

## IS EMOTIONAL LABOR MORE DIFFICULT FOR SOME THAN FOR OTHERS? A MULTILEVEL, EXPERIENCE-SAMPLING STUDY

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In response to 2 areas for development in the emotional labor literature—(a) the contemporaneous associations between emotional labor and affective reactions, and (b) whether emotional labor might be more personally costly for some employees than others—this study tested a conceptual model explaining the differential effects of deep and surface acting on job satisfaction and emotional exhaustion via their asymmetrical influences on mood, and whether extraverts fare better when engaging in emotional labor. As expected, surface acting was positively associated with negative mood, and this explained some of the association of surface acting with increased emotional exhaustion and decreased job satisfaction. Contrary to hypotheses, deep acting was unrelated to job satisfaction and was associated with lower positive affect. Extraversion moderated several emotional labor relationships such that, in general, surface and deep acting had more positive (or less negative) effects for extraverts (compared to introverts). Overall, the results support the importance of considering the roles of mood and disposition in the impact of emotional labor.

Given the ongoing decline of the United States manufacturing industry (Tyson, 2005) and the steadily increasing numbers of people employed in the services sector (Mehring, 2006), it is perhaps now more important than ever to understand factors that affect the well-being of customer service workers. Over the past 2 decades, the emotional labor literature has explored one set of influences on service worker well-being, namely, the emotion regulation strategies adopted by employees during service encounters in accordance with organizational expectations for emotional display (i.e., display rules; Ashforth & Humphrey, 1993). Emotional labor researchers have identified two such strategies (Grandey, 2000; Hochschild, 1983). One—*surface acting*—involves engaging in a superficial display of the normative emotion without making any effort to change what one is

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actually feeling. *Deep acting*, on the other hand, consists of trying to modify felt emotions in order to bring both behavior and internal experience into alignment with expected displays. As Gosserand and Diefendorff (2005) pointed out, these strategies are generally adopted to comply with rules for the display of positive emotions.

In this study, we explore the role of mood in the relationship between emotional labor and well-being. The majority of emotional labor studies have focused on the cumulative impact of chronic engagement in deep and surface acting based on one-time global assessments of job attitudes and strain. Yet, those who make a global assessment of their emotional labor may yet experience fluctuations that could have implications for daily well-being. There is considerable evidence that there is substantial intraindividual variation in work-related outcomes and that mood is a proximal source of this variation (Ilies et al., 2007; Ilies, Scott, & Judge, 2006; Judge, Ilies, & Scott, 2006). Although it has been explored as an antecedent of emotional labor (Totterdell & Holman, 2003), there has yet to be any consideration of mood as a possible consequence. In light of evidence that emotion regulation affects emotional experience (see Gross, 2002), it seems likely that mood is not only an outcome of emotional labor but also an important mechanism explaining its link to well-being.

Between-individual differences could shed further light on the short-term affective and well-being correlates of emotional labor. Extraversion seems a particularly apt trait to examine. There is already evidence that Extraversion is related to perceived emotional labor demands (Diefendorff & Richard, 2003) and the practice of emotional labor, primarily surface acting (Diefendorff, Croyle, & Gosserand, 2005). Ample research has supported Hochschild's (1983) claim that emotional labor creates a sense of strain (Bono & Vey, 2005). This strain may be felt more acutely by introverted employees, for whom emotional labor should be more effortful and provide fewer payoffs.

Finally, we believe that emotional labor does have some benefits. Although surface acting is detrimental to both emotional exhaustion and job satisfaction, deep acting seems to have little effect on the former (Brotheridge & Lee, 2003; Grandey, 2000, 2003; Goldberg & Grandey, 2007; Totterdell & Holman, 2003). Although little research has addressed the effect of deep acting on job satisfaction, we expect that it could be beneficial, for reasons noted shortly.

Figure 1 provides a visual depiction of the expected relationships among emotional labor, mood, job satisfaction, and emotional exhaustion. In the following section, we outline our rationale for these expectations and present formal hypotheses. Next, we describe an experience-sampling study in which we collected daily data on emotional labor, affect, and well-being from employees in a range of service occupations. Finally, we



Such feedback, Côté argued, leads to strain for the employee. Indeed, the more authentic a positive display appears, the more friendly customers perceive the service provider to be and the more satisfied they are with the encounter (Grandey, Fisk, Mattila, Jansen, & Sideman, 2005), which may translate into less stress-inducing exchanges between customer and employee.

In addition to emotional exhaustion, Hochschild (1983) and Grandey (2000) argued that both types of emotional labor would negatively affect job satisfaction, which has received far less empirical attention. A few studies have found that job satisfaction is negatively related to emotional dissonance (Abraham, 1998, 1999a,b; Lewig & Dollard, 2003), a byproduct of surface acting (Erickson & Ritter, 2001; Glomb & Tews, 2004). One study hypothesized—and found—a negative relationship between job satisfaction and both surface and deep acting (Grandey, 2003). Also, Johnson and Spector (2007) found that neither type of acting was significantly related to job satisfaction, but deep acting bore a positive and surface acting a negative relationship to job-related affective well-being.

Goldberg and Grandey (2007) noted that the acute effects of emotional labor might differ from those of the chronic, long-term effects. Although we expect for the short- and long-run effects of surface acting on job satisfaction to be similar, we believe that the effects of deep acting are more temporally distinct. Employees are probably aware of their inauthenticity as they surface act. It is at such moments when conflicts between one's own needs and preferences and the job's demands are most salient and job dissatisfaction highest (Grandey, 2000; Hochschild, 1983; Morris & Feldman, 1996). Moreover, surface acting does nothing to change an employee's underlying negative mood (Grandey, 2000; John & Gross, 2004), which has been found to influence momentary evaluations of job satisfaction (Judge, Scott, & Ilies, 2006; Scott & Judge, 2006). Thus, both the immediate and long-term effects of surface acting on job satisfaction should be negative.

Hochschild (1983) seemed to suggest different short- and long-term effects of deep acting on job satisfaction. She believed that the long-run effect of deep acting would be a sense of alienation from one's own feelings, which should certainly undermine job satisfaction. But deep acting could also serve as a buffer against feeling "fake" in the course of customer transactions. Thus, Hochschild suggested that the more immediate effect could be a sense that one has provided service that is both authentic and consistent with the organization's expectations. Williams (2003) noted this as well, based on comments by flight attendants in her study that successfully managing their feelings left them with a feeling of achievement. Similarly, three studies have found positive relationships between deep acting and personal accomplishment (Brotheridge & Grandey, 2002; Brotheridge & Lee, 2002, 2003), and one has found that it has a

positive relationship with feelings of authenticity (Brotheridge & Lee, 2002). Thus, we suggest that deep acting—and the conditions that necessitate it—might decrease job satisfaction over time; however, in the day-to-day context of our study, employees should feel more satisfied when they deep act because it buffers them against negative mood, gives them a sense of accomplishment, and preserves their sense of authenticity.

Our expectation of a positive relationship between deep acting and job satisfaction runs contrary to the findings, mentioned above, of a negative relationship by Grandey (2003) and a null relationship by Johnson and Spector (2007). Grandey did not consider job satisfaction as an outcome of deep acting; rather, she hypothesized that job dissatisfaction makes it difficult to engage in authentic displays of positive emotion, leading to the need for one to deep or surface act. Indeed, this might be so, but the outcome of deep acting should be a restoration of positive mood and enhanced satisfaction. In addition, neither study controlled for trait affect, an important predictor of job satisfaction (Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003) that also relates to deep acting (Brotheridge & Lee, 2002), thus creating an omitted variable problem that could bias the sign or magnitude of the coefficient estimate (James, 1980). In defense of both studies, every study has omitted variables and not every omitted variable has a biasing effect on the included variable. Nevertheless, as argued above, we think it also likely that deep acting could *lead* to job satisfaction and that, when individual differences in affect are controlled, the association will be positive.

