

## VALIDATION OF A GERMAN-LANGUAGE CORE SELF-EVALUATIONS SCALE

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TOBIAS HEILMANN AND KLAUS JONAS  
*University of Zurich, Switzerland*

In this study the validation of a German-language Core Self-Evaluations Scale (CSES; Judge, Erez, Bono, & Thoresen, 2003) is presented. Core self-evaluations are fundamental appraisals that individuals hold about their own capability, effectiveness, and worthiness as a person (Judge et al., 2003). Data were collected from 2 samples, 200 from the workforce and 134 students. The data supported the underlying single-factor solution. The German-language CSES (G-CSES) was found to be reliable and shows convergent validity with regard to internality (Krampen, 1981) and International Personality Item Pool (IPIP40) neuroticism, extraversion, and conscientiousness scales (Hartig, Jude, & Rauch, 2003) and discriminant validity with regard to the IPIP40 openness scale. The scale correlates significantly with job satisfaction and life satisfaction. Additionally, the G-CSES is incrementally valid over and above traits of the 5-factor model of personality.

*Keywords:* core self-evaluations, German language Self-Evaluations Scale, International Personality Item Pool 40, job satisfaction, life satisfaction.

Recently, research on a broad personality trait termed *core self-evaluations* (CSE) has received a great deal of attention. CSE is a “*fundamental appraisal of one’s worthiness, effectiveness, and capability as a person*” (Judge, Erez, Bono, & Thoresen, 2003, p. 304). According to Judge, Locke, and Durham (1997), the core concept is indicated by four traits sharing conceptual similarities (Judge & Bono, 2001): (1) *self-esteem* (Rosenberg, 1965); (2) *emotional stability*, which is *low neuroticism, the tendency to be confident, secure, and steady* (Goldberg,

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Tobias Heilmann and Klaus Jonas, Department of Psychology, Social and Business Psychology, University of Zurich, Switzerland.

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Please address correspondence and reprint requests to: Tobias Heilmann, University of Zurich, Department of Psychology, Social and Business Psychology, Binzmuehlestrasse 14, Box 13, 8050 Zurich, Switzerland; Phone: +41 44 635 7232; Fax: +41 44 635 7239; Email: [t.heilmann@psychologie.uzh.ch](mailto:t.heilmann@psychologie.uzh.ch)

1990); (3) *generalized self-efficacy*, an evaluation of *how well one can perform across a variety of situations* (Locke, McClear, & Knight, 1996); and (4) *locus of control, the belief about the causes of events in one's life, specifically internal locus of control, when individuals see events as being contingent on their own behavior* (Rotter, 1966). A person scoring high on CSE is well-adjusted, positive, self-confident, efficacious, and believes in his or her own agency (Judge et al., 2003).

Judge et al. (1997) originally introduced CSE as a potential explanatory variable in the dispositional source of job satisfaction. For example, Judge, Locke, Durham, and Kluger (1998) found that people with a positive self-concept (scoring high on CSE) are more likely to perceive their jobs as interesting, significant, and autonomous than are those with a negative self-concept (scoring low on CSE). In addition to CSE being a fundamental appraisal, it also affects life satisfaction in general (Heller, Watson, & Ilies, 2004; Judge et al., 1998).

