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**DOI:** <https://doi.org/10.1177/0149206313498900>

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### Citation

BHAVE, Devasheesh P. and GLOMB, Theresa M.. The Role of Occupational Emotional Labor Requirements on the Surface Acting-Job Satisfaction Relationship. (2016). *Journal of Management*. 42, (3), 722-741. Research Collection Lee Kong Chian School Of Business.

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# The Role of Occupational Emotional Labor Requirements on the Surface Acting–Job Satisfaction Relationship

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Published in *Journal of Management*, 2016 March, 42 (3), 722-741.

doi:[10.1177/0149206313498900](https://doi.org/10.1177/0149206313498900)

## Abstract

In this study we employ two distinct lenses of emotional labor—EL as occupational requirements and EL as intrapsychic processes of surface acting—and examine their relationship with job satisfaction. In a large, occupationally diverse sample, results indicate that occupational EL requirements are positively related to job satisfaction, whereas surface acting is negatively related to job satisfaction. Additionally, occupational EL requirements have a cross-level moderation effect on the relationship between surface acting and job satisfaction. Nonlinear effects are also observed for surface acting: the initial negative relationship of surface acting with job satisfaction is exacerbated at high levels of surface acting. Overall, this study enriches current research findings by incorporating the role of the occupational context, and provides insight into alternative evaluations of EL.

**Keywords:** surface acting, emotion regulation, emotional labor, occupational emotional labor, requirements job satisfaction

Recruiters, career coaches, and guidance counselors attest that employees and job seekers proclaim ubiquitously, “I enjoy working with people.” The shift in the global economy to a service-oriented economy (Erickson & Ritter, 2001) would seem to be a boon to individuals looking for “people work.” But in her seminal work, Hochschild (1983) observed that employees in “people work” occupations engage in emotional labor (EL), which is likely to exert physical or mental tolls and adversely affect employees’ satisfaction and well-being. Subsequent research findings, however, have been equivocal, with results indicating both positive and negative associations between EL and indicators of well-being such as job satisfaction (Bono & Vey, 2005; Grandey, 2000; Hülsheger & Schewe, 2011). What are the reasons for this inconsistency?

One explanation for these mixed findings may reside in the specific “lens” used to approach EL. Grandey, Diefendorff, and Rupp (2013) recently provided an integrative discussion of three “lenses” used to describe EL: (a) occupational requirements, or the job expectations for emotion management; (b) emotional displays, or the behavioral expression of emotions congruent with the role; and (c) intrapsychic processes, or the internal emotional regulation strategies used to manage emotions. In describing this troika of perspectives, they suggest that EL is a dynamic interaction of these approaches and advise against adopting one focal

lens to the exclusion of others. Instead, they encourage researchers to adopt “trifocals” in their research and conceptualization of EL (Grandey et al., 2013: 17).

Most EL research, however, approaches EL focusing on one lens without explicitly considering the others, so it is difficult to draw holistic conclusions about EL’s relationship with employee outcomes such as job satisfaction. Prior EL research has been largely focused at the employee level—in both primary studies (e.g., Grandey, Fisk, & Steiner, 2005; Morris & Feldman, 1997) and meta-analyses (e.g., Hülshager & Schewe, 2011)—making the study of EL at the occupational level and its association with employee work outcomes understudied. Yet, occupations serve as an important contextual variable and shape individual attitudes, behavior, and performance (Johns, 2006). In accordance, Grandey and colleagues (2013) highlight the relevance of occupational requirements to EL research. They introduce the “EL-as-occupational-requirements” lens, which draws on Hochschild’s (1983) seminal work and considers jobs as “EL jobs” if they (a) entail frequent interactions (not just with customers but also with supervisors, subordinates, and team members), (b) have an underlying goal of eliciting emotions in others, and (c) require managing these interactions. In alignment with this perspective, research suggests variance in occupational EL requirements, with some jobs, such as salespersons, having high requirements, and others, such as data entry operators, having low requirements (Bhave & Glomb, 2009; Glomb, Kammeyer-Mueller, & Rotundo, 2004).

The variation in occupational EL requirements has significance for emotion regulatory responses—encapsulated in the “EL-as-intrapsychic-processes” lens (Grandey et al., 2013). Therefore, scholars have advocated that “future research should examine the interplay of individual level and job level characteristics in predicting the effects of emotional labor on employee outcomes” (Pugh, Groth, & Hennig-Thurau, 2011: 386). To investigate this interplay, we examine the relationship between the commensurate operationalization of each lens—occupational EL requirements reflecting the occupational lens, and surface acting reflecting the intrapsychic processes lens—and job satisfaction, which is “from the perspective of research and practice, the most focal employee attitude” (Saari & Judge, 2004: 396).<sup>1</sup> Of note, a recent meta-analysis reported a negative relationship between surface acting and job satisfaction ( $\rho = -.327$ ; Hülshager & Schewe, 2011), but this estimate only applied to the intrapsychic lens of EL and excluded operationalizations based on the occupational lens. Yet, working in occupations that Hochschild (1983) classified as emotionally “laborious” (i.e., those with presumably high occupational EL requirements) has been associated with higher job satisfaction (Wharton, 1993) and feelings of personal accomplishment (Brotheridge & Grandey, 2002). Economics studies also illustrate a positive relationship

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<sup>1</sup> Emotional labor (EL) is “one (important) form of emotional regulation, namely emotional regulation that occurs in a work context” (Gross, 2013: 289). In an EL context, emotion regulation comprises both surface acting (regulation of expressions) and deep acting (regulation of feelings) (Grandey, 2000; Gross, 1998; Hochschild, 1983). Consistent with previous research (Grandey, Fisk, & Steiner, 2005; Pugh, Groth, & Hennig-Thurau, 2011; Rupp, McCance, Spencer, & Sonntag, 2008), we focus on surface acting (or response-focused emotion regulation), which is particularly important from an organizational perspective because interaction partners, such as customers, coworkers, and supervisors, can observe the regulation of expressions (see Hülshager & Schewe, 2011). While recognizing the important distinctions between antecedent- and response-focused emotion regulation in prior research (see Grandey, 2003; Groth, Hennig-Thurau, & Walsh, 2009), for brevity, we employ the term emotion regulation rather than the more appropriate term response-focused emotion regulation. Furthermore, we use the term surface acting, the narrower conceptualization, unless the broader emotional regulation term is appropriate

between working in jobs that require frequent workplace interactions—an important constituent of occupational EL requirements (Grandey et al., 2013; Wharton, 2009)—and job satisfaction (Krueger & Schkade, 2008). These results prompt inquiry that integrates multiple lenses and levels of analysis—surface acting at the employee level and requirements for EL at the occupational level—and their relationship with job satisfaction.

