

Work Engagement Among Employees Facing Emotional Demands

The Role of Personal Resources

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Abstract. This two-wave study examined work engagement as a function of personal resources and emotionally demanding conditions at work. We hypothesized that personal resources (self-efficacy and optimism) buffer the effect of emotional demands and emotion-rule dissonance on work engagement. Furthermore, we expected that emotional demands/dissonance boost the effect of personal resources on work engagement. One-hundred sixty-three employees, who provide service to customers, participated at both measurement times. Analyses supported (a) the buffering hypothesis, since emotional demands and dissonance related negatively to work engagement when self-efficacy – but not optimism – was low, and (b) the boosting hypothesis, since self-efficacy – but not optimism – related positively to engagement particularly when emotional demands and dissonance were high.

Keywords: emotional demands, emotion-rule dissonance, personal resources, work engagement

Emotional labor concerns the management of emotions at work in order to meet organizational or job-related display rules, and as such it is effortful (Grandey, 2003; Morris & Feldman, 1996; Zapf, 2002). Emotional demands that refer to the emotionally charged interactions at work (Heuven, Bakker, Schaufeli, & Huisman, 2006), and emotion-rule dissonance, which concerns the discrepancy between emotion rules and felt emotions, are considered to be important antecedents of emotional labor (Holman, Matrinez-Iñigo, & Totterdell, 2008). Previous studies have focused mainly on the negative effects of the emotionally demanding conditions at work on employee well-being (Brotheridge & Lee, 2002; Hülshager & Schewe, 2011; Zapf, 2002). Only a few studies have examined their potential positive impact on motivational aspects of well-being (e.g., Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; De Jonge, Le Blanc, Peeters, & Noordam, 2008). These studies showed that emotional demands may be favorable, particularly when job resources are available. However, these studies have generally neglected the role of personal resources in dealing with the antecedents of emotional labor.

This longitudinal study among employees, who provide service to customers, focuses on emotional demands and emotion-rule dissonance, and investigates the role of personal resources – self-efficacy and optimism – for employees' work engagement. Work engagement is a

motivational state of work-related well-being that is characterized by vigor, dedication, and absorption (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Engaged workers have high levels of energy, are enthusiastic and strongly involved in their job, and are often fully immersed in their work. We propose that personal resources buffer the effect of emotional demands and dissonance on work engagement, and that emotional demands and dissonance boost the effect of personal resources on work engagement. Evidence supporting these effects is of particular importance both for theory (i.e., will advance our understanding of emotional labor), and for practice (i.e., will contribute to the optimal [re]designing of emotional labor).

Emotionally Demanding Conditions and Employee Well-Being

Here we focus on two antecedents of emotional labor: emotional demands and emotion-rule dissonance (Holman et al., 2008). *Emotional demands* concern emotionally charged interactions at work (e.g., customer/colleague misbehavior; Heuven et al., 2006) that are considered to be an important source of job strain (Totterdell & Holman, 2003). *Emotion-rule dissonance* is the conflict between genuinely

felt emotions and emotions that employees are required to show during interactions at work (Holman et al., 2008). In service contexts, like the one of this study, employees are generally expected to display positive emotions and suppress negative emotions in interactions with customers (Diefendorff & Richard, 2003). Employees cannot experience positive emotions in all situations, particularly when interacting with demanding or unfriendly persons. Such interactions may elicit negative emotions, while the expression of positive emotions is expected. This experienced emotion-rule dissonance can be deleterious for employee well-being (Morris & Feldman, 1996).

The negative relationship between emotionally demanding conditions and employee well-being may be explained by the health impairment process of the job demands-resources (JD-R) model (Bakker & Demerouti, 2007). Accordingly, emotionally demanding conditions require energy investment that may exhaust employees' resource reservoir. When energy is depleted, job strain is likely to occur. This is in line with Baumeister, Bratslavsky, Muraven, and Tice's (1998) theory on ego depletion, which suggests that volitional acts draw on a limited portion of energy resources. Subsequent acts that require self-control use up this limited energy, and exhaust it.

Recently, researchers have focused on the potential positive impact of emotional labor on employee well-being. Ashforth and Humphrey (1993) suggested that emotional labor may relate to increased job satisfaction because it helps to regulate interactions at work by making them more predictable. In agreement with this notion, Côté and Morgan (2002) found that employees, who amplified their positive emotions when facing emotionally charged interactions, experienced higher levels of job satisfaction. Similarly, Zapf and Holz (2006) showed that having to display positive emotions in service interactions related positively to employees' personal accomplishment. These positive effects may be explained by the fact that interaction partners may satisfy employees' need for recognition (Zapf, 2002).

Emotionally Demanding Conditions and Motivation

The majority of studies on the positive impact of emotional demands/dissonance on employee well-being have focused on affective indicators (i.e., job satisfaction). The question that arises is whether emotionally demanding conditions at work may also have a motivating potential for employees. The few studies investigating the motivating potential of emotional demands and dissonance have resulted in inconsistent findings. Some studies showed that confrontation with emotional demands relates positively to work motivation (e.g., De Jonge et al., 2008), while others found no significant effect (De Jonge & Dormann, 2006). Results of studies on work engagement – which is the criterion of interest in this study – have also been inconsistent. Bakker et al. (2007) in a study among Finnish teachers found that

dealing with pupil misbehavior related negatively to engagement, while Heuven et al. (2006) found no relationship between feeling rules and engagement among flight attendants.

