

EXAMINING THE FIT BETWEEN EMOTIONAL JOB DEMANDS AND  
EMPLOYEE EMOTIONAL ABILITIES

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## ABSTRACT

The purpose of the current study was to examine the effects of different forms of emotional demands-abilities (ED-A) fit on work-related outcomes. The current study contributes to the literature by investigating these outcomes using an indirect approach to measure ED-A fit (i.e., emotional job demands and emotional abilities are assessed separately), permitting the examination of the effects of different forms of misfit (i.e., too many demands, too few demands) on outcomes. Additionally, the current study explored a broader set of outcomes from emotional labor theory as well as explored the dimensionality of ED-A fit. The findings from this study suggest that ED-A fit is composed of four dimensions – integrative, differentiating, emotional masking, and regulation demands and abilities. This study also found that each of these dimensions predicted outcomes differently and that nonlinear relationships between emotional demands and abilities were found for the integrative dimension of ED-A fit in relating to felt inauthenticity and for the differentiating dimension of ED-A fit in relating to felt inauthenticity, physical symptoms, and job performance. These nonlinear relationships provide a more complete depiction of how different forms of emotional fit and misfit relate to outcomes.

## DEDICATION

I dedicate this thesis in memory of Mary K. Wolowicz. Her life work and contributions touched many.

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## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
CHAPTER	
I. INTRODUCTION .....	1
II. LITERATURE REVIEW .....	4
Fit .....	4
ED-A Fit.....	7
Emotional Job Demands .....	8
Emotional Abilities .....	11
III. THE CURRENT INVESTIGATION .....	15
Assessment of Emotional Demands-Abilities Fit Components.....	15
Outcomes of ED-A fit.....	17
Exploring the dimensionality of ED-A fit .....	24
IV. METHOD .....	26
Participants and Procedure.....	26
Measures .....	29
Emotional Job Demands .....	29
Emotional Abilities .....	30

Felt Inauthenticity .....	30
Emotional Exhaustion .....	31
Physical Symptoms .....	31
Job Performance.....	32
Job Satisfaction .....	32
Analytic Approach .....	32
V. RESULTS .....	36
Confirmatory Factor Analysis of Demand and Ability Items.....	36
Hypothesis Testing Using Polynomial Regression.....	40
Integrative Emotional Demands and Abilities .....	41
Differentiating Emotional Demands and Abilities .....	48
Emotional Masking Demands and Abilities .....	60
Emotional Regulation Demands and Abilities.....	63
VI. DISCUSSION.....	67
Dimensionality of Demands and Abilities .....	68
Understanding the Relations of Emotional Demands and Abilities with Outcome Variables.....	69
Integrative Emotions .....	69
Differentiating Emotions .....	71
Emotional Masking .....	76
Emotional Regulation .....	78
Relative Contribution of the Different Dimensions of Demands and Abilities.....	79
Implications for Practice .....	84

Limitations and Future Research .....	90
Conclusion .....	93
REFERENCES .....	94
APPENDICES .....	103
APPENDIX A. EMOTIONAL JOB DEMAND ITEMS .....	104
APPENDIX B. EMOTIONAL ABILITIES ITEMS .....	105
APPENDIX C. FELT INAUTHENTICITY ITEMS.....	106
APPENDIX D. JOB-RELATED EMOTIONAL EXHAUSTION ITEMS.....	107
APPENDIX E. PHYSICAL SYMPTOMS ITEMS.....	108
APPENDIX F. SELF-RATED IN-ROLE PERFORMANCE (JOB PERFORMANCE) ITEMS .....	109
APPENDIX G. JOB SATISFACTION ITEMS .....	110
APPENDIX H. EMOTIONAL DEMANDS AND ABILITIES FACTOR LOADING ITEMS .....	111
APPENDIX I. IRB APPROVAL.....	113



## LIST OF TABLES

Table	Page
1 Means, standard deviations, and correlations between all variables .....	36
2 Summary of fit statistics .....	39
3 Integrative (Positive) Emotional Demands and Abilities .....	42
4 Ordinary Least Squares Regression Results for Integrative Emotional Demands and Abilities for Felt Inauthenticity .....	44
5 Differentiating (Negative) Emotional Demands and Abilities .....	49
6 Ordinary Least Squares Regression Results for Differentiating Emotional Demands and Abilities for Felt Inauthenticity .....	51
7 Ordinary Least Squares Regression Results for Differentiating Emotional Demands and Abilities for Job Performance.....	54
8 Ordinary Least Squares Regression Results for Differentiating Emotional Demands and Abilities for Physical Symptoms.....	58
9 Emotional Masking (Show no emotion) Demands and Abilities .....	61
10 Emotional Regulation Demands and Abilities.....	64
11 Supplemental Analyses: Relative Contribution of Various Demands and Abilities .....	84

## LIST OF FIGURES

Figure	Page
1 The three-dimensional shape of the data for integrative demands and abilities predicting felt inauthenticity .....	42
2 The three-dimensional shape of the data for differentiating demands and abilities predicting felt inauthenticity .....	50
3 The three-dimensional shape of the data for differentiating demands and abilities predicting job performance .....	53
4 The three-dimensional shape of the data for differentiating demands and abilities predicting physical symptoms .....	57

## CHAPTER I

### INTRODUCTION

In recent years, many organizational scholars have become increasingly interested in examining emotions in the workplace (Arvey, Renz, & Watson, 1998; Grandey, 2000). An area of this research has focused on *emotional labor*, or the management of emotions as part of the work role (Hochschild, 1983). In emotional labor theory, employees are faced with job demands requiring them to monitor and manage their emotions in order to *display* or *feel* organizationally appropriate emotions (Hochschild, 1983; Rafaeli & Sutton, 1987). Employees manage their emotions in different ways and research has found that some emotion management strategies have more negative outcomes than other strategies (e.g., Grandey, 2003). Additionally, there is some evidence that there are chronic individual differences in the use of particular emotional labor strategies (e.g., Austin, Dore, & O'Donovan, 2008; Diefendorff, Croyle, & Gosserand, 2005). Research has also shown that certain personality traits, such as extraversion, neuroticism and agreeableness, as well as positive and negative affectivity, predict how well individuals can express the organizationally-desired emotions (e.g., Austin et al., 2008; Diefendorff et al., 2005; Gosserand & Diefendorff, 2005).

