

Emotional Stability, Core Self-Evaluations, and Job Outcomes: A Review of the Evidence and an Agenda for Future Research

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In this article we present a review of research on core self-evaluations, a broad personality trait indicated by 4 more narrow traits: self-esteem, generalized self-efficacy, locus of control, and emotional stability. We review evidence suggesting that the 4 core traits are highly related, load on a single unitary factor, and have dubious incremental validity controlling for their common core. We more generally investigate the construct validity of core self-evaluations. We also report on the development and validation of the first direct measure of the concept, the Core Self-Evaluations Scale (CSES). Cross-cultural evidence on the CSES is provided. We conclude by offering an agenda for future research, discussing areas where future core self-evaluations research is most needed.

Emotional stability or neuroticism is perhaps the most enduring personality concept in psychology. There are thousands of studies on the topic and the entire field of psychoanalysis and clinical psychology might be traced to the study of neurotic symptoms (Freud, 1910). In the realm of normal psychology, the findings regarding the importance of neuroticism to applied criteria, such as job performance and

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job satisfaction, are somewhat contradictory. There are several meta-analyses of the relation of neuroticism to job performance. The first two of these analyses were published nearly concurrently but found substantially different results. In their meta-analysis, Barrick and Mount (1991) found that the relation between emotional stability and job performance was not significantly different from zero ($\rho = .08$) across criterion measures. Tett, Jackson, and Rothstein (1991), using different inclusion criteria but flawed analytical procedures, found a corrected mean correlation of $-.22$ between neuroticism and job performance. Recently, in a third meta-analysis, using a European Community sample, Salgado (1997) estimated a true validity of $.19$ for emotional stability. As a part of a larger study, Judge and Bono (2001a) recently conducted yet another meta-analysis of neuroticism and job performance, using only direct measures of neuroticism. Results of this study produced the same validity estimate as Salgado, $\rho = .19$. Although explanation of these conflicting findings has been offered with respect to the first two studies (Ones, Mount, Barrick, & Hunter, 1994) and there has been an effort to integrate prior meta-analyses (Barrick, Mount, & Judge, 2001), the nature of the relation of emotional stability to job performance remains uncertain.

The relation between neuroticism and job satisfaction has also been examined, providing perhaps more consistent evidence. Several studies have shown that direct measures of neuroticism are negatively related to job satisfaction (Furnham & Zacherl, 1986; Smith, Organ, & Near, 1983; Tokar & Subich, 1997). Judge and Bono's (2001a) recent meta-analysis revealed a correlation of $\rho = .24$ between emotional stability and job satisfaction. Though this correlation was distinguishable from zero, it may be surprising that the correlation was not stronger.

It is possible that the contradictory findings regarding the relation of emotional stability to job performance and, to a lesser extent, job satisfaction, are due to the measurement of emotional stability. Specifically, it is possible that typical measures of emotional stability do not adequately measure the broad concept, and do so to varying degrees, such that one observes validities that are both lower and more variable than one would observe with broader measures that better indicate the concept. One suggestion for how emotional stability might be more broadly measured was provided by Judge, Locke, and Durham (1997) in the form of core self-evaluations. Accordingly, the purpose of this article is to discuss the concept of core self-evaluations and note how this concept, as a broad measure of emotional stability, may lead to higher and more consistent validities.

CORE SELF-EVALUATIONS: NATURE OF THE CONSTRUCT

Core self-evaluations is a higher order concept representing the fundamental evaluations that people make about themselves and their functioning in their environment. Individuals with positive core self-evaluations appraise themselves in

a consistently positive manner across situations; such individuals see themselves as capable, worthy, and in control of their lives. According to Judge et al. (1997), the core self-evaluations concept is indicated by four traits: self-esteem, locus of control, neuroticism, and generalized self-efficacy. Judge, Bono, Erez, Locke, and Thoresen (2002) presented evidence that the first three of these traits are the most widely studied in psychology. Curiously, however, the quest to find broad personality factors has ignored the commonality among these traits. Although neuroticism has been considered a broad trait even by those researchers who do not endorse the five-factor model (Eysenck, 1990), self-esteem and locus of control continue to be studied as individual, isolated traits. We argue that consideration of these traits in isolation leads to underprediction and semantic confusion (Dewey, 1974).

Conceptually, the traits share many similarities. For example, all of the core traits assess the positivity of self-description. Similarly, it appears that individuals who score low on each of the core traits are more susceptible to self-relevant social cues (e.g., Brockner, 1979; Hjelle & Clouser, 1970). There are a few studies that have investigated the relation among other pairs of the core traits (e.g., self-esteem and locus of control, Francis, 1996; locus of control and neuroticism, Morrison, 1997), though none of these studies explicitly consider the possibility that these traits may indicate a common higher order concept. That the individual core traits may share conceptual and empirical similarities does not demonstrate, however, that core self-evaluations is a valid psychological construct. To do that, one must analyze core self-evaluations from a construct validity perspective. In the next section of this article, we provide a detailed analysis of the construct validity of the core self-evaluations concept.