We approach this inquiry in two primary ways. First, we draw on job design theory (Hackman & Oldham, 1980; Humphrey, Nahrgang, & Morgeson, 2007) to examine the main effects of the two lenses—occupational EL requirements and surface acting—on job satisfaction. Specifically, we propose that adopting different lenses suggests that occupational EL requirements will be positively related and surface acting will be negatively related to job satisfaction. Second, we draw on the theory of vocational choices (Holland, 1985) and cognitive dissonance theory (Festinger, 1957) to examine the cross-level moderation effect of occupational EL requirements on the relationship between surface acting and job satisfaction and predict a stronger relationship for employees in occupations with high EL requirements, thereby providing an understanding of the surface acting–job satisfaction relationship across varying occupational EL requirements. We investigate these relationships in a large sample across more than 100 occupations. The occupational diversity heightens potential for generalizability and addresses calls to incorporate occupational contexts in management research (see Morgeson, Dierdorff, & Hmurovic, 2010).

## **Development of Hypotheses**

### **EL as Occupational Requirements and Intrapyschic Processes**

Following previous work (Grandey et al., 2013), we define EL using two lenses: occupational requirements and intrapsychic processes. In clarifying the EL lenses, Grandey and colleagues (2013: 18) discuss that all jobs entail some interaction, whether with customers, team members, supervisors, or subordinates; therefore EL occurs when “emotion regulation is performed in response to job-based emotional requirements in order to produce emotion—and to evoke emotion from—another person to achieve organizational goals.” Similar ideas have been advanced by Wharton (2009), who distinguished interactional demands that manifest at the occupational level and emotion regulation that manifests at the individual level, as well as Brotheridge and Grandey (2002), who distinguished job-focused and employee-focused EL.

To illustrate these distinctions, consider, for example, police officers, who face consistently high occupational EL requirements, with job tasks spanning diverse settings and communities. Compared with other jobs, such as data entry workers or accountants, police officers interact more extensively with others daily. But individual police officers will respond uniquely and variably to the occupational requirements and will engage in different levels of emotion regulation. The two lenses should not be considered equivalent manifestations of the same idea at different levels (Chan, 1998) but rather as two ways to capture the related ideas of occupational requirements of EL and employees’ internal responses to requirements (see Grandey et al., 2013).

### **Differential Relationships Between EL as Occupational Requirements and EL as Intrapsychic Processes and Job Satisfaction**

As initially proposed (Hochschild, 1983) and recently reiterated (Grandey et al., 2013), jobs with high EL requirements involve frequent interactions with customers, coworkers, and supervisors (Ashforth & Humphrey, 1993; Côté, 2005; Grandey, Kern, & Frone, 2007; Kim, Bhave, & Glomb, 2013; Rafaeli & Sutton, 1987; Wharton, 2009). A separate line of research has revealed that interpersonal interactions generally fulfill intrinsic human desires for affiliation (Alderfer, 1972; Baumeister & Leary, 1995) and enhance positive mood (Watson, 2000) and well-being (S. Cohen & Wills, 1985; Ryan & Deci, 2001; Warr, 2007). Given these positive effects of interpersonal interactions, the job design model (Hackman & Oldham, 1980) was extended to the social environment, incorporating job interactions within and outside organizations as additional key work design features labeled as social characteristics of jobs (Humphrey et al., 2007). Social characteristics enhance employee well-being because “social activity, regardless of its nature, extent, duration or valence, has a positive quality and conveys feelings of energy, enthusiasm, and general feelings of positive affect” (Humphrey et al., 2007: 1336; emphasis added). Accordingly, meta-analytic results indicate that social characteristics are positively related to job satisfaction (Humphrey et al., 2007), which complements other observations that job interactions are motivational when they involve helping others (e.g., coworkers, clients, customers) and, in turn, are positively related to attitudinal outcomes, such as job satisfaction (see also Batson, 1990; Batson & Shaw, 1991).

Other extensions to the job design model, notably, the relational job design perspective, integrate the “relational architecture of jobs,” highlighting that interpersonal interactions can be beneficial (Grant, 2007: 395). Interactions with coworkers and customers who are the beneficiaries of their work can allow employees to better appreciate the significance of their tasks (Grant, 2007, 2008). In turn, task significance—a motivational characteristic—is positively related to job satisfaction (Grant, 2008; Humphrey et al., 2007). Relatedly, a recent theoretical integration of the relational work design, work recovery, and episodic performance streams of research contended that workplace interactions for human service occupations (e.g., social workers) are not necessarily depleting; instead, some interactions are restorative and enhance both short- and long-term well-being (Lilius, 2012). These ideas echo Côté’s (2005) proposition that “people work” may not be inherently associated with higher work strain because many factors affect the relationship between emotional regulation and strain, such as the receiver’s response to the regulation of the sender (see also Kim & Yoon, 2012).

Given the evidence from job design theory and empirical studies that occupational EL requirements are generally associated with favorable employee outcomes (see also Adelman, 1995; Bulan, Erickson, & Wharton, 1997), why then do researchers typically see EL as being an unfavorable job characteristic? Addressing this question using the intrapsychic processes lens suggests that engaging in emotional displays that are discordant with internal emotional states would produce inherently uncomfortable dissonance (Grandey, 2000). Thus, surface acting will produce dissonance and negative outcomes, such as job dissatisfaction. Both primary studies and meta-analytic results consistently reveal a negative association between surface acting and job satisfaction (e.g., Grandey et al., 2005; Hülsheger & Schewe, 2011; Kammeyer-Mueller et al., 2013; Zapf, Vogt, Seifert, Mertini, & Isic, 1999).

