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**Current Psychology**

A Journal for Diverse Perspectives on  
Diverse Psychological Issues

ISSN 1046-1310

Curr Psychol

DOI 10.1007/s12144-018-9923-6



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# Does being positive work in a mediterranean collectivist culture? Relationship of core self-evaluations to job satisfaction, life satisfaction, and commitment

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## Abstract

The vast majority of the core self-evaluations (CSE) studies has been conducted in Western cultures. In an attempt to extend this research into a different culture, the present study tested the factor structure of a Turkish version of the CSE scale and examined the relationship of CSE to job satisfaction, life satisfaction, and affective commitment. Data were collected in student ( $n = 216$ ) and field samples ( $n = 321$ ). The results confirmed the proposed one-factor structure of the Turkish version of the CSE scale as well as its convergent and discriminant validity. CSE (measured in time period 1) was significantly related to job satisfaction, life satisfaction, and affective commitment (measured in time period 2 which was three months later). The authors concluded that the CSE is predictive of key career-related outcomes in Turkey's collectivist culture.

**Keywords** Core self-evaluations · Job satisfaction · Life satisfaction · Affective commitment

## Introduction

The dispositional source of work and organizational outcomes has been a focus of research for long time. A more recent dispositional source is core self-evaluations (CSE), which is a broad personality trait, first introduced by Judge et al. (1997). The CSE trait has received considerable interest as a predictor of job satisfaction and performance. CSE represents fundamental assessments that people hold about themselves and their functioning in the world (Judge and Larsen 2001). It is comprised of four specific lower-order traits: (1) Self-esteem which represents the overall value that one places on the self as successful and worthy, (2) self-efficacy which is an estimate of one's fundamental ability to cope, perform, and be successful in many contexts, (3) locus of control which is the individual's ability to control events in his/her lives, and (4) emotional stability (or low neuroticism) which

is the tendency to be confident, secure, and steady (Judge and Bono 2001). Previous research has shown that CSE is not only a valid predictor of job satisfaction and job performance (Bono and Judge 2003; Gurbuz et al. 2010; Judge and Bono 2001) but also life satisfaction (Gurbuz and Bayramlik 2015; Judge et al. 1998b), motivation (Erez and Judge 2001; Judge et al. 1998a), and career success (Stumpp et al. 2010).

Research on the cross-cultural validity of dispositional predictors of work and occupational outcomes is extensive. The generalizability of personality predictors, such as positive and negative affectivity (PA/NA; Watson et al. 1988), affective disposition as measured by the Neutral Objects Satisfaction Questionnaire (NOSQ; Weitz 1952), and the Big Five personality traits (Goldberg 1990), is well established in the cross-cultural literature. Studies that have examined CSE across cultures, however, are more limited. To our knowledge, there is only one published work (i.e., Piccolo et al. 2005) that has utilized a non-Western (i.e., collectivist) sample to examine the factor structure and the predictive validity of the CSE construct. Thus, research is needed to assess the generalizability of CSE in other cultures.

CSE is rooted in significant aspects of the North American culture, perhaps producing a cultural distinctiveness to the construct. Not surprisingly, the vast majority of CSE studies has been conducted in the U.S. and Canada. Piccolo et al.'s (2005) investigation of CSE's construct validity and predictive validity in collectivist Japan was one of the first attempts

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to extend the cultural boundaries of this construct. There is a cross-cultural literature (e.g., Campbell et al. 1996; Heine et al. 1999) proffering that self-regard constructs are not universal. Constructs like CSE involve a self-appraisal which is not central to one's identification in collectivist cultures. Suh et al. (1998) make this same claim specifically in relation to collectivist Turkey.

With these concerns in mind, it is important to extend Piccolo et al.'s (2005) findings into another collectivist culture such as Turkey. This country may offer an ideal test of whether the CSE construct is culturally specific or not. There are striking differences between Turkey and both the U.S. and Canada on Hofstede and colleagues' (1980, 2010) four dimensions of societal culture while there are strong similarities between Turkey and Japan on three of the four dimensions. Namely, Turkey and Japan tend to be high in collectivism, power distance, and uncertainty avoidance yet different on the masculinity-femininity dimension (i.e., Japan is more masculine). Both the U.S. and Canada, on the other hand, tend to be lower on collectivism, power distance, uncertainty avoidance, and masculinity than Turkey and Japan.

Notwithstanding these similarities in the Turkish and Japanese cultures and their mutual differences with Western cultures, it may be a mistake to assume that East Asian collectivism and Middle Eastern collectivism are the equivalent. Cross-cultural scholars (Kagitcibasi 1997; Leong 2008; Triandis 1994, 1995; Uskul et al. 2010) have proposed that there are nuanced differences in East Asian and Mediterranean collectivism which could yield inter-regional variation in CSE's construct validity and its associations. If, on the other hand, the psychometric soundness of the CSE construct is upheld in a Middle Eastern culture such as Turkey, as it was in Piccolo et al.'s (2005) East Asian (i.e., Japanese) study, then international CSE research can proceed beyond concerns for the construct validity of CSE in different collectivist regions.

Therefore, the purpose of the present study is three-fold: (1) To test the construct validity and factor structure of the Turkish version of the CSE scale, (2) to examine the validity of CSE in predicting job satisfaction, life satisfaction, and affective commitment employing Turkish samples, and (3) to determine whether the Turkish version of CSE can explain incremental variance in the ratings of job satisfaction, life satisfaction, and affective commitment, beyond traits such as generalized self-efficacy, emotional stability, positive affectivity, negative affectivity, and the Big Five. Examining the CSE's construct validity and its association with career-related outcomes such as life satisfaction, job satisfaction, and affective commitment in a non-East Asian collectivist culture should give added clarity on CSE's cultural specificity or generalizability.

## Core Self-Evaluations and Hypotheses

### Construct Validity

**CSE in Individualistic Cultures** As stated, the four components of CSE reflect a "fundamental appraisal of one's worthiness, effectiveness, and capability as a person" (Judge et al. 2003: 304). CSE is not only self-perceptions about a person's worth and value but also their ability to function effectively in the world at large (Judge et al. 1998a, b). CSE is a latent, higher-order dispositional trait that is responsible for the formation of four lower-order traits (Judge et al. 2003). The core CSE trait is thought to be causally related to the individual's self-esteem, generalized self-efficacy, emotional stability or low neuroticism, and locus of control. In support, Judge et al. (2003: 304) claimed that "self-esteem and the other core traits result from a broad, general, positive self-regard." Therefore, CSE is not a composite trait in which the four factors are simply combined but is the underlying root cause of the four.

In their initial validation, Judge et al. (2003) reported that their 12-item CSE scale demonstrated high reliability and one broad, latent common factor structure. Their operationalization of CSE showed convergent validity in that it is highly correlated with the four lower-order traits. It also demonstrated discriminant validity with other personality traits. Namely, the correlations between CSE and both conscientiousness and extroversion indicate moderate-to-strong relationships whereas the correlations between CSE and both agreeableness and openness indicate weak relationships (Judge et al. 2003).

In a later validation study, Gardner and Pierce (2009) directly compared Judge et al.'s (2003) 12-item scale with a lengthier 34-item scale that assessed all four lower-order traits separately. Their findings revealed that the longer scale that combined the four traits is more highly correlated with job performance, perceptions of job complexity, positive affect, trust of others, and self-evaluation of a just world than the shorter scale. Gardner and Pierce (2009) attributed the stronger correlations of the 34-item scale to the psychometric improvements coming from a longer scale that captures more of the variance of a global CSE construct. The shorter CSE scale may be more practical when the respondent's time to complete this scale is brief.

