Core self-evaluations as a personal resource at work for motivation and health

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Core self-evaluations as a personal resource at work for motivation and health

Tanja Bipp^{a,b,*}, Ad Kleingeld^c, Thea Ebert^a

^a Julius-Maximilians University of Würzburg, Germany

^b Open University, the Netherlands

^c Eindhoven University of Technology, the Netherlands

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ABSTRACT

We investigated the role of core self-evaluations (*CSE*) as a positive, personal resource in the motivational and health impairment processes outlined in the Job-Demands-Resources (*JDR*) model. In two samples of German and Dutch employees we investigated how this higher-order personality construct integrating self-esteem, generalized self-efficacy, locus of control, and emotional stability, contributes to the prediction of two outcomes pertaining to strain and well-being. In Study 1 ($N = 135$) we found *CSE* to be positively related to work engagement, directly, and indirectly via job crafting behavior aiming to enhance structural resources at work. In Study 2 ($N = 330$), we found a negative relationship of *CSE* with burnout, directly, and an indirect relationship via psychological detachment with regard to exhaustion. Against our expectations, we did not find support for a moderating effect of *CSE* in either study, neither on the relationship of job crafting behavior and work engagement, nor on the relationship of psychological detachment with exhaustion and disengagement. Nonetheless, our results support the role of *CSE* as a positive individual resource, sustaining the building of psychological and job resources. Therefore, our findings bear important practical implications for enhancing motivation and health of employees in today's organizations.

To promote and sustain healthy organizations, research has traditionally focused on the relevance of factors of the work situation, such as task and social characteristics. However, more recently, the importance of individual differences has gained more attention, as they have been shown to be linked to positive work outcomes, such as work motivation (Judge & Ilies, 2002) or employee health (Alarcon, Eschleman, & Bowling, 2009). Given that meta-analytic findings have demonstrated that personality traits can explain up to 48% of the variance in strain or well-being indicators, such as work engagement or burnout (Swider & Zimmerman, 2010; Young, Glerum, Wang, & Joseph, 2018), there is a need to better understand how personality traits contribute to employees health and well-being in today's organizations. Although (selected) personality traits have been shown to exert varying effects in current job stress models, such as the Job Demands-Resources theory (Bakker & Demerouti, 2014), it is not well understood yet how (general) personality traits should be integrated into explanatory models that specify their role with regard to strain and well-being (Schaufeli & Taris, 2014). In the current study, we concentrated on the role of a broad personality construct, core self-evaluations (*CSE*) defined as the “fundamental premises that individuals hold about

themselves and their functioning in the world” (Judge, Bono, Erez, & Locke, 2005) (p. 168), which has been suggested as a dispositional basis for life and work satisfaction. However, only recently has research started to investigate *CSE* as personal resource, and why it affects work outcomes besides job satisfaction or performance (Tims & Akkermans, 2017).

In the current study, we tested how *CSE* contributes to the building of resources at work, and therefore sustains work motivation and health of employees in today's organizations. For this, we investigated in two samples of employees the role of *CSE* as a personal resource in relation to two central constructs (Demerouti, Mostert, & Bakker, 2010) of the well-validated Job-Demands-Resources Model (*JD-RM*, Bakker & Demerouti, 2017): work engagement and burnout. First, we examined direct, indirect, and moderating effects of *CSE* in the motivational process, by specifying the relationships of *CSE* with job crafting behaviors with regard to seeking social and structural resources (Demerouti & Bakker, 2014) and work engagement. Second, we turned to the health impairment process and focused on the direct, indirect, and moderating effects of *CSE* with regard to burnout. More specifically, we tested if *CSE* helps to restore energy resources at work by supporting

* Corresponding author at: Department of Psychology, Chair in Psychology II, Röntgenring 10, 97070 Würzburg, Germany.

E-mail address: tanja.bipp@uni-wuerzburg.de (T. Bipp).

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psychological detachment, a mechanism found to mediate the effect of job demands on well-being (Sonnentag & Fritz, 2015).