These findings suggest that how effective an individual is in performing emotional labor may depend on the employee's ability to manage his/her emotions in a

way that is congruent with the emotional demands of a job. This idea is consistent with a “fit” perspective (Arvey et al., 1998). According to a fit perspective, the more people are congruent (fit) with their environments or situation, the better the outcomes for the individual (Schneider, Kristof-Brown, Goldstein, & Smith, 1997). Adopting a fit perspective to interpret the different consequences of emotional labor, suggests that negative outcomes of emotional labor may occur when an employee’s emotional abilities are incongruent with the emotional demands or requirements of the job (Arvey et al., 1998). Although investigations into the fit between the emotional abilities of a person and the emotional demands of a job were recommended nearly a decade ago, research on this topic has just begun (Arvey et al., 1998).

To explore the idea of fit between an employee’s emotional abilities and emotional job demands, Diefendorff, Greguras, Fleenor, and Chandler (2008, April) developed the construct of emotional demands-abilities (ED-A) fit which they defined as “congruence between a person’s emotional capabilities and the emotional demands of the job” (p. 1). Using a direct perception measure of ED-A fit, Diefendorff et al. showed that ED-A fit was distinct from other fit constructs and uniquely predicted a variety of attitudinal and performance outcomes. One of the goals of this investigation is to extend this research in three ways. First, I measured ED-A fit indirectly by assessing each component (demand, ability) separately. Such an approach enables the examination of the effects of different forms of misfit (i.e., too many demands, too few demands) on outcomes as well as the relative contribution of each component to predicting outcomes. Second, I examined a broader set of outcomes derived from emotional labor and related theory. Finally, I explored the dimensionality of ED-A fit and considered whether there

are different types of ED-A fit (e.g., displays, feelings, emotion regulation, emotional valance). I expand on these ideas below, first reviewing the concept of fit in organizational research and then presenting ideas for expanding research on ED-A fit.

## CHAPTER II

### LITERATURE REVIEW

#### Fit

According to Kristof-Brown, Zimmerman, and Johnson (2005, p. 281) person-environment (P-E) fit is “the compatibility between an individual and a work environment that occurs when their characteristics are well matched.” A basic assumption of the fit perspective is that the extent to which an employee’s characteristics match or fit certain aspects of the environment can influence the attitudes and behaviors of the employee (Cable & Edwards, 2004; Schneider, 1987).

In order to better understand the fit between the environment and the person, researchers commonly view P-E fit as being multidimensional, with person-organization (P-O) fit and person-job (P-J) fit being the most commonly investigated concepts (Kristof-Brown et al., 2005). P-O fit is the amount of congruence between an employee’s values and the values of an organization, (Chatman, 1989; Kristof, 1996) while P-J fit is the fit between an employee’s attributes and the features of the job (Edwards, 1991). P-J fit has further been divided into (a) demands-abilities (D-A) fit, which is the extent to which a person’s knowledge, skills, and abilities meet the knowledge, skills and abilities needed for optimal job performance, and (b) needs-supplies (N-S) fit which is the extent to which an employee’s needs and desires correspond to what the employees receives for

performing their job (e.g., pay, recognition, working conditions) (Cable & DeRue, 2002; Kristof-Brown et al., 2005). Perceptions of P-O fit, D-A fit, and N-A fit have been shown to be empirically distinct and relate to different outcomes (Cable & DeRue, 2002).

In addition to the different conceptualizations or types of fit, there are different approaches to measuring fit (Edwards, Cable, Williamson, Lambert, & Shipp, 2006; Kristof-Brown et al., 2005). Fit can be assessed indirectly or directly (Kristof-Brown et al., 2005). Indirect measures of fit require individuals to evaluate the levels of their own attributes and those of the environment (i.e., job, organization) in separate items (Kristof-Brown et al., 2005). In response to conceptual ambiguities and analytic difficulties associated with assessing the components separately (e.g., Edwards, 1991), researchers attempted to directly measure perceived fit. A direct measure of fit involves a judgment by employees about the match between their characteristics and those of the environment (i.e., job, organization). Kristof (1996) suggested that direct measures of fit are ideal when the fit construct of interest is perceived fit. In their meta-analysis, Kristof-Brown et al. (2005) found that in most cases, direct measures of P-J and P-O fit, where the person and the environment are compared in the same question or item (Edwards, 1991), were more strongly related with outcome variables than were indirect measures of P-O and P-J fit. For instance, direct and indirect measures of P-O fit were related to job satisfaction, ( $r = .56$  and  $r = .35$ ), intention to quit ( $r = -.52$  and  $r = -.22$ ), task performance ( $r = .22$  and  $r = .05$ ), and strain ( $r = -.34$  and  $r = -.17$ ). Kristof-Brown et al. found a similar pattern of results for person-job fit. Kristof-Brown et al. attributed the stronger results for direct measures than indirect measures to common method bias, which may have inflated the observed relationships. However, it also should be noted that in additional supplemental

analyses that were not part of the main meta-analytic findings, Kristof-Brown et al. (2005) reported that indirect assessments of fit that utilized polynomial regression yielded the largest r-squared values of all of the comparisons. I return to this point at a later section.

Although direct measures of fit have been found to relate more strongly to outcomes than indirect measures (Kristof-Brown et al., 2005), direct measures of fit are not without their problems. First, direct fit perceptions were developed in part to avoid the use of difference scores in analyses (Edwards, 1991). However, explicitly asking participants about whether they believe their characters match or fit organizational characteristics may bias or prime respondent to calculate differences scores in their head, thereby failing to avoid the difference score problem (Kristof-Brown et al., 2005). In addition, direct measures confound person and environment effects, not allowing them to naturally vary in direction and magnitude (Edwards, 1991). Perhaps most importantly, direct measures of fit do not allow the researcher to examine the relative contribution of person and environment in predicting outcomes, thereby confounding person and job concepts. As a result, it is impossible to determine whether the person, job, or a combination of the two affects the outcome in question (Edwards, 1991). Edwards (1991) suggested that direct measures of fit be avoided and instead the person and the job should be assessed separately using commensurate measures of each. Although these criticisms of direct fit conceptualizations have merit, it is telling that the direct fit measures out-predict the indirect measures. As a result, Edwards et al. (2006) recently concluded that while the two approaches to measuring fit are distinct and should not be used interchangeably, the selection of the fit measure to be used in a study should be



driven by the underlying theory and purpose of the study. Similarly, Kristof-Brown et al. (2005) strongly recommended that before adopting a fit measurement strategy, researchers should consider their research questions and prior evidence for the specific fit relationships to determine which method of measuring fit is optimal for the investigation.

