Longitudinal Relationships Between Core Self-Evaluations and Job Satisfaction

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Core self-evaluations (CSE) have been proposed as a static personality trait that influences individuals’ work experiences. However, CSE can also be influenced by work experiences. Based on the correspondence principle of personality development, this study incorporated both dispositional and contextual perspectives to examine longitudinal reciprocal relationships between CSE and job satisfaction. Longitudinal data from 5,827 participants in the British Household Panel Survey from 1997 to 2006 were analyzed. A series of structural equation models revealed that job satisfaction and the growth of job satisfaction in previous years positively predicted CSE in a later year. In turn, CSE contributed to higher job satisfaction and growth of job satisfaction in following years. This result shows that both dispositional and contextual forces interweave to shape individuals’ self-views and experiences over time.

Keywords: core self-evaluations, job satisfaction, personality development, latent growth curve model, correlated trait–correlated method minus one model

Although CSE is typically conceptualized as a stable trait by organizational researchers, personality theorists are paying increasing attention to the way that traits change over time through interaction with life experiences (Roberts & Mroczek, 2008; Roberts, Walton, & Viechthauer, 2006). Evidence for interaction between traits and contexts suggests that work experiences might also influence CSE so that CSE is “subject to prediction and variation over time” (Judge, Hurst, & Simon, 2009, p. 744). Beyond the dispositional perspective, we investigate two alternative views of change in CSE traits: the contextual perspective and the corresponsive perspective.

First, the contextual perspective (e.g., Lewis, 2001) proposes that personality is shaped by life and work experiences. Supporting this perspective, Schinkel, van Dierendonck, and Anderson (2004) found that CSE declined for job applicants who were rejected and received performance feedback to explain the decision. Studies from this perspective are more likely to focus on the role of self-enhancement motivation (Sedikides & Strube, 1995) to explain how work experiences provide a basis for changes in self-worth. Specifically, because individuals tend to make internal attribution for success (Sedikides & Gregg, 2008), positive work experiences, such as better job performance or higher job satisfaction, are more likely to boost their positivity about the self and lead to higher self-evaluations.

Second, the corresponsive perspective (Casp, Roberts, & Shiner, 2005) suggests that CSE and work experiences mutually influence each other over time. The dynamic relationship proposed in the corresponsive perspective of personality development suggests that CSE and work experiences can mutually influence each other (Casp et al., 2005). Therefore, both dispositional and contextual forces can work together to shape individuals’ personality and experiences over time (Bandura, 1999). The corresponsive perspective implies that CSE can be changed to a moderate degree through a combination of self-verification and self-enhancement motivations. This process is in line with the attributional model of
CSE and work experience (Judge & Kammeyer-Mueller, 2004) and the self-concept enhancing tactician (SCENT) model (Sedikides & Strube, 1997) of self-evaluation motivations.

This study examined the relationship between CSE and work experiences from dispositional, contextual, and corresponsive perspectives with a longitudinal design spanning 10 years. We used job satisfaction and its growth as indicators of work experiences. Job satisfaction represents an overall appraisal of work experiences (Locke, 1976) that conveys the meaning of work success in general for an individual (Erdogan & Bauer, 2005; Judge & Hurst, 2008). We also included the growth of job satisfaction because the within-person change in job satisfaction over time indicates the progress of work success for an individual and has been used to indicate an individual’s career success (Judge & Hurst, 2008).

Our study contributes to a better understanding of the malleability of CSE over long periods. Because most studies draw on a dispositional perspective to investigate CSE, little is known about the relative importance of the different causal processes that we identify. For example, of the 76 empirical articles on CSE located in the PsycINFO database with core self-evaluations as the search term, 74 articles (97%) treated CSE as a static trait from the dispositional perspective, two articles recognized the contextual force in shaping CSE (Judge et al., 2009; Schinkel et al., 2004), and no empirical study examined the reciprocal relationship between CSE and work experiences. To provide a better understanding of the alternative processes, we review each perspective below and develop hypotheses about the potential links between job satisfaction and CSE over time.

**Effects of CSE on Job Satisfaction and Its Growth: The Dispositional Perspective**

Adopting the dispositional perspective, Judge et al. (1997) proposed CSE as a stable and fundamental personality trait that has a profound impact on job satisfaction. This dispositional perspective is rooted in the tradition of trait theories of personality, which suggest that personality traits are stable and not influenced by environments (McCrae et al., 2000). Most subsequent studies of the relationship between CSE and job satisfaction have treated CSE as a dispositional construct that is assumed to influence job satisfaction in a unidirectional way. Several studies support this argument by showing that CSE can strongly and positively predict job satisfaction (e.g., Dormann, Fay, Zapf, & Frese, 2006; Judge, Bono, & Locke, 2000; Judge et al., 1998), including when the effects of Big Five personality and positive and negative affectivity are controlled (Judge, Heller, & Klinger, 2008).