The findings of Chang et al.'s (2012) meta-analysis revealed that the strength of the relationships of CSE to conscientiousness, extraversion, and positive affectivity is strong while the strength of the relationship of CSE to agreeableness is moderate and to the openness trait, weak. The association between CSE and negative affectivity was found to be strong and negative.

In his recent critique, Chen (2012) expressed numerous concerns over the validity of the CSE construct, suggesting that it may be in need of further refinement. For instance, he



argued that the justification for combining the four lower-order traits into a single higher-order trait is in need of empirical support. Concerns remain with a higher-order CSE trait emerging when the associations among the four lower-order traits are not equivalent. The relatively high correlations among these four traits could be an artifact of common method variance rather than valid shared variance. The criteria used to include the four lower-order traits in the conceptualization of CSE and to exclude other traits are also not clear. What exactly do the criteria “evaluative, fundamental, and large in scope” mean (Chen 2012: 157)? In sum, Chen argued that a stronger case for CSE’s convergent and discriminant validity needs to be established, insuring that its nomological net is more fully developed.

Prior to 2005, most of the CSE research was conducted in the U.S. One international study (Judge et al. 1998a, b), examining the effects of CSE with a lengthier scale, took place in Israel. While Israel is located in the Middle East, it is still considered a country rooted in Western values having a national culture that is similar to the U.S. (Israel’s individualism score is 54, giving it a country ranking of 30 out of 76 [Hofstede et al. 2010].) In a later validation study involving three German samples, Stumpp et al. (2010) reported that Judge et al.’s (2003) 12-item CSE scale yielded a one-factor structure, providing further support for the cross-cultural generalizability of this CSE short-form operationalization.

**CSE in a Collectivistic Culture** In another attempt to assess the generalizability of CSE in a different culture, Piccolo et al.’s (2005) study investigated whether the four lower-order personality traits indicated a higher-order CSE trait with a Japanese sample. Similar to Judge et al.’s (2003) validation strategy, Piccolo et al. (2005) developed their own 12-item CSE scale with a large sample of Japanese sales representatives. Their Japanese CSE scale displayed high reliability (i.e., internal consistency) and one broad, latent common factor structure. Their CSE operationalization indicated convergent validity in that it is strongly related to the four lower-order traits. Indeed, their results showed that CSE is a broad higher-order trait, suggesting that the validity of the CSE construct extends to a sample in an East Asian culture such as Japan.

Piccolo et al.’s (2005) results are notable because prior research examining self-concepts in Japan found that these kinds of measures may be less stable in a collectivist culture because the Japanese tend to define themselves through a social environment lens (Campbell et al. 1996). Other scholars (Diener and Diener 1995; Oishi et al. 1999) have argued that fundamental judgments of job and life attitudes (e.g. job satisfaction, life satisfaction) in a collectivist culture rely on the existence of harmonious relationships rather than on a positive self-regard. Heine et al. (1999) maintained that having a positive regard will not have equivalent meanings in Japan and

North America. The need for self-regard is not universal because the constructions of “self” and “regard” may vary across cultures. Japanese tend to be more self-critical than North Americans, implying that the need to “possess, enhance, and maintain positive self-views” is not a universal motivation (Heine et al. 1999: 766).

Campbell et al.’s (1996) self-concept clarity data support this thinking. More specifically, scores on a self-concept clarity scale (i.e., the extent to which the individual’s self-beliefs are clear, confident, internally consistent, and stable over time) were found to be higher in Canada than in Japan. Canadian self-concept clarity scores were also more highly correlated with self-esteem than were Japanese self-concept clarity scores.

**Nuanced Differences in Collectivistic Cultures** An artifact of past collectivist research is that it has mostly been conducted in East Asia (Kagitcibasi 1997; Leong 2008; Uskul et al. 2010). Triandis (1994, 1995) claimed that there are nuances, less obvious differences, in collectivist cultures. They should not be considered to be identical. Collectivism includes a wide-ranging set of values, attitudes, and behaviors that are considerably broader than individualism’s values, attitudes, and behaviors (Oyserman et al. 2002). Kagitcibasi’s (1997) perspective on collectivism is that it should be described in probabilistic terms with societal differences best expressed on a continuum indicating more or less uniformity between them. Oyserman et al. (2002: 5) added that collectivism is “a diverse construct, joining together culturally disparate foci on different kinds and levels of referent groups.”

Kagitcibasi (1997: 34) stated that the “East Asian variant of collectivism is not the same as Latin American or Mediterranean collectivism.” Uskul et al. (2010: 191) explained these differences, saying that there is “East Asian, Confucian-based collectivism” that values modesty, blending in, and self-effacement, and then there is a Middle Eastern collectivism that respects honor, which is the upholding of a good reputation within the collectivist’s in-group (i.e., family, kin, and close friends). Considering its Mediterranean location, we expect Turkey to be a collectivist culture of honor.

As previously indicated, one’s self-concept (e.g., emotions and self-esteem) is downplayed in East Asian countries, suggesting that these societies may have a culturally-specific form of collectivism when it comes to self-concepts (Kagitcibasi 1997). The cultural specificity of avoiding self-reference seems due to the effects of deep-rooted Confucianism which is relevant in East Asia. The Chinese Culture Connection’s (1987) Confucian dynamism, also referred to as long-term orientation, is grounded in Confucian virtues. The emphasis of long-term orientation is on the future whereas the import of short-term orientation is on the past and present.

The Confucian long-term orientation (versus short-term orientation) could be differentially influencing collectivist

countries. One virtue of long-term orientation is the exhibiting of humility whereas the more acceptable norm in the short-term orientation culture is to bring positive attention to oneself (Hofstede et al. 2010). This Confucian virtue of humility may account for the modesty norm previously reported in East Asian collectivist studies (e.g., China and Japan). Such a modesty effect is less likely in collectivist countries such as Turkey which has no apparent roots in Confucianism. The long-term orientation scores reported in Hofstede et al. (2010) support this possibility. Namely, Japan and China's long-term orientation scores are at the high end of the scale (88 and 87, respectively) while Turkey's score is a relatively low 46.

Considering these subtle differences between East Asian and the Middle Eastern collectivism, Kagitcibasi (1997) and Uskul et al. (2010) called for fresh look at collectivist research. In this study, we examine the cross-cultural relevance of the CSE construct in a Mediterranean country (i.e., Turkey). The non-Confucian uniqueness of the Mediterranean region appears to have a different form of collectivism, one that primarily values honor, whereas the Confucian or long-term orientation form of East Asian collectivism values self-effacement. The presence of a Confucian-collectivism context in the Piccolo et al. study, followed up with the present study conducted in the collectivist Mediterranean context (without the Confucian influence), should be of interest.

Although Campbell et al. (1996), Heine et al. (1999), Diener and Diener (1995), and Oishi et al.'s (1999) research would suggest otherwise, it seems that, based on Piccolo et al.'s (2005) empirical findings, the construct validity of the dispositional CSE trait in Japan is equivalent to validation findings in North American samples (e.g., Judge et al. 2003). Extending Piccolo et al.'s (2005) results into another collectivist region would provide additional evidence on the generalizability of CSE. Therefore, the present study includes a Turkish sample, providing yet another opportunity to test whether the conjectures of cultural scholars such as Campbell et al. (1996) and Heine et al. (1999) or Piccolo et al.'s empirical finding is correct. If our Turkish results show that the construct validity of CSE is equivalent to Piccolo et al.'s Japanese findings, then we can more safely conclude that CSE's validity and its various associations travel well across varied collectivist societies.