#### ED-A Fit

As mentioned before, research has found that the emotional demands of a job can have negative consequences on individuals (Brotherridge & Grandey, 2002; Diefendorff & Richard, 2003; Glomb & Tews, 2004; Grandey, 2003; Montgomery, Panagopolou, Wildt, & Meenks, 2006; Schaubroeck & Jones, 2000; Totterdell & Holman, 2003). However, as argued by Diefendorff et al. (2008, April), the extent to which emotional demands have negative (Montgomery et al., 2006) or even positive effects (Zapf, Vogt, Seifert, Mertini, & Isic, 1999) on individuals may depend on whether their emotional capabilities match the demands of the job. Based on this notion, Diefendorff et al. developed the construct of emotional demands-abilities (ED-A) fit. Unlike other fit constructs, ED-A fit specifically pertains to whether a person has the emotional capabilities to successfully meet the emotional demands required by the job. Diefendorff et al. demonstrated that ED-A fit was distinct from other types of perceived fit (person-organization, demands-abilities, needs-supplies) and that it predicted individual outcomes such as burnout, job satisfaction, job performance, and felt inauthenticity above and beyond the influence of the other fit variables. Thus, there is initial evidence that this type of fit is valid and useful for predicting important outcomes. Below, I review evidence for the existence of emotional job demands and emotional abilities.

### *Emotional Job Demands*

Ekman and Friesen (1975) may be credited with first acknowledging the idea that jobs explicitly require employees to manage their emotions. In their description of emotional display rules, which they considered to be the rules guiding individuals' expression of emotions, Ekman and Friesen indicated that one of the primary sources of display rule information is occupational requirements. Soon thereafter, Hochschild (1983), introduced the concept of emotional labor to describe the job demands that requires employees to "feel, or at least project the appearance of certain emotions" in order to perform their jobs effectively (Kruml & Geddes, 2000, p. 177). That is, emotional labor requires employees to manage their emotions in a way that allows them to *display*, to *feel*, or to simultaneously display and feel specific organizationally appropriate emotions (Grandey, 2000; Hochschild, 1983; Morris & Feldman, 1997). Additionally, these emotional labor requirements may involve expressing or feelings specific emotions in terms of emotional valance (positive, negative, neutral) (Glomb & Tews, 2004).

Based on these ideas, Hochschild (1983) argued that organizations prescribe feeling rules that communicate to employees the emotions they should experience as part of the work role. Noting the potential difficulties that organizations and managers may have in enforcing feeling rules (because of the private nature of actual feelings), Rafaeli and Sutton (1987) adopted Ekman's (1973) term display rules because of its focus on outward and observable expressions of emotion. Since that time, display rules have dominated theoretical discussions of emotional job requirements (e.g., Ashforth & Humphrey, 1993; Diefendorff & Gosserand, 2003; Grandey, 2000). Nonetheless, feeling

rules, which may be implicitly communicated through organizational culture and socialization (Briner, 1999), may still represent a key emotional demand placed on employees.

Display rules are job demands that require employees to display or express specific emotions (Grandey, 2000; Schaubroeck & Jones, 2000). Organizations communicate display rules to employees by stating them explicitly in training sessions and job descriptions or by incorporating them into the organization's culture as implicit expectations (Diefendorff & Richard, 2003; Grandey, 2000; Hochschild, 1983). Indeed, Diefendorff, Richard and Croyle (2006) found that display rules are considered by a large majority of employees and their supervisors to be in-role job expectations and required, as opposed to extra-role and discretionary. Examples of jobs with display rules are – customer service employees who are expected and encouraged to display smiles, police officers who must show anger towards disorderly citizens, and judges or therapists who must show neutrality by expressing no or few emotions (Grandey, 2000; Hochschild, 1983; Morris & Feldman, 1997; Zapf, 2002). In fact, Glomb and Tews (2004) found that employees in two different occupations (police officers and assisted living employees) reported significantly different emotional displays while on the job. Assisted living employees reported expressing positive emotions on the job more frequently than police officers and police officers reported expressing and faking negative emotions more frequently than assisted living employees. This suggests that different occupations require different types of emotional displays in terms of emotional valence (positive and negative emotions). Research has also shown that display rules relate to a variety of performance-related and well-being based outcomes (Diefendorff & Richard, 2003;

Diefendorff et al., 2006; Gosserand & Diefendorff, 2005; Grandey, 2003; Schaubroeck & Jones, 2000).

Regardless of whether feeling or display rules are explicitly stated by an organization or are implicit expectations, employees must perform emotional labor to conform to these job demands to perform well (Ashforth & Humphrey, 1993). Meeting these expectations may be easier for employees who experience or naturally express emotions that are consistent with job requirements. However, emotional labor and job performance, in general, may be more difficult when employees do not tend to feel or express emotions that are congruent with expectations (Gross, 2002; Morris & Feldman, 1997). For instance, an employee who experiences positive affect frequently may find that meeting requirements to feel or express positive emotions will be easier.

Of course, any job may have situations, or affective events (Weiss & Cropanzano, 1996), that lead to the experience of emotions that are inconsistent with display or feeling rules. It may also be true that some jobs have higher frequencies of such affective events than others, leading employees to experience maladaptive emotions more often, regardless of dispositional tendencies. Examples of these situations may include a paramedic's need to suppress the disgust he or she experiences upon seeing the wounds of a car accident victim, a police officer who finds the disorderly citizen's antics humorous but must remain stoic, or the customer service representative who must maintain a smile while dealing with an angry, unsatisfied customer. In these jobs, it may be argued, that a key requirement is to be able to regulate one's emotions; that is, to be able to change what one is feeling or expressing to be congruent with the organizational expectations (Morris & Feldman, 1997). As such, it may be argued that jobs differ in

their emotion regulation requirements, in addition to their feeling and expression of positive, negative, or neutral emotional requirements.