These inconsistent findings may be explained by third variables that moderate the relationship between emotionally demanding conditions and work engagement. Indeed, there is evidence suggesting that job resources buffer the deleterious effect of emotional demands on engagement. Job resources refer to the characteristics of the work environment that reduce demands and the associated costs, act as means to achieve work goals, and stimulate learning and development (Bakker & Demerouti, 2007). Bakker et al. (2007) supported the buffering role of various job resources (e.g., job control, supervisor support, information availability) in the relationship between pupil misbehavior and work engagement. The negative relationship between pupil misbehavior and engagement was stronger for teachers possessing low job resources. Also, they found that pupil misbehavior boosted the positive effect of job resources on work engagement. In line with the latter finding, Bakker, Van Veldhoven, and Xanthopoulou (2010) showed that there is a need for a challenge (i.e., a demanding condition) in order for job resources to translate into enjoyment and commitment.

These studies suggest that job resources regulate the way in which emotionally demanding conditions determine work engagement. However, the role of the person in moderating this effect is less clear. To our knowledge, there is only one empirical study showing that personal characteristics may modulate the effect of emotionally demanding conditions on engagement. Specifically, Heuven et al. (2006) in a cross-sectional study showed that self-efficacy buffered the effect of dissonance on work engagement. Building on these findings, the present study examines the role of personal resources in explaining the long-term effects of emotional demands and dissonance on work engagement. Next to studying the conditions under which employees are disengaged (i.e., when resources are low; Heuven et al., 2006), we also examine the conditions under which emotionally demanding conditions may enhance work engagement. Thus, this study goes beyond main effects, and investigates how different combinations of emotionally demanding conditions and personal resources may impede or facilitate work engagement.

The Role of Personal Resources

Personal resources are positive aspects of the self that refer to individuals' ability to control and impact upon their environment successfully (Hobfoll, Johnson, Ennis, & Jackson, 2003). Personal resources have been recognized as the most crucial determinants of work engagement together with job resources (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Employees high in personal resources are more likely to invest energy in order to experience accordance between their expectations and their goals (Luthans & Youssef, 2007). This condition of high involvement

facilitates the emergence of work engagement. Here we examine two types of personal resources, self-efficacy and optimism, which were found to be important for engagement (Xanthopoulou et al., 2009). Self-efficacy refers to individuals' perceptions of their ability to meet demands in a broad array of contexts (Chen, Gully, & Eden, 2001). Self-efficacious employees are able to spend the required effort in order to meet their work goals, and to be persistent in the face of difficulties. As a result, engagement occurs through the facilitation of goal attainment. Optimism is the tendency to believe that one will experience good outcomes in life (Scheier, Carver, & Bridges, 1994). Optimistic employees strive for positive outcomes, and are likely to believe in their potential regardless previous failures (Sweetman & Luthans, 2010). These qualities keep them energetic, maintain their perseverance in the face of demands, and facilitate engagement.

Xanthopoulou et al. (2009) argued that personal resources function in a similar manner as job resources do: (1) they protect individuals from demanding situations and related costs, (2) they serve as means for achieving goals, and (3) they stimulate growth and development. We propose that personal resources may interact with emotional demands and dissonance in predicting engagement. Hypotheses tested in the present study are based on the JD-R model (Bakker, 2011; Bakker & Demerouti, 2007), which proposes that job demands and resources interact in two distinct ways in predicting work engagement. According to the buffering hypothesis, the relationship between demands and engagement is strongly negative for employees possessing low levels of resources. According to the boosting hypothesis, high job demands act as challenges rendering the positive effect of resources on engagement more salient. We apply these assumptions to personal resources, and suggest that personal resources buffer the effect of emotional demands and dissonance on engagement, and boost work engagement particularly when conditions are emotionally demanding. This is in line with Crawford, LePine, and Rich (2010) who showed that, when employees appraise job demands as hindrances (i.e., when resources are low), demands relate negatively to engagement. In contrast, when employees appraise demands as challenges (i.e., when resources are high), engagement is facilitated.

The Buffering Effect

The assumption of Conservation of Resources (COR) theory (Hobfoll, 1989) that personal resources help individuals to deal effectively with threatening situations implies that personal resources buffer the negative effect of emotional demands and emotion-rule dissonance on engagement. Emotional demands and dissonance limit engagement, when employees have a low feeling of control over the environment and the related demands. Those who possess low personal resources are unable to control the environment successfully, perceive demands as hindrances

(Crawford et al., 2010), and are likely to react in a helpless manner that strengthens the negative effect of emotional demands and dissonance on engagement (Sweetman & Luthans, 2010). Employees low in self-efficacy are less proactive, when it comes to the emotionally demanding aspects of their job (Parker, 2000), and are therefore more likely to be affected by their adverse impact. Similarly, employees with low (vs. high) levels of optimism are less likely to adopt active coping strategies, and are less persistent in dealing with their emotional demands (Sweetman & Luthans, 2010). In both cases, disengagement is more likely to occur for workers low (vs. high) in personal resources.

