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FERRIS, D. Lance; ROSEN, Christopher R.; JOHNSON, Russell E.; BROWN, Douglas J.; RISAVY, Stephen D.; and HELLER, Daniel. Approach or avoidance (or both?): Integrating core self-evaluations within an approach/avoidance framework. (2011). *Personnel Psychology*. 64, (1), 137-161.

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APPROACH OR AVOIDANCE (OR BOTH?): INTEGRATING CORE SELF-EVALUATIONS WITHIN AN APPROACH/AVOIDANCE FRAMEWORK

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Core self-evaluations (CSE) represent a new personality construct that, despite an accumulation of evidence regarding its predictive validity, provokes debate regarding the fundamental approach or avoidance nature of the construct. This set of studies sought to clarify the approach/avoidance nature of CSE by examining its relation with approach/avoidance personality traits and motivation constructs (Study 1); we subsequently examined approach/avoidance motivational mechanisms as mediators of the relation between CSE and job performance (Study 2). Overall, the studies demonstrate that CSE is best conceptualized as representing both (high) approach tendencies and (low) avoidance tendencies; implications of these findings for CSE theory are discussed.

Over the past decade, a new research literature has emerged investigating the broad personality construct of *core self-evaluations* (CSE; Judge, Locke, & Durham, 1997). CSE refers to “fundamental assessments that people make about their worthiness, competence, and capabilities”

We thank Joseph Berry, Lisa Keeping, Ariel Liao, Samantha Montes, and Krista Somerville for their assistance with data collection, and Wendi Adair, Gary Greguras, Xander Harris, Chet Robie, and Pat Rowe for their helpful comments on earlier versions of this paper.

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(Judge, Bono, Erez, & Locke, 2005, p. 257) and is posited to be the underlying latent construct that accounts for shared variance among other self-evaluative measures (Judge, Erez, Bono, & Thoresen, 2003). Despite its short history, numerous studies have shown that CSE is associated with many important organizational outcomes (Brown, Ferris, Heller, & Keeping, 2007; Judge & Bono, 2001a).

Recently, CSE researchers have moved beyond studies demonstrating its factor structure and relations with outcomes and have begun to examine *how* CSE influences outcomes (Judge, Van Vianen, & De Pater, 2004). In this respect, two seemingly contradictory suggestions have been proposed. First, CSE has been conceptualized as an indicator of high *approach* temperament (Judge, Locke, Durham, & Kluger, 1998), orienting individuals toward seeking positive outcomes, which subsequently influence performance and well-being. Second, CSE has been conceptualized as an indicator of low *avoidance* temperament (Judge & Bono, 2001b; Johnson, Rosen, & Levy, 2008), orienting individuals toward averting negative outcomes with concomitant consequences for performance and well-being. These perspectives have existed side by side, despite the apparent contradiction.

Critically, however, both perspectives make assertions about the approach/avoidance nature of CSE without any empirical data to support such assertions. To date, no study has comprehensively examined the relation of CSE to established approach and avoidance constructs, nor has any study contrasted approach and avoidance mediating mechanisms to explain the effects of CSE. Thus, although two competing perspectives exist, it is impossible to state which one provides a more accurate account of the effects of CSE. This state of affairs is unfortunate, as understanding the mechanisms through which CSE operates is necessary to verify theoretical assumptions surrounding the nature of CSE and how it relates to motivational and behavioral outcomes, as well as to develop interventions mitigating negative effects of low CSE.

The purpose of our paper is thus twofold. First, in Study 1, we provide the first examination of the relation between CSE and well-established approach and avoidance constructs; these findings address the debate over whether CSE is best considered as a form of approach temperament, avoidance temperament, or both. Second, in Study 2, we examine both approach and avoidance motivation as mediators of the relation between CSE and job performance.

Approach and Avoidance

The distinction between approach and avoidance, or sensitivity to pleasure and pain, has a long history in psychology and is one of the few

principles that unify psychology as a discipline (Elliot & Covington, 2001). Distinguishing between approach and avoidance has proven useful for a variety of topics, including personality and motivation. With respect to personality, researchers have proposed the existence of biologically based individual differences in sensitivity toward positive or negative outcomes, referred to as *approach* or *avoidance temperaments* (Elliot & Thrash, 2002). These temperaments operate independently and are expressed in observable ways via their influence on personality traits, with certain personality traits classified as indicators of latent approach and avoidance temperaments (Elliot & Thrash, 2002). For example, Neuroticism reflects the influence of avoidance temperament, with highly neurotic individuals being sensitive to negative information, whereas Extraversion reflects the influence of approach temperament, with highly extraverted individuals being sensitive to positive information (Larsen & Ketelaar, 1991). Similarly, researchers have proposed the existence of approach and avoidance forms of motivation. The two forms of motivation differ in that approach motivation is associated with sensitivity to, and trying to procure, positive outcomes; in turn, avoidance motivation is associated with sensitivity to, and trying to prevent, negative outcomes (Elliot, 1999). This can be reflected in goals such as “I am striving to achieve my hopes and dreams” (approach) versus “I want to avoid doing badly” (avoidance; Elliot & McGregor, 2001; VandeWalle, 1997). Although the goals may seem similar, research suggests that avoidance motivation typically has negative effects on desirable outcomes (Elliot, 1999).

Distinguishing between approach/avoidance aspects of personality and motivation constructs has also served to integrate the two literatures. Being more proximal to outcomes, approach and avoidance motivation are typically viewed as midlevel motivational channels of the effects of approach and avoidance temperaments or traits (Elliot & Thrash, 2002). Although biologically based approach and avoidance temperaments provide the initial impetus for behavior, motivational mechanisms such as goals and goal orientations are seen as the more proximal determinants of attitudes and behavior that transmit the influence of approach and avoidance temperaments (Elliot & McGregor, 1999).

Critically, approach and avoidance personality traits only relate to similarly valenced motivation constructs. That is, avoidance (approach) temperament relates to the adoption of avoidance (approach) motivation but is unrelated to the adoption of approach (avoidance) motivation. This argument was supported by Elliot and Thrash (2002), who found that certain personality traits can be grouped according to whether they reflect approach or avoidance temperaments, and the relation of these traits to approach and avoidance motivation could be predicted based on this grouping. Specifically, they found that Neuroticism, negative temperament (NT), and the Behavioral Inhibition System (BIS) were all indicators of a

single latent avoidance temperament factor, whereas Extraversion, positive temperament (PT), and the Behavioral Activation System (BAS) were all indicators of a single latent approach temperament factor. Moreover, the indicators of approach and avoidance temperaments were differentially and uniquely related to approach and avoidance motivational constructs in the expected directions.

