 week apart, in exchange for \$10 gift cards. First, 275 participants were sent an e-mail describing the study and providing the link to online measures of the CSE traits; 258 completed these measures. One week later, these participants were e-mailed a link to a measure of motivation orientations, which 250 participants completed. These participants were then e-mailed a link to measures of success and job satisfaction 1 week later, which 227 participants completed (all analyses were conducted using the data from these 227 participants). Table 3 provides demographics for focal participants in both samples.

Measures

Core self-evaluation traits. We measured the four CSE traits separately and used structural equation modeling (SEM) to create

Table 3
Demographics for Participants in Samples 1 and 2

Sample demographic	Sample 1 (<i>N</i> = 137)	Sample 2 (<i>N</i> = 227)
Gender	62% male	54% male
Age (average in years)	33.5 (<i>SD</i> = 8.3)	42.8 (<i>SD</i> = 10.9)
Race/ethnicity	41% White 26% Hispanic or Latino 23% African American	80% White 8% Asian American 6% African American
Job tenure (average in months)	37.3 (<i>SD</i> = 10.2)	70.8 (<i>SD</i> = 9.2)
Hours worked per week	43.2 (<i>SD</i> = 7.6)	40.2 (<i>SD</i> = 8.2)
Occupation	37% retail/service 35% professional 17% government	38% retail/service 28% professional 18% government

a latent CSE factor (Johnson, Rosen, & Levy, 2008). To minimize common method bias, we separated our scales by at least one filler scale and used different 5-point anchors for each scale (Johnson, Rosen, & Djurdjevic, 2011). *Self-esteem* was measured via Rosenberg's (1965) 10-item scale ($\alpha = .88$; e.g., "I feel that I have a number of good qualities") in Sample 1 and via six items ($\alpha = .73$) from Goldberg's (1999) International Personality Item Pool (IPIP; e.g., "I feel comfortable with myself") in Sample 2. *Generalized self-efficacy* was measured via eight items from Goldberg's (1999) IPIP (e.g., "I complete tasks successfully") in Samples 1 ($\alpha = .82$) and 2 ($\alpha = .89$). *Locus of control* was measured via six items from Levenson's (1981) scale (e.g., "I believe that my success depends on ability rather than luck") in Samples 1 ($\alpha = .78$) and 2 ($\alpha = .75$). *Emotional stability* was measured via eight items from Goldberg's (1999) IPIP (e.g., "I rarely get irritated") in Samples 1 ($\alpha = .87$) and 2 ($\alpha = .90$).

Motivation orientation. For Sample 1, we used 12 items (see Appendix) developed by Johnson and Chang (2008) to assess work-based promotion (six items; $\alpha = .84$) and prevention focus (six items; $\alpha = .80$). Participants responded to these items using a scale ranging from 1 (*This statement does not describe me*) to 5 (*This statement accurately describes me*). In support of the scale's validity, Johnson and Chang found the subscales related in expected ways with markers of approach/avoidance motivation (e.g., behavioral activation and inhibition systems). Although approach/avoidance motivation orientations and strategy-level regulatory focus are synonymous, we sought to replicate our results using a measure of approach/avoidance motivation. Thus, in Sample 2, we used 12 items from Elliott and Thrash (2010) measure to explicitly assess approach (six items; $\alpha = .85$; e.g., "When I want something, I feel a strong desire to go after it") and avoidance (six items; $\alpha = .90$; e.g., "When it looks like something bad could happen, I have a strong urge to escape") motivation. The instructions were adapted to reflect motivation orientation at work. Participants responded to the items using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*).

² Statistical comparisons of the subsamples revealed that no systematic differences existed across the four recruitment sources (i.e., business contacts, university alumni, master of business administration students, and psychology students).

Job satisfaction. Job satisfaction was measured via three items ($\alpha = .90$) developed by Seashore, Lawler, Mirvis, and Cammann (1982; e.g., “All in all, I like my job”) in Sample 1 and via three items ($\alpha = .90$) developed by Cammann, Fichman, Jenkins, and Klesh (1979; e.g., “All in all, I am satisfied with my job”) in Sample 2. Participants responded to these items using a 5-point scale (1 = *This statement is not accurate*; 5 = *This statement is entirely accurate*).

Workplace success. In Sample 1, we operationalized success using supervisor ratings on Williams and Anderson’s (1991) measure of in-role performance ($\alpha = .84$; e.g., “Adequately completes assigned duties”). Supervisors responded to these items using a 5-point scale (1 = *strongly disagree*; 5 = *strongly agree*). In Sample 2, we measured self-rated success via four-item ($\alpha = .92$) from Welbourne et al.’s (1998) career success subscale. Using a 5-point scale (1 = *needs much improvement*; 5 = *excellent*), participants rated how successful they were in obtaining career-related outcomes (e.g., “Obtaining personal career goals”).