The four CSE indicators are interrelated. Specifically, all of the core traits assess the positivity of self-description (Judge, van Vianen, & de Pater, 2004). Not surprisingly, Judge, Erez, Bono, and Thoresen (2002) found considerable correlations (average  $r = .60$ ) among the four CSE dimensions. Furthermore, a number of studies by Judge and colleagues have found that the four traits load on a single factor, both in confirmatory and exploratory factor analysis (Erez & Judge, 2001; Judge, Bono, & Locke, 2000; Judge, Erez, & Bono, 1998; Judge et al., 1998), which suggests one latent, underlying concept of CSE (Judge et al., 2003). Furthermore, in several studies significant evidence has been offered regarding the concept's validity. Within the organizational context, the construct CSE is significantly related to important criteria such as job satisfaction (Judge et al., 1998), job performance (Judge & Bono, 2001; Judge et al., 2003), career ambition (Judge et al., 2004), goal commitment (Bono & Colbert, 2005), goal setting (Erez & Judge, 2001), motivation (Erez & Judge, 2001; Judge, Erez, & Bono, 1998), and perceived job characteristics (Judge, Bono, & Locke, 2000). Within other areas of psychological research, CSE is related to burnout (Best, Stapleton, & Downey, 2005), depression (Judge et al., 2002), happiness (Piccolo, Judge, Takahashi, Watanabe, & Locke, 2005), life satisfaction (Judge et al., 1998), physical and psychological health functioning (Tsaousis, Nikolaou, Serdaris, & Judge, 2007), positive and negative affectivity (Judge, Thoresen, Pucik, & Welbourne, 1999), and strain and stress (Judge et al., 2002).

Judge et al. (2003) developed and validated a direct measure of CSE, called the Core Self-Evaluations Scale (CSES). The CSES consists of 12 items developed from the Neuroticism scale of the NEO-FFI Personality Inventory (Costa & McCrae, 1992), Rosenberg's Self-Esteem Scale (1965), the internality subscale of Levenson's (1981) Internal, Powerful Others, and Chance (IPC) scale, and a generalized self-efficacy scale developed by Judge et al. (1998). Results

suggested that the CSES is reliable, as assessed by internal consistency (average  $\alpha = .84$ ) and test-retest reliability ( $r = .81$ ). The CSES showed convergent validity by its significant correlations with the four scales of the indicators: self-esteem, average  $r = .87$ ; generalized self-efficacy, average  $r = .82$ ; neuroticism, average  $r = -.76$ ; and internal locus of control, average  $r = .50$  (Judge et al., 2003).

The purpose of the present study was to develop and validate a German-language version of the CSES that is suitable for use in applied psychological domains such as organizational or clinical psychology. The aim was to answer the following relevant questions:

1. Can the single-factor structure of CSE be confirmed for German-speaking workforce and student samples?
2. Does the measure show construct validity, that is, convergent and discriminant validity?
3. Does the German CSES correlate with job satisfaction and life satisfaction and also show criterion validity?
4. Is the scale incrementally valid over conceptually similar variables?

#### VALIDATION STEPS OF THE GERMAN-LANGUAGE CORE SELF-EVALUATIONS SCALE

Factorial validity is essential for developing a scale such as the CSES. If a measure can be used to assess a construct in a reliable and valid manner, the factor structure should match theoretical predictions (Schwab, 1980). That is, the CSES should measure and display the single-factor structure of CSE. Indeed, in the study by Judge et al. (2003) confirmatory factor analysis supported the underlying single-factor solution of the scale as proposed. Thus, the single-factor structure in the German-language CSES (G-CSES) was expected.

**H1:** The G-CSES will assess a single dimensional construct.

Further, we expected relationships between the traits of the five-factor model of personality conscientiousness and extraversion and CSE. Self-efficacy is sometimes seen as an aspect of conscientiousness (Costa & McCrae, 1992). Therefore, generalized self-efficacy – a person's effective dealing with a variety of situations – should be associated with CSE. Judge and Bono (2001) found that neuroticism and self-esteem are significantly correlated with extraversion and conscientiousness. Extraversion has consistently been found to be related to conscientiousness (Judge et al., 2003). In sum, it is "reasonable to assume that those who tend to be more sociable, assertive, active, and upbeat (extraverts) will tend to evaluate themselves, their environment, and their control over their environment in a more positive manner" (Judge et al., 2003, p. 308). Thus, similarly to the findings of Judge et al. (2003), we expected to find the following relationships with G-CSES:

**H2.1:** The G-CSES will be highly negatively related to neuroticism.

**H2.2:** The G-CSES will be moderately positively related to locus of control.

**H2.3:** The G-CSES will be moderately positively related to conscientiousness.

**H2.4:** The G-CSES will be moderately positively related to extraversion.

If the G-CSES has discriminant validity, it should “not correlate too high with measures from which it is supposed to differ” (Campbell, 1960, p. 548). Analogous to the study by Judge et al. (2003), the G-CSES should correlate weakly or not statistically significantly with constructs that theoretically seem to be totally distinct from CSE, such as the traits of agreeableness and openness in the five-factor model of personality traits. Results by Judge et al. (2003) support discriminant validity of the original CSES.

