On the costs and benefits of emotional labor: a meta-analysis of three decades of research

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On the Costs and Benefits of Emotional Labor: A Meta-Analysis of Three Decades of Research

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This article provides a quantitative review of the link of emotional labor (emotion–rule dissonance, surface acting, and deep acting) with well-being and performance outcomes. The meta-analysis is based on 494 individual correlations drawn from a final sample of 95 independent studies. Results revealed substantial relationships of emotion–rule dissonance and surface acting with indicators of impaired well-being (ρ s between .39 and .48) and job attitudes (ρ s between $-.24$ and $-.40$) and a small negative relationship with performance outcomes (ρ s between $-.20$ and $-.05$). Overall, deep acting displayed weak relationships with indicators of impaired well-being and job attitudes but positive relationships with emotional performance and customer satisfaction (ρ s .18 and .37). A meta-analytic regression analysis provides information on the unique contribution of emotion–rule dissonance, surface acting, and deep acting in statistically predicting well-being and performance outcomes. Furthermore, a mediation analysis confirms theoretical models of emotional labor which suggest that surface acting partially mediates the relationship of emotion–rule dissonance with well-being. Implications for future research as well as pragmatic ramifications for organizational practices are discussed in conclusion.

Keywords: meta-analysis, emotional labor, emotion regulation, well-being, job attitudes, performance

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Service plays a vital role in today's economies. Indeed, service activities now account for about 70% of the gross domestic product in the United States as well as in European countries (Central Intelligence Agency, 2009). Accordingly, more than two thirds of the labor force in the United States and Europe is working in the service sector (Central Intelligence Agency, 2009), and this proportion is expected to grow even further in the years to come (Paoli & Merllié, 2008). As part of their daily work these employees have to interact with others, be it customers, patients, students, or children. During these interactions they have to perform emotional labor, pub-

licly displaying certain emotions while hiding others (Côté, 2005; Hochschild, 1983). The management of emotions has become part of organizational rules and occupational norms because organizational decision makers as well as employees believe that the expression as well as suppression of certain emotions helps influence customers and clients to meet higher-order performance goals (Holman, Martinez-Iñigo, Totterdell, 2008a; Rafaeli & Sutton, 1987). Emotional labor has consequently become part of many individuals' daily work despite the potential detrimental effects for employees' psychological health (Hochschild, 1983).

Starting with the seminal work by Arlie Russell Hochschild (1983) and fueled by the developments in the labor market, research into emotional labor has been burgeoning in the last three decades (Fisher & Ashkanasy, 2000; Zapf, 2002). However, despite the growth of scholarly work on emotional labor, a number of important questions remain to be answered (e.g., Bono & Vey, 2005; Fisher & Ashkanasy, 2000; Rubin, Staebler Tardino, Daus, & Munz, 2005). Numerous researchers have investigated the link of emotional labor with well-being and different kinds of performance outcomes (e.g., task performance, affective delivery), both theoretically as well as empirically. Yet findings are inconsistent regarding the

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size and direction of effects. This makes it difficult to draw reliable conclusions about the nature of the relationships and impedes the development of clear suggestions for management practices. A statistical integration of extant empirical research by means of a meta-analysis would consequently benefit this field of research in two important regards. First, a meta-analysis will help clarify whether the relationships of emotional labor facets with well-being and performance are generalizable across samples and settings or whether they are situation-specific. Second, it will allow the estimation of mean effect sizes of the relationships between emotional labor facets with well-being and performance outcomes and convey important information on the direction and strength of relationships. Overall, these findings will help evaluate propositions that have been made in models of emotional labor (Grandey, 2000; Holman, Martínez-Iñigo, & Totterdell, 2008b; Rubin et al., 2005). Furthermore, they will provide an overview of the benefits and costs of emotional labor and reveal pragmatic ramifications for organizational practices.

In 2005, Bono and Vey provided a first quantitative summary of antecedents and consequences of emotional labor. They conducted a bare-bones meta-analysis based on 11 studies and 16 independent samples. The goal of the present study is to build upon and extend their research in five crucially important regards: First, as Bono and Vey (2005) pointed out, the research field was not mature enough to compute robust estimates of associations between emotional labor and its consequences when they conducted their first meta-analysis. Yet research on emotional labor has been blossoming in recent years, and many studies have been published since 2005. We will therefore base our meta-analysis on a considerably enlarged sample of primary studies, which will benefit the reliability and stability of meta-analytic estimates (Hunter & Schmidt, 2004). Second, in their bare-bones meta-analysis Bono and Vey corrected studies for sampling error only; that is, they estimated sample size weighted mean correlations between the variables in question. In addition to sampling error we will correct for predictor and criterion unreliability. Third, we will investigate not only well-being but also performance outcomes and their relationship with the three central emotional labor facets of emotion–rule dissonance, surface acting, and deep acting. Fourth, we will conduct a meta-analytic regression analysis, testing the unique contribution of each of the three emotional labor facets in statistically predicting well-being and performance outcomes. Fifth and finally, we will test whether surface acting (par-

tially) mediates the relation between emotion–rule dissonance and outcome variables.

Deep Acting, Surface Acting, and Emotion–Rule Dissonance

Extant models of emotional labor conceptualize emotion regulation—the process of managing expressions and feelings by the two emotional labor strategies of surface and deep acting—as the core of emotional labor (Grandey, 2000; Holman, Martínez-Iñigo, & Totterdell, 2008b; Rubin et al., 2005).

Deep acting is an antecedent-focused form of emotion regulation that affects the perception and processing of emotional cues at the onset of an emotion; that is, before they elicit behavioral, experiential, or physiological response tendencies (Gross, 1998). Antecedent-focused emotion regulation occurs before an emotion develops, and it aims at changing the situation or the perception of a situation (Grandey, 2000; Gross, 1998). When engaging in deep acting, individuals try to align required and true feelings. To reach this goal, they can direct attention toward pleasurable things or thoughts to stir up the required emotion (attentional deployment), or reappraise the situation to induce the required emotion (cognitive change; Grandey, 2000). Consequently, deep acting results in genuine emotional displays of the required emotions.

Surface acting, on the other hand, is a response-focused form of emotion regulation that is applied when the emotion has already developed. It does not involve an adjustment of one's actual feelings, but refers to the management of the emotional expression. Individuals engaging in surface acting put on a mask. They adjust the emotional response by suppressing, amplifying, or faking emotions. In consequence, the emotional experience and the emotion expression remain discordant when individuals engage in surface acting (Grandey, 2000; Gross, 1998; Totterdell & Holman, 2003).

Apart from deep and surface acting, emotional dissonance is considered in models of emotional labor (Holman, Martínez-Iñigo, & Totterdell, 2008b; Rubin et al., 2005). Indeed, many researchers ascribe emotional dissonance a central role in the emotional labor process (e.g., Côté, 2005; Morris & Feldman, 1996; Van Dijk & Kirk, 2006). However, researchers have used different and sometimes ambiguous conceptualizations of the concept (cf. Van Dijk & Kirk, 2006). Early work on emotional labor described emotional dissonance as the discrepancy between felt

emotions and emotions that are expressed to meet organizational display rules (Hochschild, 1983; Rafaeli & Sutton, 1987). Thus, emotional dissonance does involve three different aspects: emotions required by display rules, expressed emotions, and felt emotions (Zerbe, 2000). Researchers have used different combinations of these three aspects to conceptualize and measure emotional dissonance. Some view emotional dissonance as the discrepancy between required and felt emotions (e.g., Morris & Feldman, 1996; Zapf & Holz, 2006), which has also been referred to as “emotion–rule dissonance” (Holman, Martínez-Iñigo, & Totterdell, 2008b), others conceptualize it as the discrepancy between expressed and felt emotions (Côté, 2005; Van Dijk & Kirk, 2006), which has been circumscribed as “fake emotion display” by Holman and colleagues. These differences in conceptualizations of emotional dissonance have important implications for the role ascribed to emotional dissonance in the emotional labor process. While emotion–rule dissonance is an antecedent to emotion regulation in terms of deep and surface acting, fake emotion display is a consequence of emotion regulation (Holman, Martínez-Iñigo, & Totterdell, 2008; Côté, 2005). Although different points of view exist regarding the conceptualization of emotional dissonance, the majority of research assesses emotional dissonance as emotion–rule dissonance (Dormann & Kaiser, 2002; Holman, Chissick, & Totterdell, 2002; Zapf & Holz, 2006). This is also in line with theoretical models of emotional labor defining emotional dissonance as an antecedent to surface and deep acting (Holman, Martínez-Iñigo, & Totterdell, 2008b; Rubin et al., 2005). In the following we will therefore focus on emotional dissonance in terms of emotion–rule dissonance.

Emotion–rule dissonance is a form of person–role conflict (Abraham, 1999; Rafaeli & Sutton, 1987) stemming from the incongruence between emotions that are actually felt and emotions that are required by display rules (Abraham, 1999; Brotheridge & Grandey, 2002; Morris & Feldman, 1996; Morris & Feldman, 1997; Van Dijk & Kirk, 2006) and resulting in an unpleasant state of tension. Although there are conceptual and empirical relations between emotion–rule dissonance and surface acting, the concepts are to be carefully differentiated. While emotion–rule dissonance describes a “state of being” (p. 97; Grandey, 2000), surface acting describes the effortful process of managing one’s emotions. Thus, emotion–rule dissonance is an emotional state, while surface acting is the active process of managing emotions.

Consequences of Emotional Labor

Emotional labor is a multifaceted construct which has been argued to have positive as well as negative consequences for individuals and organizations (Côté, 2005; Zapf & Holz, 2006). Emotion–rule dissonance, surface acting, and deep acting are expected to relate differentially to well-being and performance outcomes. These differential relationships can be explained by different mechanisms underlying emotion–rule dissonance, surface, and deep acting and by the extent to which these threaten or conserve internal resources (Hobfoll, 1989; Holman, Martínez-Iñigo, & Totterdell, 2008b). In deriving our hypotheses about the link of these three central aspects of emotional labor with well-being and performance outcomes we draw on established theoretical models of emotional labor (Grandey, 2000; Holman, Martínez-Iñigo, & Totterdell, 2008b; Rubin et al., 2005). An overview of our theoretical framework is depicted in Figure 1.

The Relation of Surface Acting and Deep Acting With Well-Being and Performance

Various mechanisms may be put forth explaining the relationships of surface and deep acting with well-being and performance outcomes.