Analytic Strategy

We tested our SEM model with Mplus Version 5.0 using maximum-likelihood estimation. We used a two-stage procedure (Anderson & Gerbing, 1988), first assessing the measurement model and then the hypothesized structural model. CSE was modeled using scale scores for CSE traits, motivation orientations using item parcels (see Hall, Snell, & Foust, 1999), and success and satisfaction using item-level data. To assess model fit, we followed Hu and Bentler’s (1999) two-index presentation strategy (values $> .95$ for the comparative fit index [CFI] and standardized root-mean-square residual [SRMR] values $< .08$ suggesting adequate fit). We estimated several structural models for testing moderated mediation (Muthén, 2004). First, we assessed the fit of a baseline mediation model not including hypothesized interactions (if this model has poor fit, then a moderated mediation model is not viable). We tested a moderated mediation model by comparing nested models where paths from motivation orientation by success interactions to job satisfaction were freely estimated versus constrained to zero. We estimated interactions using Klein and Moosbrugger’s (2000) latent moderated structural equation approach. Moderated mediation is present when paths from the two interaction terms to job satisfaction are significant and when model fit is significantly better if these paths are freely estimated versus constrained to zero; although conventional fit indices are not available when assessing latent variable interactions, one can assess changes in model fit via log likelihood difference chi-square tests (Muthén, 2004).

Results

Descriptive statistics and correlations among observed variables in Samples 1 and 2 are presented in Tables 4 and 5, respectively. In both samples, the fit of the five-factor measurement model was acceptable: Sample 1: $\chi^2(80) = 158.14$, CFI = .96, SRMR = .05; Sample 2: $\chi^2(109) = 244.67$, CFI = .95, SRMR = .06. All factor loadings were significant. Across samples, the measurement model had better fit than the independence model, where correlations among the five latent factors were constrained to be zero, both in

terms of absolute fit—Sample 1: $\chi^2(90) = 365.98$, CFI = .72, SRMR = .27; Sample 2: $\chi^2(119) = 602.60$, CFI = .82, SRMR = .28—and the change-in-chi-square test—Sample 1: $\Delta\chi^2(10) = 207.87$; Sample 2: $\Delta\chi^2(10) = 357.93$.³

CSE theory has been criticized for not providing justification for examining the higher order factor rather than the lower level traits (Johnson et al., 2008, 2011). We believe it is appropriate to examine the higher order CSE construct as “the unified CSE trait may be more beneficial in research aiming to maximize prediction of broad outcomes” (Chen, 2012, p. 158), which is true for our study (i.e., both motivation orientations and overall job satisfaction are relatively broad outcomes). We also addressed this issue empirically by testing whether adding paths from each trait to the motivation orientations explained incremental variance beyond the CSE factor. Using our Sample 1 data as an example, we specified a model where the traits loaded on CSE, which in turn had paths to approach and avoidance motivations. This model had good fit: $\chi^2(32) = 62.75$, CFI = .98, SRMR = .06. We then added paths from each of the four traits to both motivation orientations, producing a model with the following fit statistics: $\chi^2(24) = 50.16$, CFI = .95, SRMR = .07. The change in chi square was not significant, nor were any of the paths from the traits to motivation orientations (all paths $< .17$).⁴ Taken together, the theoretical and empirical evidence suggests merit in examining the higher order CSE factor.

We tested the hypothesized structural model by first specifying a baseline mediation model where the relation of CSE to job satisfaction was mediated by approach and avoidance orientation (direct paths from CSE to success, from approach and avoidance motivation to success, and from success to job satisfaction were also included). The mediation model had good fit in both samples: Sample 1: $\chi^2(81) = 152.83$, CFI = .96, SRMR = .05; and Sample 2: $\chi^2(110) = 247.87$, CFI = .95, SRMR = .06. To test for partial mediation, we included a path from the latent CSE variable to job satisfaction. This additional path was not statistically significant in either sample, nor did it improve model fit, suggesting that the relationship of CSE with job satisfaction is fully mediated by motivation orientations. The total effect of CSE on job satisfaction in Sample 1 was .36 (the 95% confidence interval, or CI, = [.18, .57]), which is composed of the indirect effects of CSE on satisfaction through approach (indirect effect = .23, 95% CI [.09, .38]) and avoidance motivation (indirect effect = .15, 95% CI [.07, .23]). The total effect of CSE on job satisfaction in Sample 2 was .33 (95% CI [.21, .45]), which is composed of the indirect effects of CSE on satisfaction through approach (indirect effect = .07, 95% CI [.01, .13]) and avoidance motivation (indirect effect = .26, 95% CI [.15, .37]).