**H3.1:** The G-CSES will be weakly related to agreeableness.

**H3.2:** The G-CSES will be weakly related to openness.

Importantly, the G-CSES should show criterion validity. Judge et al. (1997) originally introduced CSE as a potential explanatory variable in the dispositional source of job satisfaction. It seems that CSE influences job satisfaction, “because positive individuals actually obtain more challenging jobs, and also because they perceive jobs of equal complexity as more intrinsically fulfilling” (Bono & Judge, 2003, p. 9). Not surprisingly, Judge et al. (2003) found a significant relationship between CSES and job satisfaction in a sample of employees. In the present study we included a sample of people in the workforce and a sample of students with part-time jobs. According to Boegli, Inversin, Müller, and Teichgräber (2005), 78% of all Swiss university students also have part-time paid employment (psychology students:  $M = 10$  hours per week), primarily for economic reasons (68%). We assumed that those students are able to assess their job satisfaction on a global level.

**H4.1:** The G-CSES will be positively related to job satisfaction in both samples.

Judge et al. (2003) also found significant correlations between CSE and life satisfaction (average  $r = .51$ ). This is in accord with the view that the concept of CSE is a fundamental appraisal, affecting satisfaction with life in general (Heller et al., 2004).

**H4.2:** The G-CSES will be positively related to life satisfaction.

However, the G-CSES should not only show good criterion validity. It should also demonstrate incremental validity, which is the case when a measure “add[s] to the prediction of a criterion above what can be predicted by other sources of data” (Hunsley & Meyer, 2003, p. 446). Moreover, “it is important to justify how the new scale provides information that was formerly unavailable or less adequately obtained” (Hunsley & Meyer, p. 449). In fact, the original CSES adds incremental validity beyond the scales of the four indicators as well as the traits of the five-factor model of personality (Judge et al., 2003).

**H5:** The G-CSES will add incremental validity beyond locus of control, internality, and traits of the five-factor model of personality concerning the criteria of job satisfaction and life satisfaction.

## METHOD

### PARTICIPANTS

Two independent native German-speaking samples, from Germany and Switzerland, participated in a voluntary online survey. Participants were contacts of the research team and members of psychology students' mailing lists. They were invited by email to complete a Web-based questionnaire, and 334 (69%) did so. The following two samples were collected in order to replicate results by Judge et al. (2003): participants in Sample 1 (49.5% female, 50.5% male) were 200 from the permanent workforce (85% salaried employees, 15% miscellaneous); 78.5% of the participants lived in Germany and 21.5% in Switzerland. Participants' ages in Sample 1 ranged from 19 to 66 ( $M = 35.5$  years,  $SD = 9.1$ ). Sample 2 (73.9% female and 25.4% male) consisted of 134 master's level graduate students; 65% lived in Switzerland and 35% in Germany. Participants' ages in Sample 2 ranged from 19 to 45 ( $M = 25.4$ ,  $SD = 4.12$ ). Sixty percent ( $n = 80$ ) of the students had some work experience, such as part-time jobs.

### MEASURES

**Demographics** Participants in both samples completed a form that asked about demographic information such as sex, occupation, marital status, country of residence, and first language.