Thus, personality traits can be characterized as reflecting different levels of approach and avoidance temperaments, and the approach/avoidance nature of the personality traits predict how they relate to approach and avoidance motivation. Applied to CSE, this indicates CSE can similarly be characterized in terms of how it relates to approach and avoidance temperaments; such information in turn offers insight into why CSE influences work outcomes by suggesting mediating approach and avoidance motivational mechanisms. Yet, although researchers have begun to integrate CSE within an approach/avoidance framework, they have done so in contradictory ways and without providing empirical data to support their claims. To address this oversight, we next discuss the approach/avoidance nature of the CSE construct and whether it is best characterized as an indicator of approach temperament, avoidance temperament, or both.

Integrating CSE Within an Approach/Avoidance Framework

CSEs are fundamental evaluations that people hold about themselves and form the basis of other self-appraisals like Neuroticism, generalized self-efficacy, self-esteem, and locus of control (Judge, Erez, & Bono, 1998). Previous research has posited that CSE relates to outcomes through its influence on motivation, and CSE hypotheses have even drawn upon themes similar to an approach/avoidance framework (Judge et al., 2005; 1998). Yet at the same time, there appears to be considerable confusion regarding how to integrate CSE within such a framework. On the one hand, CSE may represent an indicator of avoidance temperament given CSE subsumes Neuroticism, which itself is an indicator of avoidance temperament (Elliot & Thrash, 2002). Indeed, Judge and Bono (2001b) assert that CSE is very similar to Neuroticism, which suggests CSE should be considered an indicator of avoidance temperament (see also Johnson et al., 2008). Despite this, empirical research has posited that CSE (a) indicates sensitivity to reward (Judge et al., 1998) and (b) should predict the adoption of approach goals (Judge et al., 2005), both of which are consistent with the conceptualization of CSE as an indicator of approach temperament.

Thus, there is a disconnect between theoretical arguments that suggest CSE is an indicator of avoidance temperament and empirical tests

that position CSE as an indicator of approach temperament. Although these two perspectives appear contradictory, it is possible that CSE may act as an indicator of *both* approach *and* avoidance temperaments. Although personality traits may be categorized as solely reflecting approach or avoidance temperaments, the two temperaments are orthogonal (Elliot & Thrash, 2002) and thus personality traits can reflect *both* approach and avoidance (Gable, Reis, & Elliot, 2003). For example, narcissists seek to promote their good qualities (i.e., are highly approach oriented) and, yet, are also highly sensitive to any negative information about themselves (i.e., are highly avoidance orientated; Morf & Rhodewalt, 2001). Given the independence of approach and avoidance temperaments, three options exist for integrating CSE within an approach/avoidance framework: CSE may only reflect avoidance temperament (Johnson et al., 2008), or approach temperament (Judge et al., 1998), or some combination of the two.¹ Given that CSE represents the shared variance among four personality traits, one way to discern the approach/avoidance nature of CSE is to look at the approach/avoidance nature of its components.

At a theoretical level, self-esteem, generalized self-efficacy, and locus of control all involve *sensitivity* to positive and negative information. For example, self-esteem has been defined as representing one's overall *positive* or *negative* view of oneself, whereas generalized self-efficacy represents one's overall view of oneself as being *capable* or *incapable* (Judge et al., 1997). Similarly, work on locus of control initially emerged from observations that people differ in their sensitivity to *rewards* and *punishment* (Spector, 1982), with internals being relatively more sensitive to rewards and less sensitive to punishment. Based on this sensitivity to positive and negative information, one might reasonably expect self-esteem, generalized self-efficacy, and locus of control to reflect both high levels of approach and low levels of avoidance temperaments. On the other hand, Neuroticism, which reflects sensitivity to negative, but not positive, emotional states (Larsen & Ketelaar, 1991), is a marker of avoidance temperament.

Because CSE traits relate both positively to approach temperament and negatively to avoidance temperament, we expect it to reflect both high levels of approach and low levels of avoidance temperaments. Moreover, given that approach and avoidance temperaments are considered fundamental aspects of the self (Elliot, 1999) and CSE is posited to represent fundamental self-evaluations (Judge et al., 1997), then CSE should therefore similarly incorporate both positive and negative aspects of the self.

¹We consider the option that CSE is unrelated to either approach or avoidance unlikely given CSE's incorporation of neuroticism.

Study 1: Relation of CSE to Approach/Avoidance Constructs

Ultimately, empirical proof is required to resolve the debate surrounding the approach/avoidance nature of CSE. Based on previous work (Elliot & Thrash, 2002), we examined whether CSE is best characterized as a form of approach or avoidance temperament (or both) by examining its relation with established indicators of approach/avoidance temperaments and approach/avoidance motivation constructs. With respect to CSE's relation with indicators of approach/avoidance temperaments, it has been found that Extraversion, PT, and BAS load on a latent approach temperament factor, but Neuroticism, NT, and BIS load on a latent avoidance temperament factor (Elliot & Thrash, 2002). By examining the loadings of a CSE scale on established latent approach and avoidance temperament factors, we can establish whether CSE is an indicator of approach temperament, avoidance temperament, or both. Given the rationale outlined above, we expected CSE to relate to both approach and avoidance constructs.

Hypothesis 1: CSE will load on both (a) a latent avoidance temperament factor and (b) a latent approach temperament factor.

We also examined the relation between CSE and workplace achievement goal orientations (VandeWalle, 1997). Achievement goal orientation measures assess three different orientations that can be classified in terms of approach and avoidance motivation (Elliot & Church, 1997). A *learning* goal orientation reflects the desire to develop competence or mastery of a task and represents a form of approach motivation (pursuing a positive outcome). An *avoid* goal orientation reflects the desire to avoid demonstrating incompetence through dismal performance and represents a form of avoidance motivation (avoiding a negative outcome). Finally, a *prove* goal orientation reflects the desire to prove one's competence to others through effective performance. This orientation reflects both approach and avoidance motivation, as the desire to demonstrate competence may be rooted in either approach- or avoidance-related motives (e.g., needing to achieve or fearing failure, or "approaching in order to avoid;" Elliot & Church, 1997).

Given the rationale outlined above, we expected CSE to relate to both approach and avoidance motivation constructs. With respect to prove goal orientations, we offer no predictions, as prove goal orientations are positively related to both approach and avoidance temperaments; given we argue that CSE represents high approach but low avoidance temperament, the possibility exists that these relations will cancel each other out, resulting in a null relation between CSE and prove goal orientations.

Hypothesis 2: CSE will be (a) positively related to learning goal orientations and (b) negatively related to avoid goal orientations.

Method

Participants and Procedures

We tested our hypotheses using two independent samples. Sample A was used to test our first hypothesis; Sample B was used to test our second hypothesis.

Sample A. Participants were 323 undergraduate students (average age = 20.9 years; 61% female) in organizational behavior classes at two southern Ontario universities. Participation was voluntary and participants completed personality measures (CSE, Extraversion, BIS/BAS, PT/ NT) during class time.