³ We also compared the fit of the hypothesized five-factor measurement model with three alternate models: (a) a one-factor model where all indicators loaded on a single factor, (b) a two-factor model where the CSE and motivation orientation indicators loaded on one factor and the success and satisfaction indicators loaded on another factor, and (c) a four-factor model where the motivation orientation indicators loaded on one factor. Each of these alternate models had significantly worse fit than the hypothesized measurement model in both samples.

⁴ Paralleling these findings, adding direct paths from the CSE traits to motivation orientations did not produce meaningful improvements in the Sample 2 data. A full report of these supplemental analyses is available from the first author upon request.

Table 4
Descriptive Statistics and Intercorrelations Among the Focal Variables in Sample 1

Variable	1	2	3	4	5	6	7	8
1. Self-esteem	(.88)							
2. Self-efficacy	.75**	(.82)						
3. Locus of control	.56**	.54**	(.78)					
4. Emotional stability	.63**	.55**	.38**	(.87)				
5. Approach motivation	.22*	.28*	.29*	.18	(.84)			
6. Avoidance motivation	-.33**	-.40**	-.32**	-.53**	-.12	(.80)		
7. Job satisfaction	.15	.30**	.35**	.27**	.65**	-.40**	(.90)	
8. Supervisor-rated success	.13	.26**	.41**	.26**	.48**	-.38**	.34**	(.84)
Mean	3.25	3.23	3.69	3.43	3.74	2.67	3.82	3.56
SD	0.60	0.53	0.65	0.67	0.77	0.86	0.89	0.57

Note. $N = 137$ matched supervisor-subordinate pairs.

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

We then tested a moderated mediation model by including the two Motivation Orientation \times Success interactions. The moderated mediation model for Sample 1 is shown in Figure 1.⁵ Adding the interactions did not significantly improve model fit, $\Delta\chi^2(2) = 5.56$, and the Success \times Approach Orientation interaction was not related to job satisfaction. We therefore tested a second model where the path from the Success \times Approach Orientation interaction to job satisfaction was constrained to be zero. Model fit was significantly better when the path from the Success \times Approach Orientation interaction was set to zero, $\Delta\chi^2(1) = 4.67$, indicating that success only moderated the relation between avoidance orientation and job satisfaction. The conditional indirect effect of CSE on job satisfaction through avoidance motivation, which was calculated using the approach outlined by Preacher, Rucker, and Hayes (2007), was .23 ($p < .05$) when success was low and .09 ($p < .05$) when success was high. In order to ascertain the nature of the moderated relation, we plotted the interaction following Cohen, Cohen, West, and Aiken's (2003) approach. Consistent with our expectations, simple slope analyses indicated that the negative relation of avoidance orientation with job satisfaction was stronger when success was low ($B = -.39$, $p < .05$) versus high ($B = -.18$, $p < .05$; see Figure 2). Similar results were observed when we tested the moderated mediation model using the Sample 2 data (see Figure 3). Adding the interactions resulted in a significant improvement to model fit, $\Delta\chi^2(2) = 8.48$, though only the avoidance interaction was statistically significant ($p < .05$). The conditional indirect effect of CSE on job satisfaction through avoidance motivation was .29 ($p < .05$) when success was low and .03 ($p > .05$) when success was high. Consistent with our predictions, simple slope analyses revealed that avoidance orientation had a stronger negative relation with job satisfaction when success was low ($B = -.30$, $p < .05$) versus high ($B = -.09$, ns ; see Figure 4).

Discussion

Although approach/avoidance elements have been integral to theorizing regarding the relation of CSE to job satisfaction (see Judge et al., 1997), to date no studies have been conducted with approach and avoidance as mediators of CSE's effect on job satisfaction. We used this approach/avoidance perspective on CSE as a starting point and extended it by integrating predictions from

the HMAAM and RFT. Our findings support the prediction that the effect of avoidance motivation on job satisfaction is stronger when success is low (vs. high). However, contrary to predictions, we did not find a significant interaction between approach orientation and success for prediction of job satisfaction. Thus, we found only partial support for the proposition that success and approach/avoidance motivation interact to predict job satisfaction (Brockner & Higgins, 2001). One potential explanation for this finding may lie in the nature of the hedonic experiences generated by the two interactions. In particular, studies have shown that although successfully achieving an approach goal generates more intense positive hedonic experiences in individuals (Idson et al., 2000), negative emotions have more of an impact on evaluations (such as job satisfaction) than do positive emotions (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). As a result, the interaction between avoidance goals and success may have a larger effect on job satisfaction than the interaction between approach goals and success. Alternately, the interaction between approach orientation and success may simply not generalize outside experimental settings to the field; if true, this finding would represent an important contribution to research on this interaction effect, which has been limited to lab settings (e.g., Idson et al., 2000).