Ego-depletion. According to Baumeister and colleagues, purposeful self control and regulatory processes are effortful and deplete mental resources (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven, Tice, & Baumeister, 1998). Surface acting involves the constant monitoring of actual and desired emotions. Consequently, regulating emotions by surface acting is an effortful process that can be expected to drain mental resources. Indeed, fundamental research on emotion regulation has revealed that regulating emotions by faking, suppression, or exaggeration impairs subsequent performance on diverse tasks, such as hand-grip or anagram tasks (Baumeister et al., 1998; Muraven, Tice, & Baumeister, 1998; Schmeichel, Demaree, Robinson, & Pu, 2006; Schmeichel, Vohs, & Baumeister, 2003). Researchers have also contrasted the depleting effects of response-focused and antecedent-focused emotion regulation. Their studies revealed that in contrast to antecedent-focused emotion regulation, response-focused emotion regulation was effortful and led to impaired mental performance, for instance on memory and complex decision-making tasks (Richards & Gross, 1999; Richards & Gross, 2000; Zyphur, Warren, Landis, & Thoresen, 2007). It has therefore been

Figure 1. Model based on Grandey (2000), Holman et al. (2008b), and Rubin et al. (2005).

argued that surface acting, a response-focused form of emotion regulation, requires considerable mental effort. When employees engage in surface acting, actual and desired emotions need to be constantly monitored and the individual needs to invest continuous effort to change the emotional expression. This continuous effort drains mental resources and thereby enhances strain and diminishes well-being (Côté, 2005; Grandey, 2003; Martínez-Iñigo, Totterdell, Alcover, & Holman, 2007). Moreover, it has been argued that, to the extent that surface acting draws on a limited reservoir of mental resources (Sideman Goldberg & Grandey, 2007; Zyphur et al., 2007), these resources are lacking for the performance of other job-related tasks that involve executive functioning. Surface acting can therefore be expected to impair not only employee well-being but also performance.

In contrast, building on Gross and colleagues' research on the cognitive costs of suppression and reappraisal (Gross, 1998; Richards & Gross, 1999, 2000) researchers have argued that deep acting requires less cognitive resources than surface acting (Totterdell & Holman, 2003). This contention rests on two assumptions, namely that deep acting is similar to reappraisal and that the reappraisal processes involved in deep acting diminish mental resources only at the onset of an emotion. It has consequently been argued that the amount of cognitive (e.g., atten-

tion) and motivational (e.g., drive, resilience) resources invested is considerably lower for deep acting than for surface acting (Sideman Goldberg & Grandey, 2007; Totterdell & Holman, 2003). However, recently, this assumption has been challenged by Liu and colleagues (Liu, Prati, Perrewe, & Ferris, 2008) who argued that the suppression and reappraisal mechanisms investigated in laboratory settings cannot be compared with the workplace where employees need to regulate their emotions. They suggest that in contrast to the reappraisal manipulations in typical laboratory studies, actual deep acting might require "a great deal of mental energy in the form of motivation, engagement, and role internalization" (p. 2416) and might therefore be even more psychologically demanding than surface acting. Because no study has examined the actual cognitive and motivational energy demand of deep and surface acting directly, the question whether deep acting consumes more or less mental resources than surface acting cannot be answered yet. Nevertheless, it can be concluded that deep acting is an effortful regulatory process that drains mental resources to a certain extent.

Felt inauthenticity. People strive toward authenticity and self-expressive behavior, but display rules might impede an employee's genuine experience and expression (Hochschild, 1983). Especially surface acting may constrain personal authenticity,

because employees' emotional expressions and actual feelings are at odds (Brotheridge & Lee, 2002). Empirical studies illustrated that the suppression of negative feelings and the simulation of positive emotions lead to lower self-authenticity (Brotheridge & Lee, 2002; Erickson & Ritter, 2001; Simpson & Stroh, 2004). Inauthenticity, in turn, is associated with depressed mood and stress (Erickson & Wharton, 1997; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). In contrast to surface acting, there is no discrepancy between felt and displayed emotions when employees engage in deep acting. When employees use deep acting strategies their sense of authenticity is consequently not compromised. These theoretical arguments and empirical findings suggest a negative relationship between surface acting and well-being but not between deep acting and well-being.

Authenticity of the emotion display. Satisfying organizational display rules is an important element of performance in jobs involving interactions with clients. A customer service representative who is cheerful and friendly, a judge who has a neutral demeanor, a debt collector who displays anger, and a doctor who shows sympathy, they all adapt their emotional displays to job- and organization-specific display rules to fulfill their job roles. Display rules exist because it is assumed that displaying these specific emotions will influence clients and customers in a particular way: The customer service representative is friendly because he wants an angry customer to calm down and abide by the organization, the debt collector expresses anger because he wants the debtor to pay her bill, and the doctor wants to give her patients hope and confidence. This is in line with the Emotion as Social Information Model positing that emotional displays provide observers with important information and influence their behavior (Van Kleef, 2009; see also Keltner & Haidt, 1999). Yet emotional displays differ in the extent to which they are authentic or faked, and individuals are able to differentiate between genuine and fake emotional displays (Ekman, Friesen, & O'Sullivan, 1988). Only authentic emotional expressions entail the relevant cues that serve important social functions and have the desired effects on other individuals. A debt collector can only achieve his goal of enforcing a debt if the expressed anger is perceived as authentic by the debtor. Similar lines of argument apply when organizations prescribe the display of positive emotions. Positive emotional displays evoke positive reactions only to the extent that others perceive them as authentic (Grandey, Fisk, Mattila, Jansen, & Sideman,

2005a; Hennig-Thurau, Groth, Paul, & Gremler, 2006). Fundamental as well as applied experimental research revealed that authentic smiles elicit favorable reactions from interaction partners as opposed to inauthentic smiles (Frank, Ekman, & Friesen, 1993; Hennig-Thurau et al., 2006). Evoking positive emotions in customers helps building up a strong employee–customer rapport which is central to performance in terms of customer satisfaction and future loyalty intentions (Grandey, 2003; Hennig-Thurau et al., 2006). Surface acting is associated with inauthentic emotional expressions, while deep acting involves the authentic expression of emotions. These lines of arguments suggest surface acting to be negatively and deep acting to be positively related to performance outcomes, especially emotional performance and customer satisfaction.

Enhancement versus impairment of social interactions. With his social interaction model of emotional labor, Côté (2005) drew attention to interpersonal processes that may explain how emotional labor relates to well-being. Côté's model builds upon a transactions framework (Rafaeli & Sutton, 1987), taking both interaction partners, that is, the employee and the customer, into account. The model suggests that the employee's emotional display is appraised by the customer who in turn responds accordingly and thereby reffects the employee and his or her emotional and psychological state of health. As mentioned earlier, interaction partners are able to differentiate between authentic and inauthentic emotional displays (Grandey et al., 2005a), and they react more unfavorably to inauthentic compared with authentic displays of emotions (Hennig-Thurau et al., 2006). Surface acting involves inauthentic emotional displays and thereby hinders positive interactions and evokes negative reactions from interaction partners. These negative reactions, for instance anger, disappointment, or disrespect, are stressors that reffect the employee and impair his or her well-being.

In contrast to surface acting, amplifying positive emotions through deep acting should result in favorable responses by the interaction partner (Côté, 2005). As clients or customers perceive authentic emotional displays, they respond favorably and express positive emotions toward the employee. The result is an overall positive, satisfying interaction between employees and clients that is experienced as rewarding and provides the employee with a feeling of efficacy and personal accomplishment (Brotheridge & Lee, 2002). According to the conservation of resources theory (Hobfoll, 1989), experiencing rewarding social relationships at work is a resource that

serves as a buffer against stress and enhances favorable job attitudes. These lines of arguments suggest surface acting to be negatively and deep acting to be positively related to well-being.

The power of positive and negative emotions. Surface acting alters the facial and bodily expression while leaving the felt emotion intact. The individual therefore still feels the original inner emotion that is only suppressed and disguised by a faked outer expression. As emotional labor usually involves the suppression of negative emotions, the individual will continue to experience this very negative emotion which remains unresolved beneath the masked face and thus continuing to negatively affect the individual and his or her psychological well-being (Gross & John, 2003).

In contrast, deep acting truly alters the inner emotional state and turns the negative emotion into a positive one. This makes the individual actually experience positive emotions which should lead to further increases of positive affect and happiness. In her broaden-and-build theory, Fredrickson (1998) posited that positive emotions are not only pleasurable in the present but that they trigger upward spirals, thereby leading to higher future levels of well-being (Fredrickson & Joiner, 2002). Positive emotions create a positive mind-set, broaden attention and cognition, and thereby build up personal resources and coping mechanisms (Fredrickson, 1998; Fredrickson & Joiner, 2002). Having a positive look on unpleasant events and finding benefits in adverse circumstances has been shown to predict decreases in distress even after such tragic events as losing a family member (Davis, Nolen-Hoeksema, & Larson, 1998). Following these lines of arguments, actively inducing positive emotions in oneself by means of deep acting can thus buffer employees against stress induced by emotional job demands.

Summing up, surface acting depletes mental resources, compromises employee's sense of authenticity, and leads to unpleasant social relationships with customers and to a prolonged experience of negative emotions. These four mechanisms are the key reasons to expect a negative relationship between surface acting and well-being. In our meta-analysis we will differentiate between two distinct aspects of well-being, namely more general indicators of personal ill-being and job-related aspects of well-being. Addressing personal aspects of ill-being, we will consider various indicators that have been investigated in primary studies into emotional labor and that tab different aspects of the construct: The burnout facets of emotional exhaustion, depersonalization,

and lack of personal accomplishment; psychological strain; and psychosomatic complaints.

Hypothesis 1: Surface acting displays a positive relationship with indicators of personal ill-being, that is, (a) emotional exhaustion, (b) depersonalization, (c) lack of personal accomplishment, (d) psychological strain, and (e) psychosomatic complaints.

Furthermore, we consider job-related aspects of well-being, specifically job satisfaction, and organizational attachment. Job satisfaction describes the extent to which employees evaluate their job and job situation in a positive or negative way (Weiss, 2002) while organizational attachment refers to an employee's psychological and behavioral involvement in and identification with an organization (Tsui, Egan, & O'Reilly, 1992). Organizational attachment subsumes organizational commitment and intentions to stay with the organization (Gonzales & Denisi, 2009). Job satisfaction and organizational attachment reflect the degree to which individuals feel that their jobs and organizations allow them to satisfy their needs and act in accordance with their values (Hochwarter, Perrewé, Ferris, & Brymer, 1999; Riketta & van Dick, 2005). Affective events theory (Weiss & Cropanzano, 1996) suggests that affective experiences at work influence employees' evaluative judgments about their jobs. Indeed, research has shown that the experience of positive and negative emotions at work is related to employees' overall job satisfaction (Fisher, 2002). The mechanisms discussed above suggest that surface acting is a source of negative affective events at work in that it depletes employees' mental resources, undermines their sense of authenticity, promotes the experience of negative emotions, and hinders the creation of rewarding social relationships. The repeated experience of negative events at work impedes the satisfaction of employees' needs and may thereby negatively affect their job satisfaction and organizational attachment.