Sample B. Participants were recruited by student volunteers who were asked to identify a full-time working adult (the “focal participant”) who, along with a work peer, would both be willing to complete separate online surveys. Students provided the focal participants with a package containing a cover letter, a link to an online survey assessing CSE and goal orientations, and an identification code. A separate, parallel package was provided to the work peer.

Overall, complete data were obtained from 145 focal participants. We received corresponding work peer surveys for 138 of the 145 focal participants, leaving 138 focal participant/work peer pairs.² Participants were working adults employed in a variety of occupations (e.g., superintendent, account manager, secretary) and employed in a variety of industries, including sales (17%), financial (15%), education (12%), manufacturing (10%), and engineering (5%). The average focal participant worked 43 hours per week and had been employed with the company for 12 years (average age = 48 years, 52% male).

Measures

Unless indicated otherwise, participants responded using a five-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*) for all measures in Studies 1 and 2.

²No significant differences in age ($t = -.57, p > .05$), gender ($t = .25, p > .05$), tenure ($t = -.36, p > .05$), hours worked per week ($t = .16, p > .05$), CSE ($t = -.04, p > .05$), learning goal orientation ($t = -.28, p > .05$), prove goal orientation ($t = .30, p > .05$), or avoid goal orientation ($t = -.98, p > .05$) were found for focal participants who did/did not have a work peer survey.

CSE. Judge et al.'s (2003) 12-item CSES was used (e.g., "When I try, I generally succeed"). Sample B also had work peers rate their perceptions of the focal participant's CSE using the same measure, but altered to reflect a focus on the focal participant.

Extraversion. The International Personality Item Pool Extraversion scale (10 items; Goldberg, 1992) was used to assess Extraversion. Participants rated how accurately each item described them on a five-point Likert scale (1 = *very inaccurate* and 5 = *very accurate*).

BAS/BIS. Carver and White's (1994) scale was used to assess the BAS (13 items) and BIS (seven items). The scales contained statements on which participants rated their agreement on a four-point Likert scale (1 = *strongly disagree* and 4 = *strongly agree*). Items include "I go out of my way to get things I want" (BAS); "I feel worried when I think I have done poorly at something" (BIS).

Positive and negative temperament. The General Temperament Survey (Watson & Clark, 1993) was used to assess PT (27 items, e.g., "I live a very full life") and NT (28 items, e.g., "I am often nervous for no reason"). Participants indicated if the items described them using a true (coded as 1) or false (coded as 0) scale.

Achievement goal orientations. Vandewalle's (1997) 13-item workplace goal orientations measure assessing learning goal orientation (five items; e.g., "I often look for opportunities to develop new skills and knowledge"), prove goal orientation (four items; e.g., "I'm concerned with showing that I can perform better than my coworkers"), and avoid goal orientation (four items; e.g., "I prefer to avoid situations at work where I might perform poorly") was used. Participants responded using a seven-point Likert scale (1 = *strongly disagree* and 7 = *strongly agree*).

Analytic Strategy

We tested the models using AMOS 16.0, with the covariance matrix as input and parameters estimated using maximum likelihood estimation. For Sample A, mean scale scores were used as indicators of latent factors. This technique reduces the sample-size-to-parameter ratio that can adversely impact the standard errors and stability of the estimates (Hall, Snell, & Foust, 1999). Following Elliot and Thrash (2002), mean scale scores of Extraversion, PT, and BAS were used as indicators of a latent approach construct and the mean scale scores of NT and BIS as indicators of a latent avoidance temperament construct (Neuroticism was excluded given its overlap with CSE; however, its inclusion as an indicator of avoidance temperament did not affect our results). We allowed the mean CSES score to load on both approach and avoidance temperament latent factors to examine the size of the factor loadings of the CSES on each factor.

TABLE 1

Study 1 (Sample A) Descriptive Statistics, Zero-Order Correlations, and Alphas

	Mean	SD	1	2	3	4	5	6	7	8
1. Age	20.92	1.98	–							
2. Gender	1.61	.49	.10	–						
3. CSE	3.63	.57	–.03	–.21**	.84					
4. Extraversion	3.36	.74	–.02	.02	.28**	.89				
5. PT	.64	.23	.01	.02	.44**	.64**	.88			
6. NT	.42	.26	.03	.27**	–.62**	–.21**	–.26**	.91		
7. BAS	3.08	.42	–.05	.03	.18**	.41**	.52**	–.02	.86	
8. BIS	2.89	.51	–.00	.30**	–.48**	–.15**	–.18**	.69**	.01	.77

Note. *N* ranges between 289 and 323, alphas are on the diagonal in bold. Gender: 1 = male and 2 = female.

PT = positive temperament. NT = negative temperament. CSE = core self-evaluations. BIS = Behavioral Inhibition System; BAS = Behavioral Activation System.

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

For Sample B, we conducted two sets of analyses: one using self reports of CSE and another using work peer reports of CSE. Three randomized item parcels were used as indicators of a latent CSE factor; the individual scale items were used as indicators of the three latent goal orientation factors (goal orientation factors were also allowed to covary). We tested our hypothesized model using a two-stage procedure assessing the fit of the measurement and structural model (Anderson & Gerbing, 1988). Following Hu and Bentler (1999), we assessed model fit using the following indices: (a) chi-square goodness-of-fit to degrees of freedom ratio, (b) Tucker-Lewis Index (TLI), (c) root-mean-square error of approximation (RMSEA), (d) standardized root-mean-square residual (SRMR), and (e) the comparative fit index (CFI). Satisfactory model fit is indicated by TLI and CFI values close to .95, RMSEA values no higher than .08, SRMR values no higher than .10, and a chi-square goodness of fit to degrees of freedom ratio no greater than 2 (Hu & Bentler, 1999).

Results and Discussion

Tables 1 and 2 (for Sample A and B, respectively) present the means, standard deviations, alphas, and correlations of the Study 1 variables.

Hypothesis 1. We tested the fit of the two-factor measurement model. The model fit the data well, meeting or surpassing all conventional fit indices cutoff criteria ($\chi^2 = 12.95$, $p > .05$, TLI = .98, CFI = .99, RMSEA = .05, SRMR = .04). The independence model provided a significantly worse fit to the data than the measurement model ($\Delta\chi^2 = 711.73$, $p < .01$). Given the acceptable fit of the model, we next examined

TABLE 2

Study 1 (Sample B) Descriptive Statistics, Zero-Order Correlations, and Alphas

	Mean	SD	1	2	3	4	5	6	7
1. Age	47.99	10.16	–						
2. Gender	.48	.50	–.14	–					
3. CSE	3.55	.53	.28**	–.21*	.87				
4. Peer-rated CSE	3.63	.43	.14	–.07	.43**	.80			
5. LGO	5.39	.84	.03	–.15	.39**	.26**	.86		
6. PGO	5.02	1.07	–.05	–.01	–.17*	–.21*	.21*	.74	
7. AGO	3.87	1.21	–.04	.16	–.43**	–.35**	–.36**	.36**	.83

Note. *N* ranges between 136 and 145, alphas are on the diagonal in bold. Gender: 0 = male and 1 = female.