Implications for CSE and Approach/Avoidance Literatures

An approach/avoidance framework largely based on the HMAAM has been advanced to account for effects of CSE on outcome variables (Chang et al., 2012; Ferris et al., 2011). By integrating the HMAAM with another major approach/avoidance theory, RFT, our work extends approach/avoidance frameworks of CSE and demonstrates how such frameworks can provide novel insights into how CSE influences outcomes. Despite the partial support for our hypotheses, we view the replication of a theoretically derived interaction effect across two samples as providing strong support for approach/avoidance perspectives on CSE, given that the nature of the interaction is hard to explain using alternate

⁵ To simplify the presentation of results, we do not include indicators and factor loadings for the non-CSE variables in the figures. All factor loadings were significant.

Table 5
Descriptive Statistics and Intercorrelations Among the Focal Variables in Sample 2

Variable	1	2	3	4	5	6	7	8
1. Self-esteem	(.73)							
2. Self-efficacy	.65**	(.89)						
3. Locus of control	.44**	.17**	(.75)					
4. Emotional stability	.64**	.41**	.46**	(.90)				
5. Approach motivation	.41**	.49**	.09	.24**	(.85)			
6. Avoidance motivation	-.54**	-.30**	-.47**	-.74**	-.13*	(.90)		
7. Job satisfaction	.46**	.35**	.26**	.50**	.30**	-.44**	(.89)	
8. Success	.41**	.37**	.16*	.37**	.33**	-.31**	.54**	(.92)
Mean	4.05	4.26	3.21	3.38	5.15	3.62	3.92	3.63
SD	0.62	0.56	0.72	0.81	0.91	1.40	0.95	0.96

Note. $N = 227$.
* $p < .05$. ** $p < .01$.

theoretical perspectives to account for CSE’s effects (e.g., positive self-evaluations spill over to other evaluations; Judge et al., 1997).

By integrating the HMAAM and RFT, our work contributes to approach/avoidance literatures more generally. In highlighting the ways in which individual differences and motivational orientations overlap between the HMAAM and RFT, our article presents a model not possible when either theory is considered in isolation. By recognizing that approach/avoidance orientations and strategic promotion and prevention foci are largely the same (Lanaj, Chang, & Johnson, 2012; Scholer & Higgins, 2008) and that both chronic regulatory focus and approach/avoidance temperaments represent individual differences that influence motivation orientations, we have presented a model integrating predictions from both the HMAAM and RFT where a marker of approach/avoidance temperaments (CSE) influences an outcome (job satisfaction) through the an interaction posited by RFT. This integration broadens the scope of RFT by implying that any indicator of approach/avoidance temperaments may influence the strategic level of RFT, not just chronic regulatory focus; it also refines predictions based on

the HMAAM by suggesting important boundary conditions that may exist regarding relations between outcomes and the motivational mechanisms that comprise the mid-level of its hierarchy. By providing an initial template, we hope our work inspires greater crossover between the HMAAM and RFT literatures, considering both theories paint a more complete picture than either in isolation.

One question that arises from this integration (echoing concerns raised by Summerville & Roese, 2008) is the role of ideal and ought selves in RFT. We noted that chronic promotion and prevention foci are essentially identical to approach/avoidance temperaments, except that measures of chronic promotion and prevention foci typically also assess ideal and ought selves. However, a focus on the ideal or ought self may lead to a promotion or prevention focus (chronic or strategic) but, from our perspective, need not be a measured part of the foci. Researchers may examine to what extent ideals and oughts should be included in chronic regulatory focus measures, as this involves inferring the existence of a construct by assessing its antecedents.