Hypothesis 2: Surface acting displays a negative relationship with indicators of job-related well-being, that is, (a) job satisfaction and (b) organizational attachment.

Regarding deep acting, the picture is more complex. On the one hand, deep acting is an effortful regulatory process that involves mental effort and drains cognitive resources (although possibly to a lower extent than surface acting). Building upon

Hobfoll's (1989) conservation of resources model, one could argue that deep acting results in a resource loss and could therefore be expected to be positively related to indicators of personal ill-being, such as emotional exhaustion and psychological strain. Yet, on the other hand, deep acting helps create rewarding social interactions with customers. Furthermore, in the case of positive display rules, individuals engaging in deep acting elicit and actually experience positive emotions. These two mechanisms should help building up and restoring resources. Deep acting thus involves opponent processes leading to a resource loss and gain at the same time, resulting in no net gain or loss (cf. Grandey, 2003; Hülshager, Lang, & Maier, 2010; Martínez-Iñigo et al., 2007). In consequence, we do not hypothesize to find a relationship between deep acting and indicators of personal ill-being or job-related well-being. Yet, for exploratory reasons, we will analyze these relationships meta-analytically.

With regard to performance outcomes, arguments presented above suggest a negative link with surface acting. First, surface acting depletes mental resources, which are lacking for the execution of other job-related tasks and may thereby impair employees' task performance (Sideman, Goldberg, & Grandey, 2007; Zyphur et al., 2007). Second, surface acting involves inauthentic emotional displays, which elicit less positive reactions from interaction partners than authentic emotional displays (Frank, Ekman, & Friesen, 1993; Hennig-Thurau et al., 2006). Surface acting thereby impairs employees' emotional performance and disturbs the employee-customer rapport which is central to customer satisfaction (Hennig-Thurau et al., 2006). Third, surface acting may negatively affect performance, especially task performance, by impairing job-related well-being, specifically job attitudes such as job satisfaction and organizational commitment, which have previously been shown to be related to job performance (Judge, Thoresen, Bono, & Patton, 2001; Riketta, 2002, 2008).

Hypothesis 3: Surface acting displays a negative relationship with performance outcomes, that is, (a) task performance, (b) emotional performance, and (c) customer satisfaction.

In contrast to surface acting, deep acting yields authentic emotional displays which should facilitate social interactions and benefit performance. Displaying authentic emotions helps employees to convey important social information to customers and to

influence their behavior and attitudes (Van Kleef, 2009; Keltner & Haidt, 1999). Research has shown that displaying authentic positive emotions in customer service interactions elicits favorable reactions from customers, helps establishing a strong employee-customer rapport, and favors positive customer evaluations (Grandey et al., 2005a; Hennig-Thurau et al., 2006). We therefore expect deep acting to be positively related to performance outcomes, especially emotional performance and customer satisfaction. Because affective delivery is a central component of task performance in most jobs involving interactions with clients and customers, we also expect deep acting to be positively related to task performance.

Hypothesis 4: Deep acting displays a positive relationship with performance outcomes, that is, (a) task performance, (b) emotional performance, and (c) customer satisfaction.

The Relationship of Emotion–Rule Dissonance With Well-Being and Performance

Rafaeli and Sutton (1987) suggested that emotion–rule dissonance is a form of person–role conflict, a mismatch between an individual's personal values and needs and specific organizational or job role requirements (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). The person–role conflict inherent in emotion–rule dissonance impairs employees' well-being by putting them in a double bind situation. Employees can either overrule their own values, adhere to organizational display rules and thereby threaten their sense of authenticity, or they can hold on to their personal aspirations, disregarding their professional duties and running the risk of dissatisfying customers and supervisors (Abraham, 1999). This avoidance conflict induces stress and threatens employees' resources. Drawing on Lazarus and Folkman's (1984) transactional stress theory, LePine, Podsakoff, and LePine (2005) considered role conflict a hindrance stressor that is appraised as jeopardizing employees' personal growth and that provokes negative emotions and the adoption of passive coping styles. In support of this notion, several meta-analyses have revealed substantial negative relationships of role conflict with personal and job-related well-being (Brown & Peterson, 1993; Jackson & Schuler, 1985; Lee & Ashforth, 1996). Following these lines of arguments, emotion–rule dissonance can be conceived as a hindrance stressor that displays

a positive relationship with personal ill-being and a negative relationship with job-related well-being.

In a similar vein, person–role conflict may explain how emotion–rule dissonance relates to performance outcomes. Combining Lazarus and Folkman's (1984) transactional stress theory with Vroom's (1964) expectancy theory, LePine and colleagues (2005) argued that hindrance stressors impair motivation and thereby performance. When facing hindrance stressors, individuals believe that they do not have the necessary resources and coping mechanisms to meet the demands no matter how much effort they invest. This leads to a lack of motivation and thereby impairs performance. In support of this assumption, LePine and colleagues showed that hindrance stressors are negatively related to motivation and performance and that motivation mediates the relationship between hindrance stressors and performance. Thus, when employees face a hindrance stressor such as emotion–rule dissonance they may conclude that given their actual feelings and personal values they do not have enough resources and capabilities to display the required emotions. This may impair their motivation and consequently their performance. In light of these arguments we expect a negative association of emotion–rule dissonance with well-being and performance outcomes.

Hypothesis 5: Emotion–rule dissonance displays a positive relationship with indicators of personal ill-being, that is, (a) emotional exhaustion (b) depersonalization, (c) lack of personal accomplishment, (d) psychological strain, and (e) psychosomatic complaints.

Hypothesis 6: Emotion–rule dissonance displays a negative relationship with indicators of job-related well-being, that is, (a) job satisfaction and (b) organizational attachment.

Hypothesis 7: Emotion–rule dissonance displays a negative relationship with performance outcomes, that is, (a) task performance, (b) emotional performance, and (c) customer satisfaction.

A Mediated Process Model of Emotional Labor

Theories of emotional labor consider emotion–rule dissonance an antecedent to emotion regulation (Holman, Martínez-Iñigo, & Totterdell, 2008b; Rubin et

al., 2005; Zerbe, 2000). Thus, when individuals find themselves in situations in which the emotions they feel do not coincide naturally with display rules they have three different options. They can either display their true feelings and neglect organizational display rules—which has been referred to as emotional deviance (Rafaeli & Sutton, 1987)—or they can abide by display rules and regulate their emotions by either surface or deep acting. In light of our previous arguments suggesting a link between surface acting, well-being, and performance, it can be expected that the negative association of emotion–rule dissonance with well-being and performance outcomes is partially mediated through surface acting. Given our previous arguments suggesting that emotion–rule dissonance is a form of person–role conflict that directly affects employee well-being and performance, only partial mediation is expected.

Because we expect deep acting to be unrelated to personal ill-being and job-related well-being we do not suggest deep acting to mediate the relationship between emotion–rule dissonance and well-being outcomes. Furthermore, we do not expect deep acting to mediate the relationship between emotion–rule dissonance and performance. Deep acting is a strategy in which felt emotions are aligned with required emotions. Any discrepancies between required and felt emotions are thus quickly resolved and feelings of dissonance will disappear. Deep acting is therefore expected to disrupt rather than mediate the link of emotion–rule dissonance with performance outcomes.

Hypothesis 8: The link between emotion–rule dissonance and indicators of personal ill-being, that is, (a) emotional exhaustion (b) depersonalization, (c) lack of personal accomplishment, (d) psychological strain, and (e) psychosomatic complaints, is partially mediated by surface acting.

Hypothesis 9: The link between emotion–rule dissonance and indicators of job-related well-being, that is, (a) job satisfaction and (b) organizational attachment, is partially mediated by surface acting.

Hypothesis 10: The link between emotion–rule dissonance and performance indicators, that is, (a) task performance, (b) emotional performance, and (c) customer satisfaction is partially mediated by surface acting.

Potential Moderating Influences

The principal goal of the present study is to investigate main relationships between emotional labor and its presumed consequences. However, because these main relationships may be influenced by moderator variables, these shall also be considered. In meta-analyses, moderators can exist at different levels of analysis, at the study level, sample level, and at the cultural level (Van Hemert, 2003). We therefore consider moderators at each level.

At the study level, publication status may moderate observed relationships. Publication status is frequently investigated in meta-analyses to test whether there are systematic differences in the size of reported relationships between published and unpublished studies (e.g., De Dreu, Weingart, & Kwon, 2000; Judge, Colbert, & Ilies, 2004; Kish-Gephart, Harrison, & Trevino, 2010). Specifically, it has been argued that because of editorial preferences, stronger relationships might be reported in published compared with unpublished studies (Smyth, 1998).

At the sample level, we consider the type of interaction that is typically faced by employees. Previous theoretical and empirical work has demonstrated the importance of differentiating between service relationships and service encounters (Grandey & Diamond, 2010; Gutek, 1999; Gutek, Bhappu, & Liao-Troth, 1999). Service relationships are characterized by repeated interactions: The service provider and the client have a history of shared interaction, they expect to interact again in the future, and they identify with one another. In contrast, the customer and the service provider in a service encounter interact only once, they do not expect to interact again in the future, and no identification takes place (Gutek, 1999; Gutek, Bhappu, & Liao-Troth, 1999). It has been argued that the greater familiarity in service relationships is associated with a number of benefits, such as greater customer satisfaction, more social support, empathy, and commitment, while encounters may be associated with lower intrinsic motivation and more customer incivility (Grandey & Diamond, 2010; Gutek, Bhappu, & Liao-Troth, 1999). The strength of associations between emotional labor facets and well-being as well as performance outcomes may depend on the type of interaction employees typically face. For instance, deep acting may be more positively related to well-being in service relationships than in encounters. In long-term relationships, deep acting may pay off and lead to customer loyalty, friendliness, and social support, and these benefits may compensate for the depleting effects of

deep acting. Similarly, emotion–rule dissonance may be less detrimental in service relationships than in encounters, because employees might feel that they can express their true emotions more openly toward long-term clients with whom they have established a personal and trustful relationship.