CSE = core self-evaluations. LGO = Learning Goal Orientation; PGO = Prove Goal Orientation; AGO = Avoid Goal Orientation.

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

the factor loadings of CSE on the latent approach/avoidance temperament factors. CSE had a significant negative loading on avoidance temperament ($\beta = -.58, p < .01$) and a significant, albeit weaker, loading on approach temperament ($\beta = .29, p < .01$), supporting Hypotheses 1a and 1b. Accounting for direct and indirect effects, approach and avoidance temperaments explained 51% of the variance in CSE.

Hypothesis 2. We first tested the fit of the four-factor measurement model (Table 3). For models using either self- or work peer ratings of CSE, the measurement model provided a good fit to the data, with fit indices approaching or surpassing all conventional cutoff criteria. The independence model provided a significantly worse fit to the data than the measurement model, both when examining fit indices and when directly comparing the models using the change in chi-square tests. We next tested the hypothesized structural model; fit indices suggest it provided a good fit to the data. Figure 1 presents the standardized path estimates for the data. Hypothesis 2a and 2b were supported, with CSE significantly related to learning goal orientation ($\beta = .46$ and $\beta = .29$, both $p < .01$, for self- and work peer ratings of CSE, respectively) and avoid goal orientation ($\beta = -.51$ and $\beta = -.41$, both $p < .01$, for self- and work peer ratings of CSE, respectively). The relation between CSE and prove goal orientation was marginally significant ($\beta = -.18, p = .08$) for self-ratings and significant ($\beta = -.25, p < .05$) for peer ratings.

In sum, the results of Study 1 are consistent and converge on the notion that CSE is best represented as a form of *both* approach and avoidance temperament. Moreover, the use of multisource data rules out common method variance (CMV; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) as an explanation. Study 1 thus provides initial empirical evidence

TABLE 3
Model Fit Statistics

	χ^2	df	$\Delta\chi^2$	χ^2/df	TLI	RMSEA	CFI	SRMR
<i>Study 1 (Sample B) Models</i>								
Hypothesized four-factor measurement model	119.88** (114.56)*	84 (84)	–	1.43 (1.36)	.95 (.95)	.05 (.05)	.96 (.95)	.08 (.07)
Independence model	1033.98** (939.687)**	105 (105)	914.10** (825.13)**	9.85 (8.95)	–	.25 (.24)	–	–
Hypothesized structural model	131.33** (123.23)**	85 (85)	–	1.56 (1.45)	.94 (.94)	.06 (.06)	.95 (.95)	.10 (.10)
<i>Study 2 Models</i>								
Hypothesized eight-factor measurement model	311.79**	224	–	1.39	.95	.05	.96	.06
Independence model	670.56**	251	410.97**	2.67	.80	.11	.82	.22
Hypothesized structural model	316.85**	230	–	1.38	.96	.05	.96	.06

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

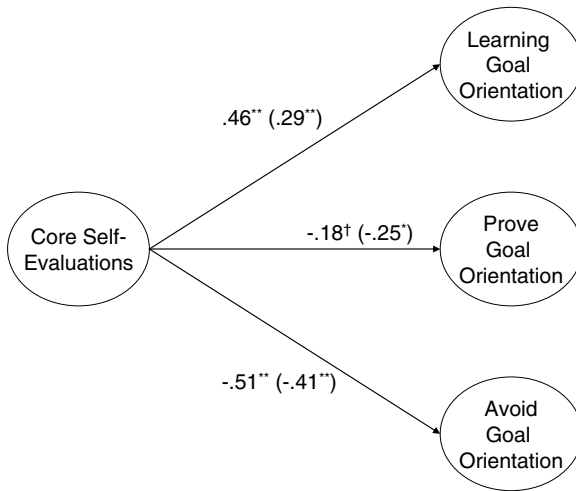
For Study 1 (Sample B) models, values outside parentheses used self ratings of CSE; values inside parentheses used work peer ratings.

regarding the approach/avoidance nature of CSE. We next used this framework to elucidate how CSE relates to job performance.

Study 2: CSE and Job Performance

Job performance, defined as “the set of behaviors that are relevant to the goals of the organization or the organizational unit in which a person works” (Murphy, 1989, p. 227),³ is among the most important outcomes in organizational psychology. It has been suggested that CSE’s relation with job performance should be mediated by motivational constructs (Judge et al., 1998), such as approach and avoidance motivation. In Study 2 we examined approach/avoidance work orientations as mediating constructs, using a measure of general approach/avoidance orientations at work (Johnson & Chang, 2008). The measure assesses adoption of orientations toward performing well at work but differentiates whether individuals adopt approach (i.e., striving to achieve positive work

³Technically job performance refers to the value of these behaviors to the organization, but there is broad scholarly consensus that these behaviors (or lack thereof, in the case of deviant behaviors) are of value to most organizations.



Note. Estimates with work peer ratings of CSEs are in parentheses. $N = 145$ (138 for work peer analyses). † $p < .10$, * $p < .05$, ** $p < .01$.

Figure 1: Study 1 (Sample B) Standardized Path Estimates.

outcomes) or avoidance (i.e., striving to avoid negative work outcomes) work orientations.

Job performance behaviors can take the form of performing tasks required for the position or general behaviors that are either helpful or harmful to the organization as a whole (Rotundo & Sackett, 2002). Current theoretical conceptualizations of job performance suggest that it is manifested in three types of behaviors: in-role, citizenship, and deviant behaviors (Rotundo & Sackett, 2002). In-role behaviors represent the individual's performance on the core task requirements of the job; citizenship behaviors represent behaviors that are not core task requirements of the job but that positively contribute to the social and psychological environment of the organization; finally, deviant behaviors represent voluntary behaviors that negatively impact the organization (Rotundo & Sackett, 2002).

Approach/avoidance frameworks suggest that personality traits influence behavior via their effects on mediating approach/avoidance motivational mechanisms (Elliot & McGregor, 1999). Mediation models (e.g., Shrout & Bolger, 2002) suggest that CSE should relate to the mediators (approach and avoidance workplace orientations), which in turn relate to job performance. With respect to the first requirement, as in Study 1, we expected CSE would relate to both approach and avoidance work orientations.

Hypothesis 3: CSE will be (a) positively related to approach work orientations and (b) negatively related to avoidance work orientations.

Although approach and avoidance work orientations direct individuals toward being successful employees, they do so in different ways: Approach orientations involve positive outcomes successful employees achieve, whereas avoidance orientations involve negative outcomes successful employees avoid. This distinction is important because there is reason to expect approach and avoidance orientations have opposing effects on job performance (i.e., in-role, citizenship, and deviant behaviors) given their differential effects on self-regulatory resources.