We expect that the extent of surface and deep acting that employees engage in during work will influence well-being at the end of that day. Consistent with prior research, we do not expect that deep acting will affect emotional exhaustion. Therefore,

*Hypothesis 1:* Surface-acting during work will be: (a) positively related to emotional exhaustion and (b) negatively related to job satisfaction at the end of the work day.

*Hypothesis 2:* Deep acting during work will be positively related to job satisfaction at the end of the work day.

As Totterdell and Holman (2003) argued, mood is certainly an antecedent of emotional labor. By definition, for an employee to engage in emotion regulation, there must be an emotion present. Furthermore, the type of emotion regulation chosen could be guided by what mood one is already in. Rupp and Spencer (2006), for example, recently found that feelings of anger mediated between customer interactional justice and emotional labor, but unhappiness did not. But, as hinted earlier, it also seems likely that emotions are a consequence of emotional labor.

Hochschild (1983) asserted that surface and deep acting should result in emotional outcomes, and research on the emotional effects of emotion regulation further supports this notion.

Surface and deep acting may affect emotions asymmetrically. Theory and research support the idea that positive and negative affect are relatively independent (Judge & Larsen, 2001; Tellegen & Watson, 1999; Watson, Wiese, Vaidya, & Tellegen, 1999). Evidence suggests that variations in positive and negative affect reflect the operation of two separate motivational systems (Gray, 1987), the behavioral inhibition system (BIS) and the behavioral activation system (BAS). Because these systems and their neural substrates are independent, activation of one does not necessarily imply activation of the other. As Larsen (2000) argued, pleasant and unpleasant affect are two separate routes to subjective well-being that are triggered by different events and circumstances. For instance, moods tend to follow a daily pattern of fluctuations. There are periods during which both negative and positive affect rise whereas, at others, one drops only slightly while the other rises sharply (Watson et al., 1999). Thus, a stimulus might effectively increase positive mood with little effect on negative mood and vice versa. In fact, Gable, Reis, and Elliot (2000) found that positive daily events were linked to positive—but not negative—affect, whereas negative events were linked to negative—but not positive—affect. In keeping with this pattern of findings, we expect that surface acting will primarily influence negative emotion and deep acting positive emotion.

Grandey (2000) argued that surface acting corresponds to response-focused emotion regulation, one of two categories of emotion regulation proposed by Gross (1998). Response-focused strategies decrease behavioral responses to emotion and include exaggerated displays of felt emotion, suppression of emotional responses, or displaying an emotion opposite what one feels (i.e., expressive dissonance; Robinson & Demaree, 2007). There is little research on the affective outcomes of response-focused strategies other than suppression, which has been found to result in no change to underlying negative affect (see John & Gross, 2004). Nevertheless, as Grandey (2000) noted, lab studies of emotion regulation do not assess its effects in the context of complying with job requirements. Thus, they do not account for the additional influence of the unique aspects of the work environment. Hochschild (1983) viewed emotional labor as the commercialization of emotion management tactics that people normally use to attain valued social outcomes in their personal lives. This creates a sense of having one's expressions and emotions used as instruments—particularly among employees who engage in “phony” behavior—that leads to feelings of resentment. In addition, all three types of response-focused emotion regulation are associated with increased physiological arousal (Demaree, Schmeichel, Robinson, & Everhart, 2004; Gross & Levenson, 1997; John & Gross, 2004; Richards & Gross, 2006; Robinson

& Demaree, 2007)—even the exaggeration and suppression of positive emotions (Demaree et al., 2004; Gross & Levenson, 1997)—and physiological arousal is interpreted negatively in the absence of other information (Schachter & Singer, 1962). Thus, we expect that surface acting will intensify negative feelings.

On the other hand, deep acting entails an active effort to feel more positively in the course of customer service interactions. It may involve a range of antecedent-focused emotion regulation strategies, the other category in Gross' (1998) model. Some of these strategies—such as distraction seeking, reappraisal of the situation, and evocation of memories—can be effective in inducing positive moods (Joormann, Siemer, & Gotlib, 2007; Larsen, 2000). Finally, Grandey (2000) suggested that deep acting changes employees' perceptions of their emotions, if not their levels of physiological arousal.

*Hypothesis 3:* Surface acting during work will be positively related to negative affect at the end of the work day.

*Hypothesis 4:* Deep acting during work will be positively related to positive affect at the end of the work day.

#### *The Mediating Role of Affect*

The affective influences of emotional labor are important to understand because state affect contributes to daily variations in job satisfaction and other indicators of employee well-being beyond the effects of trait affect (Ilies et al., 2007; Judge et al., 2006). Therefore, state affect may be an important mediator of the effects of emotional labor on within-person changes in employee well-being. It may also help to explain why surface acting influences both job satisfaction and emotional exhaustion whereas deep acting, as we argued above, affects only the former. A meta-analysis by Thoresen et al. (2003) found that job satisfaction is slightly more strongly influenced by negative than positive affect but only negative affect is a predictor of emotional exhaustion. Thus, we believe that negative affect will mediate, in part, the relationships between surface acting and both job satisfaction and emotional exhaustion. Meanwhile, we expect that the relationship between deep acting and job satisfaction will be partially mediated by positive affect.

*Hypothesis 5:* Mood will partly mediate the relationship between emotional labor and the outcomes, such that: negative affect will partly mediate the relationship between surface acting and emotional exhaustion (Hypothesis 5a) and between surface acting and job satisfaction (Hypothesis 5b) whereas positive affect will partly mediate the

relationship between deep acting and job satisfaction (Hypothesis 5c).

### *Moderating Role of Extraversion*

There is building evidence that individual differences, such as identification with the organization (Schaubroeck & Jones, 2000) and self-efficacy (Heuven, Bakker, Schaufeli, & Huisman, 2006), could mitigate the effects of emotional labor. Nevertheless, there is still considerable ground to cover with respect to personality traits that might be influential. Bono and Vey (2007) suggested that research on personality moderators of the effects of emotional labor might be informed by trait-congruity theories, according to which individuals experience more positive subjective outcomes when they behave in a manner consistent with their trait (Little, 2000; Moskowitz & Côté, 1995). From this perspective, Extraversion seems the trait most likely to affect employees' responses to the demands of emotion work.

Bono and Vey (2007) argued that behaving in the positive manner required by most customer service jobs should be uplifting for extraverts, who tend toward positive emotion (Fleeson, Malanos, & Achille, 2002; Lucas & Fujita, 2000; McNeil & Fleeson, 2006). Their laboratory study resulted in mixed support for this idea. Extraverts told to act incongruently with their personality (i.e., irritated/angry) did not report significantly worse moods than those told to act trait congruently (i.e., enthusiastically) during a simulated customer service interaction; however, the heart rates and perceived stress of extraverts who behaved enthusiastically were lower. As the authors concluded, the task used in the study might have been too brief to capture the affective results of trait-incongruent behavior, echoing Grandey's (2000) point about the difficulty of assessing the effects of work-based emotion regulation in the laboratory. It was also not clear whether the extraverts in Bono and Vey's (2007) study were surface acting, deep acting, or already feeling the way they were told to. To assess the moderating influence of Extraversion on emotional labor outcomes, it is important to measure emotional labor itself.