Lastly, we investigate culture as a moderator because research suggests that cultural differences may influence emotional labor and its relationship with well-being and performance outcomes (Bozionelos & Kiamou, 2008; Fischbach, 2008; Grandey, Fisk, & Steiner, 2005b). Fundamental emotion research documents that although many emotion-related processes are universal, there are also a number of cultural differences regarding antecedents of emotions, appraisal propensities, regulation processes, attention to physiological reactions, and behavioral response tendencies (Mesquita & Frijda, 1992). Furthermore, cross-cultural research has revealed that countries differ regarding their work-related attitudes and values. Cultural clusters can be formed based on the degree to which countries share these cultural attitudes and values (e.g., Anglo, Germanic, Latin European, Latin American; Hofstede, 1980; Ronen & Shenkar, 1985). Previous research suggests that culture has an impact on organizational phenomena such as leadership practices and their relationships with work-related outcomes (Brodbeck et al., 2000; Dickson, Den Hartog, & Mitchelson, 2003). Building on these lines of research we therefore investigate whether relationships of emotional labor with well-being and performance outcomes vary between cultures.

Method

To integrate research findings on emotional labor and its consequences statistically in the form of a meta-analysis, we conducted an exhaustive literature search and then coded all studies that met inclusion criteria. We assumed a random-effects model and followed the process described by Hunter and Schmidt (2004) to integrate effect sizes statistically.

Literature Search

Making use of different search strategies, a comprehensive and systematic literature search was conducted. Studies were included that could be retrieved until August, 2010. First, a computer-based search was carried out covering various international databases in social, economic, and medical sciences

(PsycARTICLES, PsycBooks, PsycINFO, PSYINDEXplus, Social Sciences Citation Index, medline, EconLit, ERIC). In so doing we used keywords such as “emotional labor,” “emotional labour,” “emotion work,” “emotion regulation,” “emotional dissonance,” “surface acting,” “deep acting.” Furthermore we made every effort to retrieve studies published in languages other than English and included studies published in, for example, German or Dutch. Second, a host of international journals that publish studies on emotional labor were searched manually issue by issue: *Academy of Management Journal*, *Academy of Management Review*, *European Journal of Work and Organizational Psychology*, *Journal of Applied Psychology*, *Journal of Managerial Psychology*, *Journal of Organizational Behavior*, *Journal of Organizational Health Psychology*, *Journal of Vocational Behavior*. Third, conference proceedings and conference Web pages were examined for contributions on emotional labor presented in the last eight years: Conference of the Society for Industrial and Organizational Psychology, European Congress of Work and Organizational Psychology, and the Conference of the Work and Organizational Psychology section of the German Psychological Society. Fourth, 11 scientists with recent active research on or expertise in emotional labor were addressed via e-mail with the request to provide us with unpublished studies on emotional labor. Fifth, a request for unpublished studies on emotional labor was sent to more than 800 scholars interested in research on emotions in organizations via EMONET.

Inclusion Criteria

Following these strategies, a preliminary database of published and unpublished studies was established for further inspection. This database was narrowed down by the following criteria:

First, studies had to report at least one effect size between emotion–rule dissonance, surface acting, or deep acting and one or several outcome measures (personal ill-being, job-related well-being, performance). Only studies that were closely in line with established definitions of emotion–rule dissonance, surface acting, and deep acting (Grandey, 2000; Holman, Martínez-Iñigo, & Totterdell, 2008b; Zapf, 2002) were included. We excluded studies that used general measures of emotional labor (e.g., Pugliesi, 1999), measures of emotion regulation without differentiation between surface and deep acting (e.g., Côté & Morgan, 2002), or studies measuring emotional job requirements and display rules (e.g.,

Schaubroeck & Jones, 2000). If studies reported incomplete correlation tables or correlations were not indicated although the data was obviously available, we contacted the authors to receive the missing information.

Second, all variables had to be assessed on the individual level. Studies that operationalized emotional labor based on the occupation’s classification in the O*Net database (e.g., Glomb, Kammeyer-Mueller, & Rotundo, 2004), were not included. However, studies using a diary, event-, or experience-sampling design and assessing dependent or independent variables once or several times a day were included in the meta-analysis (e.g., Judge, Woolf, & Hurst, 2009; Totterdell & Holman, 2003).

Third, the setting of the primary study had to comply with definitions of emotional labor and assess the extent of emotion regulation in a work context. Studies assessing emotion regulation strategies in a clinical setting or in romantic relationships were not included. However, studies assessing emotional labor in an experimental set-up simulating typical workplace interactions were included (e.g., Sideman Goldberg & Grandey, 2007). In contrast, experimental studies assessing emotion regulation lacking an ecologically valid workplace environment were not included (e.g., Wallace, Edwards, Shull, & Finch, 2009).

Applying these inclusion criteria, the final database resulted in 95 articles and 105 independent samples, subsuming a total n of 23,574. The mean n of primary studies averages 225 with the smallest sample consisting of 16, the largest sample of 1,975 participants (mean standard deviation 230). To prevent file drawer effects (Sharpe, 1997) we explicitly searched for unpublished studies. As a result, we were able to include 35 unpublished papers (37%). The sample consisted predominantly of recent studies: 60% of the studies were conducted or published from 2007 to 2010.

Coding of Studies

Variables investigated in primary studies were coded into predefined construct categories. Regarding emotional labor, these were surface acting, deep acting, and emotion–rule dissonance. The vast majority of studies used Brotheridge and Lee’s (2003) and related measures (Diefendorff, Croyle, & Gosserand, 2005; Grandey, 2003) to assess surface acting and deep acting. Emotion–rule dissonance was frequently assessed with the Frankfurt Emotion Work Scale (Zapf, Vogt, Seifert, Mertini, & Isic, 1999).

Regarding consequences of emotional labor we differentiated three broad outcome areas, personal ill-being, job-related well-being, and performance. As to personal ill-being we differentiated the three burnout dimensions of emotional exhaustion, depersonalization, and personal accomplishment (Maslach & Jackson, 1981; Schaufeli, Leiter, Maslach, & Jackson, 1996). In addition, we assessed psychosomatic complaints and psychological strain. Psychosomatic complaints subsumed physical symptoms (e.g., Schaubroeck & Jones, 2000) and psychosomatic complaints (e.g., Montgomery, Panagopolou, de Wildt, & Meenks, 2006). The category of psychological strain assessed experienced stress and reduced well-being as captured in concepts such as irritation (Mohr, Müller, Rigotti, Aycan, & Tschan, 2006; used e.g., in Grebner et al., 2003), distress (Langner, 1962; as used e.g., in Pugliesi, 1999), or depressed mood (Quinn & Shepard, 1974; used e.g., in Prati, 2004). As to job-related well-being we differentiated between job satisfaction and organizational attachment [subsuming organizational commitment as measured by Wong, Wong, & Law (2005) and turnover intentions as assessed by Chau, Dahling, Levy, & Diefendorff (2009)]. Regarding performance measures we differentiated between task performance, emotional performance, and customer satisfaction measures. Criteria were coded as task performance when they assessed the degree to which an employee performs primary job tasks and cognitive tasks successfully. Accordingly, task effectiveness (Bono & Vey, 2007), in-role-performance (Goodman & Svyantek, 1999 used e.g., in Bakker & Heuven, 2006), and overall job performance measures (Hülshager, Anderson, & Salgado, 2009) were coded as task performance. Five studies falling into this category used self-ratings of performance, three studies used objective measures, such as the amount of task errors made, and four studies used independent ratings, such as ratings provided by supervisors, peers, or trained observers. Criteria were coded as emotional performance when they referred to the degree to which employees fulfill organizational display rules and display appropriate emotions in interactions with customers. Accordingly, criteria such as affective delivery (McLellan, Amundson, & Blake, 2010 used e.g., in Grandey, 2003), ratings of emotional displays (Diefendorff & Richard, 2003), emotional performance (concept and use in Bono & Vey, 2007), and satisfaction with empathy (Stauss, 1995 used in e.g., Dormann & Kaiser, 2002) were coded as emotional performance. Almost all studies in this category used independent sources to rate emotional performance, such as su-

pervisors, peers, trained observers, or customers. Only one study used a self-rating of emotional performance. Finally, criteria such as customer satisfaction with transactions, encounter satisfaction (Grandey et al., 2005a; Hennig-Thurau et al., 2006), and the amount of received tips (Hülshager, Lang, Meeuwenoord, Schewe, & Zijlstra, 2011; Meeuwenoord, 2009) were coded in the customer satisfaction category. All studies in this category used independent sources to measure customer satisfaction. Most studies assessed customer satisfaction by asking customers themselves, one study used an objective measure, namely the amount of tips an employee received.

To code studies that used a diary, event-, or experience-sampling design, we coded correlations between study variables reported at the person level (i.e., day-level variables have been aggregated to the person-level before calculating the correlation). If results based on the same sample were reported in multiple publications we coded only the most comprehensive dataset.

To categorize individual studies into cultural clusters we used Ronen and Shenkar's (1985) classification of cultural clusters, which largely coincides with classifications used in cross-cultural leadership studies (GLOBE study; Brodbeck et al., 2000). Accordingly, every study providing unequivocal information on the country of origin was assigned to one of nine clusters. Because Ronen and Shenkar provide no information on the categorization of the Netherlands, we followed Gupta and Hanges (2004) procedures and categorized studies from the Netherlands in the Germanic cluster. Because not all potential countries were represented in the sample of primary studies, a number of clusters do not appear in our moderator analysis, for example, the Arab and the Latin American cluster. Clusters were included in subgroup analyses when at least two studies were available for a given cluster. Specifically, the Anglo cluster contained studies from the United States, Canada, Australia, the United Kingdom, Ireland, and South Africa. The Germanic cluster included studies from Germany, Austria, Switzerland, and the Netherlands, and the Latin European cluster included studies from France, Belgium, Italy, Spain, and Portugal. To conduct the moderator analysis by service interaction type, sample descriptions of primary studies were scrutinized as to whether the sample is characterized predominantly by service encounters or service relationships. For instance, call center employees, employees in retail stores, employees in billing offices, cabin crew members, telesales agents, restaurant

staff, coffee store employees, hotel frontline workers, bus drivers, and police officers fell into the service encounter category. Teachers, college instructors, nurses, childcare workers, practitioners, massage therapists, cheerleading instructors, social workers, kindergarten teachers, and priests were coded in the service relationship category. Studies that could not be attributed unequivocally to one of the two categories were omitted from the moderator analysis.

All studies included in the meta-analysis were coded by the second author. To determine the reliability of the coding process, the first author double-coded 25% of the entire sample of studies. Intraclass-coefficients (ICC 2,1) were computed for variables at ratio level: effect size r (.98), emotional labor facet reliability (1.0), reliability of dependent variable (.98), and sample size (1.0). For categorical variables Cohen's Kappa was computed, assessing congruence in the rater's classifications of emotional labor facets (1.0), dependent variables (.98), and service interaction type (.86). Overall, these analyses revealed very good interrater reliability.