Self-regulatory resources, or resources drawn upon when altering one's behaviors to achieve desired outcomes (Vohs et al., 2008), are necessary for attaining high levels of job performance. Corresponding to the notion that job performance includes in-role, citizenship, and deviant behaviors, effective employees must maintain high levels of directed effort toward tasks, marshal effort to help coworkers, and abstain from behaviors that promise short-term gain at the expense of long-term reward (e.g., sleeping in late, stealing from the company). These efforts draw from a limited pool of self-regulatory resources that, when depleted, renders employees less likely to persist in in-role tasks (Vohs et al., 2008), to exert effort to help others (DeWall, Baumeister, Gailliot, & Maner, 2008), and to refrain from engaging in unethical behaviors (Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). Thus, to the extent that self-regulatory resources are depleted, attempts to successfully self-regulate one's behavior toward a target (e.g., being a successful employee) are compromised.

Notably, approach and avoidance orientations and goals place different demands on self-regulatory resources. In particular, avoidance orientations require greater self-regulatory resources to be deployed across a number of areas to achieve one's goals. Put simply, approach orientations (e.g., wanting to perform well at work) only require finding a *single* path to achieve a goal, whereas avoidance orientations (e.g., wanting to avoid doing poorly at work) require blocking *every* path that may lead to a negative outcome (Schwarz, 1990). Thus, to do well on a presentation, an approach-oriented employee may choose to simply rehearse the presentation. An avoidance-oriented employee will focus on mitigating any possible way in which the presentation may go poorly, which may include rehearsing but also planning what not to wear, making slides in triplicate, double-checking the presentation room, and so forth. Although the latter represents a more thorough tack to take, given regulatory resources are limited, focusing on blocking every manner in which a negative outcome may arise quickly depletes regulatory resources, relative to focusing on

approaching a single outcome (Carver & Scheier, 1998). Given their depleting effects on regulatory resources, it is perhaps not surprising that avoidance goals and orientations negatively impact performance (Elliott, 1999).⁴

As self-regulatory resources are required for maintaining high levels of in-role and citizenship behaviors, as well as for inhibiting deviant behaviors, depletion of regulatory resources should hinder one's ability to maintain high job performance. Thus, despite the desire to be a successful employee, avoidance work orientations ultimately undermine effective performance by placing heavy requirements on regulatory resources, leaving one vulnerable to quitting tasks, refraining from helping others, and succumbing to short-term benefits deviant behaviors represent. However, approach work orientations not only direct and energize efforts toward being a successful employee but also place less demand on regulatory resources by focusing on a narrower number of means of achieving the same ultimate goal. Thus, a larger pool of regulatory resources are available to employees with approach orientations, which can then be channeled into effectively performing in-role and citizenship behaviors, and resisting the temptations of deviant behaviors (Baumeister & Heatherton, 1996). Thus, we hypothesize the following:

Hypothesis 4: Individuals with an approach work orientation will be more likely to engage in (a) in-role and (b) citizenship behaviors, and (c) less likely to engage in deviant behaviors.

Hypothesis 5: Individuals with an avoidance work orientation will be less likely to engage in (a) in-role and (b) citizenship behaviors, and (c) more likely to engage in deviant behaviors.

In summary, we expect high CSE individuals will be less likely to adopt an avoidance orientation, which is detrimental to performance; we also expect they will be more likely to adopt an approach orientation, which is beneficial to performance. This suggests an overall positive indirect effect of CSE on job performance, mediated through approach and avoidance work orientations. Thus, we hypothesize the following:

⁴It should be noted that avoidance goals do not always lead to decrements in performance. In particular, Higgins (1997, 2006) has demonstrated that the congruence between individual differences in approach/avoidance and the approach/avoidance framing of the goal can influence performance such that avoidance goals lead to better performance for tasks that are fundamentally avoidance in nature. However, given that workplace and organizational strategies, visions, and goals are normally fundamentally approach in nature (Senge, 1990), this would suggest that avoidance goals in a work context are *usually* detrimental to performance.

Hypothesis 6: CSE will have an indirect effect on the three components of job performance mediated through CSE's (a) negative relation with avoidance motivation orientation and (b) positive relation with approach motivation orientation.

Method

Participants and Procedure

Participants were 176 adults employed in a variety of occupations (e.g., financial analyst, postal worker, office manager) and industries, including office support (24%), sales (22%), education (13%), financial (11%), food preparation and serving related (11%), entertainment (6%), and transportation (3%). Participants were recruited from evening and weekend undergraduate business courses at a midwestern university and received \$15 and course credit for completing the study. Participants completed surveys on campus and provided their immediate supervisor with a survey packet. The supervisor packet included a cover letter and a questionnaire assessing subordinate in-role and citizenship behaviors. A random sample of supervisors was contacted to verify that they had completed the survey; all indicated they had. In total, we obtained 152 matched surveys, yielding a supervisor response rate of 86%. One employee failed to complete the survey and was removed from analysis, leaving 152 for hypothesis testing (average age = 22 years; 46% female).⁵

Measures

CSE. As in Study 1, the CSES (Judge et al., 2003) was used to assess CSE.

Approach and avoidance orientation. Johnson and Chang's (2008) 12-item scale was used to assess approach/avoidance orientations at work (using 6 items each). Previous work has demonstrated the validity of the scale, including demonstrating its convergent and discriminant validity with respect to other indicators of approach and avoidance, while also demonstrating stronger relations with work outcomes (Johnson & Chang, 2008). Example items include "My goal at work is to fulfill my potential

⁵No significant differences in age ($t = -.39, p > .05$), gender ($t = -.49, p > .05$), tenure ($t = .98, p > .05$), hours worked per week ($t = -.16, p > .05$), approach ($t = .44, p > .05$) or avoidance ($t = -1.83, p > .05$) orientation were found for participants who did/did not have a supervisor returned a survey. Employees who had supervisor ratings of performance did rate themselves higher on CSE ($t = 2.36, p < .05$) relative to participants whose supervisors did not return their portion of the survey, though it is difficult to see how that would have impacted our results.

to the fullest in my job” (approach) and “I am fearful about failing to prevent negative outcomes at work” (avoidance).

In-role and citizenship behaviors. Supervisors rated subordinate’s in-role and citizenship behaviors using Williams and Anderson’s (1991) measure. In-role behavior was assessed with seven items (e.g., “This employee meets formal performance requirements of the job”); citizenship behavior was assessed directed both toward helping individuals (OCB-I [Organizational Citizenship Behavior—Interpersonal], “This employee helps others who have heavy workloads”; seven items) and the organization (OCB-O [Organizational Citizenship Behavior—Organization], “This employee’s attendance at work is above the norm;” seven items).

Deviance. Subordinates reported their deviant behaviors toward individuals and the organization using Bennett and Robinson’s (2000) measure. Interpersonal deviance (IP-Dev) was assessed with seven items “Said something hurtful to someone at work”; the organizational deviance (Org-Dev) scale contained 12 items “Taken property from work without permission”), both rated on a five-point scale (1 = *never* and 5 = *weekly*).