1. Core self-evaluations (CSE)

CSE forms a higher-order construct that integrates four well-studied concepts, namely self-esteem, generalized self-efficacy, locus of control, and emotional stability, and has been shown to be a solid predictor of several work outcomes (Judge, 2009). For example, persons scoring high on CSE are more satisfied with their jobs, report higher well-being, and reach higher performance (Chang, Ferris, Johnson, Rosen, & Tan, 2012; Judge, 2009). Judge, Locke, and Durham (1997) suggested different possible explanatory processes why CSE affects work outcomes. Besides a direct effect, for example, on job satisfaction through emotional generalization, CSE may influence work outcomes indirectly by affecting cognitions and appraisals, or the actions taken in a specific situation. Indeed, CSE has been shown to influence the perceptions of work characteristics (Judge, Locke, Durham, & Kluger, 1998) and has been linked to the pursuit of goals that match personal values or interests (Judge et al., 2005). Furthermore, given that persons with positive CSE appraise situations differently, are more effective with regard to self-regulation, and show higher motivation to pursue opportunities than people who are less convinced of their capabilities (Chang et al., 2012), CSE has also been shown to moderate the effect of other variables on work-relevant outcomes. For example, Van Doorn and Hülshager (2015) showed that CSE acts as a buffer against job demands. The present study expands on the idea of CSE as person-related resource (Debusscher, Hofmans, & De Fruyt, 2017), by investigating direct, indirect, and moderating effects of CSE on motivation and health outcomes by taking into account different strategies to generate various (e.g., psychological, social and structural) resources at work.

2. Motivational and health impairment process

Integrating the work stress and motivation literatures, the Job-Demands-Resources-Model (JD-RM) postulates two central processes: the motivational and the health impairment process (Bakker & Demerouti, 2014, 2017; Schaufeli & Taris, 2014).

2.1. Motivational process

In the *motivational process*, resources stimulate well-being and positive work-related states, such as *work engagement*, via the fulfillment of basic psychological needs, or goal achievement. Defined as “an active, positive work-related state that is characterized by vigor, dedication, and absorption” (Bakker, 2011, p. 265), work engagement has been shown to be positively related to job-related and organizational outcomes, such as performance or customer satisfaction (Bakker, Demerouti, & Sanz-Vergel, 2014; Schneider, Yost, Kropf, Kind, & Lam, 2018). The original JD-RM only delineated characteristics of the work environment as resources (e.g., autonomy, social support). In recent years, an important extension to the model has been made by also specifying personal resources (Schaufeli & Taris, 2014). Based on the suggested role of personality traits for the investment and maintenance of energy at work, Young et al. (2018) identified in a recent meta-analysis *positive affectivity* as - by far - the strongest predictor of work engagement. In addition, single constructs, such as optimism, have been shown to have direct or moderating effects with regard to engagement (e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007).

We expected multiple effects of CSE as a personal resource in the motivation-driven process. First, based on the roots of the different components of CSE in the (work) motivation literature (Chang et al., 2012), we expected a direct link of CSE with work engagement. For example, optimism and self-efficacy are included in the JD-RM as resources that stimulate work engagement (Schaufeli & Taris, 2014). Furthermore, positive self-evaluations have been shown to be

associated with high approach tendencies and therefore behavior towards and a focus on positive information or features of the work situation (Ferris et al., 2011). In line with this argumentation, CSE has been found to be associated with positive experiences at work, such as intrinsic motivation (Chang et al., 2012), another resource that stimulates engagement in the JD-RM. Prior research findings already support a positive relationship of CSE with work engagement (e.g., Rich, Lepine, & Crawford, 2010). Second, we expected an indirect effect of CSE on work engagement via job crafting, which refers to unsupervised, proactive behaviors of employees in terms of job (re)design. Tims, Bakker, and Derks (2012) define *job crafting* as self-initiated changes of employees to their job demands and resources. This active role of employees with regard to job characteristics has recently also been integrated into the JD-RM (Demerouti & Bakker, 2014). As we were interested in the effect of CSE on resource-related behavior, we concentrated on two job crafting dimensions aiming to increase resources at work, namely seeking social resources (e.g., asking for feedback, advice) and structural resources (e.g., seeking learning opportunities). In their recent meta-analysis, Rudolph, Katz, Lavigne, and Zacher (2017) demonstrated not only that these two strategies to build resources at work are substantially related to work engagement, but also supported the role of personality traits as correlates of job crafting behavior of employees. Prior findings suggest that individual differences concerning approach temperament act as antecedents of such resource building at work (Bipp & Demerouti, 2015). Moreover, Tims and Akkermans (2017) demonstrated that (an aggregated indicator of) job crafting behavior explains the link of CSE with work engagement in two sample of young (16–30 years old) employees. We expected persons who believe that they are in control of their lives to seek more (social and structural) resources and therefore (indirectly) boost their work engagement, as they have been shown to look out for feedback or developmental possibilities (e.g., Judge, Bono, & Locke, 2000), or seek support and foster social exchange relationships (e.g., Neves & Champion, 2015; Stumpp, Hülshager, Muck, & Maier, 2009). Third, in line with the assumption that persons scoring high on CSE are better in utilizing available resources and taking advantage of beneficial circumstances (Chang et al., 2012; Debusscher et al., 2017; Hentrich, Zimmer, Sosnowsky-Waschek, Gregersen, & Petermann, 2017), we expected that CSE acts as amplifier of the relationship of building social and structural resources with work engagement.