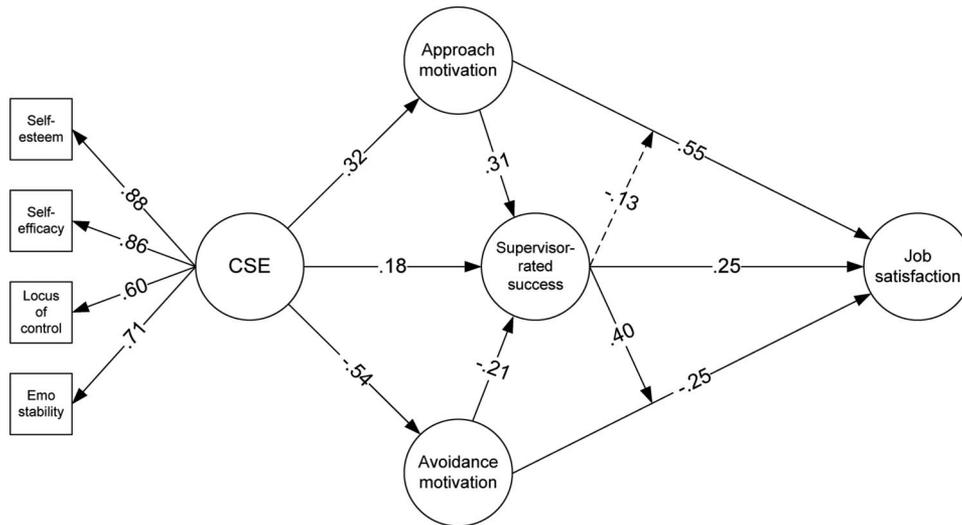


Figure 1. Moderated mediation model of core self-evaluation (CSE) predicting job satisfaction in Sample 1. Solid and dashed lines represent significant and nonsignificant paths, respectively, at $p < .05$. Emo = emotional.

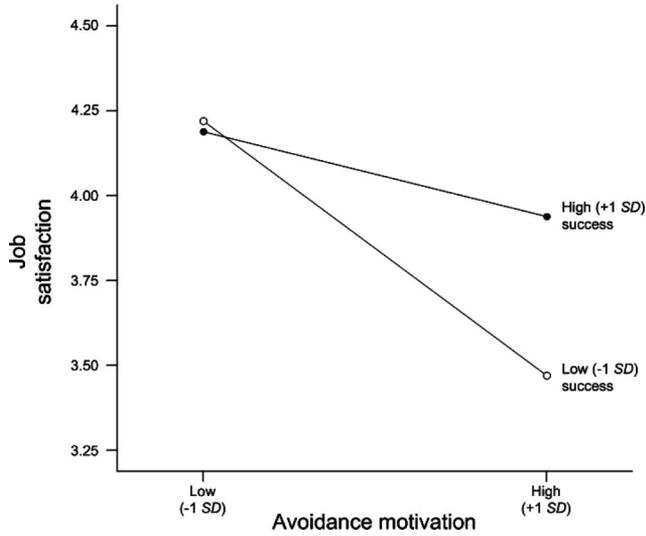


Figure 2. Workplace success by avoidance motivation interaction predicting job satisfaction in Sample 1.

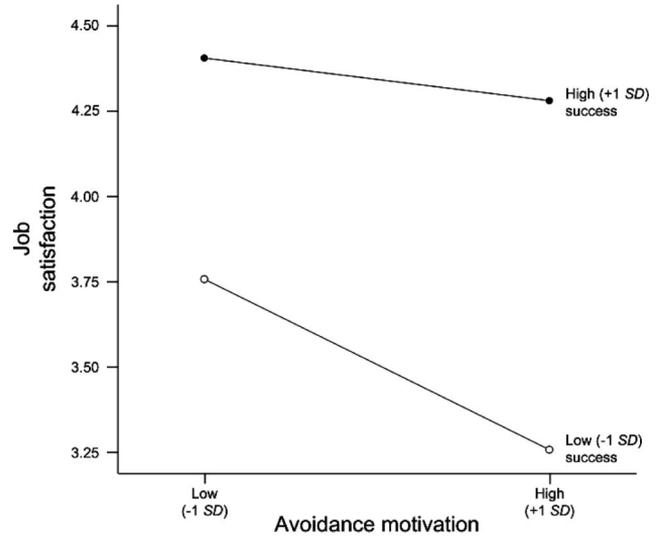


Figure 4. Workplace success by avoidance motivation interaction predicting job satisfaction in Sample 2.