In sum, we argue that assessments of occupational EL requirements, which assess the job interactions that, in general, any worker in a given occupation experiences (e.g., Diefendorff, Richard, & Croyle, 2006; Glomb et al., 2004; Grandey et al., 2007), should be positively related to job satisfaction. In contrast, assessments of surface acting, which elicit a particular worker's intrapsychic emotion regulation processes in response to occupational EL requirements (e.g., Brotheridge & Lee, 2003; Glomb & Tews, 2004; Grandey et al., 2005), should be negatively related to job satisfaction. Those observations inspire our first hypotheses:

*Hypothesis 1: Occupational EL requirements will be positively related to job satisfaction.*

*Hypothesis 2: Surface acting will be negatively related to job satisfaction.*

### **Cross-Level Moderation Effect of Occupational EL Requirements on the Surface Acting–Job Satisfaction Relationship**

Multiple lenses of EL should be integrated to better understand the interplay of occupational EL requirements and employee emotion regulation (Grandey et al., 2013). Consider, for instance, surface acting in the context of an occupation with hefty EL requirements; it is likely to be qualitatively different than in an occupation with minimal EL requirements. The theories of vocational choices and cognitive dissonance can provide insight into these differences. The theory of vocational choices (Holland, 1985) suggests that people gravitate toward occupations based on their vocational interests; employee perceptions of the occupational environment and work-related interests shape vocational choices. Satisfaction and performance are optimal when there is a fit between employees and their occupational environment. More specifically, Holland (1985) proposed that people can be characterized into six interest types: realistic, investigative, artistic, social, enterprising, and conventional (RIASEC). Occupations can also be categorized using the same RIASEC dimensions. Vocational choices are predicated on the match between each employee with a specific occupation. For example, understanding, insightful, and persuasive social types would choose congruent occupational environments, such as counseling, teaching, or sales. This match between employees' vocational interests, which are fairly stable over time (Lubinski, 2000), and their chosen occupational environment is associated with job satisfaction, job stability, and achievement (see Spokane, Meir, & Catalano, 2000, for a review).

Thus, the theory of vocational choices suggests that some employees gravitate toward occupations with high EL requirements because they are interested in jobs involving frequent workplace interactions. This assertion is consistent with prior EL research. For example, Glomb et al. (2004) posited that employees may willingly seek jobs with higher interactions because of their vocational preferences despite receiving a wage penalty for doing so (see also Bhave & Glomb, 2009; Morgeson et al., 2010). Even though employees may intentionally seek occupations with high EL requirements, this does not mean that they will be absolved from engaging in surface acting; surface acting prevails across occupations (Bono & Vey, 2005; Glomb et al., 2004). Understanding the role of surface acting for employees who may have willingly gravitated toward occupations with high EL requirements is complex, and cognitive dissonance theory (Festinger, 1957) offers insight.

In recent work, Pugh et al. (2011) provided clarity on the concept of emotional dissonance, the focal concept underlying Hochschild's (1983) seminal work on EL. Pugh et al. observed that the concept of emotional dissonance—which draws from Festinger's (1957) cognitive dissonance theory—ignored an important theoretical element by neglecting to sufficiently consider the role of self-concept (i.e., an individual employee's perspective of one's interests, values, abilities, history, and aspirations; Super, 1980; emphasis added). They theorized and empirically observed that the negative relationship between surface acting and job satisfaction was a function of how relevant the discrepancy in emotional dissonance was to an employee's self-concept. Specifically, they observed the negative relationship between surface acting and job satisfaction was stronger for those employees who valued expressing authentic emotions. In other words, the relationship between surface acting and job satisfaction was exacerbated when employees' self-concept was threatened by engaging in work that was incongruent with their values. We propose that similar cognitive dissonance processes may underlie the cross-level moderation effect of occupational EL requirements on the relationship of surface acting and job satisfaction.

Integrating the theory of vocational choices (Holland, 1985) with theory and findings about emotional dissonance (Festinger, 1957; Pugh et al., 2011) suggests that for employees in occupations with high EL requirements, surface acting would be incongruent with their self-concept because it contradicts their vocational preference of working in an occupation with interpersonal interactions. For those employees, having to regulate emotions would be particularly onerous, as they sought and expected interaction, rather than regulation, in the job. Accordingly, we propose:

*Hypothesis 3: The negative association between surface acting and job satisfaction will be moderated by occupational EL requirements such that the relationship will be stronger for employees who work in occupations with higher EL requirements.*

## **Method**

### **Data and Sample**

Data were collected from staff employees at a large midwestern U.S. university as part of an internal organizational survey.<sup>2</sup> We sent 12,901 invitations to take a web-based survey and received 4,018 responses, for a minimum response rate of approximately 31%. The organization considered this response rate, which was moderate based on conventional norms (Roth & BeVier, 1998), to be favorable. Respondents reflected diversity in occupational representation, averaged 45 years old, were primarily female (68%), were primarily White (90%), and mostly worked full-time (91%). They averaged more than 42 hours of work per week and had averaged 12 years of employment at the university.

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<sup>2</sup> A portion of this data set was used to examine different research questions in Kim, Bhawe, and Glomb (2013), and Bhawe, Kramer and Glomb (2013).

The employee survey data were supplemented by data from the Occupational Information Network (O\*NET) to assess occupational EL requirements. The O\*NET is a repository of occupational information on a variety of job descriptors collected by occupational analysts over the last decade and is available for all occupations listed in the U.S. Census. Survey data were linked to the O\*NET data using Standard Occupational Classification (SOC) codes. The university assigned an occupational code for each employee based on the SOC developed by the U.S. Bureau of Labor Statistics (BLS), which links these SOC codes to the U.S. Census codes. These administrative records listed the respondents' occupations. Our data set included 118 of the 500 occupations covered in the U.S. Census and reflected the range of occupations that exist at a large public university, such as cashiers, editors, accountants, electricians, librarians, administrators, social workers, dental hygienists, parking attendants, training coordinators, computer programmers, food service workers, delivery service drivers, and campus security police officers.

## **Measures**

### **Occupational EL requirements**

The occupational EL requirements lens can be operationalized through “expert-coded descriptions of emotional demands by job title” using repositories of occupational information, such as the O\*NET (Grandey et al., 2013: 8). Accordingly, occupational EL requirements were measured through eight items from the final analyst version of O\*NET (4.0) following previous procedures (Glomb et al., 2004; Grandey et al., 2007). Sample items include “establishing and maintaining interpersonal relationships” and “contact with others,” which “is consistent with emotional labor conceptualizations that have always had ‘interactions with others’ at their core” (Glomb et al., 2004: 705). Of note, similar items have been used in measures of “emotional labor demands” (Glomb et al., 2004; Grandey et al., 2007) and “emotional demands” (Côté & Miners, 2006). To directly align with the occupational lens (Grandey et al., 2013), we used the term occupational EL requirements because it emphasizes that these EL requirements are at the occupational level, whereas the other terms do not directly reference this occupational characteristic. The coefficient alpha for this scale was .93.