Consistent with the trait-congruency argument, surface acting should be less negative for extraverts because they are not as strongly affected by the physiological arousal prompted by response-focused emotion regulation (Demaree et al., 2004; Gross & Levenson, 1997; John & Gross, 2004; Richards & Gross, 2006; Robinson & Demaree, 2007). There is evidence that introverts may respond less favorably to such arousal (Geen, 1984). Eysenck (1994) argues that this is because introverts have a more robust internal cortical stimulation system, meaning that arousal-inducing stimuli that are optimal for extraverts may actually overstimulate introverts.



Indeed, neuropsychological research demonstrates that introverts, at rest of “zero input,” are more cortically aroused than extraverts and that extraverts adapt better to high levels of arousal (Kumari, Ffytche, Williams, & Gray, 2004).

In addition, the feedback that extraverted employees receive from customers and coworkers when engaging in upbeat displays may confirm their views of themselves as outgoing and friendly, somewhat offsetting the dissonance created by behavior that is at variance with the underlying feelings. Individuals seek to confirm their self-perceptions of their level of Extraversion through their interactions with others (Swann & Ely, 1984). Considerable research guided by self-verification theory (Swann & Read, 1981) has found that people respond more positively when others see them as they see themselves (see Swann, 2005).

The idea that extraverts will receive feedback that actually mitigates the negative effects of surface acting is at odds with Côté’s (2005) social interaction model, which predicts that people react negatively to surface acting; however, perhaps they simply react less positively. Barger and Grandey (2006) found that customers mimicked food service workers’ smiles. They found that employees’ smile strength was positively correlated with the strength of the smiles customers gave in return, but the study did not address whether the smiles of the former were produced through surface or deep acting. Certainly, customers may smile less sincerely in response to employee smiles produced through surface acting, particularly if the surface acting attempt is not very successful. Nevertheless, extraverts are more reactive to positive stimuli (Larsen & Ketelaar, 1989, 1991), so even weak smiles from customers might be encouraging.

*Hypothesis 6:* Extraversion moderates the relationship of surface acting with negative affect and emotional exhaustion, such that surface acting will be less positively associated with negative affect (Hypothesis 6a) and emotional exhaustion (Hypothesis 6b) and less negatively associated with job satisfaction (Hypothesis 6c) for extraverts (than for introverts).

Just as surface acting results in less negative outcomes for extraverts, deep acting should generate more positive reactions. Given that extraverts are more emotionally responsive than introverts (Watson & Clark, 1997) and are more sensitive to positive stimuli (Larsen & Ketelaar, 1989, 1991), their efforts at mood repair should be less effortful and more successful. Moreover, research suggests that Extraversion is positively correlated with self-deceptive enhancement (Pauls & Stemmler, 2003), suggesting that extraverts would be more easily able to convince themselves that they are actually feeling the desired emotions. Finally, the self-verification effects

of deep acting might be even stronger than those of surface acting for extraverts. Given that deep acting is also more convincing (Grandey, 2003), it should elicit more positive, unambiguous reactions from others, providing stronger confirmation to extraverts of their self-views.

*Hypothesis 7:* Extraversion moderates the relationship of deep acting with positive affect and job satisfaction, such that deep acting will be more positively associated with positive affect (Hypothesis 7a) and job satisfaction (Hypothesis 7b) for extraverts (than for introverts).

### *Method*

#### *Sample and Procedure*

Participants were 127 employees located in organizations throughout 25 different states in the United States. These individuals were employed in customer service roles and worked an average of 38 hours per week ( $SD = 10.6$ ). Participants had an average of 7.1 years experience in their field ( $SD = 6.2$ ) and an average tenure at their organization of 3.7 years ( $SD = 3.1$ ). The sample was predominantly Caucasian (63.0%), followed by Asian (22.8%), Hispanic (7.9%), and African American (4.7%). One person (1.6%) reported their race as "other." The average age of the sample was 30.2 years ( $SD = 9.5$ ). The majority of respondents were female (55.6%).

Participants were recruited using advertisements placed in a local campus newspaper and a national classified ad Web site. The local campus newspaper ad targeted working students or university employees, and the national ad sought participation from working individuals in general. Both ads directed participants to sign up at a particular Web site, which also gave requirements and further details for the study. Participants were required to be at least 18 years, work at least 20 hours per week, work directly with the public, and have internet access at their place of employment. The study was described on the Web site as an examination of the emotional reactions of customer service employees. Individuals were also notified on the site that the information to be provided would be about personality, attitudes, and beliefs about themselves and work in general. After completing an online information form that included an e-mail address, participants received detailed instructions and randomly generated participant identification (ID) numbers via e-mail. Approximately 230 individuals signed up to participate and received e-mailed instructions. Of these, 127 people participated in the study, yielding an initial response rate of 55%. The drop in participation may have been due to the fact that

some of the participants may not have received the e-mail or elected not to provide the payment information we required. Data collection took place in two waves. One group of 86 participants participated for 7 days, and then another group of 41 participants completed the study over another 7-day period. Participants received \$50 as compensation for completing the study.

In order to investigate dynamic, within-individual processes, we used an experience-sampling or daily diary design, a methodological approach Gosserand and Diefendorff (2005) explicitly called for in future emotional labor research. Participants were asked to complete online surveys over the course of a 7-day period. The 7-day time frame was selected to allow participants who worked weekends to complete the surveys on Saturday and Sunday. Those who did not work weekends completed the surveys Monday through Friday. After completing an online consent form indicating their voluntary and confidential participation, participants were allowed to begin the study.

Participants completed a brief daily survey at least 4 days over the course of the study and were instructed to complete the daily survey as close as possible to the end of the workday. The daily survey assessed participants' deep and surface acting, job satisfaction, emotional exhaustion, and mood state. Participants also completed emotional labor, personality, job attitude, and demographic measures on a longer one-time survey that could be completed any time during the study. Each time the participant accessed the survey, they were prompted to enter their unique participant ID number. Any identifying information provided by the participants, such as names and addresses, was used solely for compensation purposes. This, along with the unique participant ID number, allowed participants to maintain complete confidentiality for the study.

Participants were asked to have a significant other complete an online survey about them once during the course of the study. Participants were notified that a significant other should be someone that knew them well and could be a friend, spouse, relative, or coworker. Because all surveys were linked through one central Web site, participants directed their significant others to the site to click on the appropriate link. Prior to completing the survey, significant others completed an online consent form and confidentiality agreement. Significant-other surveys included a measure of the participant's personality. Participants supplied their unique participant ID number to their significant other so we could match responses accordingly. To deter participants from completing the significant other measures themselves, we advised participants that Internet Protocol (IP) addresses and time and date stamps from the survey would be compared to check for suspect data. Participants were also asked to provide the name and e-mail address of the significant other. Upon examining the data, we noticed that

one individual appeared to have filled out all of the surveys (including the five daily surveys) within 20 minutes of each other. The IP addresses for each of these responses matched one another, so we dropped this suspect data from subsequent analyses.

We obtained 398 usable responses to the daily surveys of a possible 635 responses, yielding a 62.7% response rate across time periods and individuals. Participants completed an average of 4.5 daily surveys ( $SD = 1.9$ ).