Emotion regulation occurs when individuals attempt to “influence which emotions they have, when they have them, and how they are experienced” (Gross, 1998, p. 275). Many organizations are concerned with and rely on an employee’s ability to produce the appropriate emotions while on the job, especially in situations when an employee’s experienced emotions may conflict with the organization’s emotional expectations (Hochschild, 1983). Therefore, organizations may also place emotion regulation demands on employees when they expect employees to maintain desired expressions in the face of frequent or repeated affective events or emotional demands that lead to an incongruent emotion.

#### *Emotional Abilities*

There has been an explosion of interest in emotional abilities in recent years (Arvey et al., 1998; Bono & Vey, 2007; Gross & John, 2003). Much of this interest has derived from research on emotional intelligence (Mayer, Salovey, & Caruso, 2004), which pertains to the perception, facilitation, understanding, and regulation of emotions (Mayer & Salovey, 1997). In considering the types of emotional demands placed on employees, I adopt a broader perspective on emotional abilities, considering individual differences in the propensity to experience, express, and regulate emotions. Certainly emotional intelligence overlaps with these concepts, but I would argue that our emotional “abilities” also reflect personality attributes. I describe the conceptualization and support for each type of ability below.

Dispositional affectivity refers to the tendency to experience certain emotions, with the majority of research distinguishing between positive and negative affectivity (Cropanzano, James, & Konovsky, 1993; Cropanzano, Weiss, Hale, & Reb, 2003). Individuals high in positive affectivity experience positive emotions, such as excitement, enthusiasm, and joy more often than low in positive affectivity. In contrast, individuals high in negative affectivity tend to experience unpleasant emotion, such as anxiety, fear, and anger more often and more intensely than individuals low in negative affectivity. Studies have found that positive affectivity is strongly correlated with extraversion and that negative affect is strongly correlated with neuroticism (Larson & Ketelaar, 1989, 1991; Robinson, Ode, Moller, & Gotez, 2007, Watson & Clark, 1997). In the context of job requirements, these affective and personality propensities might make it more or less difficult to meet the feeling or display requirements in employees' jobs. For instance, Tan, Foo, Chong, and Ng (2003) found that highly extraverted employees displayed more positive emotions during customer interactions, whereas highly neurotic employees were less likely to display positive emotions during customer interactions. Abe and Izard (1999) found that infants who were high in extraversion displayed more positive emotions than infants who were high in neuroticism. Conversely, infants who were high in neuroticism displayed more negative emotions than infants who were extraverted (Abe & Izard, 1999). Taken together, these results imply that there are individual differences in the way that people tend to naturally experience and feel emotions. These natural dispositional tendencies toward experiencing certain emotions may allow individuals to experience positive (negative) emotions more easily and strongly than negative (positive) emotions.

In addition to dispositional affectivity, researchers have identified emotional expressivity as a key individual difference variable. For instance, Gross and John (1997) distinguished between three facets of emotional expressivity – impulse strength (strength of emotional response tendencies), negative expressivity (degree to which negative response tendencies are behaviorally expressed), and positive expressivity (degree to which positive response tendencies are behaviorally expressed). Gross and John (1997) found that negative expressivity predicted negative expressive behavior (e.g., sadness expression, crying, expressive intensity) during a sad film clip and in contrast, found that positive expressivity predicted positive expressive behavior (e.g., amusement expression, smiling, expressive intensity) during an amusing film. These findings suggest that there are individual differences in the way that people tend to express what they feel. These differences in emotional expressivity, may allow some individuals to express or display certain emotions more easily and intensely in certain situations (i.e., a positive expressive person may be able to express positive emotions easier or more strongly than a negative expressive person when in a pleasant atmosphere). Importantly, Gross and John (1997) demonstrated that these aspects of emotional expressivity are distinct from dispositional affectivity, which suggests that expressivity is a unique component of a person's emotionality.

Finally, research also has converged on the idea that there are individual differences in the ability to regulate or manage one's emotions. For instance, Gross and John (2003) demonstrated that there are individual differences in terms of whether individuals tend to manage and regulate their emotions by reappraisal or suppression. Gross and John (2003) found that people who reappraise their emotions (i.e., reinterpret

emotional events) change the emotions they experience and subsequently display. Conversely, people who regulate their emotions by suppression mask their true inner feelings and modify their outward expression of emotion (Gross & John, 2003). “Reappraisers” experience and express more positive emotions than “suppressors” and tend to share their emotions with others more than “suppressors” (Gross & John, 2003). Consistent with this idea, emotional labor research has shown that individuals have tendencies to use certain emotion regulation strategies (Diefendorff et al., 2005; Grandey, 2003), some of which are more adaptive than others (Rafaeli & Sutton, 1987). Perhaps the most compelling evidence for emotion regulation abilities comes from work on emotional intelligence (Mayer et al., 2004). For instance, Austin et al. (2008) found that the regulation component of emotional intelligence was negatively related to the emotional regulation strategy of simulating an emotional expression without actually feeling that emotion, which is a suppression strategy. This finding suggests that there are individual differences in the ability to regulate and manage one’s emotions which may be unique from people’s emotional expressivity and dispositional affect.

Taken together, these results suggest that there are individual differences in the way people, experience, express and regulate their emotions and can also vary in by emotional valance (positive, negative, neutral). Therefore an individual’s ability to comply with the emotional demand of their job may depend on individual differences in emotional regulation capabilities, expressivity, and dispositional affectivity.



## CHAPTER III

### THE CURRENT INVESTIGATION

Though the work of Diefendorff et al. (2008, April) is an important first step in demonstrating the value of an ED-A fit construct, the current investigation seeks to extend their work by (a) assessing ED-A fit indirectly by measuring perceived emotional demand and perceived emotional abilities separately (Edwards, 1991, 1996), (b) including additional theory-based outcomes as dependent variables, and (c) exploring the dimensionality of ED-A fit. I elaborate on each of these issues below.