Studies from the dispositional perspective often stress how individuals with higher CSE are motivated to sustain their level of CSE through a self-verification motivation (Swann et al., 2003). Evidence supporting this striving for self-verification has been identified in perception (Best, Stapleton, & Downey, 2005; Judge et al., 2000, Judge et al., 1998) and goal processes (Judge, Bono, Erez, & Locke, 2005), which link CSE and job satisfaction. Specifically, people with higher CSE tend to seek positive feedback and maintain their positive self-concept by focusing on the positive features of the work environment (Swann et al., 2003), and perceive more intrinsic job characteristics (i.e., autonomy, task identity, skill variety, task significance, and task feedback; Judge et al., 2000, Judge et al., 1998) and fewer organizational constraints (Best et al., 2005). These factors contribute to higher job satisfaction by promoting intrinsic motivation at work (Hackman & Oldham, 1976) and by preventing stress outcomes such as burnout (Hobfoll, 1989).

Empirically, past studies show that CSE predicts job satisfaction when using a cross-sectional design (Best et al., 2005; Judge et al., 1998) or an asymmetric time-lagged design (i.e., CSE was measured at Time 1 and job satisfaction was measured at Time 2; Judge et al., 2005, Judge et al., 2000), which are limited in the extent to which they can test the directional impact of CSE on job satisfaction. To provide a stronger test, our first hypothesis replicates previous research in a symmetric time-lagged design (i.e., CSE and job satisfaction were both measured over time):

**Hypothesis 1:** CSE will positively predict later job satisfaction.

In addition to the level of job satisfaction, CSE contributes to a greater positive growth of job satisfaction. First, people with higher CSE should have more opportunities to advance in their careers through better job performance and stronger motivation for goal attainment (Erez & Judge, 2001). Also, a self-verification process might encourage people with higher CSE to achieve further success by selecting jobs with more positive job characteristics (Judge et al., 2000), whereas those lower in CSE might verify their negative self-views by staying in undesirable job conditions. Finally, people with higher CSE tend to capitalize on their advantages, such as family socioeconomic status and academic achievement, to accelerate the increase of their incomes (Judge & Hurst, 2007). On the basis of these reasons, people higher in CSE are more likely to accelerate their job satisfaction than those lower in CSE. In line with these reasons, Judge and Hurst (2008) found that people with higher CSE showed greater increase in job satisfaction, pay, and occupational status over 26 years than those with lower CSE. Hence, we propose the following hypothesis to replicate the previous finding:

**Hypothesis 2:** CSE will positively predict growth of job satisfaction in later years.

**Effect of Job Satisfaction and Its Growth on CSE: The Contextual Perspective**

In this section, we adopt a contextual perspective to propose that job satisfaction and its growth can also influence CSE. From this perspective, “evaluations of our self-concept are intimately tied to our environment” (Judge, 2009, p. 61), and over time, work experiences can influence the development of personality traits. Some previous studies provide support for this process in relation to overall CSE and the constituent elements of CSE. Gilliland (1994) found that individuals’ situational self-efficacy increased when they were successfully selected for a job with higher perceived procedural fairness. Schinkel et al. (2004) found that individuals’ CSE decreased when they were rejected for a job but increased when they could attribute the rejection to an unfair selection procedure. In addition to the evidence for short-term change in CSE, other studies show that life experiences can influence CSE over a longer time frame. Costa, Herbst, McCrae, and Siegler (2000) found that people who reported their work lives
were getting worse over 6 years and people who were fired showed increased levels of neuroticism, an indicator of CSE. These findings suggest that CSE can be influenced by work experiences over both short- and long-term periods. In addition, these studies suggest a self-enhancement motivation behind the change of CSE (e.g., Schinkel et al., 2004) by proposing that individuals strive to enhance their self-value and worth (Sedikides & Strube, 1995). For example, Gilliland and Schinkel et al.’s findings suggest that self-enhancement motivation leads people to attribute positive experiences to individual causes and attribute negative experiences to external causes to increase and protect their self-worth.

In accordance with the contextual perspective, we propose that job satisfaction and the growth of job satisfaction can contribute to higher CSE. We base our reasoning on a discrepancy-reduction mechanism (e.g., Bandura, 1989; Carver & Scheier, 2000; Higgins, 1987). Specifically, motivational theories of discrepancy reduction propose that self-evaluations are constructed by comparing one’s actual status with a certain standard (e.g., Bandura, 1989; Carver & Scheier, 2000; Higgins, 1987). Because job satisfaction denotes a discrepancy between current status and a wanted status at work (e.g., Locke, 1969), individuals with higher job satisfaction tend to perceive a smaller discrepancy with the self-standard and, thus, greater enhancement at work compared with their counterparts. This discrepancy-reduction mechanism is more likely driven by a self-enhancement motive. According to social cognitive theory (Bandura, 1989; Wood & Bandura, 1989), individuals regulate themselves by setting goals that create a discrepancy from the current status and then devote their effort to accomplish these goals. This discrepancy production and reduction process contributes to higher self-value and worth because it can “increase one’s belief in his or her capabilities to perform at yet higher levels” (Tolli & Schmidt, 2008, p. 693).