Based on Piccolo et al.'s empirical findings rather than the self-regard conjectures that suggest that the CSE construct may be culturally specific, we put forth the following hypotheses:

*Hypothesis 1:* The Turkish version of CSE will represent one common factor structure (12 items will load on one latent factor) (Factorial validity).

*Hypothesis 2:* The Turkish version of CSE will exhibit significant positive relationships with (H2a) generalized self-efficacy and (H2b) Emotional stability (Convergent validity).

*Hypothesis 3:* The Turkish version of CSE will be distinct from (H3a) the Big Five traits and (H3b) PA and NA traits (Discriminant validity).

## Predictive Validity

Job satisfaction, life satisfaction, and affective commitment are the most widely studied job attitudes in organizational psychology (e.g., Çetin et al. 2015). These attitudes are often regarded as a broad psychological concept (Weiss 2002). Prior studies reported that the CSE is the best dispositional predictor of these job attitudes e.g., (Judge et al. 2003; Piccolo et al. 2005; Stumpp et al. 2010). Consistent with previous studies, we have selected job satisfaction, life satisfaction, and affective commitment as the outcome variables to add clarity on CSE's cultural specificity or generalizability using a non-East Asian collectivist culture sample.

The literature suggests that CSE is conceptually related to key perceptions made in the work setting (Judge et al. 1997; Rode et al. 2012). According to Stumpp et al. (2010), there is a "dispositional basis of career success" (p. 678) and it goes beyond the Big Five personality traits (e.g., conscientiousness, extroversion, agreeableness) to the CSE self-concept. Piccolo et al. (2005) also indicated that both job satisfaction and career satisfaction have a dispositional source. Intrinsic career success, which is the individual's attitudes toward their job and more generally their career, is impacted by CSE (Stumpp et al. 2010). For example, workers with a low CSE may experience failure due to a lack of competence, which then translates into poor job attitudes (Rode et al. 2012). On the other hand, individuals with a high CSE tend to have more positive attitudes about their jobs and careers. Similarly, the higher one's psychological well-being (i.e., CSE) is, the more likely the person will experience work-related satisfaction, keeping the emotionally attached to their place of work.

Empirical investigations of the relationship between CSE and various satisfaction and commitment measures have been conducted in different international locations. In a U.S. study with multiple samples, Judge et al. (2003) found that their 12-item CSE measure is highly correlated with job satisfaction and life satisfaction. Piccolo et al. (2005) found that CSE is strongly associated with the job satisfaction, life satisfaction, and happiness of 271 Japanese sales representatives. Likewise, Stumpp et al. (2010) reported CSE to be related to the German employee's job satisfaction, life satisfaction, and organizational commitment in both concurrent and predictive validation studies. More recently, Rode et al. (2012) reported that CSE of Chinese workers is associated with job and life satisfaction as well as affective commitment. Therefore, it seems that prior international results have amply demonstrated the link between CSE and measures of job satisfaction, life satisfaction, and work commitment.

The results of Chang et al.'s (2012) meta-analysis revealed that CSE is related to the individual's job satisfaction, life satisfaction, and work commitment. Surprisingly, the relationship between CSE and both job satisfaction and affective commitment was found to be stronger in collectivist cultures (e.g., China, Korea, and Japan) than in individualist cultures (Chang et al. 2012). Only one Turkish study (i.e., Erol and Sumer 2009) was included in their meta-analysis. The outcomes examined in Erol and Sumer's (2009) research differs from the outcomes in our study, which should increase interest in our study.

The second main objective of our study addresses the question: Does the strong relationship of CSE to career-related measures (i.e., job satisfaction, life satisfaction, and commitment), reported in the Japanese study, generalize to the Mediterranean region? With Turkey's unique culture in a Mediterranean location, this gives added impetus for exploring the linkages between CSE and job satisfaction, life satisfaction as well as affective commitment in this country. Similar to Stumpp et al.'s (2010) study, our study incorporated a predictive research design requiring the Turkish participants to complete their CSE ratings and ratings of the three criterion outcomes in two different time periods. Such a research design lessens the extraneous effects originating from common method variance and provides a stronger test of CSE's effects on the three outcome measures.

Based on Piccolo et al. (2005), Rode et al. (2012), Chang et al. (2012), and Stumpp et al.'s (2010) findings, we propose that:

*Hypothesis 4:* The Turkish version of CSE will be related to: (H4a) job satisfaction, (H4b) life satisfaction, and (H4c) affective commitment.

## Incremental Validity

In Judge et al.'s (2003) study with multiple U.S. samples, the CSE variable accounted for incremental job satisfaction and life satisfaction variance after the effects of the five-factor model (i.e., conscientiousness, extraversion) were controlled for. Another study with a U.S. sample (i.e., Rode et al. 2012) found that CSE predicts job satisfaction and affective commitment after controlling for self-esteem. In the Stumpp et al. (2010) German study, CSE accounted for unique, incremental job satisfaction, life satisfaction, and organizational commitment variance over and above the main effects of other personality traits (i.e., Big Five, positive-negative affectivity, and the four individual components of CSE). Piccolo et al. (2005) reported that the CSE of Japanese workers explained incremental job satisfaction and life satisfaction variance after accounting for the main effects of positive-negative affectivity and affective disposition (NOSQ). In Rode et al.'s (2012) second study, Chinese employees' CSE accounted for

incremental job satisfaction, life satisfaction, and affective commitment variance after controlling for the individual's Protestant work ethic and narcissism.

Relative to other personality variables, CSE appears to be a strong predictor of satisfaction and commitment variables in the U.S. and internationally. Extending these incremental validity findings into the Turkish cultural realm is another aim of our study.

Based on the results of these previous studies (Judge et al. 2003; Piccolo et al. 2005; Rode et al. 2012; Stumpp et al. 2010), we propose that:

*Hypothesis 5:* The Turkish version of CSE will explain incremental variance in (H5a) job satisfaction, (H5b) life satisfaction, and (H5c) affective commitment beyond generalized self-efficacy, emotional stability, the PA, NA, and Big Five personality traits.

## Method

### Samples and Participants

We collected data from two independent samples: students at two different universities (sample 1) and employees from five different organizations in the high-technology industry (sample 2) in Ankara, Turkey. The student sample allowed us to test the factor structure of CSE, internal consistency, and test-retest reliability of the measure. In the field sample, we collected longitudinal data to test the nomological network as well as predictive and incremental validity of CSE on outcome variables (i.e., job and life satisfaction, affective commitment). Since temporal separation between the measurement of the predictor and criterion variables is one way to control for common method bias (Podsakoff et al. 2012), we collected the data at two points in time to reduce this bias".

**Sample 1** Consisted of undergraduate business students enrolled at two universities. Students completed the CSE instrument over a 1-month period in two class sessions. All students were volunteers and received no credit for their participation in the study. We distributed 350 questionnaires to undergraduate students at time 1. A total of 216 questionnaires were usable, resulting in a response rate of 61%. Of the 216 undergraduate students, 103 (47.7%) were female. The mean age of the participants was 22.07 years ( $SD = 1.69$ ). A total of 167 participants (44.9% female) completed a retest of the CSE scale after one month (time 2), for a response rate of 77%.