H1. CSE is directly positively related to work engagement.

H2. CSE is indirectly positively related to work engagement via seeking structural and social resources.

H3. CSE moderates the relationship of job crafting behaviors and work engagement, such that the (positive) relationship is stronger when CSE is high and weaker when CSE is low.

2.2. Health impairment process

In the *health impairment process*, job demands (e.g., heavy workload, time pressure) have been shown to deplete resources, leading to strain and negative effects on health and job-related outcomes. Burnout, a state of exhaustion and cynicism towards work (the opposite ends of the vigor and dedication dimensions of work engagement), has been shown to mediate the effects of job demands on worker well-being (Bakker et al., 2014). Especially when insufficient resources are available to compensate for work demands, or if recovery is inadequate, energy resources of workers are diminished and negative health effects occur. The stressor-detachment model (Sonnentag & Fritz, 2015) extends the general health impairment process outlined in the JD-RM by integrating recovery experiences that help to restore resources and therefore recover from job strain. In particular, psychological detachment, defined as “refraining from job-related activities and mentally disengaging from work” (Sonnentag & Fritz, 2015, p. S72), has been suggested as critical

factor to protect employee well-being. Detaching during non-work hours is expected to help building affective and energy-related resources (Sonnentag, Mojza, Binnewies, & Scholl, 2008), and prior studies have shown that mentally “switching off” mediates and moderates the effects of job demands and strain (i.e. burnout) (e.g., Kinnunen, Feldt, Siltaloppi, & Sonnentag, 2011; Sonnentag, Binnewies, & Mojza, 2010).

In line with models that outline the effects of personality traits with regard to the exposure and reactivity to stressors (Bolger & Zuckerman, 1995), we expected CSE to act as a person-related resource in this energy-driven process by supporting psychological detachment and preventing burnout. First, we expected a direct effect of CSE on burnout, as individuals with high self-evaluations focus on positive information or feelings, and perceive work situations more positively (Chang et al., 2012). For example, CSE has been found to be negatively related to stressors and perceived job stress as well as work-family conflict (e.g., Brunborg, 2008). Meta-analytic results support the predictive value of emotional stability (one of the four trait indicators of CSE) for exhaustion and depersonalization (Alarcon et al., 2009). And prior study findings have already demonstrated a direct, negative relationship of CSE with burnout (e.g., Best, Stapleton, & Downey, 2005). Second, we expected that a high sense of control as inherent in CSE leads to enhanced detachment at work. Indeed, constructs related to CSE, such as task-specific self-efficacy, have been modeled as antecedents of detachment (Sonnentag & Krueger, 2006). In a recent study, Hentrich, Zimmer, Sosnowsky-Waschek, Gregersen, and Petermann (2018) provided initial support for the predictive value of CSE (above job demands) for psychological detachment in a sample of managers. Third, as CSE affects not only primary but also the secondary appraisal in the stress process (Chang et al., 2012), we expected CSE to moderate the effect of psychological detachment on burnout. Persons scoring high on CSE are expected to benefit more from, for example, effective coping strategies as their confidence beliefs might enable them to implement such strategies more effectively (Kammeyer-Mueller, Judge, & Scott, 2009), or that they prefer more active coping strategies. Indeed, Wang, Wagner, Boyar, Corman, and McKinley (2016) found that CSE moderates the relation between types of organizational family support and (general) burnout, such that for nurses scoring higher on CSE a more negative relationship between organizational instrumental (i.e., problem-solving) family support and burnout was visible than for nurses with lower CSE. In line with this finding, we expected CSE also to support the effect of psychological detachment for lowering feelings of burnout. However, with regard to the exhaustion component, Hentrich et al. (2018) were not able to support such an expected moderation effect of CSE with detachment in their study.

H4. CSE is directly negatively related to burnout.

H5. CSE is indirectly negatively related to burnout via psychological detachment.

H6. CSE moderates the relationship of psychological detachment and burnout, such that the (negative) relationship is stronger when CSE is high and weaker when CSE is low.

3. Study 1: motivational process

We tested our hypotheses about the motivational process (H1 – H3) in a cross-sectional study among employees who held different jobs by the time of the study. The sample consisted of former cancer patients, who had finished their main treatment period and had successfully returned to work (for a minimum of six months). This group of employees is of particular interest for generating healthy organizations given the increasing numbers of such employees (due to improvements in early detection and treatment of cancer). Studies in this area have shown that successfully returning to work supports recovery and plays a major role in quality of life of former cancer patients (Wells et al.,

2013). And although prior research has demonstrated that personal and job resources play also an important role for work engagement of cancer survivors (Hakanen & Lindbohm, 2008), there is an urgent need to understand the relevant factors that provide and sustain healthy work environments and positive work outcomes for such employees who might face particular challenges at work given their health background.