According to Hunter and Schmidt (2004), each sample contributed only one effect size to each relationship (between a specific emotional labor facet and a specific consequence). If a primary study reported multiple indicators of a given construct (e.g., self- and supervisor-ratings of job performance) they were combined by computing composite correlations (Hunter & Schmidt, 2004). Mosier's (1943) formula was used to calculate reliabilities of these composite measures.

Meta-Analytic Procedure

In conducting our meta-analysis we assumed a random-effects model. Thereby we followed a recommendation of the National Research Council (1992) of the United States to a priori assume variation between true population parameters in primary studies attributable to random study characteristics (e.g., researcher, place, instruments). Following the procedures described by Hunter and Schmidt (2004), observed correlations were corrected for sampling error as well as for measurement error in predictor and criterion. As information on predictor and criterion reliability was available for almost all primary studies, effect sizes were corrected individually for measurement error. To do so we used measures of intrarater reliability, that is, alpha coefficients or internal consistency measures, for all predictor and criterion variables other than performance measures. When we were unable to obtain unreported reliability

coefficients by contacting the authors, missing reliability coefficients were substituted by the measure's average reliability found in primary studies included in the particular submeta-analysis. In accordance with other meta-analyses (e.g., Riketta, 2008), we set the reliability of single-item measures at .70 (Wanous & Hudy, 2001). To correct for measurement error in performance measures we used different strategies depending on the kind of performance measure. To correct self-ratings of performance for measurement error, intrarater reliabilities were used (see also Hülshager, Anderson, & Salgado, 2009; Thomas, Whitman, & Viswesvaran, 2010). Similarly, we used intrarater reliabilities to correct measurement error in customer ratings of customer satisfaction. One study (Sideman Goldberg & Grandey, 2007) measured performance objectively by coding the number of task errors. Because no reliability measure was indicated in this particular primary study, we used the meta-analytic estimate of the test-retest reliability of objective task performance measures indicated by Sturman, Cheramie, and Cashen (2005; .61 for low complexity jobs) to correct for measurement error (see also Ng & Feldman, 2008; Ng & Feldman, 2009). Regarding supervisor or peer ratings of performance, researchers have typically used interrater reliabilities to correct for imperfect measurement (e.g., Judge et al., 2001; Salgado et al., 2003). Because interrater reliabilities are rarely reported in primary studies, researchers have frequently adopted meta-analytic estimates of interrater reliabilities (Viswesvaran, Ones, & Schmidt, 1996) to substitute missing values. Accordingly, we used the interrater reliabilities of performance ratings when these were indicated in primary studies. If no interrater reliability coefficient was reported in primary studies we used the meta-analytic estimates of interrater reliabilities reported by Viswesvaran and colleagues (.52 for supervisor ratings and .42 for peer ratings; Viswesvaran et al., 1996).

For each meta-analysis we report the number of studies included (k), the total sample size (N), the sample size weighted observed average correlation (r), its variance (S^2r), the average corrected correlation (ρ), its variance ($S^2\rho$), the variance accounted for by artifacts, that is, sampling error, predictor and criterion (un)reliability, (%VE), the 95% confidence interval (CI), and the 80% credibility interval (CRI). The amount of variance accounted for by artifacts points to the homogeneity between primary studies. If less than 75% of the variance is explained by artifacts, studies cannot be considered to be homogeneous and moderators should be considered (75%

rule; Hunter & Schmidt, 2004). The 95% confidence interval provides information on the accuracy of the mean of the population parameter and can be read as a significance test of the mean estimated effect size. The mean corrected correlation can be considered significant when the confidence interval does not include zero. The 80% lower and upper bound of the credibility interval indicates that 80% of the values in the ρ distribution fall within this interval. As a measure of variability of individual effect sizes, the CRI can be used to address the question of generalizability. A positive or negative relation can be generalized if the CRI does not include zero. Additionally, the width of the interval indicates whether generalization of the calculated effect size ρ is appropriate. If effect sizes in primary studies vary strongly, the interval will be large; moderator analyses should then be used to investigate heterogeneous subgroups (Hunter & Schmidt, 2004; Whitener, 1990).

Results

Emotional Labor, Well-Being, and Performance

As suggested in Hypotheses 1 and 2 we expected positive relationships of surface acting with indicators of personal ill-being (emotional exhaustion, depersonalization, lack of personal accomplishment, psychological strain, and psychosomatic complaints) and job-related well-being (job satisfaction and organizational attachment). Results are displayed in Table 1. Overall, Hypotheses 1 and 2 were widely supported: Surface acting showed strong, positive associations with emotional exhaustion ($\rho = .439$), depersonalization ($\rho = .481$), psychological strain ($\rho = .424$), psychosomatic complaints ($\rho = .435$), and negative relationships with job satisfaction ($\rho = -.327$), and organizational attachment ($\rho = -.310$). One exception was the relationship with personal accomplishment that was rather weak ($\rho = -.095$) and not generalizable (credibility interval included 0). Hypothesis 1c could thus not be supported.

Relationships between deep acting and personal ill-being and job-related well-being were analyzed without specific predefined hypotheses (see Table 1). With two exceptions, associations between deep acting and personal ill-being and job-related well-being, respectively, were about zero and credibility intervals included zero, indicating that the relationship was not generalizable. Small but positive relationships emerged between deep acting and psychosomatic

complaints ($\rho = .175$) and between deep acting and personal accomplishment ($\rho = .269$).

Results provided some support for Hypotheses 3 and 4. Surface acting displayed small negative relationships with task performance ($\rho = -.114$), emotional performance ($\rho = -.140$), and customer satisfaction ($\rho = -.048$). However, credibility intervals included 0, indicating that the direction of relationships cannot be generalized. Deep acting, in contrast, displayed positive relationships with emotional performance ($\rho = .175$) and customer satisfaction ($\rho = .370$). The relationship with task performance, however, was about 0 ($\rho = -.007$). In support of Hypotheses 5 and 6 positive relationships of emotion–rule dissonance emerged with emotional exhaustion ($\rho = .404$), depersonalization ($\rho = .440$), psychological strain ($\rho = .393$), and psychosomatic complaints ($\rho = .393$), while relationships with personal accomplishment ($\rho = -.107$), job satisfaction ($\rho = -.400$), and organizational attachment ($\rho = -.243$) were negative. With the exception of personal accomplishment credibility intervals did not include zero, indicating that the directions of the relationships were generalizable. Because fewer than two studies were available on the relationship between emotion–rule dissonance and emotional performance/customer satisfaction, Hypothesis 7 could only be tested with regard to task performance. As expected, the relationship was negative ($\rho = -.200$).

An inspection of credibility intervals and of the amount of variance explained by artifacts provides information on the heterogeneity and consequently of the generalizability of effect sizes. Artifacts explained fewer than 75% of the variance for a number of relationships, indicating that corrected correlations were heterogeneous and varied across samples, which points to the presence of moderator variables. However, with only a few exceptions, credibility intervals did not include zero, indicating that directions of relationships were indeed generalizable.

Multivariate and Mediation Analyses

To investigate multivariate relationships between surface acting, deep acting, emotion–rule dissonance, and outcome variables and to test Hypotheses 8, 9, and 10, a series of regression analyses was conducted. In doing so, we followed approaches described by Viswesvaran and Ones (1995) and Baron and Kenny (1986). First, a correlation matrix was formed, which consisted of the meta-analytic estimates for the relationships of surface acting, deep acting, and emotion–rule dissonance with outcome variables (taken from Table 1). Furthermore, meta-

Table 1
Meta-Analysis of the Relationship Between Emotional Labor and Outcome Variables

	<i>k</i>	<i>N</i>	<i>r</i>	<i>S</i> ² <i>r</i>	ρ	<i>S</i> ² ρ	%VE	80% CRI		95% CI	
Surface acting											
Personal ill-being											
Emotional exhaustion	47	11,913	.374	.008	.439	.008	33.61	.325; .553		.408; .470	
Depersonalization	15	3,056	.352	.007	.481	.011	38.78	.346; .615		.413; .549	
Personal accomplishment	12	2,778	−.072	.005	−.095	.009	44.54	−.217; .028		−.167; −.022	
Psychological strain	12	2,112	.353	.008	.424	.011	35.63	.287; .560		.348; .499	
Psychosomatic complaints	6	2,724	.368	.000	.435	.002	100	.435; .435		.400; .470	
Job-related well-being											
Job satisfaction	30	8,672	−.274	.009	−.327	.011	27.51	−.461; −.193		−.371; −.283	
Organizational attachment	18	3,228	−.247	.010	−.310	.013	25.84	−.454; −.166		−.370; −.250	
Performance											
Task performance	10	1,177	−.095	.012	−.114	.026	38.05	−.322; .094		−.242; .014	
Emotional performance	8	1,310	−.107	.007	−.140	.019	38.73	−.319; .038		−.264; −.017	
Customer satisfaction	2	315	−.041	0	−.048	0	100	−.048; −.048		−.090; −.007	
Deep acting											
Personal ill-being											
Emotional exhaustion	38	9,849	.075	.014	.088	.020	21.04	−.093; .268		.037; .138	
Depersonalization	15	3,056	.043	.015	.051	.027	24.03	−.158; .261		−.043; .147	
Personal accomplishment	12	4,937	.214	.024	.269	.033	9.30	.037; .500		.161; .376	
Psychological strain	7	1,569	−.010	.003	−.004	.004	60.22	−.089; .080		−.080; .073	
Psychosomatic complaints	5	2,674	.138	.001	.175	.001	82.65	.144; .207		.123; .230	
Job-related well-being											
Job satisfaction	21	6,802	.047	.009	.054	.014	24.28	−.097; .205		−.004; .112	
Organizational attachment	14	4,729	.066	.009	.088	.015	25.14	−.066; .242		.015; .161	
Performance											
Task performance	9	998	−.009	.000	−.007	.001	96.91	−.036; .022		−.092; .078	
Emotional performance	11	1,734	.124	.019	.175	.035	24.98	−.065; .415		.047; .303	
Customer satisfaction	5	716	.298	.020	.370	.042	18.62	.108; .633		.171; .569	
Emotion-rule dissonance											
Personal ill-being											
Emotional exhaustion	23	5,039	.331	.009	.404	.009	36.00	.280; .529		.355; .454	
Depersonalization	17	4,037	.327	.020	.440	.029	16.77	.220; .659		.350; .529	
Personal accomplishment	11	2,882	−.083	.013	−.107	.022	22.6	−.297; .083		−.201; −.007	
Psychological strain	9	1,955	.337	0	.393	0	100	.393; .393		.352; .435	
Psychosomatic complaints	6	1,168	.322	.073	.393	0	100	.393; .393		.342; .444	
Job-related well-being											
Job satisfaction	16	3,219	−.331	.008	−.400	.011	34.46	−.539; −.269		−.468; −.340	
Organizational attachment	9	2,532	−.208	.006	−.243	.010	31.36	−.371; −.115		−.321; −.164	
Performance											
Task performance	2	209	−.148	0	−.200	0	100	−.200; −.200		−.319; −.081	

Note. *k* = number of studies; *N* = total sample size for all studies combined; *r* = sample size weighted average observed correlation; *S*²*r* = sample size weighted observed variance of correlations; ρ = average corrected correlation (corrected for sampling and measurement error in the predictor and criterion); *S*² ρ = variance of ρ ; %VE = variance accounted for by artifacts; 80% CRI = 10% lower and 90% upper limits of 80% credibility interval; 95% CI = 2.5% lower and 97.5% upper limits of 95% confidence interval. Studies included in the personal accomplishment category were coded such that high values indicate that individuals experience a lot of personal accomplishment.

analytic intercorrelations between surface acting, deep acting, and emotion-rule dissonance were calculated (see Table 2). For regression analyses involving various predictor variables, harmonic means were used for the sample sizes in each cell to obtain a conservative sample size for the matrix.