Employees low in self-efficacy and optimism are less likely to perceive emotion-rule dissonance as a means of making the interactions at work more predictable and to protect themselves from emotionally charged situations. According to Ashforth and Humphrey (1993), employees may utilize certain cognitive mechanisms in order to ameliorate the negative outcomes of emotional discrepancy. For instance, if an employee recognizes that not showing the feeling you truly feel during the interaction with a client may be helpful because it makes the interaction more predictable and prevents from a more demanding interaction (e.g., a client who feels insulted and insults back), he/she is not likely to be affected much by dissonance. Given that employees low (vs. high) in self-efficacy and optimism have narrow cognitive repertoires (Fredrickson, 2001), they are less likely to recognize that dissonance may actually prevent from an even more demanding situation. For these employees, the relationship between dissonance and engagement is expected to be strongly negative. Within this theoretical framework, we hypothesize:

Hypothesis 1: Self-efficacy buffers the relationship between emotional demands and work engagement (Hypothesis 1a), and the relationship between emotion-rule dissonance and work engagement (Hypothesis 1b) in a way that these effects become strongly negative for employees low in self-efficacy.

Hypothesis 2: Optimism buffers the relationship between emotional demands and work engagement (Hypothesis 2a), and the relationship between emotion-rule dissonance and work engagement (Hypothesis 2b) in a way that these effects become strongly negative for employees low in optimism.

The Boosting Effect

In line with Hobfoll's (1989) proposition and the boosting hypothesis of the JD-R model (Bakker, 2011; Bakker & Demerouti, 2007) that resources are particularly salient under demanding conditions, we expect that employees are more likely to use their personal resources when emotional demands and emotion-rule dissonance, respectively, are high. This is because personal resources are used as a coping mechanism that is activated particularly under

emotionally demanding conditions. According to this premise and in line with previous findings concerning job resources (Bakker et al., 2007, 2010), we argue that employees use their personal resources to become engaged over time, particularly when these resources are needed (i.e., when conditions are demanding). Put differently, emotional demands and dissonance boost the positive effect of personal resources on work engagement. Under conditions of high emotional demands, employees need to take control over the situation (i.e., self-efficacy), and actively look for the most appropriate solution (i.e., optimism), which results in enhanced engagement. Furthermore, under conditions of high emotion-rule dissonance, employees activate their self-efficacy and optimism in an attempt to proactively shape their environment (i.e., the emotionally charged interactions) and become engaged. The boosting hypothesis fits well within the theory of flow (Csikszentmihalyi, 1990) that postulates the need for challenges in the environment in order for people to use their skills and reach the state of total absorption in the task. In a similar vein, high emotional demands and dissonance may function as challenges that activate employees to use their personal resources and stay engaged. Hypotheses 3 and 4 derive from the above theoretical analysis:

Hypothesis 3: Emotional demands (Hypothesis 3a) and emotion-rule dissonance (Hypothesis 3b) boost the effect of self-efficacy on work engagement in a way that it becomes strongly positive under conditions of high demands and dissonance.

Hypothesis 4: Emotional demands (Hypothesis 4a) and emotion-rule dissonance (Hypothesis 4b) boost the effect of optimism on work engagement in a way that it becomes strongly positive under conditions of high demands and dissonance.

The Present Study

We hypothesize two theoretically distinct effects, where personal resources serve either as the moderator or as the focal predictor of engagement. The buffering hypothesis suggests that emotional demands and dissonance relate negatively to work engagement only for employees low in personal resources, while this relationship is less negative or even nonexistent for those high in personal resources (see Figure 1). Statistically, emotional demands and dissonance function as focal predictors of engagement and personal resources as the moderator of this relationship. The boosting hypothesis proposes that personal resources relate positively to work engagement particularly when emotional demands and dissonance are high, while the relationship is less positive or even nonsignificant when emotional demands and dissonance are low (see Figure 2). In this case, personal resources function as the focal predictors of work engagement whereas emotional demands and dissonance serve as moderators. Although the buffering and boosting hypotheses concern the same interaction effect,

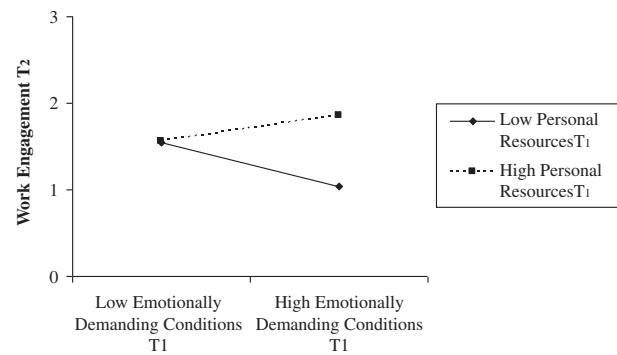


Figure 1. The hypothesized buffering effect. The slope for low personal resources T1 (-1 SD) is expected to be significant. T1 = Time 1; T2 = Time 2.

they refer to two distinct theoretical processes (i.e., two different contrasts). Therefore, establishing significant interaction effects is not sufficient in order to support empirically these hypotheses. Determining the direction of these effects is essential.

We treat emotional demands and dissonance as distinct factors because the psychological mechanisms explaining their effects are different. Namely, high personal resources help to control emotional demands better (Hobfoll, 1989), and to view dissonance as a means to make the interaction more predictable (Ashforth & Humphrey, 1993). Self-efficacious and optimistic employees are more likely to manage emotional demands in an efficient but not energy consuming way. For example, a self-efficacious employee who speaks with a demanding client is likely to set limits to the client and control the interaction in a better way. Employees high in personal resources treat dissonance as a way to regulate the interaction (i.e., make it more predictable) and complete their task. We propose that under conditions of high emotional demands people use their personal resources in an attempt to control their environment, while in the case of high dissonance people use their personal resources to protect themselves from unfavorable outcomes during the interactions.