**Life satisfaction** Life satisfaction was measured in both samples using Schumacher's (2003) German-language version of the Satisfaction With Life Scale by Diener, Emmons, Larsen, and Griffin (1985). This 5-item measure consisted of statements such as "I am satisfied with my life." Each item is scored on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

**German-language Core Self-Evaluations Scale** CSE were measured using a German-language adaptation (G-CSES; Heilmann, 2006; see Appendix) of the CSES by Judge et al. (2003). Like the original CSES, the G-CSES measure consists of 12 statements. Judge et al. (2003) reported that CSES items were generated and developed from a pool of 65 items based on the four core traits. Examples are "I am confident I get the success I deserve in my life" and "I do not feel in control of my success in my career." Each item is scored on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). For the German-language adaptation, the original English version of this scale was translated and back-translated by the authors of this study and English native speakers. Items such as "Sometimes, I do not feel in control of my work" or "There are times when

things look pretty bleak and hopeless to me” could not be translated literally; therefore, linguistic differences were taken into account. Furthermore, guidelines for translations were used as described by Van de Vijver and Hambleton (1996). For example, short and simple sentences were used and unnecessary words avoided. After translating the English items into German, independent native English speakers translated the items back into English. Some back-translations varied slightly from the original in wording, for example adjectives or specific expressions. But these variations were acceptable, because they were equivalent in meaning and the G-CSES was finalized (see Appendix).

**Locus of control** Locus of control was measured using the internality subscale of Krampen’s (1981) IPC-Questionnaire of Locus of Control, a German version of Levenson (1981). Examples of the 23 items include “My life is determined by my own actions” and “When I get what I want, it is usually because I worked hard for it.” Each item is scored on a 6-point scale from 1 (*very wrong*) to 6 (*very true*).

**Job satisfaction** Overall job satisfaction was measured in both samples using a single-item measure, asking “If you are employed, how satisfied are you overall with your work?” The item was scored on a 5-point scale from 1 (*very satisfied*) to 5 (*very dissatisfied*).

**Neuroticism, extraversion, openness, agreeableness, and conscientiousness** The traits of the five-factor model of personality were measured using the German online version by Hartig et al. (2003) of Goldberg’s (1999) International Personality Item Pool (IPIP). The scales measure the “Big Five” domains as described by Costa and McCrae (1992). Hartig et al. validated the German-language IPIP with the NEO-FFI (Borkenau & Ostendorf, 1993). It shows very convincing psychometrics as well as a five-factor structure. For example, neuroticism is measured by items such as “I panic easily” or “I have frequent mood swings.” Each item is scored on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

**Online survey tool** The Web-based questionnaire was created and run by using the online survey tool Online Panel Site Tool 5.0 (Globalpark, 2006).

## PROCEDURE

Participants were invited by email to complete a Web-based questionnaire. Participants were linked from the invitation email to the Web questionnaire. They were informed that the questionnaire consisted of questions on their personality and aspects of satisfaction and assured that all information they provided would remain confidential. They were told that participation would take approximately 10 minutes. At the bottom of each page, participants’ responses were submitted. The Web site was left open for four weeks. On average, participants took 12 minutes to complete the questionnaire.

## RESULTS

### PRELIMINARY ANALYSIS

A one-way ANOVA was conducted to examine differences in variables between Sample 1 (workforce) and Sample 2 (students). Internal consistencies (Cronbach's  $\alpha$ ), means, and standard deviations for the scales in both samples are presented in Table 1.

**TABLE 1**  
INTERNAL CONSISTENCIES, MEANS, AND STANDARD DEVIATIONS FOR BOTH SAMPLES

Scale	Workforce ( $n = 200$ )			Students ( $n = 134$ )		
	$\alpha$	$M$	$SD$	$\alpha$	$M$	$SD$
SWLS	.82	5.41	.91	.82	5.36	1.02
G-CSES	.75	3.73	.47	.79	3.67	.50
IPC-I	.65	4.57	.51	.68	4.50	.46
JS	-	3.98 <sub>a</sub>	.89	-	3.66 <sub>b</sub>	.83
IPIP40-N	.84	2.09	.65	.85	2.27	.67
IPIP40-E	.82	3.48	.65	.82	3.35	.64
IPIP40-O	.72	3.65	.60	.80	3.80	.70
IPIP40-A	.77	3.79	.55	.76	3.79	.53
IPIP40-C	.74	3.82 <sub>a</sub>	.51	.82	3.49 <sub>b</sub>	.61