### Measures

*Emotional exhaustion.* We measured emotional exhaustion by combining nine items from two separate measures—six from the Maslach Burnout Inventory (Maslach & Jackson, 1986) and three from the Shirom-Melamed Burnout Measure, or SMBM (Shirom, 2003). We chose to combine the two measures to broaden the scope of emotional exhaustion to include customers and coworkers as a potential source of exhaustion. Specifically, the MBI primarily focuses on the individual's feelings about one's work, whereas the SMBM includes similar items but more in regard to one's feelings of emotional exhaustion with respect to customers and coworkers. Due to the customer service employee focus of our article, we chose to incorporate items from both scales into our analysis. An exploratory factor analysis revealed that all scale items adequately loaded onto one factor. Participants were asked to indicate how often they felt each of the items that day, using a 5-point Likert-type scale with anchors of 1 = *never* to 5 = *always*. Sample items included "feel emotionally drained from your work," "feel not capable of investing emotionally in coworkers and customers," and "feel that working with people all day is a strain for you." Coefficient alpha for this scale, computed by averaging the reliability of the scale across the 5 days, was  $\bar{\alpha} = .95$ .

*Job satisfaction.* Daily job satisfaction was measured with the five-item version of the Brayfield and Rothe (1951) scale. Employees indicated, using a 1 = *strongly disagree* to 5 = *strongly agree* scale, the degree to which, on that day, they felt satisfied with their job. Sample items included, "felt enthusiastic about my work," and "the day at work seems like it will never end" (reverse scored). Average coefficient alpha for this scale, computed in the same way as the measure of emotional exhaustion, was  $\bar{\alpha} = .82$ .

*Positive and negative affect.* Positive and negative affect were measured using the Positive and Negative Affect Schedule—Expanded Form (PANAS-X; Watson, Clark, & Tellegen, 1998). Participants were asked to indicate the extent to which they felt each of the 20 items reflecting the general dimension scales of positive and negative affect. Individuals were

instructed to indicate how they felt “at work at that moment.” Sample positive affect items included, “excited,” “alert,” “cheerful,” “determined,” and “happy.” Coefficient alpha for the 10-item positive affect scale was  $\bar{\alpha} = .96$ . Among the negative affect scale items were “sad,” “scornful,” “nervous,” “stressed,” and “irritable.” The 10-item negative affect scale had a coefficient alpha of  $\bar{\alpha} = .95$ .

*Deep and surface acting.* We used the three-item subscales from Brotheridge and Lee’s (1998) Emotional Labor Scale to measure both deep and surface acting. Respondents were asked to indicate how often they had engaged in each of the activities on that day at work using a 5-point Likert-type scale of 1 = *never* to 5 = *always*. The three items measuring surface acting were “resist expressing your true feelings,” “pretend to have emotions that you didn’t really have,” and “hide your true feelings about a situation.” The three items for the deep acting scale were “make an effort to actually feel the emotions that you needed to display to others,” “try to actually experience the emotions that you must show,” and “really try to feel the emotions you have to show as part of your job.” Internal consistency reliability analysis for the daily measures revealed coefficient alphas of  $\bar{\alpha} = .91$  for both surface and deep acting.

*General or trait positive and negative affect.* General positive and negative affect was assessed by averaging each participant’s daily reports of state positive and negative affect. Thus, each daily report of positive and negative affect becomes an item in the scale. The reliability of this five-item scale was  $\alpha = .93$  for positive affect and  $\alpha = .92$  for negative affect.

*Extraversion.* We measured Extraversion using Saucier’s Mini-Markers (1994). Significant others were instructed to indicate, using a 9-point Likert-type scale (1 = *extremely inaccurate*, 9 = *extremely accurate*), how accurately several adjectives described the participant. Sample adjectives include “bold,” “talkative,” “bashful” (reverse scored), “extraverted,” and “quiet” (reverse scored). Coefficient alpha of the eight-item scale was  $\alpha = .70$ . Although we used the significant-other reports of Extraversion in our analyses, employees also completed Saucier’s (1994) measure of Extraversion using the same scale. Dual accounts allowed us to conduct an internal reliability analysis between the significant-other and employee-reported Extraversion.<sup>1,2</sup> Our results revealed an

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<sup>1</sup>Based on emotional labor research using between-individual designs (Abraham, 1998, 1999a; Brotheridge & Grandey, 2002), we also control for general or trait positive and negative affect in all analyses such that the associations between all variables are net of individuals’ general levels of positive and negative affect.

<sup>2</sup>For self and other reports of Extraversion, ICC(1) = .75. Self-ratings of Extraversion yielded the same results as other-ratings (i.e., the HLM estimates were very similar, and the significance did not change for any estimate).

intraclass correlation of  $ICC(2) = .87$ . These results are consistent with Bliese (2000) who suggested that  $ICC(2)$  values should be greater than .70. Although trait theories of Extraversion have important differences, and there is a continuing debate about the facets of Extraversion (Ashton, Lee, & Paunonen, 2002; Lucas, Diener, Grob, Suh, & Shao, 2000), global measures of Extraversion, like the one used here, do show high convergent validities (e.g., Gosling, Rentfrow, & Swann, 2003).

### *Results*

#### *Analyses*

To model the relationships among the experience sampled and dispositional variables, we estimated hierarchical linear models (Bryk & Raudenbush, 1992; Snijders & Bosker, 1999) using HLM 5 (Raudenbush, Bryk, Cheong, & Congdon, 2000). In this study, the first level of analysis (Level 1) includes repeated measures over time of surface and deep acting, positive and negative affect, and emotional exhaustion and job satisfaction. The second level of analysis (Level 2) includes significant other reports of Extraversion (and, as controls, general or trait positive and negative affect).

In order to interpret the estimates as representing strictly within-individual effects, we group-centered the predictor variables at each individual's mean (Hofmann, Griffin, & Gavin, 2000). Group-mean centering (in the context of this study, a more descriptive label would be "individual-mean centering") removes any between-individual variance in estimating within-individual relationships among the Level-1 variables, meaning that the relationships among the within-individual variables are not confounded by personality or other individual differences. Despite its advantages in making causal inferences, group-mean centering does not remove possible ambiguities in causal directions between level-1 variables. Accordingly, we refrain from using causal language wherever possible.

#### *Within- and Between-Individual Variance in ESM Variables*

Before testing the linkages in the hypothesized model, we investigated whether systematic within- and between-individual variance exists in the experience-sampled (ESM) variables by estimating a null model for each variable. The null model provides estimates of within- and between-individual variance for the variable under study (Bryk & Raudenbush, 1992). Provided that the test of the null model reveals that there is

TABLE 1  
*HLM Variability Estimates of, and Correlations Among, Within-Individual (Level-1) Variables*

Variable	$\gamma_{00}$	$\rho^2$	$\tau_{00}$	% within	1	2	3	4	5	6
1. Surface acting	2.573**	.380	.588**	39.3%	1.00					
2. Deep acting	3.093**	.317	.684**	31.7%	.20**	1.00				
3. Negative affect	2.324**	.084	.183**	31.5%	.25**	.04	1.00			
4. Emotional exhaustion	2.258**	.217	.558**	28.0%	.36**	-.05*	.19**	1.00		
5. Positive affect	2.874**	.158	.394**	28.6%	-.16**	.29**	.37**	-.28**	1.00	
6. Job satisfaction	3.565**	.226	.426**	34.6%	-.30**	.15**	-.03	-.59**	.40**	1.00

*Notes.*  $\gamma_{00}$  = pooled intercept representing average level of dependent variable across individuals.  $\rho^2$  = within-individual variance in dependent variable.  $\tau_{00}$  = between-individual variance in dependent variable. Percentage variability within-individual (% within) is computed as:  $\frac{\rho^2}{(\rho^2 + \tau_{00})}$ . Within-individual correlations among Level-1 variables were computed by  $\frac{B_{A \rightarrow B} \times SD_B}{SD_A}$ , where  $B_{A \rightarrow B}$  = HLM coefficient of variable A predicting variable B, and  $SD_B$  and  $SD_A$  are the within-individual standard deviations of A and B, respectively. \* $p < .05$ . \*\* $p < .01$ .

significant within- and between-individual variance in the criterion, tests of the Level-1 and Level-2 relationships are appropriate.