The lower part of Table 3 (Regression #2) provides information on the multivariate relationships of sur-

face acting, deep acting, and emotion-rule dissonance with outcome variables. Given the empirical relation between emotion-rule dissonance and surface acting ($\rho = .428$) as well as between surface acting and deep acting ($\rho = .219$), a multivariate investigation of the three emotional labor facets and their relations with outcome variables is important. It informs us (a) about the amount of variance emotion

Table 2

Meta-Analysis of the Intercorrelations Between Emotion-Rule Dissonance, Surface, and Deep Acting

	<i>k</i>	<i>N</i>	<i>r</i>	<i>S</i> ² <i>r</i>	ρ	<i>S</i> ² ρ	%VE	80% CRI	95% CI
Surface acting – deep acting	52	13,092	.181	.030	.219	.043	11.26	–.046; .484	.159; .279
Emotion-rule dissonance – surface acting	2	826	.365	0	.428	0	100	.428; .428	.364; .492
Emotion-rule dissonance – deep acting	2	826	0	.001	.001	.002	69.2	–.050; .052	–.099; .101

Note. *k* = number of studies; *N* = total sample size for all studies combined; *r* = sample size weighted average observed correlation; *S*²*r* = sample size weighted observed variance of correlations; ρ = average corrected correlation (corrected for sampling and measurement error in the predictor and criterion); *S*² ρ = variance of ρ ; %VE = variance accounted for by artifacts; 80% CRI = 10% lower and 90% upper limits of 80% credibility interval; 95% CI = 2.5% lower and 97.5% upper limits of 95% confidence interval.

regulation strategies and emotion–rule dissonance explain in outcome variables when considered jointly, and (b) about the unique contribution of each emotional labor facet in statistically predicting outcome variables. Beta-weights for all predictor variables in Regression #2 (see Table 3) are taken from the last step in the regression analysis. They consequently indicate the unique contribution of emotion–rule dissonance, surface, and deep acting. Overall, results mirror the meta-analytic zero-order correlations: Overall, surface acting and emotion–rule dissonance are stronger predictors of outcome variables than deep acting. Notable exceptions from this general pattern are results for personal accomplishment, emotional performance, and customer satisfaction for which deep acting is a better predictor than surface acting. An inspection of the total amount of variance explained in outcome variables reveals that up to 30% of variance in outcome variables can be explained by emotion regulation strategies and emotion–rule dissonance. Overall, the amount of variance explained by the three emotional labor facets was highest for indicators of personal ill-being and comparably lower for job-related well-being and performance outcomes.

To test Hypotheses 8, 9, and 10 we followed the approach described by Baron and Kenny (1986). Accordingly, a partial mediation effect is present when (1) the predictor is related to the criterion, (2) the predictor is related to the mediator, (3) the mediator is related to the criterion, and (4) the effect of the predictor variable on the criterion variable is reduced when controlling for the mediator. To further test the statistical significance of the last step, a Sobel test (Sobel, 1982) was conducted. To test the first condition, emotion–rule dissonance was regressed on each outcome variable individually. Results are indicated in the first part of Table 3 (Regression #1). Because emotion–rule dissonance was the only pre-

dictor in this regression analysis, beta-weights are identical to the corrected correlations depicted in Table 1. With the exception of personal accomplishment and task performance, relationships of emotion–rule dissonance with indicators of individual ill-being and job-related well-being were substantial, lying mostly in the .40s. As can be seen from Table 2, the second condition was also met. Emotion–rule dissonance displayed a substantial relationship ($\rho = .428$) with surface acting. Results concerning the third and fourth condition are displayed in the lower part of Table 3. Controlling for emotion–rule dissonance and deep acting, surface acting was significantly and substantially related to indicators of personal ill-being and job-related well-being. Furthermore, beta-weights for emotion–rule dissonance dropped considerably when it was entered in the second step after controlling for surface and deep acting. A Sobel test further corroborated that the reduction of the statistical effects of emotion–rule dissonance on outcome variables was substantial, indicating partial mediation except for task performance. Results thus confirmed Hypotheses 8 and 9. Hypothesis 10 could only be tested with regard to task performance. The mediation hypothesis was not supported, because surface acting displayed no relationship with task performance (Baron & Kenny's third condition).

Moderator Analyses

Because the amount of variance explained by artifacts and the width of credibility intervals indicated that moderators are likely to influence main relationships, we examined the influence of three potential moderator variables (cultural cluster, interaction type, and publication status) by conducting subgroup analyses. In conducting the moderator analyses we

Table 3

Hierarchical Regression of Emotion-Rule Dissonance, Surface, and Deep Acting on Outcome Variables and Mediation Analysis

	Emotional exhaustion		Depersonalization		Personal accomplishment		Psychological strain	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Regression #1								
<i>N</i>	12,111		4,037		2,882		1,955	
Emotion-rule dissonance	.163**	.404**	.194**	.440**	.011**	-.107**	.154**	.393**
Regression #2								
Harmonic <i>N</i>	2,083		1,765		1,761		1,456	
Block 1	.191**		.234**		.097**		.190**	
Surface acting		.298**		.366**		-.140**		.334**
Deep acting		.022		-.029		.300**		-.077**
Block 2	.079**		.065**		.002		.051**	
Emotion-rule dissonance		.312**		.283**		-.047		.250**
<i>R</i> ² total	.270**		.299**		.099**		.240**	
Sobel test (SE)	11.57* (.010)		12.67* (.013)		3.43* (.004)		10.11* (.013)	

Note. Emotion-rule dissonance could not be included in the regression analyses for emotional performance and customer satisfaction because fewer than two studies were available and thus a meta-analysis could not be conducted.

focused on emotional exhaustion and job satisfaction. These two outcome variables represent the two main outcome areas of personal ill-being and job-related well-being. Furthermore, for these two variables a sufficient amount of primary studies (*k* between 16 and 48) was available to conduct moderator analyses. Results are presented in Figure 2. Because some subgroups are represented by only a few studies, the respective results may be biased by nonrepresentative findings and should therefore be interpreted with caution.

To test whether effect sizes differed significantly between subgroups we conducted a *z* test suggested by Hunter and Schmidt (2004; p. 438 see also Cohen & Gattiker, 1994; Riketta, 2002; Rotundo, Nguyen, & Sackett, 2001). Figure 2 displays main and subgroup relationships between emotion-rule dissonance, deep acting, and surface acting with emotional exhaustion and job satisfaction. The vertical line indicates the corrected correlation of the main relationship between an emotional labor facet and an outcome variable. The boxes indicate to what extent mean corrected correlations in subgroups differ from that line and hence from main relationships. The size of boxes depends on the aggregated sample size of included studies in that subgroup (*N*). Horizontal lines around the boxes display confidence intervals.

Interaction type and publication status did not moderate relationships of emotional labor facets with emotional exhaustion and job satisfaction. *Z* tests yielded insignificant results, and confidence intervals

overlapped considerably. In contrast, the relationship of surface acting with job satisfaction and emotional exhaustion differed significantly between cultural clusters. Surface acting was more strongly related to emotional exhaustion in the Anglo cluster compared with the Latin European cluster. Similarly, surface acting was more strongly related to job satisfaction in the Germanic compared to the Latin European cluster.

Discussion

The goal of the present study was to shed light on the benefits and costs of emotional labor by statistically integrating findings on the relationship of emotion-rule dissonance, surface acting, and deep acting with well-being and performance outcomes by means of a comprehensive, theory-driven meta-analysis. Models of emotional labor (Grandey, 2000; Holman, Martínez-Iñigo, & Totterdell, 2008a; Rubin et al., 2005) provided the overarching framework, guiding us in deriving theoretical hypotheses and in the selection and categorization of outcome variables.

Emotional Labor, Well-Being, and Performance

We expected positive relationships of surface acting and emotion-rule dissonance with indicators of

Psychosomatic complaints		Job satisfaction		Organizational attachment		Task performance		Emotional performance		Customer satisfaction	
ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
1,168		3,219		2,532		209					
.154**	.393**	.154**	-.400**	.059**	-.243**	.04**	-.200**				
1,465		1,893		1,758		657		2,118		645	
.196**	.297**	.136**	-.240**	.112**	-.238**	.013*	-.035	.064**	-.188**	.155**	-.138**
	.110**		.107**		.116**		.001		.216**		.400**
.057**	-.297**			.012**		.028**					
	.266**		-.297**		-.122**		-.185**				
.253**		.207**		.124**		.041**		.064**		.155**	
9.37* (.001)		9.15* (.01)		7.72* (.008)		0.79 (.009)					

personal ill-being and negative relationships with job-related well-being. With the exception of the burnout facet personal accomplishment, these hypotheses were fully supported. Surface acting and emotion–rule dissonance displayed substantial positive relationships with emotional exhaustion, depersonalization, psychological strain, and psychosomatic complaints and negative relationships with job satisfaction and organizational attachment. Confidence intervals and credibility intervals did not include zero, suggesting that the relationships were significant and generalizable across samples and settings. Applying Cohen's (1992) rules of thumb, the size of the relationships is to be evaluated as medium to large. In fact, effect sizes found for emotion–rule dissonance and surface acting are sizable when compared with other meta-analytic findings. For instance, the relationships with emotional exhaustion and depersonalization (corrected correlations between .404 and .481) exceed effect sizes of other potential antecedents of burnout to a considerable extent (corrected correlation between job demands and burnout $-.27$; Crawford, LePine, & Rich, 2010). Given the strong conceptual and empirical relationship between emotion–rule dissonance and surface acting, the regression analysis is an important means to shed light on the unique contribution of both aspects of emotional labor in explaining variance in outcome variables. Results revealed that controlling for one another and for deep acting, surface acting and

emotion–rule dissonance were still substantially related to well-being outcomes. This suggests that they are in fact distinct constructs that are associated with different parts of the variance in outcome variables. Furthermore, the finding that surface acting and emotion–rule dissonance are independently associated with well-being outcomes corroborates our theoretical model of emotional labor, suggesting that the link of both emotional labor facets with well-being is at least partly based on different underlying mechanisms. As proposed in the introduction, the direct link between emotion–rule dissonance and well-being may be explained by person–role conflict. In contrast, ego depletion, the experience of inauthenticity, the ongoing experience of negative emotions, and the impairment of social interactions may be the mechanisms driving the link between surface acting and well-being outcomes.