*Note:* SWLS = Satisfaction with Life Scale; G-CSES = German-language Core Self-Evaluations Scale; IPC-I = IPC-Questionnaire of Locus of Control, internality subscale; JS = Job Satisfaction; IPIP40 = International Personality Item Pool (N = neuroticism, E = extraversion, O = openness, A = agreeableness, C = conscientiousness). JS was filled out by 80 participants in Sample 2 (students). JS was scored on a 5-point scale from 1 (*very satisfied*) to 5 (*very dissatisfied*). Means in the same row that do not share subscripts differ at  $p < .01$ .

Specifically, the G-CSES shows acceptable internal consistency in both samples. Comparing the two samples, those in the workforce (Sample 1) showed significantly lower overall job satisfaction than Sample 2 (students with work experience),  $F(1) = 5.29$ ,  $p < .05$ ,  $d = .05$ , an effect size that is considered to be small (Cohen, 1992). Further, conscientiousness was significantly higher in Sample 1 than in Sample 2,  $F(1) = 27.29$ ,  $p < .000$ ,  $d = .87$ , which is an effect size that is considered to be large (Cohen). Across both samples, no differences in variables were found between German and Swiss participants,  $p > .05$ .

### TEST FOR HYPOTHESES

To test H1, confirmatory factor analyses (Byrne, 2001) for both samples were calculated using Analysis of Moment Structures (AMOS 6.0; Arbuckle, 2005). Confirmatory factor analysis was used to determine if the single factor and the loadings of measured indicators, operationalized through the CSES-items, conformed to what was expected on the basis of the preestablished CSES theory

by Judge et al. (2003). The data supported the underlying single-factor solution of the scale as proposed by Judge et al. (2003). The fit statistics showed a good fit to the data for both samples according to Browne and Cudeck (1993). The fit statistics are shown in Table 2.

**TABLE 2**  
**FIT STATISTICS FROM CONFIRMATORY FACTOR ANALYSIS OF SINGLE-DIMENSIONAL STRUCTURE OF THE G-CSES**

Fit statistics	Sample 1 ( <i>n</i> = 200)	Sample 2 ( <i>n</i> = 134)
$\chi^2$	56.18	56.25
<i>df</i>	44	46
$\chi^2/df$	1.28	1.22
<i>p</i>	.10	.14
TLI	.96	.96
NFI	.89	.87
IFI	.98	.97
RMSEA	.04	.04

*Note:* TLI = Tucker-Lewis Index; NFI = Normed Fit Index; IFI = Index of Fit; RMSEA = Root Mean Square Error of Approximation.

In order to test the construct validity (Cronbach & Meehl, 1955) of the G-CSES, convergent (H2.1 - H2.4) and discriminant validity (H3.1 - H3.2) were assessed.

The G-CSES correlated with the IPIP subscales neuroticism, extraversion, and conscientiousness, as well as with the internality subscale of the IPC-Questionnaire of Locus of Control. Significant but moderate correlations with conscientiousness and extraversion were anticipated (H2.3, H2.4). Across the two samples, the G-CSES had a significantly high correlation with the two core traits neuroticism (H2.1) and locus of control and the internality subscale (H2.2) and moderately significantly with (H2.3) extraversion (H2.4). Overall, the G-CSES showed significant convergence with the four traits. The data thus provide strong support for hypotheses H2.1 - H2.4. Table 3 reports the results.

Discriminant validity was tested by H3.1 and H3.2. According to findings by Judge et al. (2003), H3.1 predicted that G-CSES would correlate weakly with agreeableness for both samples. Furthermore, H3.2 predicted a weak correlation between G-CSES and openness for both samples. Data provided strong support for H3.2. Interestingly, a *z*-test (Aiken & West, 1991) revealed that the samples differed significantly,  $z = -.18$ . The correlation between the G-CSES and openness in the student sample (Sample 2) was nearly zero, while the correlation in Sample 1 was negative. The data did not support H3.1. The G-CSES correlated significantly positively with agreeableness in both samples. The results are shown in Table 3. The results suggest that the G-CSES seems to be a

valid construct. It strongly converges with four constructs in two heterogeneous samples. Moreover, the G-CSES diverges from openness.