CONSTRUCT VALIDITY OF CORE SELF-EVALUATIONS

As Schwab (1980) argued, establishing the validity of a psychological concept involves both conceptual issues (definition and theoretical relations with other variables) and empirical considerations (convergent validity and location of the concept within its nomological network). In ascertaining the validity of the core self-evaluations concept, four issues must be addressed:

1. *Convergent validity.* To demonstrate convergent validity, the four core self-evaluations traits (self-esteem, locus of control, neuroticism, and generalized self-efficacy) must share sufficient covariance to indicate a common concept.
2. *Lack of discriminant validity of core traits.* If the core traits fail to display differential patterns of relations with other variables, then the core traits would lack discriminant validity relative to one another. This would further support the argument that the four core traits indicate a common construct.

3. *Discriminant validity relative to other traits.* To be useful, the core concept must be distinct from other traits, such as the traits from the five-factor model of personality (excluding emotional stability, of course).
4. *Predictive validity.* Predictive validity is revealed by the degree to which the core factor predicts criteria better than the isolated core traits or beyond other traits (such as the Big Five traits).

Convergent Validity

Convergent validity refers to whether measures show sufficient interrelations to demonstrate that they indicate the same concept. In terms of core self-evaluations theory, the question of convergent validity can be answered by examining the correlations among the four core traits. Table 1 provides the correlations among the core self-evaluations traits based on meta-analytic data reported in Judge, Erez, Bono, and Thoresen (2002). As the table shows, the correlations are substantial. The average correlation among the traits (.64) is at least as high as the correlations among alternative measures of traits in the five-factor model (see Ones, 1993). Another piece of evidence in favor of the core concept is factor analytic research that consistently suggests the four core traits load on a common factor, both in confirmatory and exploratory factor analyses (Erez & Judge, 2001; Judge, Bono, & Locke, 2000; Judge, Locke, Durham, & Kluger, 1998). Moreover, though not considering all four core traits, a few studies have investigated the possibility that the traits may indicate a higher order factor. Specifically, Hunter, Gerbing, and Boster (1982) concluded that self-esteem and locus of control "act like proxies for a second-order factor, which was named self-concept" (p. 1302). Similarly, Hojat (1982) found that self-esteem, locus of control, and neuroticism had their highest loadings on a common factor. Thus, it appears that the four core traits can be treated as measures of the core self-evaluations concept.

TABLE 1
Population Correlations Among Measures of the Four Traits

	<i>Locus of control</i>		<i>Emotional stability</i>		<i>Self-esteem</i>	
	<i>p</i>	<i>n</i>	<i>p</i>	<i>n</i>	<i>p</i>	<i>n</i>
Locus of control	—					
Emotional stability	.40	31	—			
Self-esteem	.52	47	.64	19	—	
Generalized self-efficacy	.56	13	.62	7	.85	9

Note. *p* = population correlation (corrected for measurement error); *n* = number of studies.

Lack of Discriminant Validity of Core Traits

Discriminant validity refers to differential patterns of correlations of the concepts in question with other variables. In the case of core self-evaluations, this is an issue of whether the four core traits display differential associations with other, theoretically relevant, variables. Because we are using the core traits as measures of the core self-evaluations concept, if the traits showed discriminant validity with other variables, it would weigh *against* the argument that the traits simply are equivalent measures of the same (core self-evaluations) concept. There are at least three theoretically relevant variables that may be used to test if differential relations exist: subjective well-being, job satisfaction, and job performance. DeNeve and Cooper's (1998) meta-analytic results reveal the following with respect to the uncorrected correlation between three of the core traits and subjective well-being: neuroticism, average $r = -.27$; locus of control, average $r = .25$; efficacy, average $r = .23$. With respect to job satisfaction and job performance, Judge and Bono's (2001a) meta-analysis revealed that, with the exception of the correlation between generalized self-efficacy and job satisfaction (which was boosted by a single strong correlation in a one large sample study), the credibility intervals all overlap. Thus, it appears that the core traits do not display much discriminant validity in terms of their correlations with the three outcomes, again supporting the argument that they are indicators of a common concept. Judge, Erez, et al. (2002) further analyzed the discriminant validity of the four traits and found that, in general, the four traits displayed similar patterns of correlations with other variables.

Discriminant Validity Relative to Other Traits

Because core self-evaluations theory posited that emotional stability is an indicator of the broader concept, and emotional stability is one of the most established traits in personality research, it is relevant to ask whether core self-evaluations is simply another label for emotional stability. A separate but related question is how the core self-evaluations concept fits into the five-factor model of personality. As for the first question, at a conceptual level, it appears that emotional stability or neuroticism may be as broad as core self-evaluations. Eysenck's (1990) conceptualization of neuroticism considers self-esteem to be one of the lower order indicators of the concept and Watson and Clark's (1984) conceptualization of negative affectivity, which the authors have subsequently argued is neuroticism (Watson, 2000), also includes self-esteem as one of its indicators. Thus, from a conceptual standpoint, core self-evaluations does not appear to be more broad than emotional stability and, on this basis alone, one might argue that core self-evaluations should be subsumed under the emotional stability concept because the latter has a much more extensive tradition of research.