3.1. Method

3.1.1. Participants and procedure

The participants were recruited for an online survey via a graduate student and the authors of the study. In particular, potential respondents were approached via the distribution of flyers in a self-help group of cancer survivors in the southern part of Germany. The survey was created with the online tool Unipark, and we used for all constructs of interest established and previously validated German versions of the measurement instruments. These were presented in random order in the survey to prevent sequencing effects. The study was realized in accordance with ethical standards for psychological research (e.g., voluntary participation, informed consent, confidential treatment of information, debriefing) and no incentives were provided for study participation.

During the six-week period of data collection, 612 persons clicked on the link to the online survey, and 293 started to answer the questions. Of the 144 participants who finished the survey, 135 provided complete data. The majority of participants were women (91%), which is to be expected, given that breast cancer is the type of cancer with the highest rate of new diagnoses per year (14.6% of all new cancer diagnoses in 2012 in Germany), in combination with a high rate of survival (5 years: 88%; Krebsregisterdaten, 2015). Ages ranged from 22 to 64 ($M = 45.39$) years, and participants worked on average 29.44 h per week.

3.1.2. Measures

3.1.2.1. CSE. We used the validated German version (Stumpp, Muck, Hülshager, Judge, & Maier, 2010) of the CSE Scale from Judge, Erez, Bono, and Thoresen (2003) (“Overall, I am satisfied with myself”). It represents a direct measure of CSE and encompasses 12 items (six of them negatively scored), assessing each of the underlying four traits with four items. All items were rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). In prior research, acceptable values of internal consistency for the overall scale and support for the uni-dimensionality of this instrument in various languages has been provided (e.g., Judge et al., 2003; Stumpp et al., 2010).

3.1.2.2. Job crafting. We used the validated German version (Vogt, Hakanen, Brauchli, Jenny, & Bauer, 2015) of the job crafting scale from Tims et al. (2012). Five items each assessed increasing structural (“I try to learn new things at work”) and social resources (“I ask others for feedback on my job performance”). Items were rated on a five-point Likert scale (1 = never, 5 = often). Although the original instrument was developed to measure increasing resources in general, the scale development process supported that this dimension of the job crafting questionnaire can better be represented by the two factors used in the current research (Tims et al., 2012). Also for the German version of this instrument, acceptable values of Cronbach's Alpha (0.79–0.85) have been reported for these two crafting scales (Vogt et al., 2015).

3.1.2.3. Work engagement. We administered the validated German version of the 9-item short form of the Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006) (“At my work, I feel bursting with energy”). Items were answered on a seven-point Likert scale ranging from 1 = never to 7 = always/every day. Across different countries, high internal consistency estimates have been reported for

the UWES-9 (range of Cronbach's alpha: 0.85–0.94; [Schaufeli et al., 2006](#)). Further research on this measure has provided support for the multidimensionality of the construct, with a strong general factor ([De Bruin & Henn, 2013](#)).

3.1.3. Analytic approach

IBM SPSS Amos 25 ([Arbuckle, 2017](#)) was used to test the expected relationships at the latent level. Given the relatively small number of participants compared to the number of parameters that would have been necessary to be estimated in a full latent model (based on all measurement items), such analysis could have led to unstable estimations, therefore we decided to model each latent variable with the observed variable as sole indicator. We corrected for measurement errors by setting the path values from the latent variable to the corresponding indicator to 1 and their error variance at 1 – the reliability multiplied by the variance of the observed scores ([Kline, 2016](#)). We calculated interactions based on standardized scores, and obtained reliability estimates for the interactions based on the formula for linear combinations provided by [Nunnally \(1978\)](#). Coefficients were estimated by applying the maximum-likelihood estimator. We evaluated model fit in both of our studies using the following fit statistics (and the recommendations for cut-off values provided by [West, Taylor, & Wu, 2012](#)): Chi-square (< 0.05), comparative fit index (CFI; > 0.95), incremental fit index (IFI; > 0.95), and standardized root-mean-square residual (SRMR; < 0.08).