The null model results and attendant variance partitioning are provided in Table 1. As shown in the table, the null model results indicated that there was significant ( $p < .01$ ) between-individual variance in each of the variables and that a substantial proportion ( $p + \rho^2 / [\rho^2 + \tau_{00}]$ ) of the total variance in the variables was within-individual. Specifically, 39% and 32% of the variance in surface and deep acting was within-person, respectively, 28% of the variance in emotional exhaustion was within-individual, 35% of the variance in job satisfaction was within-person, and 29% and 32% of the variance in positive and negative affect, respectively, was within-person. Though these percentages are, in some cases, lower than what has been found in past research (e.g., Ilies et al., 2006, 2007; Judge et al., 2006), they are only slightly lower. Thus, overall, the results suggest that hierarchical modeling of these data are appropriate and that there is within-person variability in these concepts to be potentially explained. Table 1 also reports the correlations among the Level-1 variables.

TABLE 2  
*HLM Estimates of Relationship of Surface Acting With Negative Affect  
 and With Emotional Exhaustion*

	Negative affect		Emotional exhaustion	
	B coefficient	T-value	B coefficient	T-value
<i>Intercept</i> ( $\beta_0$ )	.0037*	2.479*	2.3723**	9.445**
General positive affect ( $\beta_{01}$ )	.0005	.811	-1.4519**	-16.455**
General negative affect ( $\beta_{02}$ )	.9976**	111.810**	1.7471**	12.719**
<i>Surface acting</i> ( $\beta_1$ )	.3535*	2.500*	.6341**	3.141**
Extraversion—SOR ( $\beta_{11}$ )	-.0552*	-2.349*	-.0736**	-2.322**
<i>Deep acting</i> ( $\beta_2$ )	-.4131**	-3.144**	.2915	1.222
Extraversion—SOR ( $\beta_{21}$ )	.0691**	2.813**	-.0670	-1.548

Notes. B coefficients are unstandardized HLM coefficients. Models were based on 398 data points. SOR = significant other reported on employee. \* $p < .05$ . \*\* $p < .01$ .

TABLE 3  
*HLM Estimates of Relationship of Deep Acting With Positive Affect  
 and With Job Satisfaction*

	Positive affect		Job satisfaction	
	B coefficient	T-value	B coefficient	T-value
<i>Intercept</i> ( $\beta_0$ )	.0021	1.045	2.4635**	11.959**
General positive affect ( $\beta_{01}$ )	.9983**	143.654**	1.2561**	16.157**
General negative affect ( $\beta_{02}$ )	.0011	.943	-1.0827**	-9.102**
<i>Surface acting</i> ( $\beta_1$ )	.0300	.167	-.4650*	-2.079*
Extraversion—SOR ( $\beta_{11}$ )	-.0215	-.689	.0443	1.231
<i>Deep acting</i> ( $\beta_2$ )	-.4345*	-2.512*	-.3311	-1.067
Extraversion—SOR ( $\beta_{21}$ )	.0948**	3.127**	.0855	1.487

Notes. B coefficients are unstandardized HLM coefficients. Models were based on 398 data points. SOR = significant other reported on employee. \* $p < .05$ . \*\* $p < .01$ .

### *Test of Hypotheses*

To test the hypotheses linking surface and deep acting to positive and negative affect and to emotional exhaustion and job satisfaction, we specified a series of HLM regressions. In each regression, general or trait positive and negative affect were controlled by using these variables to predict the intercept for each dependent variable.

The results testing Hypothesis 1a (relationship between surface acting and emotional exhaustion) are shown in Table 2. As the table shows, surface acting positively predicted emotional exhaustion ( $\beta_1 = .634$ ;  $p < .01$ ), supporting Hypothesis 1a. Hypothesis 1b predicted that surface acting would be negatively related to job satisfaction. As shown in Table 3,



surface acting did negatively predict job satisfaction ( $\beta_1 = -.465$ ,  $p < .05$ ), supporting Hypothesis 1b.

Hypothesis 2 predicted that deep acting would be positively related to job satisfaction. As shown in Table 3, this hypothesis was not supported in that deep acting did not significantly predict job satisfaction ( $\beta_2 = -.331$ , *ns*). Hypothesis 3 predicted that surface acting would be positively related to negative affect. As shown in Table 2, this hypothesis was supported in that surface acting did positively predict negative affect ( $\beta_1 = .354$ ,  $p < .05$ ). In Hypothesis 4 we predicted that deep acting would be positively related to positive affect. As shown in Table 3, this hypothesis was not supported. Indeed, deep acting significantly *negatively* predicted positive affect ( $\beta_2 = -.435$ ,  $p < .05$ ).

To test Hypothesis 5, the mediating effect of mood on the relationships between emotional labor and emotional exhaustion and job satisfaction, we adapted the Baron and Kenny (1986) mediational logic to this study. Based on Baron and Kenny (1986), to show mediation in our study, four results are required: (a) a relationship between surface (or deep) acting and emotional exhaustion (or job satisfaction); (b) a relationship between surface (or deep) acting and negative (or positive) affect; (c) a relationship between negative (or positive) affect and emotional exhaustion (or job satisfaction); and (d) the relationship between surface (or deep) acting and emotional exhaustion (or job satisfaction) decreases once negative (or positive) affect is controlled.

To test this mediational process, we specified two additional HLM regressions (adding positive and negative affect) and compared them to previous results (without these predictors—see Tables 2 and 3). The results of this two-step analysis are provided in Table 4 (where for emotional exhaustion and job satisfaction, the first sets of results merely reproduce the results in Tables 2 and 3). For surface acting, as Table 4 shows, Step 1 was supported in that surface acting, in the “Before PA/NA” results, was related to emotional exhaustion and to job satisfaction. Step 2 was partially supported—whereas surface acting was positively related to negative affect (Table 2), it did not predict positive affect (Table 3). Step 3 is supported by the second set of regression results reported in Table 4, showing that state negative affect and state positive affect predicted emotional exhaustion and job satisfaction in the expected directions. Finally, as shown by results in Table 4, state affect mediated slightly more than half of the association between surface acting and emotional exhaustion and slightly less than half of the association between surface acting and job satisfaction.

The mediational process worked less well for deep acting; indeed, not even the first test was passed in that deep acting did not significantly predict

TABLE 4  
*Mediating Role of Positive and Negative Affect (PA/NA) in Relationship Between  
 Surface and Deep Acting With Outcomes*

	Emotional exhaustion			Job satisfaction		
	Before PA/NA	After PA/NA	% mediated	Before PA/NA	After PA/NA	% mediated
Intercept ( $\beta_0$ )	2.3723**	2.3726**	—	2.4635**	2.4421**	—
General positive affect	-1.4519**	-1.4520**	—	1.2561**	1.2546**	—
General negative affect	1.7471**	1.7468**	—	-1.0827**	-1.0722**	—
State positive affect ( $\beta_1$ )	—	-.7751**	—	—	.7786**	—
State negative affect ( $\beta_2$ )	—	1.0822**	—	—	-.8935**	—
Surface acting ( $\beta_3$ )	.6341**	.2830	55.37	-.4650*	-.2522	45.76
Deep acting ( $\beta_4$ )	.2915	.3879	0	-.3311	-.2169	34.49