However, if the core traits and thus core self-evaluations should be subsumed under the label of emotional stability, this does not mean that typical measures of emotional stability adequately represent this broad construct. Typically, measures of neuroticism, perhaps owing to its psychopathological origins, assess dysphoria, hostility, stress, and anxiety. As Judge and Bono (2001b) noted, most measures of neuroticism do not explicitly assess beliefs about one's capabilities or control over one's environment. For example, there are no items in the neuroticism scales of the NEO-FFI (Costa & McCrae, 1992b), the International Personality Item Pool (Goldberg, 1999), or the Eysenck Personality Inventory (Eysenck & Eysenck, 1968) that explicitly reference control or capability. Thus, although core self-evaluations may be no broader than the theoretical concept of neuroticism, we believe that existing measures of neuroticism are too narrow to fully capture self-evaluations.

Another possibility is that the core self-evaluations concept is a broad trait that represents a composite of several Big Five traits (or facets of several traits). To explore the relation of the core traits to the five-factor model, Judge, Erez, et al. (2002) cumulated correlations between the core traits and the Big Five traits. The estimates were corrected for unreliability using reliability estimates reported in Judge, Bono, Ilies, and Gerhardt (2002). The correlations are based on data that Judge and colleagues have collected, as well as several articles that have reported correlations between one of the core traits and the Big Five (Jackson & Gerard, 1996; Kwan, Bond, & Singelis, 1997; Morrison, 1997).

The correlations of the core traits with the Big Five traits are provided in Table 2. As the table shows, each of the core traits correlates the most strongly with neuroticism. Furthermore, these correlations are slightly higher than the average intercorrelation among different measures of the Big Five traits. However, Table 2 also reveals that the core traits correlate moderately strongly with extraversion and conscientiousness. Openness and agreeableness also display nontrivial correlations with the core traits, but in general these correlations are considerably weaker and less consistent than those involving extraversion and conscientiousness. Setting aside neuroticism for the moment, the three core traits

TABLE 2
Relationship of Core Traits to Five-Factor Model of Personality

	<i>Neuroticism</i>	<i>Extraversion</i>	<i>Openness</i>	<i>Agreeableness</i>	<i>Conscientiousness</i>
Neuroticism	—	-.30	-.02	-.29	-.49
Self-esteem	-.66	.42	.23	.20	.46
Locus of control	-.51	.36	.03	.16	.47
Generalized self-efficacy	-.59	.54	.25	.20	.46

Note. Correlations are meta-analytic population correlations (corrected for measurement error).

display an average correlation of .44 with extraversion and .46 with conscientiousness. These are substantial correlations and support the argument that core self-evaluations is a broader concept indicated by (or a composite of) three Big Five traits—neuroticism, conscientiousness, and extraversion.

However, it is important to note that the correlations of the three core traits (self-esteem, locus of control, generalized self-efficacy) with the Big Five traits tend to be similar to the correlations of neuroticism with the other Big Five traits. An examination of Table 2 reveals that the three core traits display stronger correlations with extraversion than neuroticism. However, for conscientiousness and agreeableness, the correlations of the three core traits are actually smaller than the neuroticism–conscientiousness and the neuroticism–agreeableness correlations. On the one hand, core self-evaluations cannot be argued to be independent of extraversion and conscientiousness. On the other hand, although theoretically the Big Five represent five orthogonal personality traits, measures of neuroticism are correlated with measures of conscientiousness and extraversion. Thus, empirically, neither neuroticism nor the other three core traits are independent of extraversion and conscientiousness.

Predictive Validity

Past research has suggested that the individual core traits are related to both performance and job satisfaction. In terms of job performance, Judge and Bono's (2001b) meta-analytic results suggest that the individual core traits show validities that are quite comparable to the validity of individual measure of conscientiousness. Specifically, the average validity of the four core traits in predicting job performance was .23 in Judge and Bono's (2001a) meta-analysis, which is identical to the average validity Barrick and Mount (1991) found for conscientiousness. When traits are considered at the construct level (e.g., when conscientiousness or the four core traits are aggregated to an overall construct), again, the validity levels are roughly comparable—.30 for core self-evaluations (Judge, Erez, et al. 2002) and .31 for conscientiousness (Mount & Barrick, 1995). Much has been made of the validity of conscientiousness as a predictor of job performance. These results suggest that another trait, core self-evaluations, should be placed alongside conscientiousness as a valid personality predictor of job performance. Equally important, the results suggest that when the traits are viewed as an indicator of a common concept, validity increases rather dramatically.