It has previously been argued that the strong associations between surface acting and emotion–rule dissonance on the one and well-being outcomes on the other hand may be spurious and caused by underlying third variables (Bono & Vey, 2005). For instance, the personality traits of positive and negative affectivity (or extraversion and neuroticism) may each function as a third variable that causes spurious correlations between surface acting and well-being outcomes (Bono & Vey, 2005). Research has documented that employees high in negative affectivity (or neuroticism) tend to face emotion–rule dissonance.

Figure 2 (opposite).

nance more frequently (Zapf & Holz, 2006) and tend to engage more often in surface acting while employees high in positive affectivity (or extraversion) tend to engage less often in surface acting (Brotheridge & Grandey, 2002; Brotheridge & Lee, 2003; Diefendorff, Croyle, & Gosserand, 2005; Gosserand & Diefendorff, 2005). Furthermore, it is well established that negative affectivity (or neuroticism) and positive affectivity (or extraversion) are related to personal ill-being and job-related well-being (e.g., Alarcon, Eschleman, & Bowling, 2009; Judge, Heller, & Mount, 2002; Watson & Walker, 1996). In consequence, the strong associations between emotional labor and well-being outcomes might be artificial and in fact caused by positive and negative affectivity. However, a handful of studies that controlled for positive and negative affectivity or extraversion and neuroticism suggest that the link between surface acting or emotion–rule dissonance and well-being outcomes is not spurious. For instance, in a recently published diary study, surface acting was positively related to negative affect and emotional exhaustion and negatively to job satisfaction in the evening after controlling for trait positive and negative affect (Judge et al., 2009). Moreover, emotion–rule dissonance was significantly related to emotional exhaustion and depersonalization in a cross-sectional multisample study after controlling for neuroticism (Zapf & Holz, 2006).

Similarly, customer-related social stressors and negative emotions caused by unpleasant interactions may account for the relations of emotional labor with well-being and performance outcomes. Emotion–rule dissonance and surface acting occur predominantly when employees find themselves in difficult situations and when they experience negative emotions (e.g., Grandey, Dickter, & Sin, 2004). Emotion–rule dissonance and surface acting may thus be indicators of customer related social stressors and of the negative emotions that arise in unpleasant interactions with customers (Dormann & Zapf, 2004; Zapf &

Holz, 2006). Consequently, it might be argued that the experience of stressful encounters rather than emotional labor accounts for the relationship of emotional labor with well-being and performance. Although this issue has not yet been investigated exhaustively, a study by Dormann and Zapf (2004) suggests that emotion–rule dissonance displays a significant relationship with the burnout dimension of depersonalization when controlling for customer related social stressors. Despite this initial evidence, the systematic investigation of potential third variable phenomena certainly is an important area of future research. In addition, longitudinal and experimental studies will be vital to rule out third variable phenomena and to gain a deeper understanding of the causal mechanisms involved in emotional labor.

Regarding performance outcomes, we expected negative relationships of surface acting and emotion–rule dissonance with task performance, emotional performance, and customer satisfaction. By and large, these hypotheses were supported. Surface acting and emotion–rule dissonance displayed negative associations with task performance, and surface acting was negatively related to emotional performance. The size of these effects was small (Cohen, 1992). Results thus confirm that surface acting is a rather ineffective emotion regulation strategy both for employees and organizations in that it is associated with impaired psychological health and lower performance.

Findings clearly show the benefit of carefully differentiating between emotional labor constructs. Whereas surface acting and emotion–rule dissonance were negatively related to employee well-being, deep acting seemed to bear mostly weak and nongeneralizable relations with well-being outcomes while displaying positive associations with performance outcomes. In the introduction we argued that different mechanisms are active when employees engage in deep acting, some of which drain (mental effort and ego depletion) while others restore resources (re-

Figure 2 (opposite). Figure 2 displays results of meta-analytic subgroup analyses. The x-axis displays rho, the corrected mean correlation. Results for the main analyses are displayed above the results of the corresponding subgroup analyses for each emotional labor facet—outcome relationship. The position of the boxes indicates to what extent mean corrected correlations in subgroups differ from main relationships. For every analysis, ρ (the average corrected correlation), $S^2\rho$ (variance of ρ) and k (number of studies in a given subgroup analysis) is indicated. The size of the black boxes indicates N (total sample size in a given subgroup analysis) and the length of the whiskers indicates the width of the confidence intervals. The z test indicates whether mean corrected correlations differ significantly between subgroups. When the z -value reached 1.96 we marked the z -value with an asterisk indicating that it is significant at $p < .05$ (double sided).

warding social interactions). This may explain why findings have been mixed and why deep acting seems to be unrelated to most indicators of personal ill-being and job-related well-being. Testing this speculation would require disentangling the various processes involved in deep acting and their respective impact on different aspects of psychological functioning and employee well-being. An alternative explanation for these findings may be that global measures of deep acting are not well suited to assess the construct and its specific relations with different aspects of personal ill-being and job-related well-being (see section on directions for future research).

Contrary to what was expected, no positive relationship between deep acting and task performance was found. However, deep acting displayed positive relationships with emotional performance and customer satisfaction. The regression analysis corroborated this finding: Holding surface acting constant, deep acting was positively related to emotional performance and customer satisfaction. Different performance aspects thus appear to be differentially related to deep acting, and this might be explained by the different processes involved in deep acting. While emotional performance and customer satisfaction is dependent on employees' emotional displays and affective delivery, task performance describes other, primarily cognitive performance aspects. The cognitive costs of deep acting might thus have a negative effect on task performance without impairing emotional performance and customer satisfaction. In contrast, the benefits of an authentic emotional display might benefit emotional performance and customer satisfaction more than task performance.

Applying Cohen's (1992) standards, the size of the relationships of deep acting with emotional performance and customer satisfaction may be evaluated as small to medium. Notably, effect sizes are comparable to or even exceed effect sizes found for other constructs that are frequently considered valid predictors of performance, such as job satisfaction, organizational commitment, or conscientiousness (Barrick, Mount, & Judge, 2001; Judge et al., 2001; Meyer, Stanley, Herscovitch, & Topolnysky, 2002; Ones, Dilchert, Viswesvaran, & Judge, 2007).

Interestingly, Hypotheses 1 and 5 were not supported with regard to personal accomplishment. Although surface acting and emotion–rule dissonance were substantially related to the burnout facets of emotional exhaustion and depersonalization and to other indicators of impaired well-being, they displayed no or only weak relationships with personal accomplishment. Similarly, although deep acting dis-

played no generalizable relationships with indicators of impaired well-being, it displayed a significant positive association with personal accomplishment. These findings are in accordance with Leiter's (1993) model of burnout suggesting that emotional exhaustion and personal accomplishment develop independently of one another and are "reactions to different aspects of the work environment" (p. 246). Specifically, it has been suggested that job demands are more strongly related to emotional exhaustion whereas job resources are more strongly related to personal accomplishment (Lee & Ashforth, 1996; Leiter, 1993). As described in the introduction, surface acting and emotion–rule dissonance drain employees' resources through various pathways and may therefore be perceived as job demands. This may explain why emotion–rule dissonance and surface acting display weaker links with personal accomplishment (which is rather insensitive to job demands) than to the other burnout facets. In contrast, deep acting does not only deplete but also replenishes resources and may therefore be seen as a job resource. It fosters the experience of rewarding social interactions and helps in successfully accomplishing ones' job tasks. This might increase people's sense of personal efficacy (Brotheridge & Grandey, 2002), which has been argued to be an antecedent of personal accomplishment (Leiter, 1993).

Support for a Mediated Process Model

With our meta-analytic mediation analysis we tested a central proposition that has been made in conceptual models of emotional-labor (Holman, Martínez-Iñigo, & Totterdell, 2008b; Rubin et al., 2005), namely that the link of emotion–rule dissonance with well-being and performance is mediated by emotion regulation strategies. Overall, our results confirm this proposition, but they also help refine it. First, the mediation hypothesis was confirmed for indicators of personal ill-being and job-related well-being but not for task performance. Second, these models conceptualize emotion–rule dissonance as an antecedent to emotion regulation which, in turn, is seen as a proximal predictor of well-being and performance outcomes. They do, however, not specify which emotion regulation strategy actually carries the weight in mediating the relationship between emotion–rule dissonance and outcome variables. Our results show that surface acting is the central mediating variable. Deep acting did not qualify as a mediator for different reasons: First, deep acting was unrelated to indicators of impaired personal well-being and

job-related well-being. Second, deep acting was unrelated to emotion–rule dissonance. Although this is an interesting finding, we warrant caution in drawing conclusions given that the result was based on only two studies. The finding that emotion–rule dissonance bears a stronger positive relationship with surface than with deep acting (see Table 2) is, however, in line with previous research. Grandey and colleagues (2004) revealed that employees are (a) more likely to engage in surface acting in high stress rather than low stress situations and (b) are more likely to engage in surface acting than in deep acting in situations which they appraise as stressful. Stressful interactions with customers are likely to be associated with high emotion–rule dissonance, and this might explain why the relationship of emotion–rule dissonance is stronger with surface than with deep acting. The fact that we were able to locate only two studies on the link between emotion–rule dissonance and deep acting shows that this relationship warrants more attention in future research.

With regard to surface acting, results revealed partial as opposed to full mediation. This finding supports our proposition that, apart from an indirect association, emotion–rule dissonance does also have a direct relationship with outcome variables. Whether this direct relationship may be explained by induced person–role conflict, as we suggested, remains to be tested in future research.