#### Assessment of Emotional Demands-Abilities Fit Components

Diefendorff et al. (2008, April) measured ED-A fit directly by asking participants to indicate whether they believed that they had the emotional abilities to meet the emotional requirements of their jobs. Although direct measures of fit may best capture a person's cognitive and affective response to the environment and have been found to produce stronger relationships with outcome variables (Kristof-Brown, et al. 2005), there are some potential advantages to assessing ED-A fit indirectly (i.e., measuring the components separately; Edwards, 1991). Specifically, by assessing demands and abilities separately, one can examine whether different types of misfit, in terms of too many or too few demands relative to abilities (i.e., demands exceed abilities, abilities exceed demands), result in different outcomes. A direct assessment of perceived fit does not

distinguish between these two types of misfit. For instance, it may be that the only type of misfit that matters for well-being is not having enough abilities to meet the demands; only the indirect assessment of fit could reveal this. In addition, the separate assessment of demands and abilities allows the examination of the relative contribution of the person and environment in predicting outcomes. This issue is important because it could be that only one of the variables (emotional demands, emotional abilities), both of the variables, or a true combination of the variables (i.e., product term) is responsible for predicting outcomes. Such a determination is not possible with a direct assessment of fit where person and job concepts are confounded (Edwards, 1991).

This study was interested in understanding ED-A fit or misfit in terms of differences in the environment (i.e., emotional job demands) and in the person (i.e., emotional abilities) and how differences in emotional demands or abilities might influence work-related outcomes. The adoption of an indirect approach to measuring ED-A fit, by assessing emotional job demands and emotional abilities separately, will enable me to examine and predict more specifically the outcomes that may be associated with too many (few) emotional demands or emotional abilities. An indirect approach to measuring ED-A fit will enable a more fine-grained examination of which specific combinations of emotional job demands and emotional abilities may actually best predict certain outcomes. At the suggestion of Kristof-Brown et al. (2005) and after careful consideration, I decided an indirect measure ED-A fit would be the most appropriate measurement method for the purposes of the current study.

## Outcomes of ED-A fit

Diefendorff et al. (2008, April) found that direct perceptions of ED-A fit predicted employee job satisfaction, job performance, burnout, and felt inauthenticity, but did not predict turnover intentions (controlling for other direct fit perceptions). These outcomes are derived primarily from the fit literature (e.g., job satisfaction) and to a lesser extent, the emotional labor literature (e.g., burnout, felt inauthenticity) (Kristof-Brown et al., 2005; Montgomery et al., 2006). Edwards (1991) argued that fit will be a stronger predictor of outcomes that are theoretically aligned with the aspect of fit under consideration. As such, I intend to expand the aspects of fit examined by Diefendorff et al. (2008, April) to include variables more directly linked to emotional demands and abilities, while still including job satisfaction, which is of interest to emotional labor research and fit researchers alike. Outcomes derived from emotional labor theory include affective delivery (i.e., expressing positive emotions at work) which is a job performance measure, emotional exhaustion, physical symptoms, and felt inauthenticity (Beal, Trougakos, Weiss, & Green, 2006; Côté & Morgan, 2002; Goldberg & Grandey, 2007; Montgomery et al., 2006; Schaubroeck & Jones, 2000). I describe the rationale for linking ED-A fit to each of these outcomes below.

As mentioned before, emotional labor requires employees to manage their emotions in a way that allows the employee to conform to the emotional demands of the job. These emotional job demands may become problematic with regards to an employee's identity and sense of authenticity (Erickson & Wharton, 1997). Conforming to the organization's emotional job demands may be problematic to an employee if the employee's identity or self-concept is rooted in being able to have control over how

he/she expresses felt emotions (Gecas, 1991). Jobs that have many emotional demands may compromise employees' sense of self or feelings of authenticity if the employees have limited abilities to control their emotions. Diefendorff et al. found that perceptions of ED-A fit predicted felt inauthenticity, such that higher fit was linked to greater perceived authenticity. However, I expect that the majority of this effect is due to employee abilities being less than job demands and not due to abilities being greater than demands. Such an expectation is similar to that proposed by Edwards (1996) in his study of fit, in which the impact of fit between the person and environment has different effects on an outcome variable depending on the levels of the two fit components. Consistent with the findings of Diefendorff et al., the current study makes the following prediction:

*Hypothesis 1a:* Felt inauthenticity is low and constant when employees' emotional abilities exceed the emotional demands of the job.

*Hypothesis 1b:* Felt inauthenticity is low and constant when employees' emotional abilities are congruent or match the emotional demands of the job.

*Hypothesis 1c:* Felt inauthenticity increases as emotional job demands exceed employees' emotional abilities, such that employees who have many emotional demands, but have low levels of emotional abilities experience the most felt inauthenticity.

Emotional exhaustion has been widely studied as a consequence of emotional labor (Brotherridge & Grandey, 2002; Goldberg & Grandey, 2007; Grandey, 2003; Wilk & Moynihan, 2005). Emotional exhaustion is the "the feeling of being emotionally overextended and exhausted by ones' work" (Maslach & Jackson, 1981, p. 101). Grandey (2003) found that emotional exhaustion is also a consequence of managing emotions by faking or simulating an emotion without actually experiencing the emotion. Studies have found that emotional exhaustion is associated with major work *demands* including- heavy workload, role ambiguity, and role conflict (Witt, Andrews, & Carlson,

2004; Wright & Hobfoll, 2004). These findings provide support for the conservation of resources (COR) theory of stress which posits that emotional exhaustion can occur “when valued resources are lost, are inadequate to meet demands, or do not yield the anticipated returns” (Lee & Ashforth, 1996, p. 123). COR theory also states that an employee’s perception of having insufficient resources to perform his/her job will result in emotional exhaustion (Halbesleben & Buckley, 2004). Taken together, these results suggest that emotional exhaustion is likely to occur when an employee’s emotional capacities do not meet the emotional demands of the job. Stated differently, if the emotional demands of a job exceed the employee’s emotional abilities, then the employee’s emotional resources are more likely to become depleted by attempting to meet the job demands, resulting in emotional exhaustion.

However, if an employee’s emotional abilities meet or exceed the emotional job demands, resources may not become depleted and the individual may be less likely to experience emotional exhaustion (Mulki, Jaramillo, & Locander, 2006). Mulki et al. (2006) found indirect support for this idea by showing that person-job fit was negatively related to emotional exhaustion (i.e., better fit was linked with lower exhaustion). Taken together, I propose the following hypothesis.

*Hypothesis 2a:* Emotional exhaustion is low and constant when employees’ emotional abilities exceed emotional demands of the job.

*Hypothesis 2b:* Emotional exhaustion is low and constant when employees’ emotional abilities are congruent or match the emotional demands of the job.