If the core self-evaluations concept is an important predictor of job performance, how is it so? Judge, Erez, and Bono (1998) argued that the core self-evaluations concept should influence performance mainly through its effect on motivation. According to these authors, several theories of motivation might explain the effect of core self-evaluations on performance. Erez and Judge (2001) conducted two studies to investigate the degree to which motivation mediated the relation be-

tween core self-evaluations and performance. In a laboratory study, Erez and Judge found that the core self-evaluations factor was positively related to self-reported task motivation ($r = .39, p < .01$), an objective measure of task persistence ($r = .24, p < .05$), and task performance ($r = .35, p < .01$). In a second study, a field study of insurance agents, Erez and Judge found that the core self-evaluations factor was positively related to sales goal level ($r = .42, p < .01$), goal commitment ($r = .59, p < .01$), and both objective (sales volume; $r = .35, p < .01$) and supervisory ratings ($r = .44, p < .01$) of job performance. In both studies, Erez and Judge found that motivation mediated about half of the relation between core self-evaluations and performance. Thus, it appears that core self-evaluations is a motivational trait and this explains much of its effect on job performance.

In addition to job performance, core self-evaluations is related to job satisfaction. Judge and Bono's (2001a) meta-analysis of the relation of the four individual core traits to job satisfaction revealed an average correlation of .32 between the four individual core traits and job satisfaction. When these traits were aggregated, however, this correlation increases substantially to .41. Judge and Heller (2002) found that core self-evaluations was more strongly related to job satisfaction than was positive and negative affectivity or the Big Five traits. Thus, the core self-evaluations concept is perhaps the best dispositional predictor of job satisfaction.

Why is the core self-evaluations concept consistently related to job satisfaction? Two studies have suggested one explanation—*intrinsic job characteristics mediate the relation between core self-evaluations and job satisfaction*. By intrinsic job characteristics, we mean the Hackman and Oldham (1980) core job dimensions (task identity, skill variety, task significance, autonomy, and feedback). In three studies and across various specifications, Judge, Locke, et al. (1998) showed that roughly 37% of the influence of core self-evaluations on job satisfaction was mediated by perceptions of intrinsic job characteristics. Although the Judge, Locke, et al. study helped to illuminate the process by which core self-evaluations influenced job satisfaction, the studies used only perceptual measures of job characteristics. It is not clear from Judge, Locke, et al.'s findings to what degree the core self-evaluations concept is related to increased job complexity as opposed (or in addition) to enhanced perceptions of work characteristics. Accordingly, Judge et al. (2000) tested the mediating role of job characteristics using both objective (coding job titles using the Dictionary Occupational Titles job complexity scoring) and perceptual measures of job characteristics. In two studies, their results indicated that core self-evaluations was related to the actual attainment of complex jobs as well as to the perceptual measures of job characteristics (holding objective complexity constant). Thus, it appears that core self-evaluations influences job satisfaction, in part, because positive individuals actually obtain more challenging jobs, and also because they perceive jobs of equal complexity as more intrinsically fulfilling.

If the arguments presented earlier in the article regarding correspondence are correct and applicable to core self-evaluations, then the broad core trait should

predict broad criteria better than the individual traits. We should note that the bandwidth-fidelity issue is currently being debated in both the personality and the personnel selection literatures, with advocates on all sides of the issue (see Costa & McCrae, 1992a; Eysenck, 1992; John, Hampson, & Goldberg, 1991; Ones & Viswesvaran, 1996; Schneider, Hough, & Dunnette, 1996). Our specific concern here is the relative predictive validity of the broad core self-evaluations concept versus the four specific traits. Erez and Judge (2001) have addressed this issue explicitly in terms of the relation of core self-evaluations to motivation and job performance. They found that the overall core concept always predicted motivation and performance, whereas the individual traits did so inconsistently. Judge, Erez, et al. (2002) also demonstrated that the core factor better predicted criteria (job satisfaction, life satisfaction) than did the individual core traits. Thus, it appears that the overall concept is a more consistent predictor of outcomes than are the individual traits.

MEASUREMENT OF CORE SELF-EVALUATIONS

Despite support for the concept of core self-evaluations, one limiting issue is the measurement of the trait. Most traits are measured directly. For example, the best-known measures of conscientiousness measure the trait with scales that consist of 9 to 12 items (Benet-Martínez & John, 1998; Costa & McCrae, 1992b; Goldberg, 1999). In contrast, core self-evaluations have been measured indirectly, with relatively lengthy scales (e.g., Judge et al., 2000; Judge, Locke, et al., 1998). This measurement strategy has several limitations.