### **Surface acting**

The employee survey measured surface acting using a seven-item scale (Grandey et al., 2005). A sample item is “I just pretend to have the emotions I need to display for my job.” Items were assessed on a 5-point Likert scale (1 = never and 5 = always). The coefficient alpha for this scale was .91.

### **Job satisfaction**

Job satisfaction was measured using the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969; modified by Roznowski, 1989) based on facets of job satisfaction: work, coworkers, supervision, and opportunities for promotion. The intercorrelations of the facets of job satisfaction measured by the JDI indicate a communality between the dimensions, which constitutes a second-order general factor to represent overall job satisfaction (Judge,



1993; Judge & Hulin, 1993; Parsons & Hulin, 1982) and was used in the analysis. The coefficient alpha for this scale was .87.

### **Control variables**

On the basis of previous research, we included several control variables. According to the dispositional perspective, employees' subjective well-being influences how they evaluate their jobs such that positive affect related to life satisfaction prompts employees to hold more favorable views of their work events and job conditions and to provide more favorable evaluations of their job satisfaction (Judge & Hulin, 1993; Judge & Watanabe, 1993; Staw, Bell, & Clausen, 1986). In other words, employee reports of job satisfaction are influenced by their subjective life satisfaction and health (Judge & Watanabe, 1993). Whether employees perceive their jobs to be stressful also influence employee reports of job satisfaction (Jamal, 1990). For these reasons, we controlled for single-item measures of overall subjective health and life satisfaction (Near, Rice, & Hunt, 1978), which indicate subjective well-being (Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002; Judge & Watanabe, 1993), and a four-item measure of job stress (Motowidlo, Packard, & Manning, 1986;  $\alpha = .88$ ). Finally, because employees' occupational experiences, which are salient in our study, vary by sex and tenure and influence job satisfaction (Miller, 1980; Seashore & Taber, 1975), we also included sex and tenure in the estimated models. Note that results for the estimated models should be interpreted after accounting for the effects associated with the control variables. All control variables were assessed via the employee survey.

### **Results**

The descriptive statistics and bivariate correlations at the employee level are reported in Table 1. At the employee level (listwise  $n = 3,384$ ), correlations indicated that surface acting was negatively related to job satisfaction ( $r = -.39, p < .01$ ). Furthermore, to examine the bivariate correlations between occupational EL requirements and job satisfaction, we also aggregated the data to the occupational level ( $n = 118$ ); occupational EL requirements were positively related to job satisfaction at the occupational level ( $r = .30, p < .01$ ). These results provided preliminary support for Hypotheses 1 and 2.

**Table 1**  
**Descriptive Statistics**

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Sex <sup>a</sup>	0.32	0.47	—							
2 Tenure	11.86	9.56	0.05	—						
3 Subjective health	3.85	0.88	-0.02	-0.00	—					
4 Life satisfaction	4.23	0.88	-0.05	0.04	0.40	—				
5 Job stress	3.41	1.07	-0.02	0.12	-0.14	-0.16	—			
6 Occupational EL requirements	0.00	0.82	-0.13	-0.03	0.05	0.08	0.14	—		
7 Surface acting	2.30	0.71	-0.03	-0.01	-0.18	-0.34	0.27	0.02	—	
8 Job satisfaction	2.42	0.74	-0.03	-0.07	0.14	0.29	-0.13	0.15	-0.39	—

*Note.* Listwise  $N = 3,384$ . Correlations greater than .03 are significant at  $p < .05$ . EL = emotional labor.

<sup>a</sup>Female = 0; male; = 1.

In testing the hypotheses, multilevel modeling procedures were utilized in STATA 12.0 because data were at the individual employee level, and these employees were nested in occupations (Raudenbush & Bryk, 2002). Per recommendations in estimating multilevel models, we group-mean centered surface acting and grand-mean centered the occupational EL requirements and included a random slope for surface acting (see Hofmann & Gavin, 1998; Mathieu, Aguinis, Culpepper, & Chen, 2012; Raudenbush & Bryk, 2002).

### Linear effects

Results indicated that, after accounting for the effects associated with sex, tenure, health, life satisfaction, and job stress, occupational EL requirements were positively related to job satisfaction ( $\gamma = .12, p < .05$ ), which provided support for Hypothesis 1 (see Table 2, Model 2).<sup>3</sup> After accounting for the effects associated with sex, tenure, health, life satisfaction, and job stress, results indicated that surface acting was negatively associated with job satisfaction ( $\gamma = -.34, p < .05$ ; see Table 2, Model 2). Collectively, these results support that occupational EL requirements are positively related to job satisfaction, whereas surface acting is negatively related to job satisfaction.

<sup>3</sup> In Hypothesis 1, we test a cross-level direct effect of the relationship between occupational EL requirements and job satisfaction. An alternative procedure is to estimate this relationship directly at the occupational level. To do so, we aggregated the data to the occupational level (i.e.,  $n = 118$ ; see Glomb, Kammeyer-Mueller, & Rotundo, 2004, for a similar occupational-level analysis). Results based on ordinary least squares regression indicated that, after accounting for the effects associated with sex, tenure, health, life satisfaction, and job stress, occupational EL requirements were positively related to job satisfaction ( $\beta = .11, p < .05$ ), which provided additional support for Hypothesis 1.

**Table 2**  
**Results of Multilevel Analyses: Job Satisfaction**

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Fixed effects					
Intercept	2.37**	2.37**	2.37**	2.38**	2.40**
Sex	-0.02	-0.02	-0.02	-0.03	-0.02
Tenure	-0.01**	-0.01**	-0.01**	-0.01**	-0.01**
Subjective health	0.00	-0.01	-0.01	-0.00	-0.00
Life satisfaction	0.14**	0.13**	0.13**	0.13**	0.13**
Job stress	-0.04**	-0.04**	-0.04**	-0.04**	-0.04**
Surface acting		-0.34**	-0.35**	-0.31**	-0.32**
Occupational EL requirements		0.12**	0.12**		0.12**
Occupational EL requirements × Surface acting			-0.04*		-0.04*
Surface acting <sup>2</sup>				-0.08**	-0.08**
Model fit statistics					
Wald $\chi^2$	141.95**	1123.82**	1425.81**	1398.00**	1826.12**
AIC	6806.21	6695.24	6693.33	6688.12	6671.76
Model deviance	6786.21	6671.24	6667.33	6664.12	6643.76

*Note.* AIC = Akaike's information criterion. Following the smaller-is-better criterion, the model with the smaller AIC and model deviance values indicates a better overall fit (Burnham & Anderson, 2002; Cavanaugh, 2005). EL = emotional labor.