*Notes.* Coefficients are unstandardized HLM coefficients. Models were based on 398 data points. The mediation for the deep acting—emotional exhaustion relationship was set to zero because the results suggest a suppressor effect (the relationship grew stronger after the mediating variables were added). \* $p < .05$ . \*\* $p < .01$ .

job satisfaction, either before or after controlling for positive affect. Thus, although the mediation hypotheses for surface acting (Hypotheses 5a and 5b) were supported, the mediation hypothesis for deep acting (Hypothesis 5c) was not supported by the results.<sup>3</sup>

In Hypothesis 6, we predicted that Extraversion would moderate the relationship of surface acting with negative affect (Hypothesis 6a), emotional exhaustion (Hypothesis 6b), and job satisfaction (Hypothesis 6c). As is shown in Table 2, Hypothesis 6a and Hypothesis 6b were supported in that Extraversion did predict the slope of the relationship of surface acting with negative affect ( $\beta_{11} = -.055$ ,  $p < .05$ ) and emotional

<sup>3</sup>Because Hypothesis 5a pertained only to the mediating effect of negative affect, and yet in the results in Table 4 both positive and negative affect were entered, we repeated these analyses including only negative affect. The mediation due to negative affect was 37.07% for emotional exhaustion, somewhat less than the 55.37% reported in Table 4. Thus, though negative affect explains more (37.07/55.37 = 67%) of the relationship between surface acting and emotional exhaustion, some of this relationship is explained by positive affect as well. (We did not repeat this analysis for the deep acting—positive affect—job satisfaction relationship because the mediation effect was not supported.)

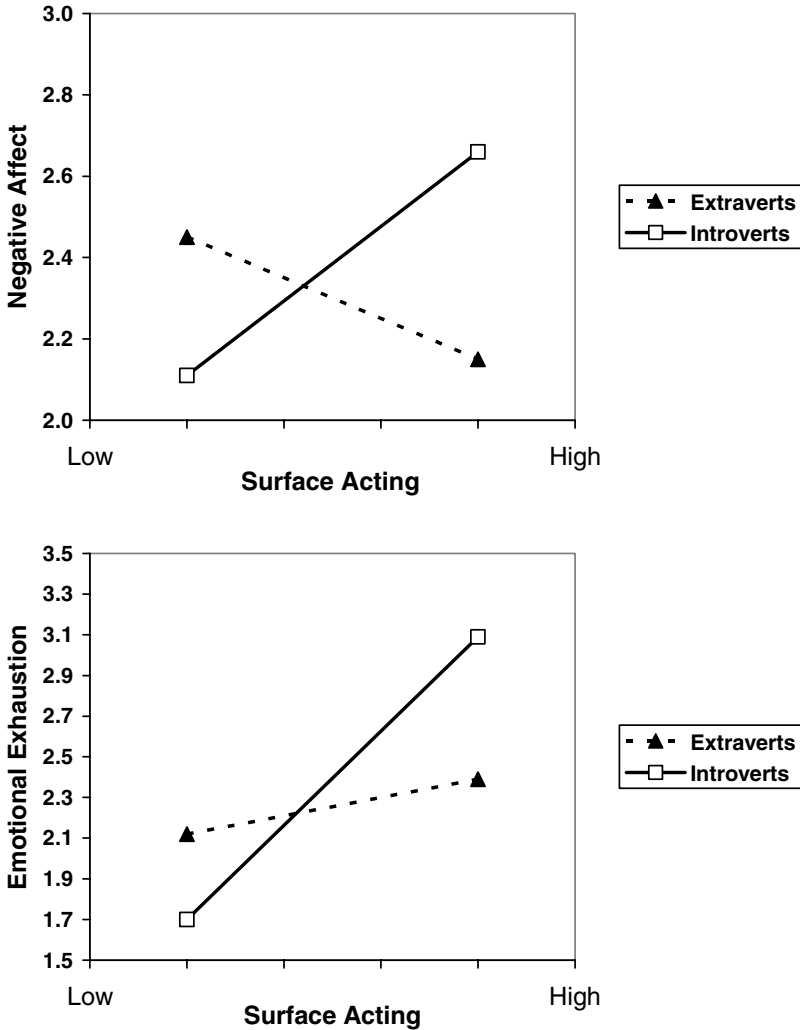
exhaustion ( $\beta_{11} = -.074, p < .01$ ). The forms of these interactions are shown in Figure 2. As was hypothesized, the top half of the figure shows that whereas surface acting was associated with lower negative affect for extraverts, it was associated with higher negative affect for introverts. Similarly, in the bottom half of Figure 2, whereas surface acting was associated with increased emotional exhaustion for both introverts and extraverts, the association was significantly stronger for introverts, meaning that surface acting was more emotionally exhausting for introverts than for extraverts. As for Hypothesis 6c, as shown in Table 3, it was not supported in that Extraversion did not predict the slope of the surface acting—job satisfaction relationship ( $\beta_{11} = .044, ns$ )

Hypothesis 7 predicted that Extraversion would moderate the relationship of deep acting with positive affect (Hypothesis 7a) and job satisfaction (Hypothesis 7b). As shown in Table 3, Hypothesis 7a was supported in that Extraversion predicted the deep acting—positive affect slope ( $\beta_{21} = .095, p < .01$ ). As shown in the top half of Figure 3, whereas deep acting was associated with lower levels of positive affect for introverts, for extraverts, deep acting was associated with higher levels of positive affect.<sup>4</sup>

Results did not support Hypothesis 7b; as shown in Table 3, Extraversion did not predict the slope of the relationship between deep acting and job satisfaction ( $\beta_{21} = .086, ns$ ). However, two nonhypothesized results for deep acting were found. Specifically, as shown in Table 2, deep acting had a negative “main effect” on negative affect ( $\beta_2 = -.413, p < .01$ ), meaning that deep acting was associated with reduced levels of negative affect. Moreover, also as shown in Table 2, Extraversion did predict the slope of the relationship between deep acting and negative affect ( $\beta_2 = .069, p < .01$ ). The form of this interaction is shown in the bottom half of Figure 3. As the graph shows, the relationship was such that whereas deep acting was associated with decreased negative affect for introverts, it was associated with higher negative affect for extraverts.