**Sample 2** Participants in sample 2 were recruited through the personal connections of the third author of the present study. They were employed in five large high-tech firms in the

Turkish defense industry. According to the 2013 SIPRI report, two of these defense firms are listed in the world's 100 largest arms-producing and military services companies (SIPRI 2015). These participants worked in jobs ranging from technicians and engineers to administrative personnel and managers (e.g. HR, marketing, finance departments). They were assured that their responses would be confidential and that no individual responses could be identified by their firm.

Data were collected at two points in time. In time period 1, the third author visited the five firms and distributed 600 surveys in all. Four hundred and ten participants completed the survey; all of the returned surveys were completed properly resulting in a response rate of 68%. This survey contained items such as CSE, generalized self-efficacy, emotional stability, PANAS, and the Big Five measures. To match the survey responses in time 1 and time 2, participants were asked to write the last five digits of their unique citizenship identification (ID) numbers on both surveys. The third author then collaborated with the HR department of each surveyed firm to obtain a list of employee names with their ID numbers. In time period 2 (i.e., approximately 3 months later), we sent a follow up survey with a prepaid envelop to each of the 410 participants who responded in time 1. These participants were asked to complete the survey items on job and life satisfaction and affective commitment and mail the completed survey in an envelope addressed to the third author. We then paired the two sets of returned questionnaires by matching ID numbers and names.

Of the 410, 345 participants completed the second survey, for a response rate of 84%. In the subsequent analyses, missing data and listwise deletion reduced the final sample size to 321. Of the 321 participants, 141 (43.9%) were female. The mean age of the 321 participants was 36.5 years ( $SD = 7.71$ ). Participants were generally well-educated, with 15 (4.7%) holding a high school degree, 219 (68.2%) a bachelor degree, 77 (24%) a master's degree, and 10 (3.1%) a doctoral degree. Their average tenure with the organization was 13.80 years ( $SD = 8.01$ ).

## Measures

Unless otherwise noted, all variables were measured with a 5-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*).

**Core Self-Evaluations** CSE was measured with the 12-item scale developed by Judge et al. (2003). The scale was derived from four conceptually related variables: Self-esteem, generalized self-efficacy, emotional stability, and locus of control. Sample items include "I am confident I get the success I deserve in life" and "Overall, I am satisfied with myself". The original CSE scale was adapted into the Turkish context by Costigan et al. (2018). The original English version and the

Turkish version as well as factor loadings based on exploratory factor analysis (EFA) with varimax rotation of the CSE scale items are presented in the Appendix (Table 7). The reliability of the Turkish scale is  $\alpha = .82$  for student sample and  $\alpha = .78$  for the field sample.

**Generalized Self-Efficacy** Was assessed with the 10-item General Self-Efficacy developed by Schwarzer and Jerusalem (1995). Sample items include: "I can always manage to solve difficult problems if I try hard enough" and "Thanks to my resourcefulness, I can handle unforeseen situations". The scale was adapted into the Turkish context by Yesilay et al. (1996). The reliability of this scale is  $\alpha = .91$ .

**Positive Affectivity (PA) and Negative Affectivity (NA)** The positive and negative affectivity were measured with a 20-item Positive and Negative Affect Schedule (PANAS) developed by Watson et al. (1988). We asked participants to rate how frequently they experienced various emotions within the last two weeks, ranging from "1 = never" to "5 = always". The positive affect mood adjectives are: active, alert, attentive, determined, enthusiastic, excited, inspired, interested, proud, and strong. The negative affect mood adjectives include: afraid, ashamed, distressed, guilty, hostile, irritable, jittery, nervous, scared, and upset. The scale was adapted into the Turkish context by Gençöz (2000). The reliabilities of the two scales are  $\alpha = .77$  for positive affectivity and  $\alpha = .79$  for negative affectivity.

**Big Five Traits** The Big Five traits of personality (i.e., extraversion, conscientiousness, openness, emotional stability, and agreeableness) were measured using the 36-item Big Five Inventory (BFI) scale (Benet-Martinez and John 1998). The BFI scale includes short items that were selected from the Big Five prototype definitions. There are eight items for extraversion (e.g., "I see myself as someone who is talkative"), nine items for agreeableness (e.g., "I see myself as someone who is considerate to almost everyone"), nine items for conscientiousness (e.g., "I see myself as someone who does things efficiently"), eight items for emotional stability (e.g., "I see myself... as someone who worries a lot" (reverse) and "...is relaxed, handles stress well"), and ten items for openness (e.g., "I see myself as someone who values artistic, aesthetic experiences"). The scale was adapted into the Turkish context by Sumer et al. (2005). The reliabilities are  $\alpha = .71$  for extraversion,  $\alpha = .70$  for agreeableness,  $\alpha = .74$  for conscientiousness,  $\alpha = .75$  for emotional stability, and  $\alpha = .80$  for openness.

**Job Satisfaction** Was measured with four items adapted from Brayfield and Rothe's (1951) Job Satisfaction Scale. Sample items include: "I feel that I am happier in my job than most



other people” and “I feel fairly well satisfied with my present job”. The scale was adapted into the Turkish context by Gürbüz (2015). The reliability of this scale is  $\alpha = .88$ .

**Life Satisfaction** Of the participants was measured with a five-item Satisfaction with Life Scale (Diener et al. 1985). Sample items include: “The conditions of my life are excellent” and “I am satisfied with my life”. The scale was adapted into the Turkish context by Durak et al. (2010). The reliability of this scale is  $\alpha = .83$ .

**Affective Commitment** Was assessed with five items adapted from Allen and Meyer’s (1990) Organizational Commitment Scale. Sample items include: “I do not feel a strong sense of belonging to my organization” (reverse) and “I would be very happy to spend the rest of my career in this organization”. The scale was adapted into the Turkish context by Wasti (2003). The reliability of this scale is  $\alpha = .90$ .

## Analysis

To investigate the structure of the Turkish version of the CSE scale, we used confirmatory factor analysis conducted with LISREL version 8.80 software (Jöreskog and Sörbom 2006). We applied the Maximum Likelihood (ML) Robust estimation method. We reported various fit indices: Chi-square ( $\chi^2$ ), the comparative fit index (CFI), the goodness-of-fit index (GFI), the root mean square error of approximation (RMSEA), and the Satorra-Bentler chi-square scaled difference test (Bentler 1995; Bollen 1989). As known, there is no universally agreed upon number of fit indices to report. However, Jackson et al. (2009) recommended that a minimal set would include the  $\chi^2$  value and the associated degrees of freedom and probability value, an index to describe incremental fit (e.g., TLI or CFI), a residuals-based measures (e.g., RMSEA or SRMR), and GFI. Those fit measures have been found to perform generally well in Monte Carlo studies (e.g., Hu & Bentler 1999). Thus we reported  $\chi^2/\text{df}$ , CFI, GFI, and RMSEA (Gurbuz and Sahin 2017). To assess convergent validity, we examined the correlation of CSE with the two core traits (i.e. emotional stability and generalized self-efficacy). To investigate discriminant validity of CSE, we examined whether CSE correlates more strongly with the two individual core traits (i.e., emotional stability and generalized self-efficacy) than with other traits (i.e., extraversion, conscientiousness, openness, agreeableness, positive affectivity, and negative affectivity). We used the procedure presented in Steiger (1980) to compare correlation coefficients. Predictive and incremental validity were assessed using hierarchical regression analysis. We controlled for gender (dummy-coded variable: 0 = female and 1 = male), age, and tenure in all regression analyses to be consistent with the previous studies (Judge et al. 2003; Piccolo et al. 2005; Stumpp et al. 2010).