\* $p < .05$ . \*\* $p < .01$ .

### Cross-level moderation effects

Hypothesis 3 proposed a cross-level moderation effect in which occupational EL requirements moderate the negative relationship between surface acting and job satisfaction. After accounting for the effects associated with sex, tenure, health, life satisfaction, and job stress, the coefficient of the interaction term of occupational EL requirements and surface acting was statistically significant ( $\gamma = -.04$ ,  $p < .05$ ; see Table 2, Model 3).<sup>4</sup> These results were clarified through a simple slopes analysis (Aiken & West, 1991). Consistent with Hypothesis 3, the simple slopes suggest that the negative relationship between surface acting and job satisfaction was stronger as occupational EL requirements increased; the simple slope ( $\gamma = -.39$ ,  $z = -15.61$ ,  $p < .01$ ) at a high (+1 SD) level of occupational EL requirements was higher than at a low (-1 SD) level ( $\gamma = -.31$ ,  $z = -13.47$ ,  $p < .01$ ; see Figure 1).

<sup>4</sup> In performing multilevel modeling, we considered Level 1 as the employee level and Level 2 as the occupation level. However, many occupations had only one or two employees, and for these occupations the sample size was lower than recommended when using multilevel modeling procedures (see Hox, 2010). Therefore, as a robustness check to ensure that our model was specified appropriately, we performed weighted least squares (WLS) regression. That is, we weighted the data to avoid biased parameter estimates and incorrect standard errors and to mitigate heteroscedasticity associated with greater variance in estimates of occupations with smaller samples of employees (J. Cohen, Cohen, Aiken, & West, 2004). Because our sample consists of grouped data, we used the square root of the group sample size, which is considered an unbiased weight for grouped data (J. Cohen et al., 2004; Kish, 1995; see Glomb et al., 2004, for a similar procedure). Results of WLS analyses were consistent with the multilevel results reported in Table 2.

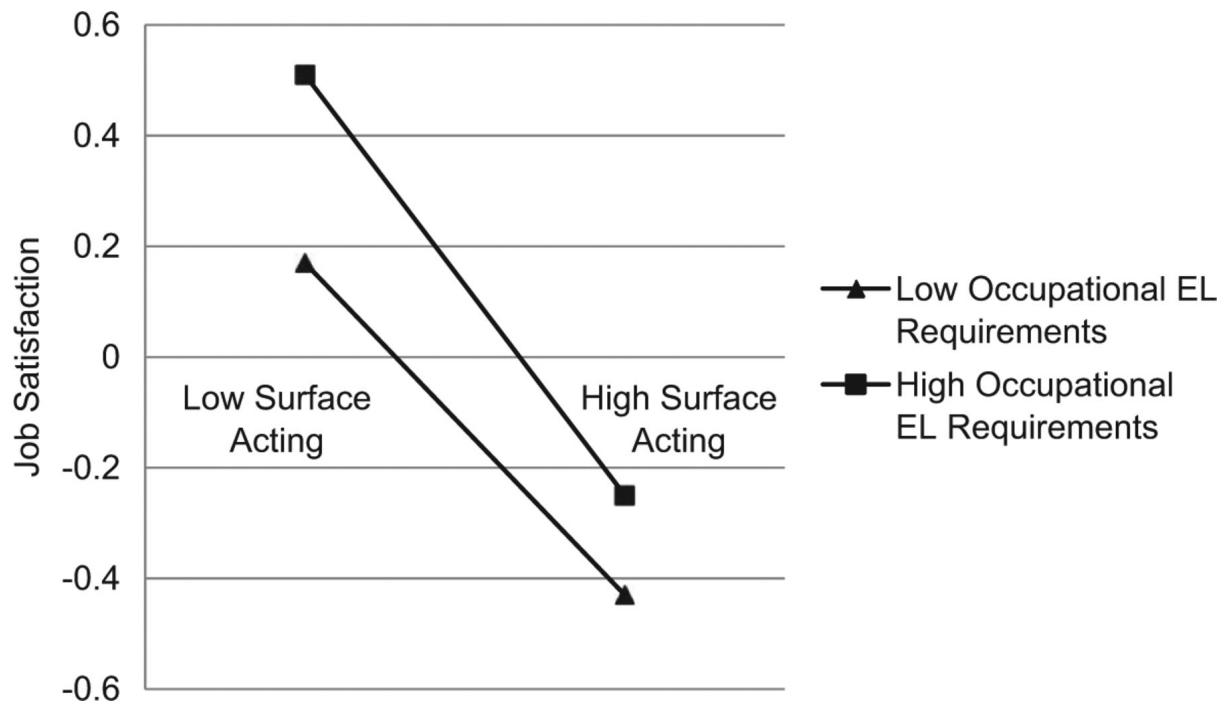


Figure 1 Cross-Level Moderating Effect of Occupational Emotional Labor Requirements on the Relationship Between Surface Acting and Job Satisfaction

### Supplemental Analysis: Nonlinear effects

In addition to linear effects, we conducted supplemental analyses examining the potential for nonlinearities in the relationship between EL and job satisfaction because of theorizing in the emotional regulation literature supporting such effects. In addition, these analyses answer Pierce and Aguinis's (2013) call for attention to nonlinear effects because focusing only on monotonic linear relationships limits understanding and inhibits the development of richer theory.

Substantial work in ego depletion theory has illustrated that regulating emotions depletes motivational, physiological, and cognitive resources and is associated with adverse employee outcomes (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Diefendorff & Gosserand, 2003; Grandey et al., 2005; Muraven, Tice, & Baumeister, 1998). When people must adhere to display rules and regulate their emotions, their regulatory resources are depleted (see Baumeister et al., 1998; Muraven et al., 1998) because they must physiologically exert themselves to convert their energy resources to meet the regulatory challenge (Brotheridge & Lee, 2002; Grandey, 2000). People are much worse at regulation after they have engaged in an activity requiring them to adhere to display rules (Vohs, Baumeister, & Ciarocco, 2005). Importantly, when already depleted, self-regulation becomes more challenging and less successful. Thus, successive surface acting may have increasingly detrimental effects. Such propositions are consistent with work suggesting depletion may be exacerbated when employees must continually adhere to display rules (see Goldberg & Grandey, 2007; Richards & Gross, 2000; Trougakos, Jackson, & Beal, 2011).