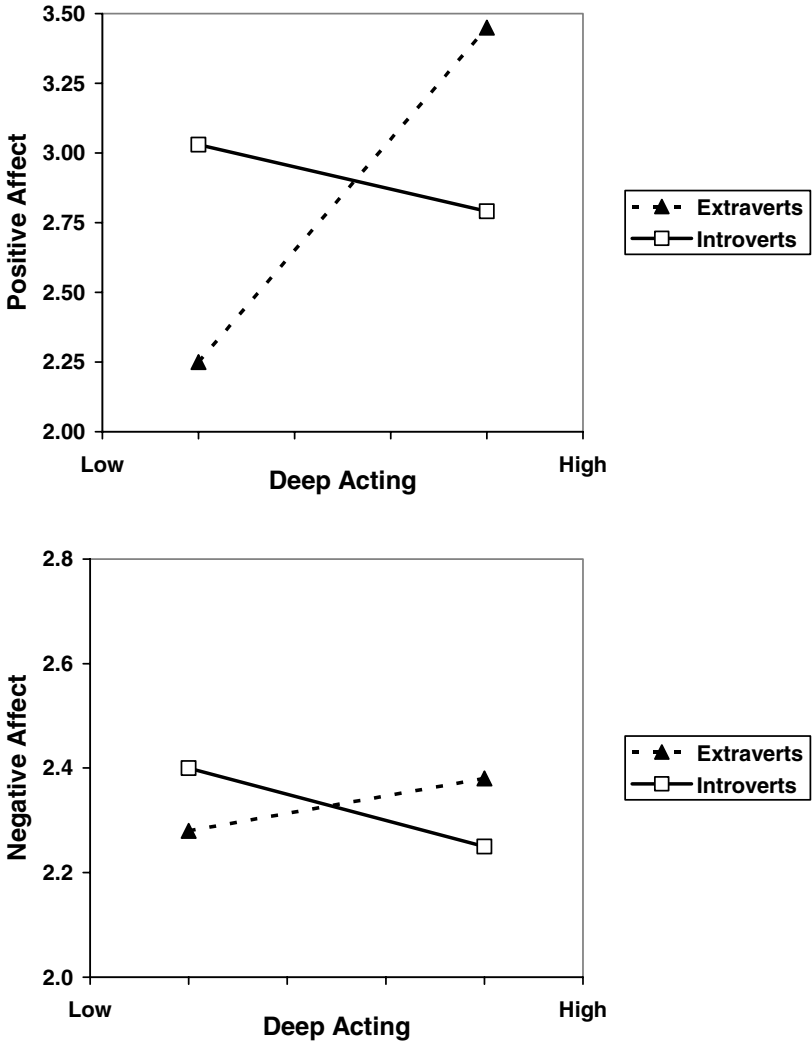
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<sup>4</sup>As we noted earlier in the article, some research has investigated the effect of Extraversion of surface and deep acting (Diefendorff et al., 2005; Diefendorff & Richard, 2003). Though that was not our focus here, on an exploratory basis we investigated whether Extraversion was related to the degree to which participants engaged in surface or deep acting, in two ways. First, we specified an HLM model where Extraversion predicted the intercepts of (between-individual differences in) surface and deep acting. The results of this analysis revealed that Extraversion did not significantly predict the intercept for either surface ( $B = -.028, T = -.512, p = .610$ ) nor deep ( $B = .053, T = .066, p = .423$ ) acting. Second, we aggregated the surface and deep acting measures over time, and correlated them with Extraversion. These results also revealed that Extraversion was related to neither surface ( $r = -.04, p = .75$ ) nor deep ( $r = .09, p = .43$ ) acting.



Note. Extraverts = 1 standard deviation above the mean on Extraversion. Introverts = 1 standard deviation below the mean on Extraversion.

Figure 2: Moderating Role of Extraversion in the Relationship Between Surface Acting and Negative Affect (Top Half) and the Relationship Between Surface Acting and Emotional Exhaustion (Bottom Half).



Note. Extraverts = 1 standard deviation above the mean on Extraversion. Introverts = 1 standard deviation below the mean on Extraversion.

Figure 3: Moderating Role of Extraversion in the Relationship Between Deep Acting and Negative Affect (Top Half) and the Relationship Between Deep Acting Positive Affect (Bottom Half).

Finally, there were a few other nonhypothesized results. In a number of cases, trait or general positive and negative affect predicted the intercepts of the dependent variables. As is shown in Table 2, general positive affect negatively predicted the intercept of emotional exhaustion ( $\beta_{01} = -1.45$ ,  $p < .01$ ), meaning that individuals with high trait positive affect were less likely to experience exhaustion. Similarly, also as shown in Table 2, general negative affect positively predicted the intercepts of negative affect ( $\beta_{02} = .998$ ,  $p < .01$ ) and emotional exhaustion ( $\beta_{02} = 1.75$ ,  $p < .01$ ), meaning that individuals with high trait negative affect were more likely to experience negative affect and exhaustion. As shown in Table 3, general positive affect positively predicted the intercepts of positive affect ( $\beta_{01} = .998$ ,  $p < .01$ ) and job satisfaction ( $\beta_{01} = 1.26$ ,  $p < .01$ ), meaning that individuals high in trait affect had higher average levels of positive affect and job satisfaction. In addition, as shown in Table 3, negative affect negatively predicted the job satisfaction intercept ( $\beta_{02} = -1.08$ ,  $p < .01$ ), meaning that those high on trait affect had lower average levels of job satisfaction. None of these results were unexpected and, indeed, justified our decision to include general positive and negative affect as control variables.

### *Discussion*

The results of this study suggest that emotional labor is a dynamic process, wherein the use and consequences of emotional labor vary between-individuals *and* within-individuals. Each of the emotional labor variables studied, as well as their outcomes, had significant between- and within-individual variance (see Table 1). Recently, Fleeson (2004) contrasted the person and situation perspectives in psychology, wherein "The person argument is that, because behavior is determined in large part by a person's traits, a given individual will act similarly much of the time . . . the situation argument is that, because the immediate situation is the primary determinant of behavior, a given individual will act very differently on different occasions" (p. 83). Our results support both of these perspectives; individuals in our sample differed from one another in their tendency to engage in emotional labor and in the effects of emotional labor on them. However, there also was significant variability within people, such that most people varied in the degree to which they engaged in emotional labor, and its associations with other variables, on a daily basis.

Within-individual variation is particularly important to this study. As Tschan, Rochat, and Zapf (2005, p. 215) argued, there is a need in research on emotion work to "bridge the gap between daily experiences, their overall perception, and their potential long-term effects." It is one thing, though, to find within-individual variation. It is another to interpret it. As Schmidt, Le, and Ilies (2003) noted, transient error exists in most

psychological measures. Thus, to separate systematic within-individual variability from transient error, one must be able to predict the within-individual variability with variables that are substantively interpretable. Although certainly not all of the variability in emotional labor concepts was within-individual—nor was this study able to predict all of the within-individual variance—we did find that within-individual variation in emotional labor was predicted at Level 1 and at Level 2.

Specifically, at Level 1, we found the degree to which individuals engaged in surface acting, on a daily basis, was associated with increased emotional exhaustion and negative mood, and with decreased job satisfaction. Moreover, results indicated that negative mood partially explained the relationship of surface acting with emotional exhaustion and job satisfaction. Although the causal direction of this mediational relationship is open to question (see Limitations), the results may illuminate one mechanism that explains the relationship between surface acting and higher levels of emotional exhaustion and lower levels of job satisfaction.

As with research using between-individual designs (see Bono & Vey, 2005), the evidence for the relationship between deep acting and job outcomes was less consistent. Although we neither expected nor found a relationship with emotional exhaustion, we were surprised by the finding that there was also no significant association between deep acting and job satisfaction. Interestingly, deep acting was significantly related to decreased positive *and* negative affect. Thus, although deep acting is associated with fewer bad moods, it also appears, on a within-individual basis, to be associated with fewer positive moods.

Affect change is not always easily accomplished (Hemenover, 2003), and attempts at affect regulation do not always go as intended (Larsen, 2000). Thus, in their efforts to reduce their experience of negative mood, individuals may unintentionally reduce their positive mood as well. Although speculative, it would be interesting for future research to examine this possibility, whether reducing negative emotions may have a “side effect” of reducing positive emotions as well. It is also possible that the mood effects of deep acting depend on the emotion being regulated, the method of emotion regulation being used (Côté, 2005), and the individual’s regulatory skills.

Given the null results for deep acting and emotional exhaustion and job satisfaction, it is possible that the inconsistent or null results observed for deep acting that have frequently been observed in the literature (Diefendorff et al., 2005; Goldberg & Grandey, 2007) might be explained by moderator variables. Although surface acting has been more consistent in its effects in the emotional labor literature (Bono & Vey, 2005), its effect, too, may be intensified by moderator variables. Indeed, the other important general finding was, at Level 2, the interaction between within-individual and between-individual variation in that Extraversion was a

moderator of within-individual variation. Broadly speaking, we found that emotional labor is generally more difficult and less rewarding for introverts compared to extraverts. The results indicated that surface acting was more strongly related to increased emotional exhaustion and negative affect for introverts than for extraverts, whereas deep acting was related to increased positive affect—but also more strongly related to increased negative affect—for extraverts than for introverts.