Criterion validity (Cronbach & Meehl, 1955) was tested in H4.1 and H4.2. For H4.1 a correlation between the G-CSES and job satisfaction was predicted for Sample 1 (workforce) and Sample 2 (students) with job experience. Table 3 reports the correlations between the G-CSES and the criterion variables for Sample 1 and Sample 2 in the bottom two rows. Also, the results show that the G-CSES correlated significantly with life satisfaction in both samples. The data provided strong support for hypothesis H4.2. This suggests criterion validity of the G-CSES.

**TABLE 3**  
**PRODUCT-MOMENT CORRELATIONS OF THE G-CSES WITH OTHER VARIABLES**

	Sample 1 ( <i>n</i> = 200)	Sample 2 ( <i>n</i> = 134)
Neuroticism	-.73**	-.69**
Internality (LOC)	.44**	.40**
Conscientiousness	.27**	.34**
Extraversion	.22**	.29**
Agreeableness	.24**	.20**
Openness	-.18 <sub>a</sub>	.01 <sub>b</sub>
Life Satisfaction	.44**	.50**
Job Satisfaction	.31**	.28*

*Note:* LOC = Locus of Control; \*\*  $p < .01$ , \*  $p < .05$ . Correlation CSE - job satisfaction in Sample 2 was calculated with  $n = 80$  (students with work experience). Correlations in the same row that do not share subscripts differ at  $z_{5\%} = 1.65$ , one-way.

In order to test H5, hierarchical regression analyses were conducted on the variables job satisfaction and life satisfaction. In the first step occupation and marital status were controlled for. Posthoc analyses showed high correlations between marital status, job satisfaction, and life satisfaction. The traits of the five-factor model of personality excluding neuroticism were entered in the second step. In the third step, the two CSE internality indicators of the IPC Scale and neuroticism were entered into the equation. CSE was entered in the fourth step. As shown in Table 4, the data do not provide support for CSE. The amount of explained variance of the whole regression for job satisfaction is  $\Delta R^2 = .22$ . After controlling for occupation and marital status, the results showed a significant main effect only for conscientiousness. For life satisfaction, the results are promising. The amount of explained variance of the whole regression for life satisfaction is  $\Delta R^2 = .37$ ,  $f^2 = .02$ . By convention, this effect size is considered small (Cohen, 1992). Each block caused significant change in  $\Delta R^2$ . Even after controlling for demographic variables and personality variables such as neuroticism, which automatically shares variance with the G-CSES, CSE

explains 2% of variance, with a significant beta value. This means that CSE contributes to predicting life satisfaction.

**TABLE 4**  
**HIERARCHICAL REGRESSION ON JOB SATISFACTION AND LIFE SATISFACTION**

	Job Satisfaction			Life Satisfaction		
	$\beta$	$R^2$	$\Delta R^2$	$\beta$	$R^2$	$\Delta R^2$
Step 1		.06	.06**		.07	.07***
Occupation	.20**			.02		
Marital status	.14*			.25***		
Step 2		.18	.11***		.17	.10***
Occupation	.09			-.05		
Marital status	.17			.21***		
Conscientiousness	.27***			.18**		
Extraversion	.13			.18**		
Agreeableness	.03			.17**		
Openness	.10			-.05		
Step 3		.22	.05**		.35	.18***
Occupation	.08			-.04		
Agreeableness	-.02			.07		
Openness	.12			.01		
IPC - Internal	-.02			.08		
Neuroticism	-.24***			-.46***		
Step 4		.22	.00		.37	.02*
Occupation	.08			-.04		
Marital status	.13*			.14**		
Conscientiousness	.22***			.04		
Extraversion	.07			.04		
Agreeableness	-.02			.06		
Openness	.12			.01		
IPC - Internal	-.20			.06		
Neuroticism	-.20*			-.34***		
Core self-evaluations	.07			.18**		

Note: \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ ; occupation: workforce ( $n = 200$ ) = 1 in both analyses; students ( $n = 80$ ) in analyses on job satisfaction, and students ( $n = 134$ ) for analyses on life satisfaction = 0; marital status: relationship = 1, no relationship = 0.