Ego depletion theory, therefore, suggests nonlinearity in the relationship between surface acting and job satisfaction such that the initial negative relationship between surface acting

and job satisfaction will become stronger at higher levels of surface acting. Results are supportive; the coefficient of the squared term of surface acting was statistically significant and negative ( $\gamma = -.08, p < .01$ ; see Table 2, Model 4), indicating decreasing levels of job satisfaction at higher levels of surface acting. These statistically significant nonlinear effects prompted an analogous test of the cross-level moderation effect of occupational EL requirements for the surface acting–job satisfaction relationship. The specific cross-level nonlinear model was estimated based on established procedures (Aiken & West, 1991) that were more recently reiterated (Pierce & Aguinis, 2013). Results indicated that occupational EL requirements moderated the relationship between surface acting and job satisfaction ( $\gamma = -.04, p < .05$ ; see Table 2, Model 5). Simple slopes analysis provided additional evidence: The simple slope ( $\gamma = -.36, z = -14.57, p < .01$ ) at a high (+1 SD) level of occupational EL requirements was higher than at a low (–1 SD) level ( $\gamma = -.28, z = -12.12, p < .01$ ; see Figure 2).

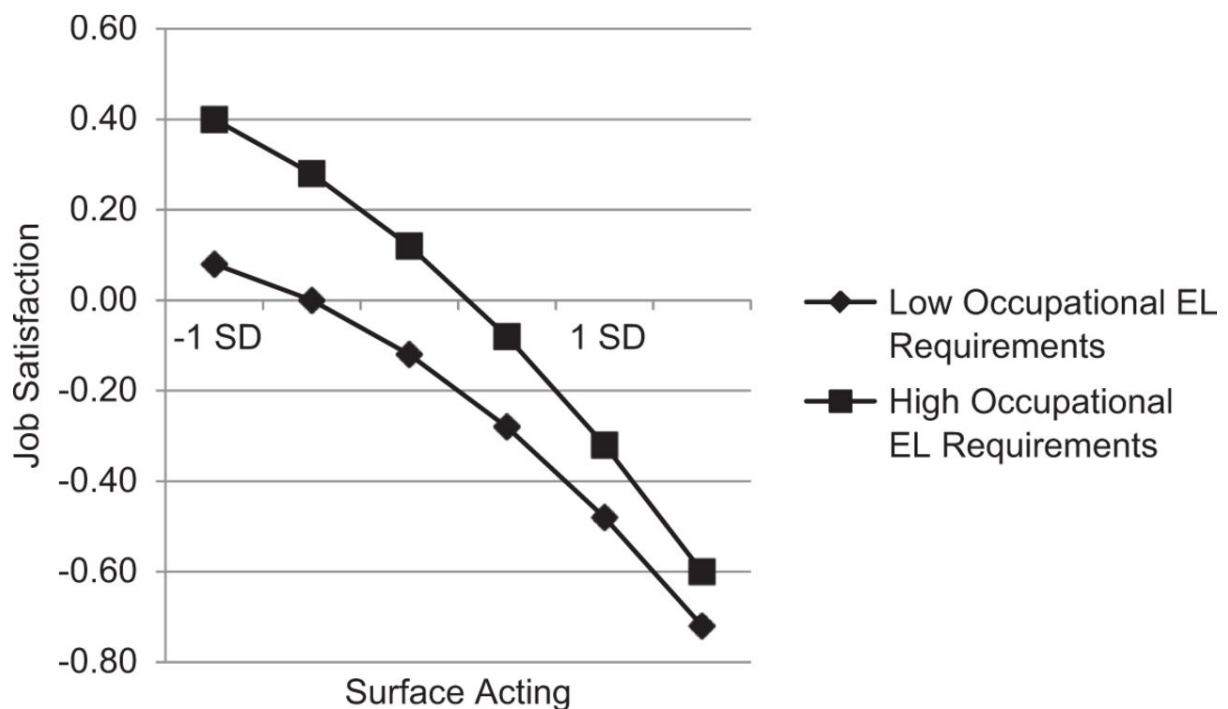


Figure 2 Cross-Level Moderating Effect of Occupational Emotional Labor Requirements on the Nonlinear Relationship Between Surface Acting and Job Satisfaction

## Discussion

In her recent essay reflecting on the field of EL, Wharton (2012: 301) noted that the “occupational requirements framework has been eclipsed by other approaches,” leaving the study of EL “somewhat disconnected from the jobs, workplaces, and organizational settings that help define its particular characteristics and expression.” In the current work, we integrate this occupational requirements framework into the study of the EL–job satisfaction relationship. Specifically, by integrating two “lenses” of EL, occupational EL requirements and intrapsychic processes, we provide theoretical and empirical insights into the relationship between EL and job satisfaction. In doing so, we squarely integrate the occupational context, which has been neglected in management research but is critical in shaping employee

attitudes, behaviors, and performance (Johns, 2006; Morgeson et al., 2010). Using a large, occupationally diverse sample, we examine cross-occupational differences that provide generalizable results about important conceptual issues in the EL domain. Our findings supplement emerging work that seeks to clarify prevailing assumptions in EL research (e.g., Bechtoldt, Rohrmann, De Pater, & Beersma, 2011; Grandey & Diamond, 2010; Pugh et al., 2011).

At the occupational level, EL requirements have a positive relationship with job satisfaction, and at the employee level, surface acting has a negative relationship with job satisfaction. The results clarify that two alternative and appropriate “lenses” of EL can have significantly different associations with job satisfaction. These results allow us to recognize that occupational EL requirements, which incorporate desirable workplace interactions, could generally be considered a positive job attribute even though surface acting can generally be considered undesirable for employees. This seeming paradox can be reconciled when considering a particular worker within an occupation. For instance, reflecting on our earlier example of police officers, prior work and our results reveal that police officers face considerable occupational EL requirements, which could result in surface acting. Yet, as our results indicate, these EL requirements could be satisfying, particularly when compared with other occupational requirements of police work that do not involve job interactions (e.g., entering data in police records, filing reports, etc.). These findings attest to Côté’s (2005) contention that “people work” does not intrinsically possess negative properties and that many factors affect the relationship between emotion regulation and strain, most notably, the receiver’s response to the sender’s emotional regulation. In short, occupational EL requirements are not universally negative (Côté, 2005; Lilius, 2012).