*Hypothesis 2c:* Emotional exhaustion increases as emotional job demands exceed employees’ emotional abilities, such that employees who have many emotional demands, but have low levels of emotional abilities experience the most emotional exhaustion.

In addition to job satisfaction, burnout, and felt inauthenticity, Diefendorff et al. (2008, April) found that ED-A fit predicted three general measures of job performance. This is not surprising given that job performance has been found to relate positively to multiple dimensions of fit (e.g., P-O fit, P-J fit) (see Kristof-Brown et al., 2005). Additionally, within the emotional labor literature, individual difference (e.g., personality, commitment) and situational factors (display rule demands) have been found to influence job performance (e.g., Bono & Vey, 2007; Gosserand & Diefendorff, 2005).

In the emotional labor literature, most studies have operationalized job performance in terms of *affective delivery* or “the extent to which employees maintain expressive display requirements while at work” (Beal, et al., 2006, p. 1053; Grandey, 2003). Based on the definition, affective delivery is a performance indicator targeted towards an employee’s ability to perform the emotional expression or display rule demands of the job. In one study, Gosserand and Diefendorff (2005) found emotional demands (display rules) interacted with employee commitment to predict supervisor ratings of affective delivery. These results suggest that affective delivery will be high when employees perceive their jobs as having many emotional demands and they are committed to meeting these emotional demands. Grandey (2003) reported that coworker ratings of affective delivery were predicted by employee emotion regulation strategies. Similarly, Diefendorff and Richard (2003) found that display rules and neuroticism uniquely predicted coworker ratings of employee positive emotional displays. Specifically, employees who were high in neuroticism were rated as expressing less positive emotions on the job, suggesting that individual differences may play a role in emotional performance.

These findings are not surprising, because as mentioned above studies have found that individuals high in neuroticism tend to experience more unpleasant emotions and express less positive emotions (Larson & Ketelaar, 1989, 1991; Tan et al., 2003; Watson & Clark, 1997). Therefore, individual differences (e.g., personality, dispositional affect) may impact employees' ability to perform the emotional demands of the job. For example, an individual who is high in neuroticism may perform his/her job as a bill collector better than a highly extraverted person because the neurotic person tends to express less positive emotions and experience more unpleasant emotions. Together, these studies suggest that both the person (e.g., emotion regulation) and the situational demands (display rules) influence employee emotional displays at work.

Consistent with Diefendorff et al. (2008) who found that perceived ED-A fit predicted general job performance measures, I wish to examine overall job performance as an outcome variable in the current study. I chose this more general performance indicator over affective delivery because the emotional demands and abilities that I intend to examine pertain to more than just emotional displays, covering both feelings and emotion regulation as well as difference types of emotional valance. As such, I expect that employee performance on both interpersonal and solitary tasks may be impacted by emotional demands-abilities fit. For instance, an employee who can meet the emotion regulation demands of the job may be better able to express positive emotions to others as well as how well stay focused on completing paperwork. As such, examining a broadly defined performance outcome would be more likely to detect such an effect. Based on this idea, I hypothesize the following.

*Hypothesis 3a:* Job performance increases as emotional abilities exceed emotional job demands, such that employees with high levels of emotional abilities, but low levels of emotional job demands have high job performance.

*Hypothesis 3b:* Job performance increases when there is greater congruence between emotional job demands and emotional abilities.

*Hypothesis 3c:* Job performance decreases as emotional job demands exceed emotional abilities, such that employees with high levels of emotional job demands, but low levels of emotional abilities have the lowest job performance.

In her ground-breaking book on emotional labor, Hochschild's (1983) claimed that a negative consequence of emotional labor was the experience of physical health symptoms in employees. Physical symptoms are unpleasant self-perceptions of one's physical self (Gendolla, Abele, Andrei, Spurk, & Richter, 2005). According to Gendolla et al. these unpleasant perceptions of the physical self include heart race, dizziness, and cold hands which are constructive processes that do not necessarily reflect a person's actual physical state. Research has linked physical symptoms to emotions, finding that negative emotions or affect increase the experience of physical symptoms (Gendolla & Richter, 2004). Although research on emotional labor's relation to physical symptoms are minimal, some studies have found that physical symptoms are related to the perceptions of emotional job demands and to certain strategies of regulating one's emotions (Montgomery et al., 2006; Schaubroeck & Jones, 2000). Therefore, an employee may experience physical symptoms if the employee perceives that his/her job has many emotional demands and the employee's strategies for meeting these demands are ineffective or limited. In support of this rationale, Schaubroeck and Jones (2000) found that physical symptoms were related to emotional labor by employees who were also low on emotional adaptability. This finding suggests that physical symptoms of



emotional labor may be experienced by employees who have limited emotional abilities to meet the emotional demands of their jobs. Therefore, the current study predicts that:

*Hypothesis 4a:* Physical symptoms are low when employees' emotional abilities exceed the emotional demands of the job.

*Hypothesis 4b:* Physical symptoms are low and constant when employees' emotional abilities are congruent or match the emotional demands of the job.

*Hypothesis 4c:* Physical symptoms increase as emotional job demands exceed emotional abilities, such that employees who have a high amount of emotional job demands, but report low levels of emotional abilities experience the most physical symptoms.

Consistent with other theories of fit (e.g. person-organization, person-job, demands-abilities, needs-supplies; see Kristof-Brown et al., 2005), where an employee's personal attributes match aspects of a job or organization, Diefendorff et al. (2008, April) found that ED-A fit predicted job satisfaction. Higher levels of fit have been related to higher levels of job satisfaction (Kristof-Brown et al., 2005). Job satisfaction has been defined as an attitude which reflects the extent to which a person likes or dislikes his/her job (Spector, 1985). However, within the emotional labor literature the relationship between job satisfaction and emotional labor is not as clear. Research has suggested that job satisfaction may depend on how emotional job demands are perceived (i.e. perceived emotional job demands may make a boring job enjoyable or unpleasant due to emotional expressive restrictions) (Ashforth & Humphrey, 1993; VanMaanen & Kunda, 1989). In line with Diefendorff et al.'s (2008, April) findings that ED-A fit predicted job satisfaction the current study predicts that:

*Hypothesis 5a:* Job satisfaction increases when there is greater congruence between emotional job demands and emotional abilities, such that job satisfaction is highest when there is perfect agreement between employees' emotional abilities and emotional demands of the job.