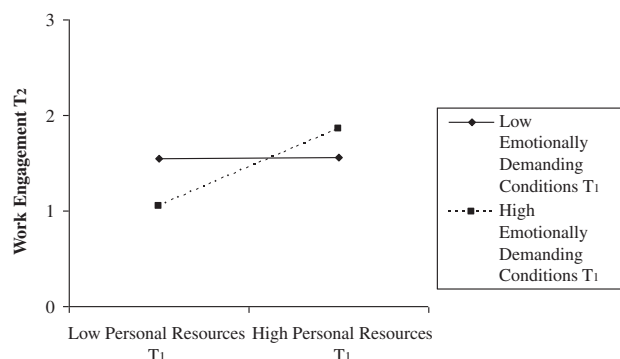


Figure 2. The hypothesized boosting effect. The slope for high emotionally demanding conditions T1 ($+1$ SD) is expected to be significant. T1 = Time 1; T2 = Time 2.

Table 1. The Emotional Demands and Emotion-Rule Dissonance Scales: Factor loadings (standardized estimates) derived from two-factor confirmatory factor analyses ($N = 163$)

	Loadings
Factor 1: Emotional Demands	
1. Is your work emotionally demanding?	0.61
2. In your work, are you confronted with things that personally touch you?	0.58
3. Do you face emotionally charged situations in your work?	0.69
4. In your work, do you deal with clients who incessantly complain, although you always do everything to help them?	0.69
5. In your work, do you have to deal with demanding clients?	0.61
6. Do you have to deal with clients who do not treat you with the appropriate respect and politeness?	0.57
Factor 2: Emotion-Rule Dissonance	
1. During your work, how often do you have to suppress your own feelings (e.g., irritation) to give a 'neutral' impression?	0.76
2. During your work, how often are you unable to show your spontaneous feelings (e.g., antipathy)?	0.76
3. During your work, how often should you express certain feelings towards (internal or external) clients, which do not resemble the feelings you truly feel yourself?	0.71
4. During your work, how often do you have to express positive feelings towards your clients while you actually feel indifferent?	0.58
5. During your work, how often do you have to react with understanding to annoying clients (e.g., unreasonable behavior)?	0.67

Note. All factor loadings are significant at $p < .001$.

Method

Procedure and Participants

This study addresses a unique topic by making limited use of data that have been reported in Xanthopoulou et al. (2009). Nevertheless, the focus of the two papers is different. Xanthopoulou et al. investigated reciprocal relationships between job resources, personal resources, and work engagement. In contrast, the current paper adds to the literature by focusing on the conditions under which emotionally demanding situations at work enhance work engagement. The first study explains what it is that drives engaged employees, while in the present study we are interested in explaining how personal resources regulate the degree to which emotional demands and dissonance impede or boost work engagement.

The study took place in an electronics company in The Netherlands (see also Xanthopoulou et al., 2009). After obtaining permission from the CEOs, employees from three divisions were informed about the study by the occupational health professionals of the company. Participants were approached twice over the period of 1.5 years ($M = 18$ months; $SD = 2$; range = 13–19 months). During the first measurement (T1), 1,121 employees were invited to participate via e-mail that included a link to an electronic questionnaire. The anonymity of the responses was assured. In total, 540 employees (48% response) participated at T1. The same process was followed for the second measurement (T2). All employees ($N = 1,016$) were invited to participate and 469 (46% response) questionnaires were returned. We used a unique code for each participant to link

the data over time. Data collection resulted in 163 employees (30% response of all participants at T1) who participated at both measurement times. Results of multivariate analyses of variance showed that the panel group ($N = 163$) did not differ significantly from the dropouts ($N = 377$) either regarding demographic characteristics, or mean scores on the study variables.

The sample consisted of 131 men (80%) and 32 women (20%). Participants' mean age was 42 years ($SD = 8.9$) and their mean organizational tenure was 14 years ($SD = 10.5$). Ninety-six percent worked full-time, 34% held a college degree, and 49% lived with their partners and had children. Ninety-seven participants had typical service jobs involving high amount of service interactions (e.g., at customer service, sales). The remaining ($N = 66$) did not hold typical service jobs, but they had (face-to-face or voice-to-voice) contacts with internal and external customers on a daily basis (e.g., secretaries, technicians).

Measures

Emotional demands (T1) were measured with the six-item scale of Bakker, Demerouti, and Schaufeli (2003; Table 1). Participants responded on a five-point scale from (1) "never" to (5) "always."

Emotion-rule dissonance (T1) was assessed with five items based on Zapf et al. (2000). The items (see Table 1) were rated on a five-point scale (1 = never, 5 = always).

Personal resources (T1). *Self-efficacy* was assessed with the 10-item self-efficacy scale (Schwarzer & Jerusalem, 1995; e.g., "I can always manage to solve difficult

problems if I try hard enough”). Items were scored on a four-point scale (1 = absolutely wrong, 4 = absolutely right). *Optimism* was measured with the six main items from the Life Orientation Test – Revised (Scheier et al., 1994). Three items are positively (e.g., “In uncertain times, I usually expect the best”) and three are negatively phrased (e.g., “I hardly ever expect things to go my way”), with answers ranging from (1) “totally disagree” to (5) “totally agree.” Negative keyed items were recoded so that high scores indicate high optimism.