## DISCUSSION

The results of the present study demonstrated that the German-language Core Self-Evaluations Scale is a valid and reliable scale that measures the underlying single factor structure proposed by Judge et al. (1997). To our knowledge, this is the first study to replicate the results previously reported by Judge et al. (2003) using German-speaking samples from Germany and Switzerland. It makes useful predictions concerning the criterion life satisfaction, adding incremental validity

beyond personality traits of the five-factor model. In sum, with this study we have provided a useful and efficient German-language scale for applied psychology such as organizational psychology or clinical psychology. Turning to the results more specifically, three key findings are particularly worthy of discussion.

Firstly, the G-CSES shows a single dimensional structure for both people in the workforce and students. This is in line with results for the United States by Judge et al. (2003) and also with results gained from studies carried out in The Netherlands and Spain (Judge et al., 2004). Our results support evidence of the cross-cultural Core Self-Evaluations Scale, and corroborate the validity and reliability of the original English version with regard to psychometric properties and some indicators of validity, such as life satisfaction.

Secondly, the G-CSES predicted job satisfaction and life satisfaction. According to Judge and Watanabe (1993), life satisfaction reflects a broad state of satisfaction, influencing job evaluation. However, only life satisfaction predicted incremental validity beyond similar measures used in this study, such as neuroticism. One possible explanation of why job satisfaction was not incrementally valid over and above scales for traits such as neuroticism is that job satisfaction was assessed by only one item. Nonetheless, the relationship with CSE was relatively strong. The use of single-item measures in psychological research is generally discouraged because of low reliability. However, Wanous, Reichers, and Hudy (1997) showed that the use of a single item-measure of overall job satisfaction is acceptable. In their meta-analysis of single-item measures of overall job satisfaction these authors found an average uncorrected correlation of .63 ( $SD = .09$ ) with scale measures of overall job satisfaction.

The third finding of our study seems to be noteworthy. Marital status predicted job satisfaction and life satisfaction. This variable did not play any role in previous research on CSE. But it is documented that marital status influences life satisfaction, for example, in the 15 years following marriage (Diener, Gohm, Suh, & Oishi, 2000; Lucas, Clark, Georgellis, & Diener, 2003). Marital status can be conceptualized as a form of social support (Stroebe, 2000), such as emotional support (listening or providing empathy) or instrumental support (for example, helping others to do their work). LaRocco, House, and French (1980) found that emotional support did not predict work-related outcomes such as job satisfaction, but it did predict general well-being. On the other hand, Kaufmann and Beehr (1989) reported that emotional support from family and friends was related to job satisfaction. Although the findings are mixed, it is reasonable to hypothesize that being married has a favorable effect on job satisfaction.

On a conceptual level, two concepts – neuroticism and core self-evaluations – are different. Neuroticism is one of the best established traits in personality research, and one might assume that, considering the high correlations with CSE, the G-CSES simply measures neuroticism. But as Judge and Bono (2001)

noted, the concept of neuroticism is narrow. It typically measures stress, anxiety, or other constructs mostly important for clinical psychological purposes, such as items like “I panic easily.” As Judge et al. (2004) stated, “there are no items in the neuroticism scales of the NEO-FFI (Costa & McCrae, 1992), the International Personality Item Pool (Goldberg, 1999), or the Eysenck Personality Inventory (Eysenck & Eysenck, 1968) that explicitly reference control or capability” (p. 330). In comparison, the concept of CSE specifically focuses on effectiveness and capability (Judge et al., 2003).