On the basis of the same notion, we also hypothesize that stronger growth of job satisfaction over time will contribute to higher CSE. Because a prior satisfaction level provides a reference point for interpreting the meaning of later satisfaction level (Chen, Ployhart, Thomas, Anderson, & Bliwise, 2011), stronger growth of job satisfaction reflects a greater rate in reducing the have–want discrepancy and thus a greater rate in self-enhancement at work (Carver & Scheier, 2000), then contributes to higher CSE. To examine the hypothesized directional impact of job satisfaction and its growth on CSE, we express our hypothesis in a time-lagged context as follows:

**Hypothesis 3:** Job satisfaction will positively predict later CSE.

**Hypothesis 4:** Growth of job satisfaction will positively predict later CSE.

**Longitudinal Reciprocal Relationship Between CSE and Job Satisfaction and Its Growth**

We have elaborated the relationship between CSE and job satisfaction and its growth from dispositional and contextual perspectives that together imply a process of longitudinal reciprocal influence. According to the idea of triadic reciprocal causation (Bandura, 1999), it is possible that both dispositional and contextual forces dynamically work together to shape one’s CSE and job satisfaction and its growth over time. This dynamic can be understood by the corresponsive principle of personality development, which suggests that life experiences influence the personality traits that lead people to find these experiences in the first place (Casp et al., 2005). Accordingly, it is possible that CSE and job satisfaction will have a longitudinal reciprocal relationship, such that job satisfaction and its growth influence the CSE that lead people to have higher job satisfaction in the first place.

A reciprocal relationship between CSE and job satisfaction and its growth is implied in the theoretical mechanisms that are currently proposed to link CSE and work experiences. In their attributional model, Judge and Kammeyer-Mueller (2004) proposed that CSE leads to better performance and success because, at first, people with higher CSE tend to construct and embrace favorable work environments (e.g., Best et al., 2005; Judge et al., 1998), set self-concordant goals (Judge et al., 2005) with higher standards, and strive to achieve goals that lead to higher performance (Erez & Judge, 2001). The experience of success subsequently results in higher CSE because individuals with a self-enhancement motivation tend to make internal attributions for their successes (Sedikides & Strube, 1997). Because job satisfaction conveys the meaning of work success in general (Erdogan & Bauer, 2005; Judge & Hurst, 2008), this process implies a longitudinal reciprocal relationship between CSE and job satisfaction and its growth, consistent with the corresponsive principle of personality development.

The reciprocal relationship between CSE and job satisfaction is also implied in the SCENT model (Sedikides & Strube, 1997) for self-evaluation motivations. Sedikides and Strube (1997) proposed that self-evaluation is an adaptive process in which confirming a positive self-concept (i.e., self-verification) is a tactical step in achieving self-enhancement. Accordingly, self-verification and self-enhancement motivations are not independent. For example, people with higher CSE are more likely to focus on the positivity of the environment, such as more positive job characteristics (Judge et al., 1998), which in turn helps them to react to environmental events in ways that can maximize a positive view of the self, such as better job performance or higher job satisfaction.

In sum, perspectives from the corresponsive principle of personality development (Casp et al., 2005), the attributional model of CSE and work experiences (Judge & Kammeyer-Mueller, 2004), and the SCENT model of self-evaluation motivations (Sedikides & Strube, 1997) all support the longitudinal reciprocal relationship between CSE and job satisfaction and its growth. The two corresponding hypotheses are

**Hypothesis 5:** There will be a longitudinal reciprocal relationship between CSE and job satisfaction, such that Hypothesis 1 and Hypothesis 3 will both be supported.

**Hypothesis 6:** There will be a longitudinal reciprocal relationship between CSE and growth of job satisfaction, such that Hypothesis 2 and Hypothesis 4 will both be supported.

**Hypothesized Model**

In this study, we aimed to examine the longitudinal relationship between CSE and job satisfaction and its growth in order to evaluate the assumptions of the dispositional, contextual, and
corresponensive perspectives. Because our research paradigm is complex in terms of analysis, we briefly introduce the conceptual research model in relation to the study design (see Figure 1) to illustrate how we tested the hypotheses.

We used a 10-year longitudinal design in which job satisfaction was assessed annually for 10 years and CSE was assessed in Years 5 and 10. We divided our data into four stages—(a) Year 1 to Year 4, (b) Year 5, (c) Year 6 to Year 9, and (d) Year 10—so that we could estimate links between the two measures of CSE and the levels of and growth in job satisfaction across the 10-year period. For job satisfaction, we estimated an intercept factor (i.e., job satisfaction at Year 1) and a growth slope factor (i.e., growth rate in job satisfaction from Year 1 to Year 4) at the first stage and another intercept factor (i.e., job satisfaction at Year 6) and growth slope factor (i.e., growth rate in job satisfaction from Year 6 to Year 9) at the third stage. For CSE, we assessed CSE level at Years 5 and 10. The full design shown in Figure 1 involves eight latent constructs that allowed us to test longitudinal relationships. Paths involving different hypotheses are indicated in the figure.