Work engagement (T1 and T2) was measured with the short version of the Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006). Each dimension was measured with three items: Vigor (e.g., “At my work, I feel bursting with energy”), Dedication (e.g., “My job inspires me”), and Absorption (e.g., “I get carried away when I am working”). Items were scored on a scale ranging from (0) “never” to (6) “always.”

Strategy of Analysis

Hypotheses were examined by means of hierarchical moderated regression analyses for emotional demands and emotion-rule dissonance separately, in order to avoid potential collinearity problems. Preliminary regression analyses suggested that the demographic variables (age, gender, tenure, and education) did not account for a significant amount of variance ($R^2 = .03$, $F = 1.11$, $p = .35$) in T2 work engagement. Furthermore, type of job (typical service vs. nontypical service) did not relate to T2 work engagement ($R^2 = .00$, $F = .03$, $t = -.02$, $p = .85$). Thus, these variables were excluded from the analyses. In the first step of the regressions, we controlled for T1 work engagement. In the second step, emotional demands/emotion-rule dissonance and the two personal resources were added to the equation. Finally, the interaction (multiplicative) terms were introduced. All predictor and moderator variables were standardized prior to calculating the cross-product interaction terms. Hypotheses 1a, 2a, 3a, and 4a (concerning emotional demands) and Hypotheses 1b, 2b, 3b, and 4b (that concern emotion-rule dissonance) were tested within the same separate analyses, since they refer to the

same variables but in different (focal predictor or moderator) roles.

Hypothesis testing relied on probing the significant interaction effects. Significant interactions were probed with the simple effects approach, and were plotted by using ± 1 *SD* of the predictor and moderator variables (Preacher, Curran, & Bauer, 2006). Also, we applied the Johnson-Neyman technique (or the region of significance approach; Preacher et al., 2006; see also Biron & Van Veldhoven, 2012). The advantage of the Johnson-Neyman technique is that it calculates the conditional values that define the region of significance on the moderator, and determine the range of the moderator within which the simple slope from the focal predictor to the outcome is significantly different from zero. The calculator of Preacher et al. was used to estimate the upper and lower bounds of the region of significance. Accordingly, the regression of the outcome on the focal predictor is significant at values of the (standardized) moderator that are less than the lower bound and greater than the upper bound, while the slope is not significant at values of the moderator that fall within the region of significance. Thus, in order to support the buffering effects of Hypotheses 1 (a; b) and 2 (a; b) we needed to show that the simple slope was significant at the low values of personal resources (self-efficacy and optimism). Furthermore, to support the boosting effects of Hypotheses 3 (a; b) and 4 (a; b) we needed to show that the simple slope was significant at the highest values of emotional demands and dissonance. The simple slopes and region of significance tests help to understand the structure of relations and to examine statistically the buffering and boosting effects.

Results

Table 2 presents mean scores, standard deviations, reliability indices, and correlations between the study variables. All scales showed acceptable reliabilities. Emotional demands and dissonance were highly correlated ($r = .72$, $p < .01$). To examine potential overlap between these two factors, we performed confirmatory factor analyses.

Table 2. Means, standard deviations, Cronbach’s α (on the diagonal), and correlations between the study variables, ($N = 163$)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1 Age	42.26	8.91	–									
2 Gender (1 = male; 2 = female)	1.20	0.40	.00	–								
3 Organizational tenure	14.39	10.50	.77**	–.11	–							
4 Education	3.90	1.23	–.23**	.02	–.37**	–						
5 Emotional demands T1	2.34	0.58	.16*	–.26**	.15	.08	(.79)					
6 Emotion-rule dissonance T1	2.25	0.58	.06	–.26**	.05	.09	.72**	(.82)				
7 Generalized self-efficacy T1	3.26	0.41	.13	–.13	.06	.19*	.14	.14	(.88)			
8 Optimism T1	3.67	0.51	.01	–.10	–.10	.24**	–.02	–.05	.41**	(.67)		
9 Work engagement T1	3.43	0.99	.10	–.11	.09	–.07	.01	–.10	.40**	.34**	(.92)	
10 Work engagement T2	3.42	0.96	.09	–.12	.13	–.08	.05	–.08	.32**	.31**	.71**	(.92)

Note. T1 = Time 1; T2 = Time 2. * $p < .05$. ** $p < .01$.

We compared a one-factor model (where all emotional demands and dissonance items loaded on a general latent factor) to a two-factor model (where all emotional demands items loaded on an “emotional demands” latent factor and all dissonance items loaded on an “emotion-rule dissonance” latent factor and the two latent factors were allowed to correlate). Results supported the empirical distinction of the two factors, since the two-factor model (Akaike Information Criterion [AIC] = 189.47; Root Mean-square Residual [RMR] = .04; Confirmatory Fit Index [CFI] = .86) fit the data significantly better than the alternative one-factor model (AIC = 202.19; RMR = .05; CFI = .84). All indicators loaded significantly on the latent factors, and there was no evidence for cross-loadings (see Table 1).