Analytic Strategy

We tested our model with Mplus 4.1 using maximum likelihood estimation. We followed Anderson and Gerbing’s (1988) two-stage analytic procedure, forming randomized item parcels to create three indicators each for all eight latent constructs.

Results and Discussion

Table 4 lists the means, standard deviations, alphas, and correlations. We first tested the fit of the eight-factor measurement model to the data. The measurement model provided acceptable fit to the data, with fit indices surpassing all cutoff criteria, and provided a significantly better fit than the independence model (see Table 3).

We next tested the hypothesized structural model (see Figure 2). We freed paths from CSE to both approach and avoidance work orientations and from these orientations to in-role behavior, citizenship behaviors (OCB-I and OCB-O), and deviant behaviors (organizational and interpersonal). We modeled an indirect effects model initially, with no direct paths from CSE to any of the performance-based dependent variables. Our hypothesized structural model provided a good fit to the data, with all fit indices surpassing conventional cutoff criteria (see Table 3). Given

TABLE 4
Study 2 Descriptive Statistics, Zero-Order Correlations, and Alphas

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Age	21.70	4.07	–									
2. Gender	1.47	.50	.00	–								
3. CSE	3.77	.52	.05	–.03	.83							
4. Approach	3.93	.65	–.01	.07	.36**	.85						
5. Avoidance	2.60	.70	–.08	.10	–.52**	–.16*	.76					
6. IRB	4.46	.55	–.06	.22**	.16*	.12	–.20*	.89				
7. OCB-I	4.03	.61	.04	.16*	.22**	.19*	–.20*	.63**	.89			
8. OCB-O	4.23	.59	.15	.01	.21**	.09	–.16*	.72**	.66**	.79		
9. IP-Dev	1.80	.85	.06	–.28**	–.21**	–.28**	.15	–.26**	–.10	–.28**	.87	
10. Org-Dev	1.69	.66	.01	–.09	–.31**	–.33**	.25**	–.26**	–.12	–.36**	.61**	.87

Note. $N = 152$, alphas are on the diagonal in bold. Gender: 1 = *male* and 2 = *female*. CSE = core self-evaluations. IRB = in-role performance. OCB-I = organizational citizenship behavior – interpersonal. OCB-O = organizational citizenship behavior – organization. IP-Dev = interpersonal deviance. Org-Dev = organizational deviance.
 * $p < .05$, ** $p < .01$.

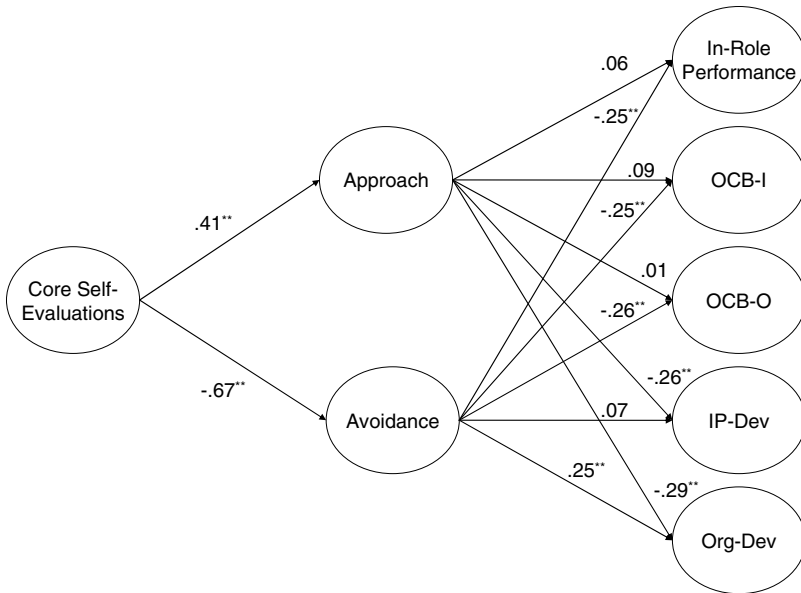


Figure 2: Study 2 Standardized Path Estimates.

Note. $N = 152$. ** $p < .01$. OCB-I = Organizational Citizenship Behavior—Interpersonal. OCB-O = Organizational Citizenship Behavior—Organization. IP-Dev = Interpersonal Deviance. Org-Dev = Organizational Deviance.

these results, we next examined whether the path estimates supported the hypotheses.

Figure 2 presents the standardized path estimates for the data. Supporting Hypotheses 3a and 3b, CSE was significantly related to approach ($\beta = .41, p < .05$) and avoidance ($\beta = -.67, p < .05$) work orientations. Although approach work orientation was significantly related to interpersonal ($\beta = -.26, p < .05$) and organizational ($\beta = -.29, p < .05$) deviance, it was not significantly related to OCB-I, OCB-O, or in-role behaviors. Avoidance work orientation was significantly related to in-role behavior ($\beta = -.25, p < .05$), OCB-I ($\beta = -.25, p < .05$), OCB-O ($\beta = -.26, p < .05$), and organizational deviance ($\beta = .25, p < .05$), but not interpersonal deviance. Thus, Hypotheses 4c, 5a, 5b, and 5c (for organizational deviance) were supported.

With respect to CSE's indirect effects on performance (Hypothesis 6a and b), we sequentially freed paths from CSE to performance outcomes to test for partial mediation. None of the direct effects were significant, nor did they improve model fit beyond the full mediation model (based on change in chi-square tests); thus, the CSE-performance relation was fully

TABLE 5
Decomposition of Indirect Effects for Study 2

Description of indirect path	Estimate	95% LCL	95% UCL
1. CSE → OCB-I (total effect)	.21*	.05	.36
2. CSE → Approach → OCBI	.04	-.05	.12
3. CSE → Avoid → OCBI	.17*	.01	.32
4. CSE → Task (total effect)	.20*	.05	.35
5. CSE → Approach → Task	.03	-.05	.11
6. CSE → Avoid → Task	.17*	.04	.30
7. CSE → OCB-O (total effect)	.18*	.03	.33
8. CSE → Approach → OCBO	.00	-.07	.08
9. CSE → Avoid → OCBO	.17*	.02	.33
10. CSE → IP-Dev (total effect)	-.15*	-.29	-.01
11. CSE → Approach → IP-Dev	-.11*	-.21	-.01
12. CSE → Avoid → IP-Dev	-.05	-.18	.09
13. CSE → Org-Dev (total effect)	-.29*	-.41	-.17
14. CSE → Approach → Org-Dev	-.12*	-.24	-.01
15. CSE → Avoid → Org-Dev	-.17*	-.31	-.03

Note. * = Confidence interval does not include 0. The significance of the indirect effects was calculated using bootstrapping procedures (Shrout & Bolger, 2002). Multiple samples (with replacement) were drawn from the original data set, and the model was reestimated on each sample. We resampled 1,000 times and used the bias-corrected percentile method to create 95% confidence intervals (Mooney & Duval, 1993).