## Results

### Nomological Network of the Turkish Version of the CSE Scale

Confirmatory factor analysis, conducted with LISREL 8.80 (Jöreskog and Sörbom 2006), was used to test the underlying structure of the Turkish version of the CSE scale across the student (sample 1) and technology employee (sample 2) samples. Using a variance-covariance matrix as input into the program, we tested one-factor model and four-factor model as previous studies suggested (Judge et al. 2003; Stumpp et al. 2010). In the hypothesized one-factor model, all 12 items loaded on one latent factor. In the alternative model, we loaded each of the 12 items on one of four specific factors that best reflected the content of the item (i.e., locus of control oriented items on a locus of control factor, self-esteem oriented items on a self-esteem factor, etc.). Thus, the alternative nested model consisted of four core factors. Because these models are nested, we used the Satorra-Bentler chi-square scaled difference test (Bentler 1995; Bollen 1989). The fit indices for the one-factor and the four-factor solutions as well as the model comparison statistics across two samples are presented in Table 1. As seen in Table 1, fit statistics for the one-factor model and four-factor models are acceptable although RMSEAs for the four-factor models are slightly above the accepted threshold. However, the difference in chi-square tests shows that the four-factor model was not significantly different from the more parsimonious one-factor model across both samples. As Bollen (1989) argued, the more parsimonious single-factor model is preferable, when a multiple factor model shows a similar fit to the one-factor model. In addition, the fit indices of our one-factor model are comparable to the results for the original scale (Judge et al. 2003) and the German version of the scale (Stumpp et al. 2010). Thus, this result suggests that it is appropriate to view the Turkish version of the CSE scale items as indicating a unidimensional factor. *H1* is therefore supported.

Because we found support for a one-factor structure, we then computed a mean rating for the 12-item CSE scale (six items were reverse scored) to serve as our main predictor variable for the remaining analyses. Descriptive statistics, intercorrelations among the variables, and scale reliabilities are presented in Table 2. As shown in Table 2, coefficient alpha of the CSE scale are .82 for the student sample and .78 for the technology sample, exceeding the .70 cut-off suggested by Nunnally (1978). We used Pearson’s correlation coefficients to examine test–retest reliability of the CSE in sample 1. The Turkish version of the CSE scale shows good test–retest reliability ( $r = .85$ ) across the one-month interval for this student sample. A further examination of the results presented in Table 2 reveals that CSE is related to generalized self-efficacy ( $r = .50$ ,  $p < .01$ ), emotional stability ( $r = -.53$ ,  $p$

**Table 1** Fit statistics from CFA of the Turkish version CSE scale for the one-factor and the four-factor models

Sample	Models	$\chi^2$	$df$	$\chi^2/df$	CFI	GFI	RMSEA	Model comparison test	
								$\Delta\chi^2$	$\Delta df$
1	One factor model	149.88*	54	2.77	.93	.92	.08	—	—
	Four factor model	137.88*	48	2.87	.93	.91	.09	12	6
2	One factor model	198.56*	54	3.67	.91	.90	.08	—	—
	Four factor model	185.51*	48	3.86	.91	.90	.09	13.05	6

\* $p < .001$ . Sample 1 (student)  $n = 216$ ; Sample 2 (employee),  $n = 321$ ; CFI = comparative fit index; GFI = goodness-of-fit index; RMSEA = root mean square error of approximation

$< .01$ ), positive affectivity ( $r = .42, p < .01$ ), negative affectivity ( $r = -.37, p < .01$ ), extraversion ( $r = .30, p < .01$ ), openness ( $r = .26, p < .01$ ), agreeableness ( $r = .27, p < .01$ ), and conscientiousness ( $r = .44, p < .01$ ). In addition, CSE is associated with job satisfaction ( $r = .41, p < .01$ ), life satisfaction ( $r = .40, p < .01$ ), and affective commitment ( $r = .29, p < .01$ ).

To examine convergent validity, we evaluated the correlations of CSE with the two core traits (i.e., generalized self-efficacy and emotional stability). These correlations are displayed in Table 3. As seen in Table 3, the correlations of CSE with these core traits are strong, supporting the convergent validity of the Turkish CSE scale. To assess discriminant validity, we statistically compared the correlations between CSE and the core traits (i.e., generalized self-efficacy and emotional stability) with correlations between CSE and the other traits (i.e., PA/NA, Big Five) using the test by Steiger (1980) with the help of an online computer software (Lee and Preacher 2013). The results provided in Table 3 support the hypothesis that the correlations between CSE and the core traits (i.e., emotional stability and generalized self-efficacy) are significantly higher than the correlations between CSE and the other distinct traits (i.e., PA/NA, Big Five). Taken altogether, these results support the convergent and discriminant validity of the Turkish version of CSE. Thus,  $H2a$ ,  $H2b$ ,  $H3a$ , and  $H3b$  are supported.

### Predictive and Incremental Validity of the Turkish Version of CSE Scale

In sample 2, we tested the predictive and incremental validity of the Turkish version of the CSE scale using three outcome criteria (i.e., job satisfaction, life satisfaction, and affective commitment) that have been suggested in past research to be related to CSE (Erez and Judge 2001; Judge and Bono 2001; Piccolo et al. 2005; Rode et al. 2012; Stumpp et al. 2010). To test predictive validity, we performed a series of hierarchical regressions statistically controlling for age, gender, and tenure in step 1. The results of the regression analyses are provided in Table 4. CSE (measured in time 1) was highly related to job satisfaction ( $\beta = .41, p < .001$ ), life satisfaction ( $\beta = .39, p$

$< .001$ ), and affective commitment ( $\beta = .28, p < .001$ ) (measured in time 2), thereby supporting  $H4a$ ,  $H4b$ , and  $H4c$ .

To test our prediction on incremental validity, we performed another series of hierarchical regressions. We again entered age, gender, and tenure in the first step to control for their extraneous influences. This was followed by the other traits (i.e., generalized self-efficacy, emotional stability, remaining Big Five traits, and positive and negative affectivity) in step 2, and CSE in step 3. The results of these regression analyses are presented in Table 5. The results revealed that CSE explained 8% of the incremental variance of job satisfaction, 7% of the life satisfaction variance, and 3% of the affective commitment variance, beyond the variance accounted for by the other traits. Thus,  $H5a$ ,  $H5b$ , and  $H5c$  are supported.

## Discussion

The present study tested the factor structure of a Turkish version of the CSE scale, its convergent validity with core traits (i.e. generalized self-efficacy and emotional stability), and discriminant validity with other personality traits (i.e. Big Five, PA, and NA). The predictive validity and incremental validity of CSE on job satisfaction, life satisfaction, and affective commitment, beyond the effects of the two core traits and other personality traits, were also examined.

The results of our study extended the research literature in a number of ways. We discovered that Judge et al.'s (2003) operationalization of CSE is reliable (i.e., high internal consistency and test-retest reliability) and construct valid in collectivist Turkey. The one-factor structure of the Turkish CSE scale, compared to a four-factor structure, was supported. This is in agreement with previous findings (i.e., Judge et al.'s (2003) original scale, Judge et al. (2004) studies in the Netherlands and Spain, and Stumpp et al.'s (2010) study in Germany).