Method

Participants and Procedure

Data from the British Household Panel Survey (BHPS; Taylor, 2010) were used in the current study. The BHPS is an annual survey with a nationally representative sample recruited in 1991. To date, it is composed of 18 waves that have occurred between 1991 and 2008. Job satisfaction has been assessed at each wave, and CSE measures were extracted from data in 2001 and 2006. To investigate the relationship between CSE and job satisfaction, we used data from 1997 to 2006 (denoted as Year 1 to Year 10 in the following report), which resulted in a four-stage data structure: (a) Year 1 to Year 4 (1997–2000), (b) Year 5 (2001), (c) Year 6 to Year 9 (2002–2005), and (d) Year 10 (2006).

Participants were selected according to the following criteria: (a) participants are all employees (self-employed participants are not included), (b) participants had at least two data points in each 5-year period in order for us to construct the growth effect of job satisfaction in that period, and (c) participants had completed demographic data on sex, age, and averaged annual income in order for us to control the demographic variables in our model. On the basis of these three criteria, 5,827 participants were selected and used in the following analysis. In this sample, 2,831 were male (48.6%) and 2,996 were female (51.4%). Their ages were from 13 to 73 years at 1997, with a mean of 34.61 and a standard deviation of 11.70. There were 443 (7.6%) participants under the age of 18 (13–17) in 1997. We included these participants because they began to provide job satisfaction data after they were 16-year-olds and had a paid job experience. Only 18 participants in the sample were older than 65 in 1997.

Measures

**Job satisfaction.** Job satisfaction was measured by five available items across 10 years in the BHPS database from 1997 to 2006 (Year 1 to Year 10). The five items were overall job satisfaction, satisfaction with total pay, satisfaction with security, satisfaction with work itself, and satisfaction with work hours. The mean of the five items was used to indicate the level of job satisfaction in each year. Participants used 7-point scales from 1 (not satisfied at all) to 7 (completely satisfied) to rate these items. Cronbach’s alpha coefficients for these five items were higher than .75 for each year (see Table 1).

**Core self-evaluations.** Because there is no standard measure of CSE in the BHPS database, following the work of Judge and Hurst (2008), we selected items that best represent the construct of
CSE. The same six items were selected to measure CSE in Year 5 (2001) and Year 10 (2006). Four items were selected from the General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988), and two items were selected from the CASP quality-of-life measure (CASP-19; Wiggins, Netuveli, Hyde, Higgs, & Blane, 2008). The four items from the GHQ-12 were “Have you recently been able to face up to problems?” (for self-efficacy), “Have you recently been feeling unhappy or depressed?” (for neuroticism), “Have you recently been losing confidence in yourself?” (for self-esteem), and “Have you recently been thinking of yourself as a worthless person?” (for self-esteem). Participants used 4-point scales with different descriptors to indicate their answers to these questions. Because these four items have momentary wording (i.e., “Have you recently . . .”), the momentary effect will be controlled in analysis. The two items from the CASP-19 were “I feel that what happens to me is out of my control” (for sense of control) and “I feel that what happens to me is out of my control” (for sense of control). Participants used 4-point scales from 1 (“I feel left out of things” (also for sense of control) and .80 for each year (see Table 1). To ensure the validity of our used CSE items, we examined the correlation between the six-item measure, we examined the correlation between the six-item measure used in our study and the CSE measure developed by Judge et al. (2003) in a sample of 310 undergraduates in Taiwan. The correlation between the two CSE measures was .70, supporting the criterion validity of our used CSE items.

### Data Analysis

We tested our hypotheses with a series of structural equation models. Specification for each model is provided in the Results section. All models were estimated with Mplus (Muthén & Muthén, 2007). To take into account nonnormality of data and missing data, we used a maximum likelihood estimator with robust standard errors using a numerical integration algorithm (i.e., the MLR estimator in Mplus). This estimator generates robust estimation to nonnormality and nonindependence of data and can also deal with missing data in estimation that is based on the missing-at-random assumption (Muthén & Muthén, 2007). In all models, the first loading of each latent factor was set as 1 to fix the latent factor scale. We relied on four fit indices—comparative fit index (CFI), Tucker–Lewis index (TLI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR)—as suggested by Hu and Bentler (1999), to evaluate our models. Finally, in all models, sex, age, and average annual income were included in the model as time-invariant control variables. We did not treat income as a time-variant variable because annual income had nonsignificant or small effects on job satisfaction in a preliminary analysis when it was treated as a time-variant variable, and treating income as a time-invariant variable also reduced the number of parameters in the models. Given that effects of sex, age, and average annual income were small and not main concerns in our study, we have not reported their specific effects in the Results section. Results of these effects are available upon request.