LCL = lower confidence limit. UCL = upper confidence limit. CSE = core self-evaluations. OCBI = organizational citizenship behavior – interpersonal. OCBO = organizational citizenship behavior – organization. IP-Dev = interpersonal deviance. Org-Dev = organizational deviance.

mediated by approach and avoidance orientations. Table 5 decomposes the indirect effects of the fully mediated model. Results indicate that approach work orientation mediated CSE's effects on interpersonal (standardized indirect effect = $-.11$, $p < .05$) and organizational (standardized indirect effect = $-.12$, $p < .05$) deviance. Avoidance work orientation mediated CSE's effects on in-role behavior (standardized indirect effect = $.17$, $p < .05$), OCB-I (standardized indirect effect = $.17$, $p < .05$), OCB-O (standardized indirect effect = $.17$, $p < .05$), and organizational deviance (standardized indirect effect = $-.12$, $p < .05$). These results largely support Hypothesis 6a.

Taken as a whole, the findings of Study 2 suggest that approach and avoidance work orientations fully mediate the relation of CSE with job performance. Of note is that avoidance orientation was significantly related to four of the five performance outcomes, whereas approach orientation had weaker effects, predicting only interpersonal and organizational deviance. A post hoc explanation for these weaker effects may lie with models of personality–performance relations that suggest avoidance

constructs impair performance across all tasks, whereas the beneficial effects of approach constructs are contingent upon incentives or rewards that activate approach tendencies (Barrick, Mitchell, & Stewart, 2003). Without assessing moderating variables, our ability to detect effects of approach orientation may be weakened.

General Discussion

Understanding how CSE relates to outcomes represents an important priority—especially when competing perspectives exist. Such work allows researchers to test the plausibility of theories and hypotheses and allows practitioners to understand what interventions on which to focus. Our results provide the first empirical evidence as to whether CSE should be considered a form of approach, avoidance, or both temperaments; they also demonstrate how approach/avoidance motivation mediates the CSE–job performance relation.

In Study 1 we examined whether CSE was more strongly related to indicators of approach or avoidance temperament and examined the relation between CSE and achievement goal orientations. In Study 2, we contrasted approach and avoidance work orientations as indirect pathways of the CSE–job performance relation. Across the studies, using multi-source data, results suggest (a) CSE is an indicator of both temperaments, and (b) approach and avoidance motivational mechanisms account for the indirect effect of CSE on job performance. These results also support the utility of approach and avoidance constructs, which have been largely overlooked in organizational research.

Theoretical Implications

Our results support the integration of CSE within an approach/avoidance framework, which is beneficial for two main reasons. First, this framework provides a powerful paradigm for interpreting past CSE studies and provides a roadmap that can be used to understand why CSE has the effects it does. Indeed, the CSE literature offers many examples of where knowledge of the approach/avoidance basis of CSE would be useful to substantiate hypotheses. For example, Boyar and Mosley (2007) found that low CSE employees were more likely to report work–family conflict. An approach/avoidance framework provides a parsimonious way to interpret these findings: individuals with low CSE are highly avoidant and hence more likely to notice and report negative outcomes such as conflict. Correspondingly, Salvaggio and colleagues (2007) predicted CSE would positively relate to a manager’s willingness to approach customers. Again, such a prediction naturally flows from a

conceptualization of high CSE individuals as being more approach oriented. Second, an approach/avoidance conceptualization of CSE can be applied to understand why past hypotheses were *not* supported. For example, Boyar and Mosley (2007) also found that CSE was unrelated to work–family facilitation, measured through items such as “The skills I use on my job are useful for things I have to do at home.” Although work–family conflict implies sensitivity to negative events, work–family facilitation is inherently neither approach nor avoidance based; thus, it should not be expected to relate to CSE.

Viewing CSE within an approach/avoidance framework also generates future research ideas. Approach/avoidance distinctions have been made in research areas such as attitude change and safety performance (Higgins, 2006; Wallace & Chen, 2006). By demonstrating CSE’s approach/avoidance nature, our study permits the integration of CSE with these areas. For example, approach-oriented individuals are more persuaded by messages highlighting benefits, but avoidance-oriented individuals are more persuaded by messages highlighting losses (Higgins, 2006). This suggests organizational communications may have differential effects on high and low CSE employees, depending on how messages are framed. Another research direction is suggested by results indicating approach and avoidance are negatively and positively related, respectively, to safety performance (Wallace & Chen, 2006). This suggests a drawback to high CSE levels: Such employees may be more reckless, hazardous, or unsafe in the workplace. Finally, our results also indicate when CSE may *not* be appropriate to use: Given CSE possesses both approach/avoidance characteristics, its use is inappropriate if the goal is to identify a predictor that uniquely predicts avoidance but not approach constructs (or vice versa).

Practical Implications

By explicating CSE’s mediating mechanisms, our results have important practical implications. First, recruiters may wish to consider CSE levels in selection processes, as individuals with high CSE levels may outperform those with low CSE levels (see also Judge et al., 2004). Beyond using CSE in a selection context, our results also provide important implications for employee training. That is, our results suggest that individuals with high CSE levels may outperform their low CSE counterparts by adopting approach orientations and minimizing avoidance orientations. These findings indicate that managers who influence employee orientations directly can sidestep the problems associated with low dispositional CSE levels by neutralizing the negative effects of low CSE. Fortunately, extensive laboratory research has demonstrated that approach/avoidance

orientations not only reflect stable individual differences (such as CSE) but can also be influenced by situational variables (Higgins, 1997).

Finally, although the above assumes that organizations should intervene to promote approach motivation strategies, it has also been noted that *excessive* CSE levels may lead to hubris among executives (Hiller & Hambrick, 2005). Thus, our results may also be useful for executive coaching programs seeking to better executive performance and decision making, as executive hubris may come about through an excessive focus on approach strategies without concern for potential pitfalls. Executive coaches may therefore choose to advise executives about being sensitive to potential drawbacks in their work as well, circumventing the development of hubris.

Limitations and Summary

Individually, each study in this paper possesses limitations such as using cross-sectional or same-source data. Such methodological shortcomings may result in increased levels of CMV (Podsakoff et al., 2003). However, because two of our studies used multisource data for antecedents or outcomes, concerns regarding CMV are mitigated (Podsakoff et al., 2003). Another limitation exists with respect to potential context effects associated with the research. First, our participants were recruited from different organizations, which may introduce the possibility of organizational context effects differentially influencing the participants (and hence our results). At the same time, however, this feature of our design allows us to generalize beyond a single organization or occupation.

In discussing challenges in CSE research, Bono and Judge (2003, p. S15) note “progress in this area is mostly likely to be made when the nature of the CSE construct . . . is understood, allowing theory to drive further development of the nomological net.” We wholeheartedly agree and suggest that integrating CSE within an approach/avoidance framework provides the theoretical understanding needed to benefit future CSE research.