The Search for Moderators

Results confirmed that surface acting and emotion–rule dissonance but not deep acting are negatively related to well-being and performance outcomes. Even though these effects and their direction displayed validity generalization, for some of the investigated relationships there was still considerable variability in effect sizes after correcting for sampling and measurement error. We therefore conducted an exploratory moderator analysis considering relationships of surface acting, emotion–rule dissonance, and deep acting with emotional exhaustion and job satisfaction. In doing so, we considered moderator variables at the study, the sample, and the cultural level.

Results revealed that culture had a moderating effect on relationships of surface acting with job satisfaction and emotional exhaustion. Specifically, effect sizes were smaller in the Latin European cluster compared with the Germanic or Anglo cluster suggesting that surface acting has less detrimental effects on employees in Latin European countries.

This finding is in line with Grandey and colleagues' (2005b) argumentation about the influence of cultural differences on emotional labor. According to sociological emotion research (Gordon, 1989) cultures can be differentiated into institutionally oriented and impulsively oriented cultures: The United States and North American cultures have rather explicit and strong norms about the expression and regulation of emotions and are therefore more institutionally oriented. In contrast, Latin European countries put more value on the expression of spontaneous, unregulated emotions and are therefore considered to be impulsively oriented. According to Grandey and colleagues, impulsively oriented cultures experience more personal control over their emotion expressions and their choice of regulation strategies than institutionally oriented cultures, and this buffers them against the negative effects of surface acting on strain.

Interestingly, service interaction type did not emerge as a moderator in the current analyses, although it has repeatedly been suggested that the type of service interactions should be considered as a potential moderator in emotional labor research (Grandey & Diamond, 2010). Despite our meta-analytic findings, the potential moderating role of service interaction type should not, however, be discarded prematurely. First, moderator analyses were based on a comparatively small sample of primary studies, and these might not be representative of the population of samples. Second, it might very well be that a differentiation by occupation or job title does not clearly capture the differences between service encounters and relationships. Grandey and Diamond (2010) illustrated this, arguing that a hairdresser at a designer salon might have service relationships while a hairdresser at a walk-in store might be confronted with service encounters. Furthermore, some jobs might involve both, service relationships and service encounters, to different degrees. Future research might therefore benefit from conceptualizing relationship type as a continuous rather than a categorical variable and assess it as such in primary studies of emotional labor.

Limitations and Directions for Future Research

We believe that the current meta-analysis provides important insights into the benefits and costs of emotional labor. However, our study certainly is not without its limitations, and these should be consid-

ered when drawing conclusions from our findings. For some outcome variables (e.g., psychosomatic complaints, task performance, customer satisfaction) only a small number of studies was available, and this might affect the accuracy of meta-analytic estimates. However, as Schmidt and colleagues pointed out, even small meta-analyses provide meaningful and reliable insights into the relationship between variables and are worthwhile being conducted (Schmidt, Hunter, Pearlman, & Hirsh, 1985; see also Valentine, Pigott, & Rothstein, 2010). Another shortcoming may be that the studies combined in the respective performance categories used different measures of performance, namely objective measures, independent ratings (supervisor, peer, customer, or observer ratings), and self-ratings. The number of studies that fell into each category was, however, too small to allow a moderator analysis differentiating between different performance measures. Because self-reports have been criticized to be affected by a number of biases like common-method and self-serving bias (Conway & Huffcutt, 1997; Harris & Schaubroeck, 1988), it is a noteworthy strength of the current meta-analysis that the majority of studies (80%) used independent ratings or objective measures of performance.

Because the majority of primary studies included in the current meta-analysis was cross-sectional, our findings do not allow making causal inferences or testing the processes and causal pathways suggested in current models of emotional labor (Grandey, 2000; Holman, Martínez-Iñigo, & Totterdell, 2008a; Rubin et al., 2005). As Hülshager and colleagues (2010) argued, the association between emotional labor, well-being, and performance found in cross-sectional studies may not only be explained by causal effects of emotional labor on well-being and performance but also by reverse effects of well-being and performance on emotional labor. Similarly, it may be argued that job satisfaction is an antecedent to emotional labor (Grandey, 2003), although theoretical models of emotional labor conceptualize job satisfaction as an outcome variable (Grandey, 2000; Rubin et al., 2005). Testing reciprocal relationships in a longitudinal panel study, Hülshager and colleagues (2010) were able to show that causal pathways led from emotional labor to strain and performance rather than vice versa. More longitudinal investigations are certainly needed to corroborate these findings and to extend them to other outcome variables, such as job satisfaction and organizational attachment.

Future research endeavors may aim at investigating other types of emotion regulation that may be more beneficial for both employees and organizations than surface acting and deep acting. Surface and deep acting are conscious emotion regulation strategies which individuals adopt when there is a mismatch between spontaneously felt emotions and emotions prescribed by display rules (Holman, Martínez-Iñigo, & Totterdell, 2008a). They consequently require deliberate processing and attentional resources (Mauss, Bunge, & Gross, 2008). However, there are also instances in which felt emotions naturally coincide with required emotions. This situation has been referred to as automatic regulation, passive deep acting (Ashforth & Humphrey, 1993; Martínez-Iñigo et al., 2007; Zapf, 2002) or naturally felt emotions (Diefendorff, Croyle, & Gosserand, 2005). Automatic regulation occurs unconsciously and without effort (Mikolajczak, Tran, Brotheridge, & Gross, 2009). Mauss and colleagues (2008) define automatic emotion regulation as “changes (either increases or decreases) to any aspect of one’s emotion without making a conscious decision to do so, without paying attention to the process of regulating one’s emotions, and without engaging in deliberate control” (p. 43). Recently, researchers have started dedicating more attention to automatic regulation (Ashforth & Humphrey, 1993; Diefendorff, Croyle, & Gosserand, 2005; Martínez-Iñigo et al., 2007; Zapf, 2002). Research documents that automatic regulation is distinct from surface and deep acting (Diefendorff, Croyle, & Gosserand, 2005; Martínez-Iñigo et al., 2007). However, only a few studies have investigated the link of automatic regulation with well-being (e.g., Martínez-Iñigo et al., 2007; Prati, 2004), and the consequences of automatic regulation in the work context are not yet well understood. Furthermore, no applied field study has, to our knowledge, investigated the link between automatic regulation and performance outcomes. However, a series of experimental studies using a cognitive paradigm suggests that automatic regulation is indeed related to performance (Moon & Lord, 2006). Quick and automatic emotion regulation is apparently beneficial to successful task performance because it prevents inappropriate emotions to enter consciousness and thereby require working memory and interfere with other cognitive tasks. Future research might use Moon and Lord’s (2006) distractor suppression task to assess individuals’ automatic emotion regulation abilities in addition to traditional self-report measures and to assess its validity to predict work-related performance outcomes. In sum, automatic regulation might benefit both, or-

ganizations and individuals, in that it is similar to deep acting without being effortful and draining mental resources. It can therefore be expected that automatic regulation displays stronger positive links with performance outcomes *and* well-being than deep acting. We therefore believe that the consideration of automatic regulation in addition to surface and deep acting will advance our knowledge of the role of emotion regulation at work.

Furthermore, future research might benefit from assessing deep and surface acting in a more fine-grained manner, because deep acting and surface acting might both be used to amplify and suppress positive or negative emotions (Holman, Martínez-Iñigo, & Totterdell, 2008a). A differentiated assessment of emotion regulation might help explain previous inconsistent findings. Possibly, deep acting by amplification has different effects on psychological strain than deep acting by suppression. Furthermore, amplifying positive emotions through deep acting might be more beneficial than amplifying negative emotions through deep acting. In a similar vein, deep acting can be accomplished by a number of different emotion regulation strategies, such as situation modification, distraction, positive reappraisal, acceptance, and blaming others (for a detailed description see Mikolajczak et al., 2009). Some of these may be conducive while others may be obstructive to employee well-being and performance (Mikolajczak et al., 2009). Studies differentiating between two aspects of deep acting, namely positive refocus and perspective taking, have revealed that employees use them to different extents in different situations and that both strategies are differentially related to outcome measures, such as proactive customer help (Grandey, Dickter, & Sin, 2004; Totterdell & Holman, 2003). Extant research on deep acting has relied predominantly on global measures of deep acting (Brotheridge & Lee, 2003) without differentiating individual regulation strategies. This might explain why research has failed to find significant relationships between deep acting and well-being.

Lastly, extant research on emotional labor has focused on interactions between employees and the public. However, emotional labor might not only take place between employees and clients or customers but also between coworkers as well as between leaders and followers (Bono, Folds, Vinson, & Muros, 2007; Gardner, Fischer, & Hunt, 2009). Extending emotional labor research to these relationships offers a variety of pathways for future research, such as investigating the link between emotion regulation strategies and leadership styles, the effect of emotion

regulation strategies on leadership success, or on followers' well-being and job attitudes.

Conclusion and Practical Implications

Summing up, results of the present quantitative review suggest that emotion–rule dissonance and surface acting are detrimental to both well-being and performance outcomes. In comparison, deep acting seems to be the better alternative. It is largely unrelated to well-being and even displays positive associations with performance. Findings consequently suggest that emotional labor does not necessarily need to harm employees. Whether or not individuals will be at risk of developing burnout and suffering from psychological health impairments rather depends on the emotion regulation strategy individuals adopt. Clearly, organizations active in the service sector should therefore try to prevent employees from engaging in surface acting and promote deep acting instead. As a first step this would require identifying which employees have a tendency to engage in surface rather than in deep acting and which specific situations trigger the use of surface acting. Targeted interventions could aim at training employees in more healthy emotion regulation strategies and facilitate their day-to-day use (cf. Berking, Meier, & Wupperman, 2010; Totterdell & Parkinson, 1999; Richard, 2003). Another fruitful way to foster healthy emotion regulation at work would be to create more opportunities to experience authentic positive emotions during work. Furthermore, the person–organization fit literature has recently been extended to include emotional demands–abilities fit, describing the “perceived match between the emotional demands of a job and a person’s abilities to meet those demands” (p. 3; Diefendorff & Greguras, 2010). Diefendorff and Greguras’ research shows that congruence between emotional job demands and employees’ individual abilities is associated with job satisfaction, burnout, and performance even after controlling for traditional person–environment fit measures. Complying with organizational display rules might thus be easier and less detrimental to those employees whose emotional abilities match emotional job demands. Organizations might also consider adapting their personnel selection strategies to the requirements of emotional labor occupations and select employees that, because of their personality dispositions and emotion regulation competencies, tend to naturally feel the emotions they have to show as part of their job. They will most likely be able to perform their work well without having to

suffer from the negative side effects of effortful emotion regulation.

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