Test of Hypotheses

Self-efficacy (Hypothesis 1a) and optimism (Hypothesis 2a) were expected to buffer the effect of emotional demands on work engagement. Hypotheses 3a and 4a propose that emotional demands boost the effect of self-efficacy and optimism on engagement, respectively. These hypotheses were tested within the same hierarchical regression analysis. Results supported the interaction effect for self-efficacy, but not for optimism (see Table 3). Thus, Hypotheses 2a and 4a were rejected. To test Hypothesis 1a, we conducted the simple slopes test. Against the prediction of a buffering effect, results showed that the simple slope was significant at +1 SD of self-efficacy (estimate = .19, *t* = 2.43, *p* = .02), but not at -1 SD (estimate = -.09, *t* = -1.11, *ns*). This finding indicates that engagement is highest when both emotional demands and self-efficacy are high (see Figure 3). Further, the region of significance on self-efficacy ranged from -2.32 to .56 indicating that any given simple slope outside this range is statistically significant, while the standardized values of self-efficacy ranged from -5.55 to +1.80. Because the confidence bands did not include simple slopes of zero for values of self-efficacy above .56 and below -2.32, it may be concluded that the effect of emotional demands on engagement is significant for relatively high (above .56) and relatively low (below -2.32) observed values of self-efficacy. These findings support the buffering effect of Hypothesis 1a since they suggest that there is a significant negative relationship between emotional demands and engagement for low values of self-efficacy.

Regarding Hypothesis 3a, either the simple slope at +1 SD of emotional demands was significant (estimate = .16, *t* = 1.91, *ns*), or at -1 SD (estimate = -.12, *t* = -1.46, *ns*). The region of significance analyses may further explain this significant interaction effect. The region of significance on emotional demands ranged from -1.90 to 1.21, while the standardized emotional demands scores ranged from about -2.00 to 3.41. Because the confidence bands did not include simple slopes of zero for values of emotional demands above 1.21 and below -1.90, it can be concluded that the simple slope of engagement regressed on self-efficacy is significantly different from zero for values of

Table 3. Results of hierarchical moderated regression analyses: Main and interaction effects of emotional demands/emotion-rule dissonance and personal resources on T2 work engagement (*N* = 163)

Step	Emotional demands: H1a/2a/3a/4a			Work engagement T2			Emotion-rule dissonance: H11b/2b/3b/4b			Work engagement T2		
	Variables	β	<i>t</i>	ΔR^2	ΔF	Variables	β	<i>t</i>	ΔR^2	ΔF		
1	Work engagement T1	.68**	10.97	.50	159.20**	Work engagement T1	.67**	10.75	.50	159.20**		
2	Emotional demands T1	.05	.96			Emotion-rule dissonance T1	.00	.03				
	Self-efficacy T1	.02	.25			Self-efficacy T1	.05	.73				
3	Optimism T1	.10	1.56	.01	.90	Optimism T1	.09	1.41	.01	.75		
	Emotional Demands × Self-Efficacy	.14*	2.44			Emotion-Rule Dissonance × Self-Efficacy	.15*	2.59				
	Emotional Demands × Optimism	-.02	-0.36	.02	3.00*	Emotion-Rule Dissonance × Optimism	.03	0.50	.03	4.00*		
	<i>R</i> ²									.53		

Note. H = Hypothesis. **p* < .05. ***p* < .001.

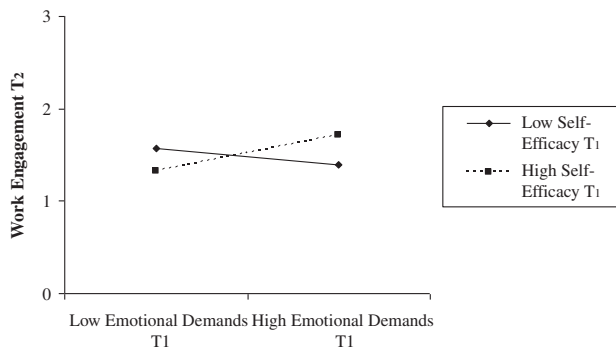


Figure 3. Interaction effect of emotional demands and self-efficacy on work engagement. T1 = Time 1; T2 = Time 2.

emotional demands above 1.21 (i.e., high levels of emotional demands) and below -1.90 (i.e., low levels of emotional demands). These findings support Hypothesis 3a, but also show that self-efficacy relates negatively to engagement when emotional demands are very low.

Hypothesis 1b proposes that self-efficacy buffers the relationship between emotion-rule dissonance and work engagement, and Hypothesis 2b suggests that optimism buffers the dissonance-engagement relationship. Moreover, dissonance is expected to boost the effect of self-efficacy (Hypothesis 3b), and optimism (Hypothesis 4b) on engagement. The results supported the moderating role of self-efficacy but not of optimism (see Table 3), thus rejecting Hypotheses 2b and 4b. Only the Emotion-Rule Dissonance \times Self-Efficacy interaction had a significant effect on T2 work engagement. Regarding Hypothesis 1b, the slope was not significant either for $+1$ SD of self-efficacy (estimate = $.15$, $t = 1.93$, *ns*), or for -1 SD of self-efficacy (estimate = $-.15$, $t = -1.90$, *ns*). However, the region of significance of the moderator (self-efficacy) ranged from -1.07 to $+1.15$, while the standardized self-efficacy scores ranged from -5.55 to 1.86 . This indicates that the simple slope of engagement regressed on emotional dissonance is significantly different from zero for values of self-efficacy below -1.07 (i.e., low values of self-efficacy) and above $+1.15$ (i.e., high values of self-efficacy). This finding supports the buffering effect of Hypothesis 1b, but also shows that the relationship between dissonance and engagement is positive when self-efficacy is extremely high.