First, the measures are indirect. This means that the core self-evaluations trait must be extracted by factor analyzing the four scales that indicate the trait (e.g., Judge, Erez, et al., 1998). A direct measure, because it is designed to precisely measure the underlying concept itself, rather than the indicators of the concept, may be more valid. The indirect measurement approach of past research also leads to confusion over whether the trait is a latent or aggregate construct (see later). Second, because of this indirect measurement from existing scales, the measure of core self-evaluations is relatively long. Judge, Locke, et al. (1998) and Judge et al. (2000) measured core self-evaluations with four scales that total 38 items. Given the relative brevity of measures of other traits, it would seem unnecessary to measure core self-evaluations with a combination of scales that, cumulatively, are relatively long. The length of the indirect measure may limit its usefulness, especially in organizational settings. Rather than utilizing a lengthy measure, some researchers may choose to measure only a single indicator (e.g., neuroticism or emotional stability) and thereby miss a substantial amount of valid variance. A final possible limitation is that of empirical validity. The core traits display slightly differential relations with criterion variables (e.g.,

in Judge & Bono's, 2001a, meta-analysis, emotional stability predicted the criteria less well than the other core traits, and the self-esteem-performance correlations were highly variable across studies); it is possible that a direct measure would achieve higher, and less variable, levels of validity.

Accordingly, Judge, Erez, Bono, and Thoresen (2003) developed and validated a direct measure of core self-evaluations, which they termed the Core Self-Evaluations Scale (CSES). This measure consists of 12 items and is provided in Table 3. To test the validity of the measure, four independent samples were collected. Their results suggested that the measure is reliable, as assessed by internal consistency (average $\alpha = .84$) and test-retest reliability ($r = .81$ over a 3-month period). Furthermore, the inter-source (self-significant other) level of agreement was comparable to that of other personality measures. For example, the self and peer reports for the CSES were correlated $r = .43$, a level of convergence similar to that typically obtained in research with established Big Five measures (Barbaranelli & Caprara, 2000; Costa & McCrae, 1992b; Mount, Barrick, & Strauss, 1994). Factor-analytic results also suggested that the 12 CSES items loaded on a single dimensional construct.

Furthermore, the CSES displayed convergent validity as evidenced by its correlations with the four core traits. Second, it was significantly correlated with job satisfaction, life satisfaction, and supervisory ratings of job performance and dis-

TABLE 3
The Core Self-Evaluations Scale (CSES)

Instructions: Following are several statements about you with which you may agree or disagree. Using the response scale provided, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly agree

-
- ____ I am confident I get the success I deserve in life.
 - ____ Sometimes I feel depressed. (reverse-scored)
 - ____ When I try, I generally succeed.
 - ____ Sometimes when I fail I feel worthless. (reverse-scored)
 - ____ I complete tasks successfully.
 - ____ Sometimes, I do not feel in control of my work. (reverse-scored)
 - ____ Overall, I am satisfied with myself.
 - ____ I am filled with doubts about my competence. (reverse-scored)
 - ____ I determine what will happen in my life.
 - ____ I do not feel in control of my success in my career. (reverse-scored)
 - ____ I am capable of coping with most of my problems.
 - ____ There are times when things look pretty bleak and hopeless to me. (reverse-scored)
-

played incremental validity in predicting these criteria controlling for the core self-evaluations factor as well as the traits from the five-factor model. Judge et al. (in press) noted that the CSES may be labeled a measure of emotional stability. If so, the CSES should prove useful in future research on emotional stability.

Cross-Cultural Evidence of the Core Self-Evaluations Scale

Personality constructs, such as the Five-Factor Model, have been extensively examined across different countries and languages, to find further evidence for their cross-cultural robustness (Benet-Martinez & John, 1998; McCrae & Costa, 1997). To date, no such cross-cultural comparison has been made with the CSES. In this article, we report some findings concerning the psychometric properties and validities of Spanish and Dutch versions of the CSES as studied with samples from Spain and The Netherlands. The validities of the scales were examined through correlating them with the Big Five dimensions (discriminant validity) and through relating them to job relevant variables; that is, job satisfaction and career ambition (predictive validity).

The data were collected from three independent samples, one student sample from Spain (Sample 1), one student sample from The Netherlands (Sample 2), and employees of an insurance company (Sample 3) from The Netherlands. In all three samples, we collected data on the CSES items. Moreover, in one of the student samples (Sample 1), we collected data on career ambition; in the field sample (Sample 3), we collected data on the Big Five personality traits and job satisfaction. The three samples allow us to examine the psychometric properties of the CSES. Both the field sample and the Spanish student samples allow us to investigate various aspects of the validity of the CSES.

Participants in Sample 1 were undergraduates enrolled at a Spanish university. Participants completed a questionnaire in a classroom session as a pretest for a lab experiment. A total of 427 individuals completed the CSES questionnaire and the questions concerning their career ambition. Participant ages ranged from 18 to 34 years ($M = 20.9$, $SD = 2.2$); 55% were women. Participants in Sample 2 were undergraduates at a Dutch university. They received course credit for their participation. There were 509 participants with an average age of 21.5 years ($SD = 5.4$); 70% of participants were women. Participants completed the self-report surveys in a classroom setting. Sample 3 consisted of employees from a large insurance company in The Netherlands. A total of 190 employees from the organization were surveyed about their organizational climate and aspects of their job. In total, 99 employees returned usable survey packets, for a response rate of 52%. The mean age of respondents was 37.2 years ($SD = 9.4$) and respondents reported being employed in their current positions for an average of 6.4 years ($SD = 9.0$). Fifty seven percent of the respondents were men.