*Hypothesis 5b:* Job satisfaction decreases when there is greater incongruence between emotional job demands and employees' emotional abilities, such that employees who have high levels of emotional abilities, but low levels of job demands have the lowest job satisfaction.

*Hypothesis 5c:* Job satisfaction decreases when there is greater incongruence between emotional job demands and employees' emotional abilities, such that employees who have many emotional job demands, but low levels of emotional abilities have the lowest job satisfaction.

### Exploring the dimensionality of ED-A fit

Diefendorff et al. (2008, April) conceptualized ED-A fit as a unidimensional construct and assessed it with a three item scale tapping non-specific emotional demands and abilities. In an attempt to sample the entire construct domain of ED-A fit, I intend to develop a set of items that tap specific emotional demands and abilities in terms of emotional valence, including those focused on positive, negative and neutral emotions as well as expression, feeling, and emotion regulation. Generally, I anticipate that there will be at least two general ways that the demands and abilities items may group together. First, it is possible that they will form dimensions based on the affective content of the items. Thus, there may be positive, negative, and neutral emotional demands and abilities scales, as well as emotion regulation demands and abilities. Research on individual differences certainly supports the idea that emotion measures might exhibit this structure (e.g., cite Watson & Clark, 1992, JAWS; Gross & John, 2003). However, it is also possible that the factor structure might fall along the lines of the different strategies of emotion management; namely, feeling, expressing, and managing. Although there is no known research showing that there are distinct organizational demands to express, feel, and regulate emotions, there is research showing that there are corresponding individual differences (e.g., Gross & John, 1997; Gross & John, 2003;

Watson & Clark, 1992). However, it is unclear how separate these different emotional demands and abilities will be in the minds of participants. There also is the possibility that the factor structure might support various combinations of affective content along with expression, feeling and regulation (e.g., express and feel may be distinguished for positive affect, but not negative affect). In an attempt to assess the entire content domain of the ED-A fit construct, I intend to sample emotional demands and emotional abilities broadly and will explore the dimensionality of these fit components.

## CHAPTER IV

### METHOD

#### Participants and Procedure

Participants were randomly sampled, in two waves, from a variety of organizations and occupations to complete an online survey through StudyResponse.com (see Piccolo & Colquitt, 2006) for an example of published research using this sampling technique). StudyResponse.com, developed in 2000, is a database composed of a large group of employed individuals who have volunteered to participate in research studies (Stanton & Weiss, 2002). StudyResponse's database includes over 95,000 volunteering participants with a diverse range of occupations and an average tenure at their current job of fifteen years (StudyResponse.com).

The typical response rate is 10 to 30 percent (StudyResponse.com; Picollo & Colquitt, 2006), and has been as high as 68.4 percent (Wallace, 2004). StudyReponse was used for the current study because it provides access to participants who come from a wide range of occupations and may be more representative of full-time employees than other sampling techniques might yield (e.g., a sample of employed undergraduate students). In addition to providing a large database of employed and willing participants, StudyResponse ensures higher levels of anonymity, by distributing surveys to

respondents and then providing the researchers with the collected data, ensuring that the researchers never come into direct contact with the participants (Stanton & Weiss, 2002).

All surveys were uploaded for electronic administration through the internet via Survey Monkey (SurveyMonkey, 1999). The link to the survey was then provided to StudyResponse.com, who then made the link available to the randomly selected participants. Finally, StudyResponse sent the collected data to the researchers who never came into contact with participant information (e.g., email addresses). In return for participation, StudyResponse.com offers the chance to receive incentives (i.e., prizes) by randomly selecting winners from the group who volunteered to participate. The first wave of data collection sent a survey link to 1500 participants, of which 156 completed the survey (for a response rate of 10.4%). For the second wave of data collection, 1200 surveys were sent out, and of those surveys, 132 participants responded to the survey, yielding an 11% response rate. Overall, across both waves of data collection, surveys were sent to 2,700 participants, of which 288 full-time working adults from a variety of organizations actually responded to the surveys resulting in an overall response rate of 10.6%. In each wave of data collection, the demands and abilities scales were counterbalanced so that in the first wave of data collection the demand scales were administered before the abilities scales and in the second wave, the abilities scales were administered before the demand scales. An independent samples t-test revealed that there were no significant mean difference in responses between the first wave and second wave of participants for the integrative demands scale  $t(286) = 1.43, p = .18$ , the emotional masking demands scale  $t(286) = -.90, p = .37$ , or the emotional regulation demands scale  $t(286) = .03, p = .98$ . However, the first wave ( $M = 2.24, SD = 1.34$ ) of participant scores

on the differentiating demands scale was significantly different from the second wave ( $M = 2.60$ ,  $SD = 1.46$ ) of participants' scores  $t(286) = -2.19$ ,  $p < .05$ . An independent samples t-test revealed that there were no significant mean difference in responses between the first wave and second wave of participants for the integrative abilities scale  $t(286) = -.47$ ,  $p = .64$ , the differentiating abilities scale  $t(286) = -1.01$ ,  $p = .31$ , the emotional masking abilities scale  $t(286) = -.35$ ,  $p = .73$ , or the emotional regulation abilities scale  $t(286) = 1.49$ ,  $p = .14$ .

One hundred twenty-two (42%) participants were female, 90 were males (26%) and 76 (32%) participants did not have gender information. Gender information was unavailable for 76 participants because a question regarding respondents' self-reported gender was accidentally omitted when the survey was created. However, using participants' StudyResponse identification numbers and StudyResponse's demographic database, I was able to obtain gender information for 212 participants. Eighty nine percent of the participants were Caucasian, one percent were Hispanic, four percent were Asian American, five percent were African American, and one percent of the participants did not report racial/ethnicity information. The average age of respondents was 42. On average participants had been in their current occupation for 12.19 ( $SD = 9.71$ ) years, with their current company for 7.37 ( $SD = 7.33$ ) years, and in their current job for 5.51 ( $SD = 6.07$ ) years. Eleven percent of participants had a high school diploma/GED or an equivalent, 37% had some college education, 25% had a Bachelor's Degree, six percent had some graduate school education, 20% had a graduate degree, and seven percent of participants did not report their educational experience.