These findings are consistent with arguments by Grant and Parker (2009) who contend that the relational job design and emotional labor perspectives have conflicting views about the effects of interpersonal interactions on employee well-being. From the relational job design perspective, if their jobs provide employees opportunities to engage in interpersonal interactions and understand how they impact the beneficiaries of their work, employees will have higher prosocial motivation, effort, and persistence (Grant, 2007). Although we did not explicitly examine those constructs, we observe the facilitative effects of interpersonal interactions proposed by Grant and Parker (2009). Related to this, Grant and Parker clarified that the EL perspective reports adverse effects of emotional regulation for employee well-being (which we observed in this study). These findings suggest potential moderators (e.g., interactional autonomy, interactional complexity) that either constrain or accentuate the relationship between occupational EL requirements and job attitudes (see Grant & Parker, 2009; Grandey & Diamond, 2010). In this context, the nature of the interaction may also be crucial, for instance, whether it is voluntary versus involuntary and restorative versus depleting (Lilius, 2012; Miner & Glomb, 2010).

Drawing on the theory of vocational choices (Holland, 1985) and Pugh et al.’s (2011) work integrating cognitive dissonance theory (Festinger, 1957) and EL research, we proposed a cross-level moderation of occupational EL requirements in predicting the surface acting–job satisfaction relationship. Our results suggest that although employees may gravitate to occupations based on the desirable interactional attributes in those jobs, engaging in surface acting may be antithetical with their vocational preference, and this discord with their self-concept will be related to more harmful effects on their job satisfaction. Job satisfaction is

adversely affected for employees who report having to regulate their emotions, particularly in occupations with high EL requirements. Notably, the most satisfied employees in our study were those with high levels of EL requirements on their jobs but low levels of surface acting. This may be because employees who expect and welcome workplace interactions and meet those EL requirements without surface acting accrue the benefits of social interaction (see Côté, 2005; Grant, 2007; Lilius, 2012).

Our supplemental analyses on nonlinear effects provide intriguing fodder for future work on nonlinearity in EL's effects on employee outcomes. Consistent with resource depletion models, the initial negative relationship of surface acting with job satisfaction is exacerbated at high levels of surface acting, which suggests that once resources are depleted, emotional regulation becomes increasingly more difficult and less successful (Vohs et al., 2005). Additionally, we find that occupational EL requirements moderate the entire range of the nonlinear surface acting effect. The pattern of this nonlinear moderation is consistent with the cross-level moderation of occupational EL requirements discussed earlier. Our nonlinear effects warrant replication, followed perhaps by investigation of predictors of inflection points, such as individual differences and job environment features. For instance, temporal dimensions may underlie the effects: The duration of interpersonal interactions (one-time vs. ongoing) may influence emotion regulation patterns and their link to outcomes (Duffy, Shaw, Hoobler, & Tepper, 2010). Individual differences, such as self-monitoring, might lend additional insight into the nonlinear trajectories (Scott, Barnes, & Wagner, 2012). It is possible that there may be tipping points for particular employees when EL requirements become onerous. Additionally, specific occupational factors, such as occupational status, may be worthy of examination because research suggests that the experience and expression of emotion varies based on occupational status (Kemper, 1990; Thoits, 1989; Turner, 2009).

## **Implications**

Our results suggest that, by design, jobs with workplace interactions may have favorable outcomes for employees. Such jobs may be intrinsically motivating and fulfill psychological needs (Deci & Ryan, 2000), especially if they are consistent with key social and/or personal identity characteristics (Ashforth & Humphrey, 1993, 2013). These findings further highlight the importance of the social context at work (Morgeson & Humphrey, 2008) and support the burgeoning research on relational job design (Grant, 2007, 2008), which suggests that jobs, tasks, and projects are intertwined with workplace interactions, and these interactions are meaningful for employees (Grant, 2008). Despite these positive job attributes, tensions may occur at the interface between the worker and the job, creating various worker responses to job interactions (Wrzesniewski & Dutton, 2001). These responses, such as surface acting, may be related to unfavorable outcomes for some employees. Organizations and researchers might identify mechanisms and/or worker attributes that can create equilibrium conditions at the person–job interface. In other words, adopting a one-size-fits-all approach to work design for “people work” jobs fails to account for employees' various responses to occupational EL requirements (see Greguras & Diefendorff, 2009). Organizations might consider mechanisms such as job rotation, shift work, and flexible work schedules to leverage the beneficial aspects of job interactions while avoiding the negative aspects of regulating emotions.

In a similar vein, organizations may mitigate unpleasant outcomes related to emotion regulation by embedding the social context in work design (Morgeson & Humphrey, 2006), especially when designing work teams (Morgeson & Humphrey, 2008) because when employees interact with the beneficiaries of their work, they report higher task significance (Grant, 2008). Workplace interactions occur with customers and coworkers (Ashforth & Humphrey, 1993; Côté, 2005; Grandey et al., 2007), who may also be beneficiaries of an employee's work. For this reason, task significance is important across various jobs (Grant, 2008).

### Limitations and Future Directions

Although this study contributes to EL research and practice, we recognize some limitations. First, the study employs a cross-sectional design, so we cannot infer the causality of the EL and job satisfaction relationship. However, the directionality of the relationship proposed is consistent with most prior theoretical work (Diefendorff & Gosserand, 2003; Grandey, 2000; Grant & Parker, 2009; Morris & Feldman, 1996; Rafaeli & Sutton, 1987) and empirical work (e.g., Côté & Morgan, 2002; Diefendorff & Richard, 2003; Grandey et al., 2005; Judge, Woolf, & Hurst, 2009; Morris & Feldman, 1997; Pugh et al., 2011). Nevertheless, research has also examined job satisfaction as an antecedent to EL (e.g., Grandey, 2003), and the emerging use of experimental designs in EL research may better clarify the causal mechanisms (e.g., Goldberg & Grandey, 2007; Rupp & Spencer, 2006).