Core self-evaluations. Core self-evaluations were measured with the Core Self-Evaluations Scale (Judge et al., in press). The 12 items of the CSES were translated into Spanish and Dutch. The psychometric properties of the Spanish and Dutch CSES are presented in the results section.

The Big Five traits. The Big Five traits were measured in Sample 3. We used 60 items derived from the Five-Factor Personality Inventory (FFPI; Hendriks, Hofstee, & De Raad, 1999). The FFPI results from the Abridged Big-Five Dimensional Circumplex taxonomic model of traits (Hofstee, De Raad, & Goldberg, 1992). The five scales (Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness) showed good reliabilities, ranging from .89 to .93 in previous studies with $N = 1311$. The FFPI also showed good convergent validities with the 225-item trait-adjective rating list and the Revised NEO Personality Inventory (Hendriks, 1997, p. 70). In this study, the coefficient alpha (α) reliabilities of the scales were .80 (Neuroticism), .85 (Extraversion), .84 (Autonomy), .72 (Agreeableness), and .77 (Conscientiousness).

Career ambition. Career ambition was measured in Sample 1. Three items were derived from the Ambition for a Managerial Position Scale (Van Vianen, 1999), reflecting individuals' intention to fulfill a top position in the future, to have a high-status position, and to strive for making promotions in their job. The reliability of the scale was .77.

Job satisfaction. Job satisfaction was measured in Sample 3 using five items from the Brayfield and Rothe (1951) measure of overall job satisfaction. The reliability for this scale was .82.

Psychometric properties of the Spanish and Dutch CSES. Table 4 presents descriptive statistics on the CSES, as well as reliability estimates, across the data sets. As shown in Table 4, the distribution of the CSES was similar across the samples. The means ranged from 3.61 to 3.71 with an average of 3.68 and the standard deviations ranged from .51 to .58 with an average of .54. None of the means were significantly different from one another. Across the three measurements, all coefficient alpha reliability estimates were greater than .80 with an average reliability of .83. These results are similar to the ones that were found with the English version of the CSES (Judge et al., in press). Confirmatory factor analysis, conducted using LISREL 8.50 (Jöreskog & Sörbom, 2001), was used to test the underlying structure of the Spanish and Dutch scales. A variance–covariance matrix was entered as input into the program. The individual items of the scale served as indicators of one latent variable. Three separate tests of the factor structure of the CSES (for each sample) were conducted. To test the fit of the one-factor model, we report the following fit statistics: chi-square (χ^2) with corresponding degrees of

TABLE 4
 Descriptive Statistics and Zero-Order Correlations Between the Core Self-Evaluation Scale (CSES), the Five-Factor Model of Personality, Job Satisfaction, and Career Ambition

<i>Sample</i>	<i>M</i>	<i>SD</i>	<i>Internal Consistency</i>	<i>Neuroticism</i>	<i>Extraversion</i>	<i>Openness</i>	<i>Agreeableness</i>	<i>Conscientiousness</i>	<i>Job Satisfaction</i>	<i>Career Ambition</i>
1	3.61	.54	.82	—	—	—	—	—	—	.29**
2	3.71	.58	.84	—	—	—	—	—	—	—
3	3.73	.51	.82	-.66**	.36**	.32**	.23*	.34**	.56**	—

Note. * $p < .05$ (two tailed test); ** $p < .01$ (two tailed test).

freedom, Root-Mean-Square Residual, Root-Mean-Square Error of Approximation, Goodness-of-Fit Index, Comparative Fit Index, Relative Fit Index, and the average factor loading of the items on the factor. The fit statistics for the single factor model are reported in Table 5. These fit statistics represented a good fit of the hypothesized model to the data across the three samples and suggest that the CSES items are indicators of a single latent construct. Moreover, the fit indexes are in accordance with those that were found with the English version of the CSES (Judge et al., in press).