### Results

#### Descriptive Analysis

Table 1 presents means, standard deviations, and correlations among the variables, including job satisfaction for each of the 10 years and CSE assessed at Year 5 and Year 10.

### Preliminary Analysis

Before examining our hypotheses, we conducted several preliminary tests. First, factor invariance of the measures is essential to ensure that the same construct over time is assessed (Golembiewski, Billingsley, & Yeager, 1976). To test invariance, we examined the factor structure of CSE and job satisfaction measurements and tested the invariance of factor loadings and item intercepts within the same constructs over time. These tests are essential to ensure that the change phenomena upon which we rely in the following longitudinal analysis are about the changes in
target construct (true change), rather than the changes resulting from scale recalibration (i.e., beta change) and construct reconceptualization (i.e., gamma change; Golembiewski et al., 1976; Sprangers & Schwartz, 1999). Second, because we included the rate of change in job satisfaction as a construct in our main analysis, we also tested the size and shape of the growth effect of job satisfaction in our sample. We first report factor analysis results for CSE and job satisfaction and then report the results of the job satisfaction growth structure. Model fit of all models is summarized in Table 2.

**Measurement model of CSE.** In the measurement model of CSE, we aimed to extract a latent CSE factor to represent a general, trait-like construct. Because four items for CSE were assessed with a momentary wording (i.e., “Have you recently . . .”), we used the correlated trait–correlated method minus one (CT-C(M − 1)) model (Eid, 2000; Eid, Lischetzke, Nussbeck, & Trierweiler, 2003) to control the momentary effect when extracting the CSE factor.

The CT-C(M − 1) model (Eid, 2000) was developed to analyze the multitrait–multimethod data (Campbell & Fiske, 1959). Instead of estimating method factors for all methods as in the correlated trait–correlated method model (Marsh, 1989; Widaman, 1985), the CT-C(M − 1) model uses one method as the reference method and thus has one method factor fewer than the number of methods. For example, if employees’ job performance was assessed by self-report, peer report, and supervisor’s report (i.e., three methods), one method is chosen as the reference method, and method factors for the other two methods will be extracted. In this specification, a trait factor is thus defined as the true score of a construct denoting a weak invariance property. Next, we additionally imposed the equality of item intercepts for the same items over time. The model with equality of factor loadings (Model 2B) had a similar model fit, \( \chi^2(986) = 2513.58, CFI = .98, TLI = .98, RMSEA = .016, SRMR = .037 \), denoting a weak invariance property. Next, we additionally imposed the equality of item intercepts for the same items over time. The model with equality of item intercepts (Model 2C) had a similar model fit, \( \chi^2(1,031) = 2960.42, CFI = .98, TLI = .97, RMSEA = .018, SRMR = .038 \), denoting a strong invariance property. In this strong invariance model, the correlations between job satisfaction factors ranged from .25 to .57 with a mean of .39.

**Piecewise latent growth curve model of job satisfaction.** We examined the growth of job satisfaction using a piecewise latent growth curve model (e.g., Chou, Yang, Pentz, & Hser, 2004; Duncan & Duncan, 2004) that enabled us to examine growth effects in multiple stages. As noted above, we divided our 10-year data into four stages: (a) Year 1 to Year 4, (b) Year 5, (c) Year 6 to Year 9, and (d) Year 10. With this framework, we examined how the growth process of job satisfaction in the first 4 years influenced CSE and job satisfaction at Year 5; and how CSE and job satisfaction at Year 5, in turn, influenced the growth process of job satisfaction in the next 4 years (Year 6 to Year 9), which subsequently influences CSE and job satisfaction at Year 10.

We used a composite score for each year to build the piecewise latent growth curve model, because a convergent solution could not be obtained when the model was built using item scores. This approach seemed reasonable, given that the measures of job satisfaction were found to be invariant over the 10 years of the study.

We constructed two intercept factors and two slope factors in the model so that job satisfaction scores from Year 1 to Year 4 were influenced by an intercept factor and a slope factor, and job satisfaction scores from Year 6 to Year 9 were influenced by another intercept factor and slope factor. Loadings on intercept factors were all set at 1, and the first and last loadings on each

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1 Negative correlations among errors for the global job satisfaction item over time were found when errors of the global job satisfaction item were allowed to be related over time. Thus, the error correlations among the global job satisfaction items were excluded in the model.
slope factor were set as 0 and 1, respectively. Other loadings on slope factors were freely estimated. These specifications define job satisfaction scores at Year 1 and Year 6 as the intercepts, and the two slope factors represent the growth rate of job satisfaction in each 4-year period. Job satisfaction scores at Year 5 and Year 10 were each influenced by a single-indicator factor. All factors were free to correlate. This piecewise latent growth curve model (Model 3) had a better fit, \( \chi^2(26) = 57.30, \text{CFI} = .99, \text{TLI} = .98, \text{RMSEA} = .014, \text{SRMR} = .010 \), than other alternative models.\(^2\)