Demonstrating CSE's construct validity in a Mediterranean collectivist culture which has a perceptible difference with East Asian collectivism is also noteworthy. Most collectivism research has been conducted in countries like China and Japan. Scrutinizing the construct validity of CSE in a non-Confucian

**Table 2** Means, standard deviations, and Inter correlations among the variables

Sample	Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Test-retest
1	CSE	3.81	.53	(.82)															.85 <sup>***</sup>
	Time 1																		
	1. Gender	1.56	.49	–															
	2. Age	36.50	7.71	.036	–														
	3. Tenure	13.80	8.01	–.045	.847 <sup>***</sup>	–													
	4. CSE	3.45	0.49	.045	–.003	–.061	(.78)												
	5. GSE	3.59	0.57	.083	.029	.029	.503 <sup>***</sup>	(.91)											
	6. Emotional stb.	2.61	0.61	–.081	–.032	–.059	–.530 <sup>***</sup>	–.465 <sup>***</sup>	(.75)										
	7. PA	3.59	0.54	.074	–.021	–.043	.420 <sup>***</sup>	.658 <sup>***</sup>	–.342 <sup>***</sup>	(.77)									
	8. NA	2.21	0.70	.141 <sup>*</sup>	–.121 <sup>*</sup>	–.146 <sup>**</sup>	–.376 <sup>***</sup>	–.262 <sup>***</sup>	.593 <sup>***</sup>	–.224 <sup>***</sup>	(.79)								
	9. Extraversion	3.34	0.56	–.084	–.088	–.074	.309 <sup>***</sup>	.475 <sup>***</sup>	–.247 <sup>***</sup>	.502 <sup>***</sup>	–.148 <sup>**</sup>	(.71)							
	10. Openness	3.48	0.56	.009	–.067	–.072	.264 <sup>***</sup>	.561 <sup>***</sup>	–.212 <sup>***</sup>	.607 <sup>***</sup>	–.130 <sup>*</sup>	.446 <sup>***</sup>	(.80)						
2	11. Agreeableness	3.84	0.50	–.092	.024	.028	.277 <sup>***</sup>	.332 <sup>***</sup>	–.400 <sup>***</sup>	.430 <sup>***</sup>	–.512 <sup>***</sup>	.200 <sup>***</sup>	.357 <sup>***</sup>	(.70)					
	12. Conscientiousness	3.84	0.54	–.118 <sup>*</sup>	.120 <sup>*</sup>	.136 <sup>*</sup>	.441 <sup>***</sup>	.463 <sup>***</sup>	–.395 <sup>***</sup>	.399 <sup>***</sup>	–.568 <sup>***</sup>	.277 <sup>***</sup>	.318 <sup>***</sup>	.488 <sup>***</sup>	(.74)				
	Time 2																		
	13. Job satisfaction	3.35	0.83	.101	.201 <sup>***</sup>	.141 <sup>*</sup>	.414 <sup>***</sup>	.238 <sup>***</sup>	–.246 <sup>***</sup>	.279 <sup>***</sup>	–.232 <sup>***</sup>	.190 <sup>***</sup>	.123 <sup>*</sup>	.175 <sup>***</sup>	.167 <sup>***</sup>	(.88)			
	14. Life satisfaction	3.17	0.71	.086	.035	–.065	.408 <sup>***</sup>	.244 <sup>***</sup>	–.196 <sup>***</sup>	.252 <sup>***</sup>	–.138 <sup>**</sup>	.183 <sup>***</sup>	.099 <sup>***</sup>	.131 <sup>*</sup>	.125 <sup>*</sup>	.538 <sup>***</sup>	(.83)		
	15. Commitment	3.18	0.95	.197 <sup>***</sup>	.202 <sup>***</sup>	.100	.297 <sup>***</sup>	.232 <sup>***</sup>	–.187 <sup>***</sup>	.274 <sup>***</sup>	–.174 <sup>***</sup>	.188 <sup>***</sup>	.180 <sup>***</sup>	.184 <sup>***</sup>	.120 <sup>*</sup>	.719 <sup>***</sup>	.538 <sup>***</sup>	(.90)	

\*  $p < .05$ ; \*\*  $p < .01$ . Sample 1 (student):  $n = 216$  at time 1 and  $n = 167$  one month later; Sample 2 (tech employee):  $n = 321$ ; CSE = core self-evaluations, GSE = generalized self-efficacy, PA = positive affectivity, NA = negative affectivity. Reliability coefficients are in parentheses along the diagonal

**Table 3** Convergent and discriminant validity of the Turkish version of CSE with core and other traits (Sample 2)

Correlation comparison	$r_{yx1}$	$r_{yx2}$	$r_{x1\ x2}$	$Z^a$
CSE—N vs. CSE—E	-.530	.309	-.247	-10.622***
CSE—N vs. CSE—O	-.530	.264	-.212	-10.151***
CSE—N vs. CSE—A	-.530	.277	-.400	-9.549***
CSE—N vs. CSE—C	-.530	.441	-.395	-11.839***
CSE—N vs. CSE—PA	-.530	.420	-.342	-11.784***
CSE—N vs. CSE—NA	-.530	-.376	.593	-3.539***
CSE—GSE vs. CSE—E	.503	.309	.475	3.836***
CSE—GSE vs. CSE—O	.503	.264	.561	5.107***
CSE—GSE vs. CSE—A	.503	.277	.332	3.958***
CSE—GSE vs. CSE—C	.503	.441	.463	1.261***
CSE—GSE vs. CSE—PA	.503	.420	.658	2.072*
CSE—GSE vs. CSE—NA	.503	-.376	-.262	11.068***

\*\*  $p < .01$ ; \*\*\*  $p < .001$ .  $n = 321$ , CSE = core self-evaluations, N = neuroticism, GSE = general self-efficacy, E = extraversion, O = openness, A = agreeableness, C = conscientiousness, PA = positive affectivity, NA = negative affectivity.  $r_{yx1}$  = correlation between CSE and core trait,  $r_{yx2}$  = correlation between CSE and the other trait distinct from CSE,  $r_{x1 \times 2}$  = correlation between core and the other trait distinct from CSE.

<sup>a</sup> The Z-score was calculated using the absolute values of the correlations

influenced collectivist country such as Turkey adds a new twist to this line of research due to the contrasts of these collectivist areas. As said, the main difference is that Mediterranean collectivism places value on in-group honor whereas Confucian-influenced, East-Asian collectivism values modesty, humility, and self-effacement. Our findings that support the construct validity of CSE in the Mediterranean region provide greater assurance to researchers that this construct is viable in this area.

Schmitt (2004) lodged two criticisms of Judge et al.'s (2003) seminal work. As for evidence of convergent validity of the CSE scale, Judge et al. (2003) compared the correlations without formally testing for differences. Furthermore, Judge et al. (2003) omitted some of the dispositional trait variables (i.e., self-efficacy, locus of control, self-esteem, PA/NA) in some

of their analyses. In response to Schmitt's (2004) criticisms, we performed a significance test using Steiger's (1980) procedure. We found that the correlations between CSE and the two core traits (i.e. generalized self-efficacy and emotional stability) are significantly greater than the correlations between CSE and other distinct traits (i.e., extraversion, conscientiousness, openness, agreeableness, PA, and NA). Thus, our convergent and discriminant validity findings are consistent with previous findings (i.e., Judge et al. 2003; Stumpp et al. 2010).

We investigated the predictive validity of the Turkish version of the CSE scale using three career-related outcome criteria (i.e., job satisfaction, life satisfaction, and affective commitment). The findings showed that CSE significantly predicted job satisfaction, life satisfaction, and affective commitment, even though the three outcomes were measured three months after CSE ratings.