Second, the low and nonsignificant bivariate correlation between surface acting and occupational EL requirements raises questions about how these constructs are associated. Methodological and conceptual reasons explain this result. Methodologically, surface acting is assessed at the employee level, resulting in variability within an occupation; occupational EL requirements are assessed at the occupational level, with all employees in one occupation having the same level of EL requirements, thereby reducing variability and limiting the maximum possible correlation. As a supplemental analysis, we aggregated the surface acting and the occupational EL requirements measures to a broad occupational category level. The correlation between these occupational EL requirements and surface acting measures at the occupational category level is statistically significant ( $r = .40, p < .05$ ).<sup>5</sup> An alternative to using objective occupational-level measures of EL requirements would be to solicit employee perceptions of their EL requirements at the occupational level. This approach may have generated stronger correlations between occupational EL requirements and surface acting but at the expense of using alternative sources that provide different insights and avoid common method concerns.

Furthermore, the absence of a strong relationship between occupational EL requirements and surface acting is consistent with prior research, including a meta-analytic review (Bono & Vey, 2005) that observed a weak relationship between organizational EL demands and employees' surface acting (see also Rook, 1984; Ruehlman & Wolchik, 1988). These small correlations may not be a problem of measurement but may indicate that emotion regulation is pervasive across occupations and exists irrespective of occupational EL requirements

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<sup>5</sup> We aggregated the EL measures based on the broad set of 11 U.S. Census categories (our sample omitted the Armed Forces as an occupational category, leaving 10 categories for aggregation).



(Bono & Vey, 2005). Accordingly, Wharton (2009) noted that EL is not an inherent aspect of interactive service work, and multiple factors determine emotion regulation in such jobs—a perspective echoed by Côté (2005). In support of these views, as a supplemental analysis, we assessed the variation in occupational EL requirements and surface acting across five occupational categories illustrated in prior EL work: human service workers, service/sales, managers, clerical workers, and physical laborers (Brotheridge & Grandey, 2002). Based on one-way ANOVA, we observe that EL requirements vary across occupational categories, with higher levels of EL requirements within management and professional occupations as compared with physical occupations. Interestingly, levels of surface acting appear similar across occupational categories regardless of the level of EL requirements (see Figure 3)—a result consistent with previous arguments (Bono & Vey, 2005; Côté, 2005; Wharton, 2009).

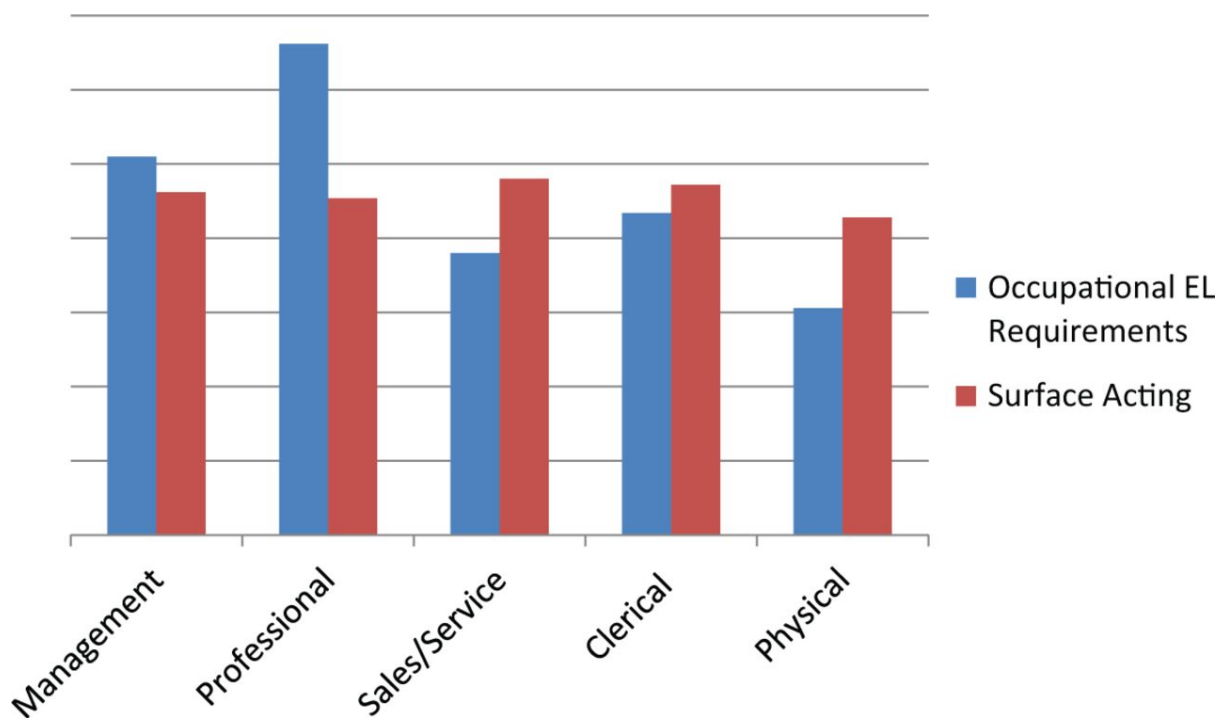


Figure 3 Levels of Occupational Emotional Labor Requirements and Surface Acting Across Five Occupational Categories

Finally, although vocational preferences are strongly related to employee job choice and signaling of vocational interests to the employer (Holland, 1985; Van Iddekinge, Roth, Putka, & Lanivich, 2011), we did not assess respondents' vocational interests. Although knowing employees' interests may be instructive, our arguments focus on the understanding that people gravitate to occupations based on vocational preferences. The economics literature has robustly supported the concept of occupational self-selection (see Krueger & Schkade, 2008; Polachek, 1981; Zarkin, 1985). Thus, it seems reasonable that employees can perceive an occupation-based fit with their interests, particularly for the types of occupations in our sample. Nevertheless, the role of EL in vocational preferences and "callings" (Wrzesniewski & Dutton, 2001) would be fodder for future research.

## Acknowledgments

We are grateful to Joyce Bono, Eugene Kim, Amit Kramer, Alex Lefter, Anat Rafaeli, Tao Yang, and Zhen Zhang for their insightful feedback and to the organization and participants for the survey data. We also thank Deborah Rupp and the anonymous reviewers for guidance and constructive comments throughout the review process. An earlier version of this manuscript was presented at the Academy of Management Conference in Philadelphia, 2007. Devasheesh P. Bhave gratefully acknowledges support from the Fonds de recherche du Québec - Société et la cultures.

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