All loadings in the piecewise growth model were significant \((p < .01)\), except for the loading from the first slope factor to the job satisfaction score at Year 2. The means of the two intercepts were 5.25 and 5.27, which respectively represent the means of job satisfaction at Year 1 and Year 6. The means of the two factors for job satisfaction scores at Year 5 and Year 10 were 5.30 and 5.33, respectively. Factor loadings of both slope factors revealed a pattern of increasing values \((0.00, 0.00, 0.38, \text{and } 1.00 \text{ for the first slope factor}; 0.00, 0.36, 0.66, \text{and } 1.00 \text{ for the second slope factor})\).

The mean of the first slope factor was not different from 0, suggesting that the average growth rate of the whole sample was zero for this period. The mean of the second slope factor was significant (unstandardized estimate = .05, \(p < .01\)), suggesting that the average growth rate of job satisfaction was slightly positive for this period. Variances of factors were all significant \((p < .01)\), indicating that participants had different scores in job satisfaction at Year 1, Year 5, Year 6, and Year 10. They also had significantly different rates in growth of job satisfaction within the two periods. These variances permitted us to conduct analyses to examine the hypothesized relationships between CSE and job satisfaction and its growth.

**Hypothesis Testing**

We now turn to the examinations of our hypotheses using the strong invariance model of CSE and the piecewise latent growth curve model of job satisfaction. There were 10 factors in this model: two method factors for CSE, two CSE factors (CSE at Year 5 and Year 10), two intercept factors (job satisfaction at Year 1 and Year 6), two slope factors (the first growth rate and the second growth rate), and two single-indicator factors (job satisfaction at Year 5 and Year 10; the simple terms were used to simplify our following reports). We first allowed all factors to correlate except for the two method factors for CSE, which were correlated only with each other. This correlated-factor model (Model 4A) was acceptable, \( \chi^2(223) = 866.26, \text{CFI} = .98, \text{TLI} = .98, \text{RMSEA} = .022, \text{SRMR} = .020 \), suggesting that both the strong invariance model of CSE and the piecewise latent growth curve model of job satisfaction together were a good fit to the data.

We next specified directional relationships among factors according to the time sequence as shown in Figure 2. To test Hypothesis 1, CSE at Year 5 predicted job satisfaction at Year 6. To test Hypothesis 2, CSE at Year 5 predicted the second growth rate. To test Hypothesis 3, job satisfaction at Year 1 predicted CSE at Year 5 and job satisfaction at Year 6 predicted CSE at Year 10. To test Hypothesis 4, the first growth rate predicted CSE at Year 5 and the second growth rate predicted CSE at Year 10.

We also included other directional effects in the model to control for prior levels of the main constructs. First, CSE at Year 5 was used to predict CSE at Year 10, to account for its autoregressive effect. Similarly, previous job satisfaction was used to predict the next period of job satisfaction. Next, directional paths

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<td>235</td>
<td>.96</td>
<td>.95</td>
<td>.031</td>
<td>.041</td>
</tr>
</tbody>
</table>

Note. CSE = core self-evaluations; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual.

\(^2\) Before testing the piecewise latent growth curve model, we examined several models with intercept factors only. First, we estimated a model in which job satisfaction scores in all 10 years were influenced by only one intercept factor. All factor loadings were fixed at 1. This one-intercept model assumes that there is no change of job satisfaction over the 10 years. The model fit was not acceptable, \(\chi^2(53) = 1683.84, \text{CFI} = .85, \text{TLI} = .86, \text{RMSEA} = .073, \text{SRMR} = .080 \). Second, we estimated a model in which job satisfaction scores from Year 1 to Year 4 were influenced by an intercept factor, job satisfaction scores from Year 6 to Year 9 were influenced by another intercept factor, and job satisfaction scores at Year 5 and Year 10 were influenced by another two factors each. All factor loadings were set at 1. This four-intercept model assumes that there is no change in job satisfaction from Year 1 to Year 4 and from Year 6 to Year 10, but that the levels can be different between the four specified stages. This four-intercept model was acceptable, \(\chi^2(43) = 767.26, \text{CFI} = .93, \text{TLI} = .93, \text{RMSEA} = .054, \text{SRMR} = .044 \), and had a better fit than the one-intercept model. However, our hypothesized piecewise latent growth curve model had a better fit than this four-intercept model.
associated with intercept and slope factors of job satisfaction were specified. Specifically, job satisfaction at Year 1 predicted the first growth rate, and job satisfaction at Year 6 predicted the second growth rate. The first growth rate predicted job satisfaction at Year 5, and the second growth rate predicted job satisfaction at Year 10. Finally, CSE and job satisfaction were correlated in the same year to account for shared variance within measurement occasions.