With regard to potential controls, theoretical models suggest several background variables that influence return to work or retention of former cancer patients (e.g. symptoms, or type of cancer; [Feuerstein et al., 2010](#)). However, a clear theoretical basis is largely missing for these variables also having an effect on the variables of interest in the current study. For employees in general, age appears to be the only background variable for which theoretical considerations lead us to anticipate effects on our model variables. First, [Rudolph et al. \(2017\)](#) suggested, based on action regulation theory, that because of the development of routines at work older employees tend to adapt their workplace to a lower degree than younger employees. Indeed, in their meta-analysis, they corroborated a negative relationship of chronological age with job crafting behaviour. Second, socioemotional selectivity theory states that individuals adapt to aging by maximizing gains and minimizing risks (e.g., with regard to emotions or social interactions). Indeed, [Ng and Feldman \(2010\)](#) found in line with this argumentation that older employees have more favorable (and less unfavorable) attitudes towards their job. In our model test, we therefore included paths from age to job crafting and work engagement. Following the suggestion of [Spector and Brannick \(2011\)](#) about the use of control variables, results of the model test with and without this variable will be reported.

3.2. Results

Table 1 presents the descriptive statistic, reliabilities, and inter-correlations of the study variables. At the observed level, CSE correlated positively with work engagement and job crafting behavior aiming to increase structural resources at work, and this job crafting behavior was also positively related to work engagement. **Fig. 1** displays the standardized solution for the proposed relationships of the latent model test. The model provided an excellent fit to the data: $\chi^2(11) = 7.98$, $p = .72$; CFI = 1.00; IFI = 1.00; SRMR = 0.048, and accounted for 43% of the variance in work engagement. With regard to the potential role of age, this variable was negatively related to increasing social resources.¹ Of the two job crafting behaviors, only increasing structural

Table 1

Means (M), standard deviations (SD), and zero-order correlations between central variables (Study 1)

	Descriptives		Correlations				
	M	SD	Age	CSE	ISTR	ISOR	WE
Age	45.39	10.63					
Core self-evaluations (CSE)	3.50	0.63	0.06	(0.86)			
Incr. structural resources (ISTR)	2.48	0.69	-0.06	0.31**	(0.78)		
Incr. social resources (ISOR)	3.67	0.73	-0.19*	-0.04	0.05	(0.69)	
Work engagement (WE)	4.51	1.28	-0.10	0.47**	0.43**	0.14	(0.93)

Note. N = 135. Values in brackets Cronbach's alpha. * $p < .05$. ** $p < .01$.

resources was positively related to work engagement, whereas the path from increasing social resources to work engagement narrowly missed the significance level ($p = .08$). With regard to our hypotheses, a direct relationship of CSE with work engagement was visible, supporting **H1**. We also found partial support for **H2**: CSE had an indirect effect on engagement (via increasing structural resources; standardized indirect effect: 0.129 / standardized total effect: 0.500). However, neither of the two interaction terms of the job crafting behaviors with CSE reached a meaningful significance level for the prediction of work engagement, so that we have to reject **H3**. To summarize, the results of our first study support a direct and an indirect effect of CSE in the motivational process, with the building of (in particular structural) resources at work offering a partial explanation of the positive link of CSE with work engagement.

4. Study 2: health impairment process

Our second study focused on the health impairment process and the relationships between CSE, psychological detachment, and burnout. We tested our hypotheses (**H4-H6**) in a cross-sectional study among Dutch employees.

4.1. Method

4.1.1. Setting and participants

Participants were Dutch employees of a semi-governmental organization. All employees (approx. 2000) were invited to participate in an online survey on the Unipark platform. Again, no incentives were provided for study participation and the study was conducted according to ethical standards for psychological research. Initially, 421 employees started to fill in the survey, and complete data were obtained from 330 employees (response rate: approx. 16.5%). The majority of participants was female (87%), and ages varied from 17 to 71 ($M = 43.30$) years old. On average, employees worked 27.82 h/week and had worked already 10.82 years for this company.

4.1.2. Measures

4.1.2.1. CSE. We used the validated Dutch version of the CSE scale, for which [De Pater, Schinkel, and Nijstad \(2007\)](#) reported internal consistency values ranging from 0.77 to 0.87. All items in the survey were rated on a 5-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. As recent findings on the psychometric properties of the CSE scale suggest that the factor structure might be represented

(footnote continued)

model (**Fig. 1**). In addition to the significant paths reported in **Fig. 1**, in this alternative model the path from social resources to engagement (0.18) passed the significance threshold ($p = .045$).

¹ A model test carried out without age as a control variable led also to an excellent model fit; $\chi^2(8) = 5.43$, $p = .71$; CFI = 1.00; IFI = 1.00; SRMR = 0.044. The paths were largely comparable to the ones in the reported

Fig. 1. Standardized solution for hypothesized latent model (Study 1). Measurement model not shown to simplify presentation. * $p < .05$, ** $p < .01$. Non-significant path coefficients in dashed lines.

best by a bi-factor model (including a positive and negative wording factor; e.g., Henderson & Gardiner, 2019; Zenger et al., 2015), we first tested different measurement models for this scale in the current sample.