Indicators of validity. Table 4 presents the correlations of the CSES with the Big Five dimensions as measured with Sample 3. As in the Judge et al. (in press) study, we expected the CSES to be correlated with conscientiousness and extraversion (see also Judge & Bono, 2001b). As shown in Table 4, both conscientiousness ($r = .34, p < .01$) and extraversion ($r = .36, p < .01$) were moderately correlated with CSES. Judge et al. (in press) found weak links between the core traits and the other Big Five traits, agreeableness and openness. However, as Table 4 shows, the relations of the CSES with Agreeableness and Openness in our sample were more substantial (agreeableness: $r = .23, p < .05$; openness: $r = .32, p < .01$). The moderate correlation with openness is likely to be the result of the different content of this scale (i.e., it rather refers to autonomy) as compared to the openness scale of the NEO-PI-R. As expected, we found a high negative correlation between the CSES and neuroticism ($r = -.66, p < .01$). These results suggest that the Dutch CSES is a valid construct inasmuch as it strongly converges with neuroticism and moderately converges with conscientiousness and extraversion, according to previous findings with the English CSES. We tested the predictive validity of the Dutch CSES using job satisfaction as the criterion and we tested the predictive va-

TABLE 5
Fit Statistics from Confirmatory Factor Analysis of Single Dimensional
Structure of the Spanish and Dutch Core Self-Evaluations Scales (CSES)

Fit Statistic	Spanish CSES		Dutch CSES
	Students	Employees	Students
Chi-square (χ^2)	88.92		168.83
Degrees of freedom	50		50
Root mean square residual	.03		.05
Root mean square error of approximation	.04		.07
Goodness of fit index	.97		.95
Comparative fit index	.96		.93
Relative fit index	.90		.88
Average factor loading	.52		.54

Note. ^a $N = 427$. ^b $N = 509$. ^c $N = 99$.

lidity of the Spanish CSES using career ambition as the criterion. Past research found the core self-evaluation construct to be related to job satisfaction (Erez & Judge, 2001; Judge & Bono, 2001a; Judge et al., 2000; Judge, Locke, et al., 1998). Table 4 shows that in Sample 3 the Dutch CSES was strongly and positively correlated with job satisfaction ($r = .56, p < .01$). We already argued that core self-evaluations are a motivational trait. Career ambition can be conceived of as the motivation to move forward in one's career. Moreover, Judge et al. (2000) showed that individuals with positive self-evaluations obtained more challenging jobs. Therefore, we examined the relation between career ambition and the Spanish CSES. Table 4 shows a significant moderate correlation between career ambition and the Spanish CSES ($r = .29, p < .01$).

To summarize, the results with the Spanish and Dutch versions of the CSES corroborate those that were found with the original English version of the CSES concerning their psychometric properties and some indicators of validity. Future cross-cultural studies should further establish their test-retest reliabilities and should provide more evidence for their predictive validities.

AN AGENDA FOR FUTURE RESEARCH

Because of the development of the core self-evaluation concept (Judge et al., 1997), considerable research has been performed that supported the existence of core self-evaluations as a higher order factor of self-esteem, emotional stability, generalized self-efficacy, and locus of control. Moreover, several indicators of its validity have been thoroughly tested and core self-evaluations proved to be a better predictor than each of its underlying traits. Finally, a direct measure of CSES has been developed and has been found to be reliable and valid.

The core self-evaluations construct is a promising one and might induce abundant research in diverse research areas. However, some issues concerning the core self-evaluations are not yet addressed and need to be the focus of future research. Later, we discuss some of these research themes.

Two Indicators of Emotional Stability

If the argument is that there are two main indicators of emotional stability—one that may be termed anxiety and another that may be termed depressive self-concept (or positive core evaluations in the positive)—this hypothesis needs to be documented in future research. The first step would be to determine whether such a structure can be confirmed via confirmatory factor analysis. The second step would be to show that these two indicators display differential patterns of correlations with theoretically relevant variables. Specifically, the anxiety aspect of emotional stability would be expected to correlate more highly with stress and strain

and the depressive aspect would be expected to correlate more highly with criteria such as job satisfaction, life satisfaction, and job performance.

Person-Centered and Circumplex Approaches to Personality

The validity of personality dimensions has traditionally been examined through predicting job criteria from single personality constructs. This variable-centered approach toward predictive validity focuses on personality differences between individuals rather than on the clustering of personality variables within individuals (i.e., a person-centered approach). Although core self-evaluations comprises a clustering of four traits, the construct has been developed from a variable-centered perspective. The four traits are perceived as belonging to a single higher order concept rather than reflecting a personality pattern within individuals. A person-centered approach was recently used in a study of De Fruyt (2002), in which he identified two groups of individuals with similar personality patterns through cluster analyzing individuals' NEO-PI-R scores. The first group included individuals with relatively high scores on neuroticism and relatively low scores on extraversion and conscientiousness. The second group comprised individuals with relatively low scores on neuroticism and relatively high scores on conscientiousness. Individuals of the first group were significantly more unemployed and—if employed—less satisfied with their job and experienced more stress than individuals of the second group. Additionally, circumplex approaches to trait structures (see Hofstee et al., 1992) suggest the existence of specific facets combining levels of neuroticism with levels of each of the other Big Five traits. When applying these circumplex models to core self-evaluations and Big Five traits, a more fine-tuned framework of job-related personality typologies might emerge. Furthermore, future studies should examine if these personality typologies (i.e., the constellation of core self-evaluations and Big Five traits) could further increase the predictive validity of personality measures.