Overall fit indices showed that this directional path model (Model 4B) was acceptable, $\chi^2(235) = 1553.36$, CFI = .96, TLI = .95, RMSEA = .031, SRMR = .041. Figure 2 presents the results of this model. Regarding effects associated with the dispositional perspective, CSE at Year 5 positively predicted job satisfaction at Year 6 (unstandardized $\gamma = .86$, standardized $\gamma = .14$, $p < .01$), supporting Hypothesis 1 and revealing that individuals with higher CSE at Year 5 tended to report a higher level of job satisfaction at Year 6 compared with their counterparts. CSE at Year 5 also positively predicted the second growth rate factor (unstandardized $\gamma = .52$, standardized $\gamma = .10$, $p < .01$), supporting Hypothesis 2 and revealing that individuals with higher CSE at Year 5 tended to show a greater increase in their job satisfaction from Year 6 to Year 9 compared with their counterparts.

Regarding effects associated with the contextual perspective, job satisfaction at Year 1 positively predicted CSE at Year 5 (unstandardized $\gamma = .06$, standardized $\gamma = .36$, $p < .01$), and job
satisfaction at Year 6 positively predicted CSE at Year 10 (unstandardized $\gamma = .02$, standardized $\gamma = .14$, $p < .01$), supporting Hypothesis 3 and revealing that individuals with higher job satisfaction tended to have a higher CSE later compared with their counterparts. The first growth rate factor positively predicted CSE at Year 5 (unstandardized $\gamma = .03$, standardized $\gamma = .15$, $p < .01$), and the second growth rate factor positively predicted CSE at Year 10 (unstandardized $\gamma = .03$, standardized $\gamma = .18$, $p < .01$), supporting Hypothesis 4 and revealing that individuals with greater increase in their job satisfaction tended to have a higher CSE later compared with their counterparts.

Because all proposed effects associated with the longitudinal reciprocal relationship between CSE and job satisfaction were significant, Hypothesis 5 was supported. Similarly, all effects associated with the longitudinal reciprocal relationship between CSE and growth of job satisfaction were significant, and thus Hypothesis 6 was supported.

**Discussion**

Our comparison of alternative causal relationships between CSE and job satisfaction contributes to a better understanding of the malleability of CSE, the link between CSE and work experiences, and the self-motives that shape CSE.

First, on the basis of recent research on personality development (e.g., Roberts & DelVecchio, 2000; Roberts et al., 2006), we expected that CSE, as a personality trait, could change systematically over time. Although researchers have noted the possibility that CSE is malleable, long-term changes in the CSE trait have not been examined. Schinkel et al. (2004) found that CSE was influenced by experiences, but their examination focused on a state-like change of CSE with a short-term experimental manipulation. In this study, we focused on trait-like change of CSE with a long-term longitudinal analysis. We found that although there was a high degree of stability in CSE (test–retest reliability of CSE = .63), there was also change in the rank order of participants (Roberts & DelVecchio, 2000), which implies that individuals can change their CSE levels over time. The malleability of CSE could play a functional role in goal achievement, because increased CSE that arises from positive experiences gives an individual confidence to take on challenges and more advanced goals. This notion is indirectly supported by the findings of Tolli and Schmidt (2008) and Seo and Ilies (2009) regarding task-specific self-efficacy. They found that feedback or past performance determined the level of task-specific self-efficacy, which, in turn, influenced goal revision, suggesting that self-evaluations can mediate the relationship between previous experiences and subsequent actions.

Second, our results showed that systematic changes in CSE were related to job satisfaction from both a dispositional and a contextual perspective. We replicated previous findings that dispositional CSE influences subsequent job satisfaction. Central to our study’s contribution, we also demonstrated a contextual effect of job satisfaction on subsequent CSE. Thus, overall, we found a corresponding relationship between CSE and job satisfaction over time that is consistent with a dynamic process through which individuals shape and are shaped by experiences in their environment (Casp et al., 2005). Our findings suggest that the dispositional and contextual effects are comparable in size. With standardized path coefficient as an estimate of effect size and Cohen’s (1998) effect size criteria for correlation coefficients (see Kline, 2005), effects of prior CSE on later job satisfaction (.14) and growth of job satisfaction (.10) and effects of prior job satisfaction (.36 and .15) and growth of job satisfaction (.14 and .18) on later CSE are small to medium. These results suggest that dispositional and contextual forces had similar strength in the corresponsive dynamics and that the contextual force should not be ignored in future studies.

The potential for experiences to influence CSE has important practical implications for organizations. In contrast to the implications of the dispositional perspective that it is better to select employees with higher CSE (e.g., Judge, 2009), our results support the potential to cultivate employees’ CSE by enhancing employees’ positive work experiences (e.g., job satisfaction) at work. Job design research suggests that intrinsically meaningful tasks not only contribute to higher job satisfaction (Hackman & Oldham, 1976) but also increase self-efficacy at work (Parker, 1998). Therefore, providing intrinsically meaningful tasks is one way to foster an employee’s positive experiences at work and cultivate an employee’s CSE.