4.1.2.2. Psychological detachment. Psychological detachment was measured by a translated version of the 4-item scale (example: “During time after work, I forget about work”) of the recovery experience questionnaire, for which Sonnentag and Fritz (2007) demonstrated good internal consistency ($\alpha = 0.89$). Furthermore, they showed that detachment can be distinguished from other recovery experiences, such as relaxation, and provided convincing support for the nomological net of the construct (e.g. moderate relationships to well-being indicators, such as exhaustion).

4.1.2.3. Burnout. We measured two burnout dimensions with the Dutch version of the Oldenburg Burnout Inventory (Demerouti, Bakker, Vardakou, & Kantas, 2003). Participants answered eight items each for exhaustion (“After my work, I regularly feel worn out and weary”), and disengagement (“I frequently talk about my work in a negative way”). Prior research support better psychometric properties of these scales compared to alternative measurement instruments (such as the Maslach Burnout inventory), in various languages (e.g., Halbesleben & Demerouti, 2005).

4.1.3. Analytic approach

Before modeling the expected relationships on the latent level, we tested the factorial structure of the measurement instruments in a series of CFA with IBM SPSS Amos 25 (results are displayed in Table 2). First, in line with the validation of the Dutch translation of the CSE scale (De Pater et al., 2007), a four-factor solution provided a better fit to the data

Table 2

Results CFA measurement instruments (Study 2).

	χ^2	df	CFI	RMSEA	TLI
Core self-evaluations					
1 Factor model	180.78	54	0.87	0.084	0.84
4 Factor model	117.29	48	0.93	0.066	0.90
2 Factor model: positive & negative wording factor	91.80	53	0.96	0.047	0.95
Burnout: emotional exhaustion & disengagement					
1 Factor model	651.39	104	0.72	0.126	0.68
2 Factor model	447.21	103	0.82	0.101	0.79
MTMM model: two traits & two method factors	248.44	86	0.92	0.076	0.88

than a one-factor solution. However, as the absolute values of the fit indices still seemed improvable, we also tested for an alternative factor structure recently suggested for this measure in other languages. In line with the findings of Zenger et al. (2015) on the German CSE scale, our data supported a bi-dimensional factor structure of the instrument encompassing a positive and negative wording factor. Second, we tested different CFA models for the 16 burnout items. Solutions for a one- or two-factor model did not reach satisfactory fit values. Instead, a third model that might be characterized as a multitrait-multimethod model (see Demerouti et al., 2010) that includes besides two burnout factors (exhaustion, disengagement) also two method factors (positively and negatively worded items) provided the best fit in our sample.

Taking these results into account, we used in the latent model test each two indicators for CSE (positive, negative wording factor each with six items) and for the burnout dimensions (positive, negative wording factor for exhaustion and disengagement, each with four

Table 3

Means (M), standard deviations (SD), and zero-order correlations between central variables (Study 2)

	Descriptives		Correlations				
	M	SD	Age	CSE	PD	BE	BD
Age	43.30	12.64					
Core self-evaluations (CSE)	3.71	0.49	0.01	(0.84)			
Psychological Detachment (PD)	2.90	0.83	-0.10	0.30**	(0.87)		
Burnout – Exhaustion (BE)	2.63	0.64	-0.08	-0.53**	-0.48**	(0.86)	
Burnout – Disengagement (BD)	2.49	0.55	-0.16**	-0.43**	-0.06	0.50**	(0.77)

Note. N = 330. Values in brackets Cronbach's alpha. * $p < .05$. ** $p < .01$.

items), which were allowed to correlate. The interaction between psychological detachment and CSE was modeled following the unconstrained mean-centered approach outlined by Marsh and colleagues (Marsh, Wen, & Hau, 2004; Marsh, Wen, Hau, & Nagengast, 2006) with matched pairs of indicators. In order to generate a comparable number of indicators for detachment and CSE for the latent interaction without using item information more than once in the model test, we used two parcels for the four psychological detachment items. Consequently, the latent interaction construct was added to the model with two indicators (first, the highest loading parcel from each variable was multiplied and added as indicator; then the second pair).

Again, we report model results with and without age as control variable. For this, we considered potential paths of age to psychological detachment as well as burnout. Different theoretical models suggest differences between older and younger workers, for example, with regard to emotional competencies (with older employees having a higher attention to, focus on, or recall of positive events) and a stronger need of older employees to use specific strategies (e.g., emotion regulation, coping strategies) to maintain effective functioning at work (Schmitt & Unger, 2019). Age has frequently been considered a relevant control variable in studies investigating detachment from work and well-being (e.g., Sonnentag & Bayer, 2005), and meta-analytic evidence supports a small negative relationship of age with burnout (Brewer & Shapard, 2004).