Stability of Core Self-Evaluations

In work and organizational psychology, there is a longstanding dispositional–situational controversy. The dispositional approach proposes that individuals possess stable traits that significantly influence their affective and behavioral reactions to organizational settings (Davis-Blake & Pfeffer, 1989). Individual differences in personality traits are considered to be extremely stable in adults, even over periods of as long as three decades, during which most people will have experienced major life changes (McCrae, 2002). Others questioned the importance of dispositions and took a situational perspective for explaining (differences in) organizational be-

havior. The situational approach proposes that individuals are highly responsive and adaptive to organizational settings and that personality traits change in response to organizational settings (Davis-Blake & Pfeffer, 1989). McCrae (2002), however, noted that personality changes associated with environmental influences are difficult to assess because of ambiguity of the causal direction, small sample-sizes and the lack of replication of the findings.

So far, only one study examined the stability (over a 3-month period) of core self-evaluations (Judge et al., *in press*). More research has been done concerning the stability of its underlying constructs (i.e., neuroticism and self-esteem). Neuroticism is considered a relatively stable personality construct (e.g., Costa & McCrae, 1988; McCrae, 1993). To illustrate, Costa and McCrae (1988) found a 6-year stability coefficient of .82. Furthermore, a study done on moderator variables of stability in personality (including neuroticism) led them to conclude that "These findings confirm the view that personality traits are extremely stable in adulthood and that uncorrected stability coefficients, even those as high as .80, underestimate true stability" (McCrae, 1993, p. 583).

Self-esteem is generally assumed to be a stable trait. However, Trzesniewski, Donnellan, and Robins (2003) recently showed that the stability of self-esteem is relatively low during early childhood, increases throughout adolescence and young adulthood, and then declines during midlife and old-age. They concluded that, because substantial levels of continuity across decades of life were found, self-esteem is best to be characterized as showing both continuity and change across the life span (p. 216). Moreover, some researchers not only consider the implications of the level of self-esteem, but also the (in)stability of self-esteem of importance. Kernis, Cornell, Sun, Berry, and Harlow (1993), for instance, stated:

It has also become clear that people differ in the extent to which they exhibit short-term fluctuations in their contextually based self-esteem (i.e., stability of self-esteem). Most important, recent research indicates that differences between and within high and low self-esteem individuals (SEs) emerge as a function of stability of self-esteem. (p. 1190)

Research on the stability of core self-evaluations will have to answer the question with regard to the stability of this construct.

Although the stability of traits is an important issue, the question whether dispositions can be changed is not fully answered by showing their stability. Environmental influences that are intense, sustained, and/or deliberately designed may induce small but meaningful personality changes over time (McCrae, 2002). Because the core self-evaluations are related to highly appreciated work outcomes like motivation, job satisfaction, and job performance, the malleability of the core self-evaluation is an issue worthy of future attention.

Self versus Other Ratings

Past research has utilized self versus other ratings of core self-evaluations (Judge et al., *in press*). This raises the interesting question of whether individuals can be too positive in their self-assessment. In the leadership literature, London (2002) has discussed the role of self-insight and whether self-other discrepancies in leadership ratings reflect overestimates or underestimates of the leader. Though defining reality in such a context may not be a productive pursuit, it does raise the question of whether one can be too positive in one's self-assessment. Baumeister, Campbell, Krueger, and Vohs (2003) commented in a recent review, "Perhaps it is more valuable and adaptive to understand oneself honestly and accurately, even when this means feeling bad about oneself" (p. 38). In the context of core self-evaluations, can one be too positive for one's own (or other's) good? This would be an interesting and important area for future research.

States and Traits

Related to the aforementioned, it is not unusual for the individual core traits to be treated as dependent variables in the various literatures in which they are studied. This is particularly true for the core trait that seems to be at the center of core self-evaluations: self-esteem. For example, Keltikangas-Jaervinen, Kivimaki, and Keskiivaara (2003) investigated the effect of parental child-rearing practices on self-esteem; MacMaster, Donovan, and MacIntyre (2002) studied the effect of childhood disability on self-esteem; and Bizman and Yinon (2002) investigated the effect of the outcomes of athletic contests on self-esteem. There is evidence to suggest that the heritability of the individual core traits is comparable to that of measures of neuroticism (Judge & Bono, 2001a). However, self-esteem has often been used as a dependent variable and, hence, one may wonder whether, and to what degree, core self-evaluations is malleable and influenced by the situation.

CONCLUSION

In this article we have presented a review of core self-evaluations research. Although introduction of the term is relatively new, because it is a latent concept that is indicated by some of the more commonly investigated traits in psychology, its origins are not new. We have presented a review of core self-evaluations research, introduced some new research on the first direct measure of the concept, and suggested some new areas for future research. We believe the concept is, along with conscientiousness, the most useful personality trait in the realm of human performance.

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