REFERENCES

- Anderson JC, Gerbing DW. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411–423.
- Barrick MR, Mitchell TR, Stewart GL. (2003). Situational and motivational influences on trait-behavior relationships. In Barrick MR, Ryan AM (Eds.), *Personality and work* (pp. 60–82). San Francisco, CA: Jossey-Bass.
- Baumeister RF, Heatherton TF. (1996). Self-regulation failure: An overview. *Psychological Inquiry*, 7, 1–15.

- Bennett RJ, Robinson SL. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology*, 85, 349–360.
- Bono JE, Judge TA. (2003). Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality*, 17, S5–S18.
- Boyar SL, Mosley DC, Jr. (2007). The relationship between core self-evaluations and work and family satisfaction: The mediating role of work-family conflict and facilitation. *Journal of Vocational Behavior*, 71, 265–281.
- Brown DJ, Ferris DL, Heller D, Keeping LM. (2007). Antecedents and consequences of the frequency of upward and downward social comparisons at work. *Organizational Behavior and Human Decision Processes*, 102, 59–75.
- Carver CS, Scheier MF. (1998). *On the self-regulation of behavior*. New York, NY: Cambridge University Press.
- Carver CS, White TL. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology*, 67, 319–333.
- DeWall CN, Baumeister RF, Gailliot MT, Maner JK. (2008). Depletion makes the heart grow less helpful: Helping as a function of self-regulatory energy and genetic relatedness. *Personality and Social Psychology Bulletin*, 34, 1653–1662.
- Elliot AJ. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist*, 34, 169–189.
- Elliot AJ, Church MA. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72, 218–232.
- Elliot AJ, Covington MV. (2001). Approach and avoidance motivation. *Educational Psychology Review*, 13, 73–92.
- Elliot AJ, McGregor HA. (1999). Test anxiety and the hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 76, 628–644.
- Elliot AJ, McGregor HA. (2001). A 2 × 2 achievement goal framework. *Journal of Personality and Social Psychology*, 80, 501–519.
- Elliot AJ, Thrash TM. (2002). Approach-avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, 82, 804–818.
- Gable SL, Reis HT, Elliot AJ. (2003). Evidence for bivariate systems: An empirical test of appetition and aversion across domains. *Journal of Research in Personality*, 37, 349–372.
- Goldberg LR. (1992). The development of markers for the big-five factor structure. *Psychological Assessment*, 4, 26–42.
- Hall RJ, Snell AF, Foust MS. (1999). Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods*, 2, 233–256.
- Higgins ET. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280–1300.
- Higgins ET. (2006). Value from hedonic experience and engagement. *Psychological Review*, 113, 439–460.
- Hiller N, Hambrick DC. (2005). Conceptualizing executive hubris: The role of (hyper-) core self-evaluations in strategic decision-making. *Strategic Management Journal*, 26, 297–319.
- Hu L, Bentler PM. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Johnson RE, 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 RE, Rosen CC, Levy PE. (2008). Getting to the core of core self-evaluation: A review and recommendations. *Journal of Organizational Behavior*, 29, 391–413.
- Judge TA, Bono JE. (2001a). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86, 80–92.
- Judge TA, Bono JE. (2001b). A rose by any other name: Are self-esteem, generalized self-efficacy, neuroticism, and locus of control indicators of a common construct? In Roberts BW, Hogan R (Eds.), *Personality psychology in the workplace* (pp. 93–118). Washington, DC: APA.
- Judge TA, Bono JE, Erez A, Locke EA. (2005). Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *Journal of Applied Psychology*, 90, 257–268.
- Judge TA, Erez A, Bono JE. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance*, 11, 167–187.
- Judge TA, Erez A, Bono JE, Thoresen CJ. (2003). The core self-evaluations scale: Development of a measure. *PERSONNEL PSYCHOLOGY*, 56, 303–331.
- Judge TA, Locke EA, Durham CC. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, 19, 151–188.
- Judge TA, Locke EA, Durham CC, Kluger AN. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology*, 83, 17–34.
- Judge TA, Van Vianen AEM, De Pater IE. (2004). Emotional stability, core self-evaluations, and job outcomes: A review of the evidence and an agenda for future research. *Human Performance*, 17, 325–346.
- Larsen RJ, Ketelaar T. (1991). Personality and susceptibility to positive and negative emotional states. *Journal of Personality and Social Psychology*, 61, 132–140.
- Mead NL, Baumeister RF, Gino F, Schweitzer ME, Ariely D. (2009). Too tired to tell the truth: Self-control resource depletion and dishonesty. *Journal of Experimental Social Psychology*, 45, 594–597.
- Mooney CZ, Duval RD. (1993). Bootstrapping: A nonparametric approach to statistical inference. In Sage university papers series. *Quantitative applications in the social sciences*, No. 95. Thousand Oaks, CA: Sage.
- Morf CC, Rhodewalt F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, 12, 177–196.
- Murphy KR. (1989). Dimensions of job performance. In Dillon RF, Pellegrino JW (Eds.), *Testing: Theoretical and applied perspectives* (pp. 218–247). New York, NY: Praeger Publishers.
- Podsakoff PM, MacKenzie SB, Lee J, Podsakoff NP. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Rotundo M, Sackett PR. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of Applied Psychology*, 87, 66–80.
- Salvaggio AN, Schneider B, Nishii LH, Mayer DM, Ramesh A, Lyon JS. (2007). Manager personality, manager service quality orientation, and service climate: Test of a model. *Journal of Applied Psychology*, 92, 1741–1750.
- Schwarz N. (1990). Feelings as information: Informational and motivational functions of affective states. In ET Higgins & RM Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2, pp. 527–561). New York, NY: Guilford.

- Senge PM. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday/Currency.
- Shrout PE, Bolger N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422–445.
- Spector PE. (1982). Behavior in organizations as a function of employee's locus of control. *Psychological Bulletin*, 91, 482–497.
- VandeWalle D. (1997). Development and validation of a work domain goal orientation instrument. *Educational and Psychological Measurement*, 57, 995–1015.
- Vohs KD, Baumeister RF, Schmeichel BJ, Twenge JM, Nelson NM, Tice DM. (2008). Making choices impairs subsequent self-control: A limited-resource account of decision making, self-regulation, and active initiative. *Journal of Personality and Social Psychology*, 94, 883–898.
- Wallace C, Chen G. (2006). A multilevel integration of personality, climate, self-regulation, and performance. *PERSONNEL PSYCHOLOGY*, 59, 529–557.
- Watson D, Clark LA. (1993). Behavioral disinhibition versus constraint: A dispositional perspective. In Wegner DM, Pennebaker JW (Eds.), *Handbook of mental control* (pp. 506–527). New York, NY: Prentice Hall.
- Williams LJ, Anderson SE. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601–617.