4.2. Results

Table 3 presents the descriptive statistics, reliabilities, and inter-correlations among study variables in the sample of study 2. CSE correlated positively with psychological detachment and negatively with both burnout dimensions. Fig. 2 displays the standardized solution of the model test at the latent level. Overall, the proposed model provided an adequate fit to the data: $\chi^2(32) = 105.95$, $p < .01$; CFI = 0.95; IFI = 0.95; SRMR = 0.047. The model accounted for 39% of variance in disengagement and 58% of variance in exhaustion. Older employees reported lower disengagement, but chronological age was unrelated to detachment and exhaustion.² The path coefficients provided support for H4: CSE was directly and negatively related to both burnout dimensions. Support for H5 was mixed: although we found evidence that CSE is related to detachment, we only found evidence for an indirect, negative effect via psychological detachment on exhaustion (standardized indirect effect: -0.112 /standardized total effect: -0.704) given that we did not corroborate a significant relationship of detachment with disengagement ($p = .06$). Against our expectation, we did not find

² An additional model test carried out without age as a control variable resulted in a comparable model in terms of fit and significant paths. Though, the overall fit indices were slightly higher $\chi^2(25) = 75.81$, $p < .01$; CFI = 0.96; IFI = 0.96; SRMR = 0.059; and besides the reported significant path coefficients (Fig. 2) the path from detachment to disengagement (0.13) was also significant ($p = .047$). Without controlling for age, a higher rate of psychological detachment after work was associated with higher rates of disengagement from work.

support for H6 about an interaction effect of CSE with detachment. In sum, the results of our second study support the role of CSE as domain unspecific individual differences with regard to employee burnout and as a person-related resource for psychological detachment, referring to the building of affective or energy-related resources after work.

5. General discussion

In two studies, we examined the role of the higher-order construct of CSE as an individual resource to support positive outcomes at work with regard to employee motivation and health across diverse samples and settings. We extend prior knowledge about CSE as a broad, domain-unspecific person-related resource (Debusscher et al., 2017), by outlining possible ways in which this personality construct is related to different work outcomes based on the two processes outlined in the JD-RM (Schaufeli & Taris, 2014). In general, we found evidence for the role of this trait as a personal resource in the motivational and health impairment process, confirming that persons scoring high on CSE are more effective in generating various (job and psychological) resources at work and therefore sustain motivation and well-being, or lower strain. In sum, our findings contribute to the literature by showing that the general evaluation of one's self-worth, capabilities, or competence can be successfully integrated into explanatory processes of work-related outcomes outlined in current job stress models and provide important insights into the role of individual differences for creating healthy organizations.

First, for the motivational process a positive relationship of CSE with work engagement was corroborated. Besides a direct relationship, we found support for an indirect path as persons with positive CSE are more effective in acquiring structural resources. Therefore, our results confirm the role of individual differences as potential antecedent of job crafting behavior (Bipp & Demerouti, 2015). Furthermore, we extend prior results reported by Tims and Akkermans (2017) on the mediating role of job crafting behavior in general, by providing support for the role of in particular *seeking structural resources* at work to (partly) explain the effect of CSE on work engagement. In addition, by demonstrating these relationships in a specific sample of employees, former cancer patients, whose well-being might be at higher risk, our results can be seen in line with prior studies that reported that especially personal resources are of relevance for this group of employees (Hakanen & Lindbohm, 2008). To our knowledge, our study is among the first to quantitatively confirm the suggested motivational process of the JDR-RM including job crafting in such a sample, and support the relevance of positive self-evaluations for resource building and work engagement for this growing number of employees who return to work after a cancer diagnosis and a successful treatment period. Although prior work engagement interventions have yielded only small effects with a high degree of variability (Knight, Patterson, & Dawson, 2017), our findings suggest that stimulating work engagement specifically via the building of personal resources (e.g. enhancing self-efficacy) may be an effective way to promote healthy work environments in practice. Furthermore, an adapted job crafting training (e.g., Gordon et al., 2018) that targets in particular structural resources, may be useful to support

Fig. 2. Standardized solution for latent model (Study 2). Details from measurement model not shown to simplify presentation. * $p < .05$, ** $p < .01$. Non-significant path coefficients in dashed lines.

this group of employees to create a healthy work environment and stay motivated and engaged after returning to work after a completed cancer treatment period.