As shown in Table 6, we compared the strength of the Turkish correlations with the correlations reported in Chang et al.'s (2012) meta-analysis. Two of the three Turkish correlations are between Chang et al.'s correlations for studies conducted in individualistic and collectivistic cultures. More specifically, our correlations indicated that the relationships between CSE and both job satisfaction ( $r = .41$ ) and affective commitment ( $r = .29$ ) are stronger than the correlations for individualist cultures ( $r = .33$  for job satisfaction and  $r = .27$  for commitment) but weaker than collectivist cultures ( $r = .46$  for job satisfaction and  $r = .39$  commitment). On the other hand, the relationship of CSE to life satisfaction reflects a different pattern. Our Turkish CSE-life satisfaction correlation is .40 whereas Chang et al.'s individualist and collectivist CSE-life satisfaction correlations are .53 and .60, respectively. These comparisons provide interesting clarifications because prior research (e.g., Suh 2002) argued that traits such as CSE would predict outcomes better in individualistic locations than in collectivistic sites.

In addition, CSE was found to be a strong predictor of job satisfaction, life satisfaction, and affective commitment, after controlling for other distinct traits (i.e., Big Five and PA/NA).

**Table 4** Predictive validity of the Turkish version of CSE on Job satisfaction, life satisfaction, and commitment (Sample 2)

Variables	Time2					
	Job satisfaction		Life satisfaction		Commitment	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
<i>Step 1 Controls</i>						
Age	.184		.248*		.269**	
Gender	.074	.04**	.043	.03**	.169*	.07***
Tenure	.013		-.249*		-.102	
<i>Step 2</i>						
CSE (time1)	.412***	.16***	.397***	.15***	.286***	.08***

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .  $n = 321$ . CSE = core self-evaluations, the betas are taken from the last step



**Table 5** Incremental validity of the Turkish version of CSE above the other traits (Sample 2)

Variables	Time2					
	Job satisfaction		Life satisfaction		Commitment	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
<i>Step 1 Controls</i>						
Age	.187		.251*		.183**	
Gender	.082	.04**	.041	.03**	.276**	.07***
Tenure	.023		-.241*		-.089	
<i>Step 2 Traits (time 1)</i>						
G. self-efficacy	-.031	.11***	.054	.09***	-.006	.09***
Neuroticism	.051		.060		.063	
PA	.196*		.131		.134	
NA	-.120		-.040		-.091	
Extraversion	.076		.073		.092	
Openness	-.063		-.106		.035	
Agreeableness	.042		.038		.104	
Conscientiousness	-.135*		-.101		-.139	
<i>Step 3</i>						
CSE (time1)	.371***	.08***	.377***	.07***	.238***	.03***

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .  $n = 321$ . CSE = core self-evaluations, PA = positive affectivity, NA = negative affectivity. The betas are taken from the last step

Past research on the effects of personality on workplace outcomes has produced a mix of controversial findings (e.g., Morgeson et al. 2007). CSE provides hope in this line of research, accounting for unique, incremental variance, over and above the variance accounted for by other personality traits.

Some authors (e.g., Campbell et al. 1996; Heine et al. 1999) have proffered that self-regard constructs are not universal while the others have argued that satisfaction and happiness judgments made in a collectivist society may be less reliant on a positive self-regard (Diener and Diener 1995; Oishi et al. 1999). The priority given by a collectivist culture to harmonious relationships over self-regard went mostly undetected in the present study. That is, the construct validity of CSE was supported by one factor structure across our student and technology samples and an appropriate level of convergent, discriminant, and predictive validity was achieved. Our study provided additional evidence that positive self-regard,

which is integral to the CSE construct, is fundamental to the formation of job and life satisfaction and affective commitment in a collectivist culture such as Turkey. Finally, the Mediterranean collectivists' emphasis on in-group honor did not seem to affect these relationships in any appreciable way.

Consistent with other cross-cultural studies of the self-concept (e.g., Diener and Diener 1995; Piccolo et al. 2005), we observed lower mean scores on CSE in the high-tech field sample. As mentioned, one feature of the collectivist culture that has surfaced in the literature (Chen et al. 1995; Piccolo et al. 2005) and may have surfaced in our results is a modesty effect in the second sample's CSE ratings. The mean CSE rating of the Turkish student sample is 3.81 which is comparable to the CSE means reported in Judge et al.'s (2003) U.S. samples (i.e., their means ranged from 3.78 to 4.03). The mean CSE rating of our study's high technology sample is 3.45. The results of an independent-samples  $t$ -test indicated that the CSE

**Table 6** Comparisons of the our correlational results with the previous studies

Studies	Job satisfaction		Life satisfaction		Commitment	
	Sample	$r$	Sample	$r$	Sample	$r$
Chang et al.'s meta-analysis	Collectivist <sup>1</sup>	.46	Collectivist <sup>5</sup>	.60	Collectivist <sup>3</sup>	.39
	Individualist <sup>2</sup>	.33	Individualist <sup>6</sup>	.53	Individualist <sup>4</sup>	.27
The present study	Turkey	.41	Turkey	.40	Turkey	.29

1 ( $N = 4342$ ); 2 ( $N = 21,587$ ); 3 ( $N = 2287$ ); 4 ( $N = 8313$ ); 5 ( $N = 603$ ) 6 ( $N = 5285$ );  $r$  values of Chang et al.'s meta-analysis are estimates of corrected correlation

composite rating of the technology sample is significantly lower than the CSE composite rating of the student sample, ( $t = 7.086$ ,  $df = 486$ ,  $p < .01$ ), providing an indication of the presence of a modesty effect.

Studies suggest that a shift has taken place in the Turkish culture from collectivism towards individualism over the past couple of decades (Aycan 2001; Goregenli 1997; Gurbuz and Bingol 2007). Aycan and Fikret-Pasa (2003) argued that the younger Turkish workforce has experienced a more liberal economy that is characterized by increased industrialization, competition, and achievement-orientation. They observed that younger Turkish generations are adopting western values such as competition, achievement, and promotion of self-interest instead of more traditional values such as humility, sharing and equality, and respect for authority and family. Apparently, such changes have perpetuated the individualist mindset in the younger Turkish generation.

In our study, there is an age gap in our two samples. The average age of the student sample is 22 while the average age of the technology sample is 36. Perhaps, this age difference, reflecting inter-generational value changes, might be producing the CSE mean difference in our study. Of course, there could be other factors contributing to the CSE mean difference, one being the nature of technology work. The lower CSE ratings could be endemic to the industry and not really reflecting changes in inter-generational societal values. We also recognize that though it is plausible that a modesty effect may have affected the level of CSE ratings of the technology workers, this bias apparently had no deleterious effects on our validation study or the undermining of the strength of the relationships reported between the CSE predictor and outcome variables.

More broadly, it is thought that globalization could be leveling the “playing field” between countries. More specifically, as socio-economic, educational, and professional backgrounds become more uniform internationally, perhaps the differences in cross-cultural values will diminish in importance over time (Taras et al. 2016). Taras and colleagues’ (2012) meta-analysis findings showed that the country scores on Hofstede’s four cultural dimensions have changed over the past three decades (i.e., 1980 to 2010), suggesting that the standing of these cultural values is less temporally stable as once thought. Conceivably, the validity of dispositional constructs such as CSE may be less impacted by culture with the continuing erosion of these value differences.

## Implications for Practice

Our findings point to some practical implications in that Turkish people who are personally more positive (i.e., high core self-evaluations) tend to be more satisfied with their lives and their jobs and more emotionally committed to their organizations. Hence, the CSE scale may be an appropriate tool for

assessing personality-related effects on human resource development, career development, and human resource audits and employee surveys. Considering the importance of the employee’s job satisfaction and affective commitment in relation to customer interface and customer satisfaction, it may be wise to embed CSE items in the selection process. CSE may do a better job of predicting key outcomes that relate to customer satisfaction than the more commonly used personality traits. The only concern with such a recommendation is the applicant’s tendency to intentionally inflate their personality ratings, so as to appear more qualified in the job search process (Rothstein and Goffin 2006).