Finally, Figure 4 supports Hypothesis 3b by showing that self-efficacy predicts work engagement particularly when dissonance is high. The simple slope was significant at $+1$ SD of emotion-rule dissonance (estimate = $.19$, $t = 2.20$, $p = .03$), but not at -1 SD (estimate = $-.10$, $t = -1.20$, *ns*). The region of significance of the moderator ranged from -1.93 to $.73$, while the centered dissonance scores ranged from -2.14 to 3.35 . Because the confidence bands did not include simple slopes of zero for values of dissonance above $.73$ and below -1.93 , it can be concluded that the simple slope of engagement regressed on self-efficacy is significant for values of dissonance above $.73$ and below -1.93 . These results further support Hypothesis 3b, but also suggest that the relationship between

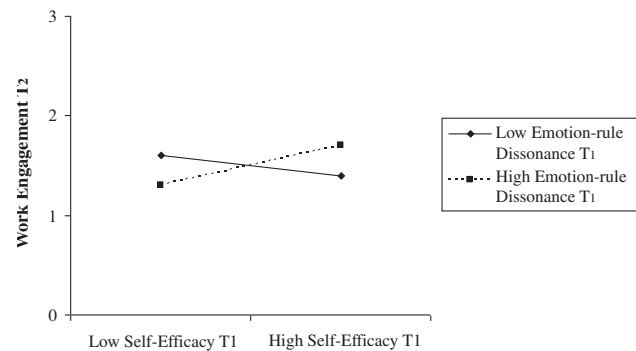


Figure 4. Interaction effect of self-efficacy and emotion-rule dissonance on work engagement. T1 = Time 1; T2 = Time 2.

self-efficacy and engagement is negative for low levels of dissonance. All plots of confidence bands are available from the first author.

Finally, we would like to point out that when testing the study hypotheses in the cross-sectional sample of T1 ($N = 540$), no interaction effects were significant, while both self-efficacy and optimism related positively to engagement, dissonance related negatively to engagement, while emotional demands were not significantly related with engagement.

Discussion

The results of this longitudinal study provide support for the buffering and boosting hypotheses. Our findings showed that the relationship between emotional demands/emotion-rule dissonance and work engagement was strongly negative when self-efficacy (but not optimism) was low (i.e., buffering effect). Also, self-efficacy was particularly beneficial for engagement, when employees faced high levels of emotional demands and dissonance (i.e., boosting effect). The study results support a full interaction effect, where the combination of high demands/dissonance and high self-efficacy results in the highest levels of engagement, while combinations of high demands and low self-efficacy or high self-efficacy and low demands result in low levels of engagement.

To our knowledge, this is the first study supporting the long-term effects of the interaction between the antecedents of emotional labor (emotional demands/dissonance; Holman et al., 2008) and personal resources on a motivational aspect of employee well-being (i.e., work engagement). Previous longitudinal investigations on the emotionally demanding conditions have provided evidence for their relation with unwell-being (e.g., exhaustion; De Jonge & Dormann, 2006) or for mainly affective aspects of well-being (e.g., job satisfaction; Côté & Morgan, 2002). Although past studies contribute significantly to the literature, they do not make a strong case about what keeps employees facing emotionally charged situations at work motivated, given that affective

aspects of attitudes do not necessarily lead to concordant behaviors. The present study shows that self-efficacy is particularly useful for engagement, when management of emotions is strongly required.

Buffering and Boosting Effects

This study builds on the few previous cross-sectional studies that examined the relation of emotionally demanding aspects of the job with motivation (De Jonge et al., 2008) and work engagement (Bakker et al., 2007; Heuven et al., 2006), which showed that job resources buffer the negative effect of emotional demands on motivation and engagement. These results suggest that work engagement decreases when employees work in an environment that lacks job resources. Similarly, Heuven and colleagues (2006) supported the buffering role of self-efficacy in the relationship between emotion-rule dissonance and work engagement. Nevertheless, the latter cross-sectional study did not support the motivational role of emotional demands. Namely, it did not explain how conditions of high dissonance strengthen the positive relationship between self-efficacy and engagement. Previous studies have mainly treated resources as a moderator in the relationship between emotionally demanding conditions at work and engagement, thus neglecting their unique role in enhancing engagement. Only the study by Bakker et al. (2007) showed that job (but not personal) resources relate to engagement, particularly when emotional demands (i.e., pupil misbehavior) are high.

The current study was designed to provide a comprehensive assessment of the role of personal resources for employees who face emotionally demanding conditions, by examining both the buffering and the boosting hypotheses. In line with the assumptions of COR theory (Hobfoll, 1989) and the JD-R model (Bakker & Demerouti, 2007), and with the purported functions of personal resources (Xanthopoulou et al., 2009), we tested two theoretically different hypotheses. We expected that personal resources buffer the negative effect of emotional demands and emotion-rule dissonance on work engagement, and that high emotional demands and dissonance boost the effect of personal resources on engagement.

In line with the buffering hypothesis, the region of significance approach indicated that for low levels of self-efficacy, the relationship between emotional demands/emotion-rule dissonance and engagement was strongly negative. Namely, when employees face high levels of emotional demands and experience dissonance for long periods of time they become disengaged when they lack the ability to deal with these threatening conditions efficiently. The study findings also indicate that, in the long run, emotional demands and emotion-rule dissonance may be challenging for self-efficacious employees. The relationship between self-efficacy and engagement becomes strongly positive (is boosted), when employees face high emotional demands and dissonance. In other words, employees use their resource reservoir (i.e., self-efficacy) to control the environment and become engaged, when this

reservoir is needed the most (i.e., when they encounter high emotional demands and dissonance). Results regarding Hypothesis 1 provide additional support for the boosting effect by indicating that engagement is highest when high demands are combined with high resources. In this case, self-efficacious employees perceive high emotional demands and dissonance as challenges that activate them to control the environment and stay engaged (Crawford et al., 2010).