Limitations and Future Directions

A potential limitation of our study is that common method variance (CMV) may have influenced our results, as most data were collected from a single source (except ratings of success in Study 1). However, the observed interactions argue against such influence, as interactions are robust against CMV (Evans, 1985). Moreover, the observed relations of CSE with approach and avoidance motivations are similar in magnitude to those reported in studies using different measurement sources (Ferris et al., 2011). A different limitation lies in the correlational nature of our data, which rules out definitively establishing the causal ordering outlined in our models. Establishing causality with personality traits is difficult, as manipulating personality is not feasible; our model is

however in line with dominant theoretical paradigms that hold that personality traits influence domain-specific orientations (Lanaj et al., 2012).

While our work has focused on explicit approach/avoidance motivation orientations, such processes can also occur at implicit levels (Strack & Deutsch, 2004). Indeed, there is growing evidence that basic markers of approach and avoidance motivation (e.g., positive and negative affectivity) operate outside awareness and have implicit effects on behavior (Johnson, Tolentino, Rodopman, & Cho, 2010). We suspect that some of the effects of CSE on outcomes may unfold automatically. For example, the HMAAM holds that approach and avoidance temperaments impact goal setting (Elliot & Thrash, 2010). It is possible these goals impact

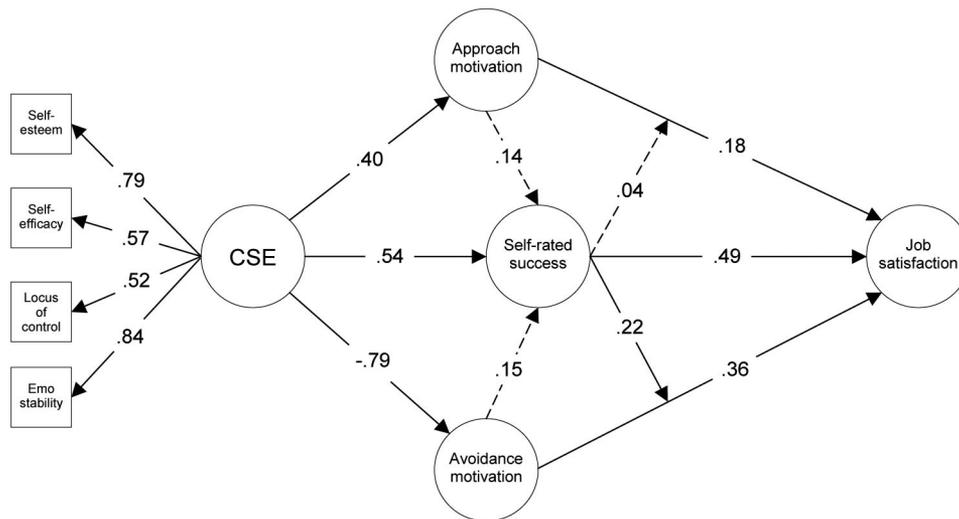


Figure 3. Moderated mediation model of core self-evaluation (CSE) predicting job satisfaction in Sample 2. Solid and dashed lines represent significant and nonsignificant paths, respectively, at $p < .05$. Emo = emotional.

behavior outside employees' awareness and control. If so, then approach- or avoidance-based effects of CSE may be larger than acknowledged as CSE and its effects have been examined at explicit levels.

Finally, although our work focused on individual differences in approach/avoidance temperaments influencing approach/avoidance orientations at work, such orientations can also be primed by situational factors (Elliot & Harackiewicz, 1994; Higgins, 2001). For example, some occupations involve tasks that inherently require vigilance toward negative stimuli (e.g., quality control or air traffic control; Elliot, 2006), which may prime avoidance motivation. An extension of our logic would suggest that occupations whose tasks are primarily avoidance focused would be characterized by lower levels of satisfaction for employees compared with occupations that focus primarily on approaching positive stimuli (e.g., a physical trainer). In particular, even in light of success on the job, individuals in primarily avoidance-focused occupations should be less likely to reap the benefits of satisfaction with their work. Similarly, it has been suggested that leaders can influence subordinates toward approach or avoidance orientations (Kark & van Dijk, 2007); consequently, researchers may therefore find that subordinate satisfaction ratings differ as a function of whether approach or avoidance orientations have been primed in subordinates.