Third, our study contributes to a further understanding of the motivational mechanisms through which CSE operates. Previous studies of CSE have emphasized a self-verification motive whereby individuals higher in CSE seek self-consistent information and experiences (e.g., Judge & Hurst, 2008). In addition, the contextual effects reported in our study support a self-enhancement motive whereby individuals use higher levels of satisfaction to inform judgments about their self-worth (Sedikides & Strube, 1997). Our overall results supporting a corresponsive relationship between CSE and work experiences further suggest that self-verification and self-enhancement processes may work together over time. Self-verification and self-enhancement are often treated as competing motivations when they are considered independently (Swann et al., 2003). In contrast, consistent with the SCENT model (Sedikides & Strube, 1997), our findings suggest that self-verification may serve self-enhancement ends because people can increase their levels of CSE after experiencing higher job satisfaction over time. These findings suggest that people high in CSE tend to experience greater job satisfaction not only as verification of their positive self-views, but through a process of enhancing their positive self-views. For example, people high in CSE might perceive more positive job characteristics and report higher levels of job satisfaction not only because they “seek and categorize information in their work environment that will lead to positive conclusions about their work” (Judge et al., 1998, p. 21), but also because they actively seek favorable work environments that allow them to make positive judgments about themselves. Our study design and measures did not allow us to test these possibilities directly. Further research should examine these motivational processes in more detail to explore how self-verification and self-enhancement interact to influence positive work experiences.

**Limitations and Future Research**

In addition to the above implications, the limitations of this study should be noted. First, we measured CSE on only two occasions; thus, we could not incorporate a growth process for CSE in our analysis as we did for job satisfaction. Because a growth factor of CSE denotes a within-person change of CSE over time, it can be used as an indicator to reflect the level of self-
enhancement and thus could help to unpack the potential self-enhancement motivational process behind CSE at work. In addition, our assessment of trait variance in CSE might have been underestimated because of the wording of some items. To operationalize our CSE construct at the trait level, we used a CT-C(M – 1) model (Eid et al., 2003) to separate the momentary variance of CSE resulting from the wording of the four items with a shorter time frame. This approach seems justified because the test–retest reliability of the latent CSE factor was relatively high (r = .63) and comparable to the test–retest reliability of Big Five personality measures reported by Roberts and DelVecchio (2000), whose findings ranged from .55 to .74 over a time interval of 6.7 years. However, future research should measure CSE at the trait level using items without momentary wording.

Second, job satisfaction is a relatively simple indicator that might not be sufficient to assess the complex processes between CSE and work experiences. For example, work experiences can be captured at different levels of specificity, such as actual events (e.g., a job change), perceived or interpreted experiences (e.g., perceived organizational justice), and an overall evaluative judgment (e.g., job satisfaction). In addition, different work experiences can influence one another as well as CSE. For example, Schinkel et al. (2004) reported that perceived procedural fairness will lead to different interpretations of a rejection, which then influences the level of CSE. Their finding shows that the relationship between CSE and work experiences is more complex than we have outlined here. Thus, in future studies, the indicators of work experiences should be expanded.

Finally, the dynamics between CSE and job satisfaction might be more complex than that tested in our research model. Factors that might mediate or moderate the reciprocal relationship between CSE and job satisfaction and its growth were not examined in our study. For example, it has been theorized that CSE can contribute to higher job satisfaction and greater growth by guiding an individual’s attention to seek positive features in the environment and take advantage of opportunities (e.g., Judge & Hurst, 2008; Judge et al., 1998). However, we did not empirically test these mediated processes.

In addition, we did not include potential moderators in our model. Judge and Kammerer-Mueller (2004) and Tolli and Schmidt (2008) have indicated that internal attribution, a tendency to attribute the cause of events to oneself, can moderate the effect of success or failure in increasing or decreasing CSE or self-efficacy. Also, according to the contingency of the self-worth model (Crocker & Wolfe, 2001), self-evaluations are made according to what people believe they need to be or do to have worth as a person. Thus, concepts such as the importance of job performance, involvement in a job, and personal identity at work may amplify or limit the reciprocal relationship between CSE and job satisfaction.

Conclusion

In keeping with the corresponsiveness principle of personality development (Caspi et al., 2005), we found that individuals’ CSE influenced their work experiences, which in turn shaped their CSE. The corresponsive perspective incorporates the conventional dispositional perspective of CSE (i.e., CSE will influence one’s work experiences; Judge, 2009) and the contextual perspective of CSE (i.e., CSE is shaped by one’s work experiences; Schinkel et al., 2004). Moreover, the corresponsive perspective suggests that CSE is malleable and involves both self-verification and self-enhancement motivations. Overall, this study provides a dynamic view of the relationship between CSE and work experiences.

References


Erdogan, B., & Bauer, T. N. (2005). Enhancing career benefits of employee proactive personality: The role of fit with jobs and organizations. Per-
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