The simultaneous support for the buffering and the boosting hypotheses suggests that the motivational potential of self-efficacy is strengthened when demands are high. This implies that in order to cope with the demanding antecedents of emotional labor over time, employees do not only try to control these demands to prevent disengagement. Rather, they make use of their resource reservoir to deal actively with these demands in order to be more vigorous, dedicated, and absorbed in their work. This indicates that, over time, employees who face emotionally charged conditions at work deal effectively with their prescribed work roles by actively enhancing their engagement, rather than by attempting to prevent its decrease. Also, our results suggest that self-efficacious employees, when not being stimulated and challenged by the environment for long periods of time, may become bored and consequently disengaged (Bakker & Demerouti, 2007). This finding implies that employees who possess high levels of resources need challenges in the environment in order to be engaged, and that emotional labor may provide such challenges.

The results of the present study suggest that the contribution of optimism in dealing with the antecedents of emotional labor is limited. An explanation for the null findings may concern the nature of optimism. Optimistic employees have the tendency to believe that whatever happens, outcomes will be positive (Scheier et al., 1994). If this belief is very strong, it is likely to inhibit optimists from actively turning things to a positive direction. As a result, optimistic employees may think that difficult interactions at work will be solved without significant personal effort, and therefore they do not stay engaged in their work.

Although the nonsignificant results regarding the cross-sectional data may seem unexpected (since having more power should strengthen the study findings), it should be noted that the interaction effects largely depend on the mean and *SD* of the predictor and moderator variables in the sample under study, and obviously a sample of 540 participants is very different from a sample of 163 participants. However, we believe that the longitudinal study findings are not accidental, first because they are in line with theory, and second because the time component plays a crucial role in explaining the hypothesized effects. Namely, a threatening work environment (i.e., high on demands and dissonance) may turn to be beneficial for engagement particularly when there is an “ongoing” belief that one is able to deal effectively with these demanding aspects, over long periods of time. This ongoing belief can only be found to be effective if examined over time. This is why longitudinal designs – like the one of the present study – are exceptionally critical in revealing these findings, particularly because they allow controlling for changes in engagement.

Limitations, Strengths, and Future Research

Our observations were solely based on self-reports, which may have inflated the relationships among the study variables. However, we are confident that mono-method bias is not a major drawback in this study for three reasons: (1) findings are consistent with theory; (2) common method variance is more likely to attenuate rather than to inflate interaction effects (Evans, 1985); and (3) the time-interval between measurements of the predictor and dependent variables strongly counteracts concerns regarding single-source information. A second limitation is that data was collected from one organization, which restricts the generalization of our findings. It should be noted, however, that participants were employees from three different divisions of the organization with different job descriptions. Results from a relatively heterogeneous sample of employees strengthen previous findings that showed that emotionally demands and dissonance at work apply to a broad array of occupational contexts (Diefendorff & Richard, 2003). Replication of the current findings in future studies conducted in various (service and non-service) organizations is essential.

Although the longitudinal design of the study presents significant advantages, not all participants followed the same time-interval between T1 and T2. This inconsistency should be attributed to practical issues within the organization that did not allow starting T2 simultaneously in all of the departments that had participated at T1. Nevertheless, there is no reason to expect that these small (maximum 6 months) variations were significant enough to affect our findings. It is noteworthy that during this 6-month period no significant changes have taken place in the organization. Finally, this study investigated two specific personal resources. However, it is likely that similar effects will also hold for other personal resources. For instance, resilient individuals are capable of bouncing back from adversity, failure, or even positive change and as a result they adapt successfully to their environment (Sweetman & Luthans, 2010). Resilient individuals may be more capable of controlling the emotionally demanding situations at work and stay engaged. Further, when emotional demands are high, resilient employees are better suited to bounce back and stay engaged. Thus, future studies could extend the present findings to other types of personal resources, like resiliency.

Implications for Practice

This study advances past knowledge on the motivating aspects of emotional demands and emotion-rule dissonance by highlighting the role of personal resources, and particularly self-efficacy. The findings suggest that enhancing employees' self-efficacy beliefs may facilitate their engagement in the face of high emotional demands and dissonance at work. Training that cultivates employees' self-efficacy may help them deal with the demanding aspects of customer-service interactions effectively and stay engaged. Enhanced self-efficacy seems to be effective, particularly because reducing the level of emotional demands and

dissonance is considered nearly impossible in the specific occupational contexts. Luthans, Avey, Avolio, Norman, and Combs (2006) proposed specific training techniques to cultivate employees' psychological capital that includes self-efficacy, such as the provision of goal clarification, skill practice, and/or opportunities for development. Their thesis highlights the need to provide job resources to employees. Xanthopoulou et al. (2009) showed that enhancing job resources positively influences employees' personal resources (including self-efficacy) over time. Enriching the work environment in order to deal efficiently with emotional labor is in line with previous findings (Bakker et al., 2007; De Jonge et al., 2008). These findings support the need for organizations to create resourceful environments, because such environments may naturally cultivate positive self-beliefs in employees, and lead to steadily flourishing workforces.

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