Second, we found support that CSE acts as a positive individual resource in the health impairment process, with a direct negative relationship with feelings of exhaustion and disengagement, as well as (partly) an indirect effect via psychological detachment (for exhaustion). The findings of our second study seem therefore in line with prior studies that have shown that detachment has a stronger relationship with exhaustion than disengagement (Sonnentag & Fritz, 2007), and that personality factors show a strong connection to burnout dimensions (Swider & Zimmerman, 2010). Given that prior studies have either investigated the role of CSE with single (Hentrich et al., 2018) or aggregated scores of different burnout dimensions (Best et al., 2005), our findings extend these prior findings by separating the effect of CSE (and detachment) for two aspects of burnout. Furthermore, as prior research has mainly focused on identifying factors that hinder psychological detachment (Sonnentag & Fritz, 2015), our results add to the existing literature on positive resources at work. CSE was found to help employees to detach from their work, and by building energy-related and affective resources thereby lowering their feelings of exhaustion. In particular, persons scoring low on CSE may have a higher risk to develop burnout and therefore be absent from work, so that organizations may want to concentrate on these employees in order to support them to create (personal and job) resources and stay healthy.

However, it is also clear that we did not find support for all expected effects. In particular, we found no evidence for the anticipated role of CSE as a moderator, so that we cannot conclude that CSE enhances the effect of resource seeking and detachment at work on engagement and burnout, respectively. Already Chang et al. (2012) stated that the effect of CSE in combination with other variables may be complex, as prior results on moderating effects are rather mixed. Whereas single studies point towards the role of CSE as a buffer with regard to stress, safety performance, depressive symptoms (e.g., Hentrich et al., 2018; Yuan, Li, & Lin, 2014) or of job demands and psychological distress (van Doorn & Hülshager, 2015), such an interaction effect has not been consistently identified (Best et al., 2005), also not for exhaustion (e.g. Hentrich et al., 2018). In contrast, it also has been suggested that

persons scoring low on CSE might benefit more from favorable circumstances (Hentrich et al., 2017), or can outperform others under specific circumstances (e.g., Bipp, Kleingeld, van den Tooren, & Schinkel, 2015). The research field has just recently begun to explore and understand the role of CSE in combination with, for example, challenging or hindering demands at work (e.g., Debusscher et al., 2017; Hentrich et al., 2017). However, there is clearly a need to investigate the role of CSE in combination with other (job and personal) resources for motivation and health on different levels to build a comprehensive model to understand the distinct effects of personal resources in creating healthy organizations. For example, the JD-RM includes also mental competencies as personal resources (Schaufeli & Taris, 2014), and research has supported an interaction effect of cognitive ability and CSE for performance (Rosopa & Schroeder, 2009). Furthermore, Hentrich et al. (2018) suggested methodological reasons for the mixed findings with regard to interaction effects. They argue that CSE might be a too distal factor to affect outcomes and that other variables, such as lower-order personal resources (e.g. occupational in contrast to generalized self-efficacy), may be more suitable to consider as moderators in this context.

Although we found support for the majority of our hypotheses, we have to acknowledge certain limitations of our study. Our findings may be limited due to particular sample characteristics (in particular in Study 1, in which former cancer patients represented a very specific sample of employees), the use of convenience samples, and self-report data. Further limitations refer to the cross-sectional design with problems for conclusions about causality and the selection of investigated variables. While our results shed light on the role of CSE, we have to acknowledge that although the motivational and the health impairment process are supposed to be fairly independent (Bakker et al., 2014), our data did not allow for examination of potential crossover effects of variables of the two paths or reciprocal effects within the processes. For example, it is yet unknown if CSE helps to stimulate in combination with psychological detachment also positive experiences at work, or how other suggested mediating variables, such as work-family conflict or career competencies (e.g., Haines, Harvey, Durand, & Marchand, 2013; Tims & Akkermans, 2017), can be integrated into comprehensive explanation models. Therefore, further research is needed on the role of

personal resources in both processes simultaneously. Furthermore, although research has demonstrated that CSE can be distinguished from related, positive higher-order constructs, such as PsyCap (Howard, 2017), research findings about a negative wording factor in the measurement of CSE (e.g., Henderson & Gardiner, 2019) highlight the need to better understand the construct and its criterion-related validity. Recently, Galvin, Randel, Collins, and Johnson (2018) concluded on the basis of a literature review that locus of control seems to be an aspect that is independent of CSE, which raises the question about the unique roles of the four underlying traits for motivation and health.

In conclusion, given the role of CSE as a broad individual difference variable in the motivational and health impairment process, our findings have important practical consequences in terms of taking into account employee's individual differences for selection, work design, leadership, training, and development in order to create healthy organizations. Especially persons with a low self-concept may need more support, for example, for building (structural) resources or detach from work, to stay motivated and prevent negative health effects. Furthermore, taking into account findings about the variation of CSE at the individual level (e.g., Nuebold, Muck, & Maier, 2013), effective interventions could be designed and tested to boost employees' appraisal of the self that support the building of a pool of effective resources and therefore sustain motivation and health.

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