References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*, 411–423. doi:10.1037/0033-2909.103.3.411
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*, 323–370. doi:10.1037/1089-2680.5.4.323
- 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. doi:10.1006/obhd.2001.2972
- Brown, D. J., Ferris, D. L., Heller, D., & Keeping, L. M. (2007). Antecedents and consequences of the frequency of upward and downward social comparisons at work. *Organizational Behavior and Human Decision Processes*, *102*, 59–75. doi:10.1016/j.obhdp.2006.10.003
- Button, S. B., Mathieu, J. E., & Zajac, D. M. (1996). Goal orientation in organizational research: A conceptual and empirical foundation. *Organizational Behavior and Human Decision Processes*, *67*, 26–48. doi:10.1006/obhd.1996.0063
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan Organizational Assessment Questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York, NY: Cambridge University Press. doi:10.1017/CBO9781139174794
- Chang, C.-H., Ferris, D. L., Johnson, R. E., Rosen, C. C., & Tan, J. A. (2012). Core self-evaluations: A review and evaluation of the literature. *Journal of Management*, *38*, 81–128. doi:10.1177/0149206311419661
- Chen, G. (2012). Evaluating the core: Critical assessment of core self-evaluations theory. *Journal of Organizational Behavior*, *33*, 153–160. doi:10.1002/job.761
- Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Elliot, A. J. (2006). The hierarchical model of approach-avoidance motivation. *Motivation and Emotion*, *30*, 111–116. doi:10.1007/s11031-006-9028-7
- Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, *72*, 218–232. doi:10.1037/0022-3514.72.1.218
- Elliot, A. J., & Harackiewicz, J. M. (1994). Goal setting, achievement orientation, and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, *66*, 968–980. doi:10.1037/0022-3514.66.5.968
- Elliot, A. J., & McGregor, H. A. (2001). A 2 × 2 achievement goal framework. *Journal of Personality and Social Psychology*, *80*, 501–519. doi:10.1037/0022-3514.80.3.501
- Elliot, A. J., & Thrash, T. M. (2002). Approach/avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, *82*, 804–818. doi:10.1037/0022-3514.82.5.804
- Elliot, A. J., & Thrash, T. (2010). Approach and avoidance temperament as basic dimensions of personality. *Journal of Personality*, *78*, 865–906. doi:10.1111/j.1467-6494.2010.00636.x
- Evans, M. G. (1985). A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organizational Behavior and Human Decision Processes*, *36*, 305–323. doi:10.1016/0749-5978(85)90002-0
- Ferris, D. L., Rosen, C. C., Johnson, R. E., Brown, D. J., Risavy, S., & Heller, D. (2011). Approach or avoidance (or both?): Integrating core self-evaluations within an approach/avoidance framework. *Personnel Psychology*, *64*, 137–161. doi:10.1111/j.1744-6570.2010.01204.x
- Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower level facets of several five-factor models. In I. Mervielde, I. Deary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe* (Vol. 7, pp. 7–28). Tilburg, the Netherlands: Tilburg University Press.
- Hall, R. J., Snell, A. F., & Foust, M. S. (1999). Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods*, *2*, 233–256. doi:10.1177/109442819923002
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, *52*, 1280–1300. doi:10.1037/0003-066X.52.12.1280
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, *55*, 1217–1230. doi:10.1037/0003-066X.55.11.1217
- Higgins, E. T. (2001). Promotion and prevention experiences: Relating emotions to nonemotional motivational states. In J. P. Forgas (Ed.), *Handbook of affect and social cognition* (pp. 186–211). Mahwah, NJ: Erlbaum.
- Higgins, E. T., Roney, C. R., 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. doi:10.1037/0022-3514.66.2.276
- 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. doi:10.1037/0022-3514.72.3.515
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55. doi:10.1080/10705519909540118
- Idson, L. C., Liberman, N., & Higgins, E. T. (2000). Distinguishing gains from nonlosses and losses from nongains: A regulatory focus perspective on hedonic intensity. *Journal of Experimental Social Psychology*, *36*, 252–274. doi:10.1006/jesp.1999.1402
- 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, CA.
- Johnson, R. E., Rosen, C. C., & Djurdjevic, E. (2011). Assessing the impact of common method variance on higher order multidimensional