### FURTHER FINDINGS

In the present study we have provided the first examination of the relationship between job satisfaction and CSE in a sample of students. A possible explanation for the differences in job satisfaction between those in the workforce and students is based on the idea of core job dimensions by Hackman and Oldham (1980). For instance, these core job dimensions comprise task identity or task significance. Work might be assessed differently by students and full-time workers. Those in the workforce in full-time permanent employment might show more task identity than students, who do not normally spend as much time working in their part-time jobs as those in the permanent workforce. Probably, students do not attribute as much task significance (Locke, 1976) to their jobs compared to those in the workforce in permanent positions. Unfortunately, neither task identity nor task significance (nor any other core job dimension) was assessed in this study. If these assumptions were correct, future studies would have to control for these dimensions.

Another finding should be mentioned. The two samples differed significantly on conscientiousness, which is “being careful, thorough, responsible, organized, and planful” (Barrick & Mount, 1991, p. 4). A possible explanation could be that these items were answered in a socially desired manner by the workforce sample. Another explanation might be a linguistic one. We can imagine that the German-language items assessing conscientiousness might have been more connected with work at a full-time job (money) than to students’ work such as research or studies at university (education).

The G-CSES could find greater acceptance in applied research situations than scales lacking job-related topics. According to Schuler (1990), questionnaires measuring personality traits lack acceptance in settings such as assessment situations. One reason might be that job-related topics are often neglected in applied psychological research (Hossiep, Paschen, & Mühlhaus, 2001). As a result, selection test performance could be affected by low test-taking motivation caused by low face validity perceptions (Chan, Schmitt, DeShon, Clause, & Delbridge, 1997), that is to say, the test items do not appear to measure what they are intended to, for example, job-related issues.

## LIMITATIONS

This study might have some restrictions concerning the incremental validity of the G-CSES. A criterion problem might have appeared. Although we have argued for a single-item measure of overall job satisfaction, reliability is still missing, and scales for job satisfaction should be used in future research. Reliability information is essential. Poor reliability is problematic, because it produces an artificial lowering of the associations with the predictor variables, such as the G-CSES, possibly leading to noneffects (Hunsley & Meyer, 2003).

## IMPLICATIONS

The present study is an important step towards CSE research in German-speaking countries. Given the evidence presented here, future research in these countries should replicate existing results and further address the discussion points in depth. Furthermore, research should link with new and important questions in the field of CSE, such as the relationship of CSE to transformational leadership.

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**APPENDIX****GERMAN-LANGUAGE VERSION OF THE CORE SELF-EVALUATIONS SCALE (G-CSES)**

German Version	English Original
Ich bin zuversichtlich, in meinem Leben das zu erreichen, was mir zusteht.	I am confident I get the success I deserve in life.
Manchmal fühle ich mich niedergeschlagen. (r)	Sometimes I feel depressed. (r)
Wenn ich etwas anpacke, bin ich meistens erfolgreich.	When I try, I generally succeed.
Manchmal fühle ich mich wertlos, wenn mir etwas nicht gelingt. (r)	Sometimes when I fail I feel worthless. (r)
Ich erledige Aufgaben erfolgreich.	I complete tasks successfully.
Manchmal habe ich das Gefühl, dass mir die Arbeit über den Kopf wächst. (r)	Sometimes, I do not feel in control of my work. (r)
Im Grossen und Ganzen bin ich mit mir zufrieden.	Overall, I am satisfied with myself.
Ich zweifle an meiner Kompetenz. (r)	I am filled with doubts about my competence. (r)
Ich bestimme, was in meinem Leben passiert.	I determine what will happen in my life.
Ich glaube nicht daran, meine Karriere aktiv beeinflussen zu können. (r)	I do not feel in control of my success in my career. (r)
Ich bin in der Lage, mit den meisten meiner Probleme fertig zu werden.	I am capable of coping with most of my problems.
Es gibt Zeiten, in denen mir alles düster und hoffnungslos erscheint. (r)	There are times when things look pretty bleak and hopeless to me. (r)

*Note:* r = reverse-scored.