Taken together, the results suggest that extraverted individuals were more sensitive to both the positive and negative emotional effects of deep acting. Given that extraverts are more reward sensitive (Lucas et al., 2000), and may be more emotionally reactive (Bartussek, Becker, Diedrich, Naumann, and Maier, 1996), perhaps these findings reflect the degree to which extraverts are aroused by deep acting. In short, perhaps Extraversion has a catalytic effect on deep acting (at least in terms of emotions), such that the effects are “deeper” for extraverts than introverts. In Eysenck’s (1981) theory of Extraversion, extraverts are more “arousable” (more easily aroused) than introverts. Bartussek et al. (1996) noted: “Extraverts are more susceptible to *all* emotional stimuli regardless of the emotional valence” (p. 312). Because high levels of positive and negative affect are both forms of activated affect (Watson & Tellegen, 1999), and indeed arousal or engagement is what positive and negative affect have in common (Tellegen, Watson, & Clark, 1999), one interpretation of these findings for deep acting is to support Eysenck’s theory of Extraversion in that deep acting is a stimulus that is more arousing for extraverts, and thus more likely to be reflected in elevated positive and negative affect. However, given that evidence on the overall emotional reactivity of extraverts is mixed (Lucas & Baird, 2004), further research on this issue is needed.

### *Practical Implications*

Beyond the theoretical implications of the results discussed earlier, this study also has several important practical implications for individuals and organizations. Perhaps the most obvious practical implication is for Extraversion. The better performance of extraverts in sales positions (Vinchur, Schippmann, Switzer, & Roth, 1998) has been interpreted to follow from their sociability and reward sensitivity (Barrick, Stewart, & Piotrowski, 2002). Our results suggest another job-related quality of extraverts—that they generally are better able to handle the emotional demands that service jobs impose. The Extraversion results also have implications for individuals. Models of occupational choice suggest that extraverts should select themselves into social occupations, where emotional labor is undoubtedly more common. Barrick, Mount, and Gupta (2003) found that Extraversion was positively related to preference for social occupations. Our results suggest a possible reason underlying this



preference. Extraverts may prefer social occupations because they can better handle, and even benefit from, the emotional demands these jobs entail.

Although our results point to the potential benefits of selection for employers and job seekers, they also suggest that the “emotional labor problem” will not be fully solved by focusing on individual differences. Even holding individual differences constant, engagement in surface acting was associated with greater emotional exhaustion and negative affect, and reduced job satisfaction, on a daily basis. Although organizations are unlikely to abandon standards for emotional expression due to the difficulties they may pose for employees, they can contemplate actions that may increase employees’ emotional resources (Zapf, 2002). Organizations might train employees to increase their emotional resources by, for example, showing them how to frame customer demands as challenges rather than threats (Schneider, 2004). Alternatively, organizations could persuade employees that it is in their own interests to attempt to actually experience the expected emotions (which, of course, is true in the sense that deep acting appears to generate less negative reactions than surface acting). Because of the relatively detrimental effects of surface versus deep acting, perhaps organizations should emphasize “feeling rules” (Salmela, 2005) over “display rules”—in short, to encourage employees to actually experience the expected emotions. Although, of course, organizations cannot control the actual emotions experienced by employees, they can strive to increase the concordance (or minimize the discord) between expected and felt emotions.

#### *Limitations and Future Research*

Several limitations that point to potential areas for future research are evident. Our research is somewhat limited by our not having considered job- and organizational-level effects on emotional labor. Future research should build on these results by testing more complex hierarchical models, which could decompose variance into between-occupation, between-job, between-individual, and within-individual. Tests of such models might well reveal interactions between the various levels. The effects of deep and surface acting, for example, may vary depending on the norms for such behavior in an organization. If an organization places a heavy weight on “emotional branding” (Thompson, Rindfleisch, & Arsel, 2006), or fostering emotional connections between employees and customers, it may lead to easier acceptance of display rules, and more favorable effects of deep and surface acting. Testing such a hypothesis might require a three-level study.

Second, although this study included several relevant criteria, other criteria could be examined, such as job performance and customer service/satisfaction. Though previous emotional labor research has studied job or task performance (e.g., Goldberg & Grandey, 2007; Totterdell & Holman, 2003), or customer satisfaction (e.g., Dormann & Kaiser, 2002; Hennig-Thurau, Groth, & Paul, 2006), we are aware of only one study linking within-individual variation in emotional labor to job performance (Beal, Trougakos, Weiss, & Green, 2006). Undoubtedly the difficulty of collecting daily measures for performance or customer satisfaction in many studies explains why more such studies have yet to appear in the literature. However, given that emotional labor is based on performance expectations, often in a service environment (Grandey, 2000), these are important criteria to include in future research.

Third, though we looked at a dispositional moderator variable with some success, it would be worthwhile for future research to address situational moderators. For example, do the affective consequences of emotional labor depend on the demands of the work day? Surface acting may be particularly exhausting on a busy work day, whereas deep acting may be more rewarding when one has time to reflect (e.g., when the work day is less busy). Thus, future research should investigate work demands as possible moderators of the relationships observed in this study.

Fourth, although we were careful to use independent measures where possible (significant other measures of Extraversion), the Level-1 relationships were measured via daily self-reports. Because the observations were individual-mean centered, any individual difference that may have biased the relationships was removed. These efforts (significant-other reports of Extraversion, individual-mean centering), however, do not resolve causal ambiguities among the Level-1 variables. Specifically, whereas our model assumes that emotional labor leads to experienced affect, and in turn to emotional exhaustion and job satisfaction, it is possible that the causal direction also (or instead) goes the other way, from mood to surface and deep acting.<sup>5</sup> For this reason, we have avoided the use of causal language, though we acknowledge that our model rests on an assumed causal ordering that only future research could substantiate. Some researchers have started to investigate emotional labor in simulated or laboratory settings (Goldberg & Grandey, 2007). Although such designs have obvious limitations, they do have the advantage of better facilitating causal inference than is the case in field studies such as the present investigation.

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<sup>5</sup>Though some research has used experience emotions as antecedents of surface and deep acting (e.g., Bono & Vey, 2007), most of the research that has assumed mood → emotional labor has used trait or general measures of affect (positive and negative affectivity) to predict surface and deep acting (Brotheridge & Lee, 1998; Gosserand & Diefendorff, 2005; Grandey, Dickter, & Sin, 2004).

Fifth, although we framed our study as an investigation of the emotional labor of customer service employees, we may have only captured a limited segment of customer service workers. Our requirements for the study meant that employees had to be working directly with the public in a customer service role. However, by additionally requiring internet access at one's place of employment, we may have ruled out several types of customer service workers (e.g., fast food and restaurant employees, retail store employees). Because our screening criteria may have limited various jobs within customer service, generalizability of our findings may also be restricted to a smaller segment of customer service roles. However, we should note that this research could be replicated across other types of customer service roles to enhance the generalizability of our findings.

Finally, although we studied some core variables in the emotional labor literature, we certainly did not exhaust the set of process variables that could be examined. Many theories and concepts in the emotional labor literature might be better suited for intraindividual study. For example, Diefendorff and Gosserand (2003) argued that emotional labor can be studied from the perspective of control theory. Although individuals can certainly differ in their self-regulatory tendencies, at its heart, control theory considers intraindividual regulation. Thus, we believe the perspective taken in this article may help open up new areas of inquiry.

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