- constructs. *Journal of Applied Psychology*, 96, 744–761. doi:10.1037/a0021504
- Johnson, R. E., Rosen, C. C., & Levy, P. E. (2008). Getting to the core of core self-evaluation: A review and recommendations. *Journal of Organizational Behavior*, 29, 391–413. doi:10.1002/job.514
- Johnson, R. E., Tolentino, A. L., Rodopman, O. B., & Cho, E. (2010). We (sometimes) know not how we feel: Predicting work behaviors with an implicit measure of trait affectivity. *Personnel Psychology*, 63, 197–219. doi:10.1111/j.1744-6570.2009.01166.x
- Judge, T. A., Bono, J. E., Erez, A., & Locke, E. A. (2005). Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *Journal of Applied Psychology*, 90, 257–268. doi:10.1037/0021-9010.90.2.257
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The Core Self-Evaluations Scale: Development of a measure. *Personnel Psychology*, 56, 303–331. doi:10.1111/j.1744-6570.2003.tb00152.x
- Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, 19, 151–188.
- Kark, R., & van Dijk, D. (2007). Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. *Academy of Management Review*, 32, 500–528. doi:10.5465/AMR.2007.24351846
- Klein, A., & Moosbrugger, H. (2000). Maximum-likelihood estimation of latent interaction effects with the LMS method. *Psychometrika*, 65, 457–474. doi:10.1007/BF02296338
- Lanaj, K., Chang, C.-H., & Johnson, R. E. (2012). Regulatory focus and work-related outcomes: A meta-analysis. *Psychological Bulletin*. doi:10.1037/a0027723
- Levenson, H. (1981). Differentiating among internality, powerful others, and chance. In H. M. Lefcourt (Ed.), *Research with the locus of control construct* (Vol. 1, pp. 15–63). New York, NY: Academic Press.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1343). Chicago, IL: Rand McNally.
- Muthén, L. (2004). *MPlus discussion: Structural equation modeling interaction*. Retrieved from <http://www.statmodel.com/discussion/message/11/499.html?1159825040>
- Payne, S. C., Youngcourt, S. S., & Beaubien, J. M. (2007). A meta-analytic examination of the goal orientation nomological net. *Journal of Applied Psychology*, 92, 128–150. doi:10.1037/0021-9010.92.1.128
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42, 185–227. doi:10.1080/00273170701341316
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Scholer, A. A., & Higgins, E. T. (2008). Distinguishing levels of approach and avoidance: An analysis using regulatory focus theory. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 489–503). New York, NY: Psychology Press.
- Scholer, A. A., Zou, X., Fujiata, K., Stroessner, S. J., & Higgins, E. (2010). When risk seeking becomes a motivational necessity. *Journal of Personality and Social Psychology*, 99, 215–231. doi:10.1037/a0019715
- Seashore, S. E., Lawler, E. E., Mirvis, P., & Cammann, C. (1982). *Observing and measuring organizational change: A guide to field practice*. New York, NY: Wiley.
- Shah, J., Higgins, E., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74, 285–293. doi:10.1037/0022-3514.74.2.285
- Stanton, J. M., & Weiss, E. M. (2002). *Online panels for social science research: An introduction to the StudyResponse Project* (Technical Rept. No. 13001). Syracuse, NY: Syracuse University, School of Information Studies.
- Strack, F., & Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review*, 8, 220–247. doi:10.1207/s15327957pspr0803_1
- Summerville, A., & Roese, N. J. (2008). Self-report measures of individual differences in regulatory focus: A cautionary note. *Journal of Research in Personality*, 42, 247–254. doi:10.1016/j.jrp.2007.05.005
- VandeWalle, D., Brown, S. P., Cron, W. L., & Slocum, J. W. (1999). The influence of goal orientation and self-regulation tactics on sales performance: A longitudinal field test. *Journal of Applied Psychology*, 84, 249–259. doi:10.1037/0021-9010.84.2.249
- Wayne, S. J., & Ferris, G. R. (1990). Influence tactics, affect, and exchange quality in supervisor–subordinate interactions: A laboratory experiment and field study. *Journal of Applied Psychology*, 75, 487–499. doi:10.1037/0021-9010.75.5.487
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes, and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 18, pp. 1–74). Greenwich, CT: JAI Press.
- Welbourne, T. M., Johnson, D. E., & Erez, A. (1998). The role-based performance scale: Validity analysis of a theory-based measure. *Academy of Management Journal*, 41, 540–555. doi:10.2307/256941
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601–617. doi:10.1177/014920639101700305

(Appendix follows)

Appendix

Items Used to Measure Motivation Orientation in Study 1 (from Johnson & Chang, 2008)

Approach Motivation

1. My goal at work is to fulfill my potential to the fullest in my job
 2. I am focused on successful experiences that occur while working
 3. In general, I tend to think about positive aspects of my work
 4. I see my job as a way for me to fulfill my hopes, wishes, and aspirations
 5. I think about the positive outcomes that my job can bring me
 6. I feel happy when I have accomplished a lot at work
2. I am fearful about failing to prevent negative outcomes at work
 3. In general, I tend to think about negative aspects of my work
 4. I feel anxious when I cannot meet my responsibilities at work
 5. I think about the negative outcomes associated with losing my job
 6. I sometimes feel anxious at work

Avoidance Motivation

1. I am focused on failure experiences that occur while working

Received June 17, 2011

Revision received May 31, 2012

Accepted July 23, 2012 ■