The results of this study have a related benefit due to this country’s recent promise as an offshoring and outsourcing sight (Koch and Bertan 2012). More foreign companies are considering Turkey’s highly educated and motivated workforce for their work. Having demonstrated the construct and predictive validity of the Turkish version of the CSE gives global organizations another HRM tool to help align the life satisfaction, job satisfaction, and affective commitment of these Turkish workers.

## Strengths, Limitations, and Future Research

The present study has a number of strengths, two being the research design and the makeup of the field sample. CSE was assessed in one time period, followed by an assessment of the satisfaction and commitment measures in a second time period (i.e., 90 days later). Common method variance has plagued past personality research (e.g., Podsakoff et al. 2012). With the present study’s research design, less bias due to common method variance is likely because of the length of the time interval between data collections. Although we collected the data at two points in time in this longitudinal study, all variables were assessed via self-report. Sole reliance on this self-report format could be another way that common method variance crept into our study’s results, perhaps inflating the correlations (Podsakoff et al. 2012).

As for the demographic makeup of our defense industry sample, it has a mix of strengths and weaknesses. Considering the strong technological background of these workers and the industry that they are associated, this sample is made up of highly educated professionals, surely more educated than the typical Turkish workers. According to TUIK (2016), nearly 25% of Turkey’s workforce is holding higher education degrees (bachelor and above). The average age of the individuals in the second sample is 36 which is similar to the age group of Turkey’s working population. According to TUIK, 42.6% of working population is in the 30–45 age group. The gender composition of this sample is less representative of the gender composition of the general working population. That is, 31.5% of Turkey’s workforce (TUIK 2016) is female while 44% of our second sample is female.

A follow up *t*-test indicated that CSE ratings did not differ by gender ( $t[319] = .80, p = .425$ ), which is encouraging considering the shortage of males in the sample.

Incorporating two samples, one a student sample and the other a field sample of technology workers from multiple organizations, is a strong point of this study's design. Including other occupations, other industries, and other cultures would have strengthened this study's external validity even more. Future research might replicate our findings with even more diverse samples to insure a better cross-section of demographic backgrounds.

There is some research indicating that generations (i.e., Boomers versus Generation X) may have different levels of job satisfaction (Benson and Brown 2011) and lower work commitment (Daboval 1998; Smola and Sutton 2002; Wallace 2006). Lub et al.'s (2012) findings showed that in a study of 359 Dutch hotel workers, Generation Y (i.e., millennials) has significantly lower organizational commitment than Generation X. Extending these inter-generational findings into our study's research design, perhaps the relationship of CSE to both satisfaction and commitment outcomes is moderated by the worker's generational status. Addressing this question is another possibility for upcoming studies.

Several other weaknesses must be acknowledged. Judge et al. (1998a, b) stated that "CSE measures the commonality among core traits rather than the specific-factor variance attributable to the core traits themselves". A limitation of the present study is that we did not fully examine Judge et al.'s CSE conceptualization. Does CSE account for added variance after controlling for all four of the lower-order traits (i.e., self-esteem, generalized self-efficacy, locus of control, and emotional stability)? We controlled for the effects of two of the four (i.e., emotional stability and generalized self-efficacy) but not all four. Both self-esteem and locus of control should also have been entered in Step 2 of our hierarchical regressions. A related concern is our use of only two core lower-order traits (i.e. generalized self-efficacy and emotional stability) as evidence of convergent validity. In sum, the design of future Middle Eastern studies ought to include all four lower-order core traits to provide a more comprehensive examination of the construct validity of CSE.

One possibility that was not considered in this research effort is that CSE could have varied determinants depending on the cultural context. Even though our research findings closely parallel Judge et al.'s (2003) and Piccolo et al.'s (2005) results, there might be a different set of factors underlying these particular self-concept ratings in collectivist and individualist societies while still yielding an equivalent one-factor solution across cultures.

Markus and Kitayama's (1991: 230) thinking on the "differences between an independent and an interdependent construal of self" could provide an insight as to this likelihood. The independent construal of self is characterized by

autonomy, separateness, and self-containment. For example, self-esteem within this construal is based on the person's unique inner attributes including abilities, thoughts, and feelings. The interdependent construal of self assumes that meaning and wholeness are grounded in relationships with significant others. Personal attributes take on a less important role while in-group relationships assume primary importance to the interdependent self. In sum, it is more about *me* in the independent context whereas it is more about *significant others* in the interdependent context.

It seems thinkable that persons living beneath these two distinct construal-of-self backgrounds could still arrive at an equivalent understanding and appraisal of their CSEs, even though their personal foci differ substantially. The parallel between the construals of the independent and interdependent selves and the norms of individualism and collectivism is close. Addressing whether the CSE construct unfolds with variant or invariant determinants in collectivists and individualists could be another consideration for future research.

## Conclusion

Our research found support for the generalizability of the CSE construct and Judge et al.'s (2003) 12-item scale in a Mediterranean collectivist country. This scale is economical and parsimonious. Our study's findings indicate that CSE and its operational definition do travel well across cultures, paving the way for future research that explores other avenues of CSE's applicability in varied conditions. Furthermore, the CSE personality trait fared well in relation to other well-established personality traits, in accounting for the variance of important workplace outcomes. Put simply, the Turkish version of the CSE scale superseded the effects of extroversion, agreeableness, conscientiousness, openness, and positive and negative affectivity on career-related outcomes. Seeing whether this strength of CSE can translate into utility for internationally located organizations is a next course of action.

**Funding** This work was supported by Scientific Project Commission of Social Sciences University of Ankara, grant number 179.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

## Appendix

**Table 7** Original, translated items, and factor loadings of the core self-evaluations scale

Original item	Turkish item	Factor loadings
I am confident I get the success I deserve in life.	Hayatta hak ettiğim başarıyı elde edeceğimden eminim.	.558
Sometimes I feel depressed. (r)	Bazen depresyonda hissediyorum. (r)	.676
When I try, I generally succeed.	Bir şeyi denediğimde, genellikle başarıyorum.	.529
Sometimes when I fail I feel worthless. (r)	Bazen, başarısız olduğumda kendimi değersiz hissediyorum. (r)	.712
I complete tasks successfully.	Bana verilen görevleri başarıyla tamamlarım.	.544
Sometimes, I do not feel in control of my work. (r)	Bazen, işimin benim kontrolümde olmadığını hissediyorum. (r)	.642
Overall, I am satisfied with myself.	Genel anlamda, kendimden memnunum.	.494
I am filled with doubts about my competence. (r)	Yeteneklerim konusunda şüphelerim vardır. (r)	.473
I determine what will happen in my life.	Yaşamımda olacaklar konusunda karar verebilirim.	.446
I do not feel in control of my success in my career. (r)	Kariyerimde başarımın benim elimde olmadığını hissediyorum. (r)	.562
I am capable of coping with most of my problems.	Problemlerimin çoğu ile baş edebilecek kapasiteye sahibim.	.396
There are times when things look pretty bleak and hopeless to me. (r)	Yaşamın bazen bana kasvetli ve umutsuz görüldüğü anlar da vardır. (r)	.489
Proportion of variance accounted (%)		56.646

(r) = reverse coded. Original items from Judge et al. (2003)

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