## Measures

In the current study, I measured ED-A fit using an indirect approach, in which I measured emotional job demands and emotional abilities separately. Although I assessed emotional job demands and emotional abilities separately, these separate scales were fully commensurate, meaning that they each refer to the same content dimension (Edwards, 1991). For instance, a commensurate measure of fit between an employee's emotional abilities and the emotional demands of the job regarding emotional displays would assess how much the employee agrees that he/she can perform an emotionally expressive behavior (e.g., express happiness), and similarly, the extent to which the employee agrees the job requires him/her to express certain emotions (i.e., employee must display happiness). Commensurate measures ensure that the person attributes and the job attributes are conceptually relevant to one another and helps to interpret the results in terms of congruence (Edwards, 2002). Each scale consists of 15 items. These items were written based on an examination of published research on both emotional work demands (Diefendorff et al., 2006; Gosserand & Diefendorff, 2005; Grandey, 2003; Rafaeli & Sutton, 1987) and emotional abilities (Gross, 2002; Gross & John, 1995, 2003; Larsen & Ketelaar, 1989; Tan et al., 2003).

### *Emotional Job Demands*

The current study assessed emotional job demands with three types of items: expressive demands (6 items), feeling demands (5 items), and emotion regulation demands (4 items). Within these 15 items, positive (4 items), negative (3 items), neutral (4 items) and no reference to emotions (4 items) in terms of emotional valence were assessed. Participants indicated the extent to which they agreed that their current job

required them to comply with each emotional job demand item on a 7 point Likert type scale ranging from 1 (strongly disagree) to 7 (strongly disagree). We examine the factor structure and reliability of this measure at beginning of the results section. See Appendix A for the items.

### *Emotional Abilities*

To assess emotional abilities, the 15 emotional job demands items were reworded so as to refer to emotional abilities instead of emotional demands. Thus, this scale consists of emotional abilities of three types: expressive abilities (6 items), feeling abilities (5 items), and emotion regulation abilities (4 items). Within these 15 items, positive (4 items), negative (3 items), neutral (4 items) and no reference to emotions (4 items) in terms of emotional valence were assessed. Participants indicated the extent to which they agreed that they possessed each emotional ability for each item on a 7 point Likert type scale ranging from 1 (strongly disagree) to 7 (strongly disagree). We examine the factor structure and reliability of this measure at beginning of the results section. See Appendix B for the items.

### *Felt Inauthenticity*

The current study used a nine-item scale to measure felt inauthenticity. I used Erickson and Ritter's (2001) six item inauthenticity at work scale and three items from Diefendorff et al.'s (2008, April) felt inauthenticity scale. Erickson and Ritter's scale asks respondents to indicate how frequently they experience each of the items (sample item "I don't feel I can be myself at work"). In addition to Erickson and Ritter's six items, I used Diefendorff et al.'s (2008, April) three item felt inauthenticity scale (sample item "I feel fake when interacting with others at work"). In the current study, participants



were asked to indicate how true they felt each of the nine items was to them using a 5-point Likert type scale (1 = *very untrue* to 5=*very true*) (see Appendix C for all items). The internal consistency reliability was .95.

#### *Emotional Exhaustion*

To assess emotional exhaustion, I used Wharton's (1993) job-related emotional exhaustion scale. This six-item scale asks respondents to indicate how often they feel a certain way while at work, using a 6-point Likert type scale (0 = *never felt this way while at work* to 6=*feel this way every day*). A sample item includes "I feel emotionally drained from my work." The internal consistency reliability for this scale was .96 (see Appendix D for the items).

#### *Physical Symptoms*

Physical symptoms were measured using an adapted version of Emmons' (1991) physical symptoms scale. Emmons' nine item scale asks participants to report whether they have experienced each of the nine physical symptoms during the day. However, for the current study I asked respondents to indicate how frequently they experience each symptom (e.g., headaches, stomachache/pain, chest/heart pain) using a 5 point Likert type scale for eight of the nine items; 1=*Have never or almost never experienced the symptom* to 5=*More than once every week*. The ninth item of the scale was an open response in which participants were asked to indicate other physical symptoms they may have experienced. Item nine was removed from the analyses because the response format did not allow interpretation of the experienced frequency of the symptom. Therefore the final scale consisted of 8 items. The internal consistency reliability for this scale was .87 (see Appendix E for the items).

### *Job Performance*

Job performance was measured using Van Dyne and LePine's (1998) self-rated In-Role Behavior scale. This four item scale asks respondents to indicate how much they agree with each item using a seven point Likert type scale (1= *strongly disagree* to 7=*strongly agree*). A sample item includes "I fulfill the responsibilities specified in my job description." The internal consistency reliability for this scale was .94 (see Appendix F for all items).

### *Job Satisfaction*

In order to assess job satisfaction, I used the Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale (Cammann, Fichman, Henkins, & Klesh, 1979). Participants were asked to indicate how much they agreed with each item on a 7 point Likert type scale (1=*Disagree very much* to 7=*Agree very much*). A sample item includes "All in all I am satisfied with my job." The internal consistency reliability for this scale was .85 (see Appendix G for items).

### *Analytic Approach*

As a first step, the factor structure and item performance of the emotional demands and emotional abilities scales were examined using confirmatory factor analysis. After a factor structure was determined, I tested my hypotheses using polynomial regression. Traditionally, indirect approaches (i.e., person and job attributes are assessed separately) to measuring fit have utilized difference scores, with perfect fit thought to be reflected by a score of 0 and scores with a large absolute value reflecting poor fit (Edwards, 2002). In recent years, the use of difference scores has been widely criticized because the interpretation of results can be ambiguous, the resulting scores

often have low reliability, and the relationships between the fit components and an outcome variable, which is really a three-dimensional relationship, are analyzed in only two dimensions (Edwards, 2002). Due to the many weaknesses associated with using difference scores to assess fit, I used polynomial regression to test my hypotheses and to assess the effect of ED-A fit on outcome variables.

Polynomial regression allowed me to use emotional demands and emotional abilities as two independent variables to predict my outcome variables (e.g., felt inauthenticity, emotional exhaustion) and to represent the data three-dimensionally. A three-dimensional surface graph of the relationship between my pair of commensurate predictor variables (e.g., demands and abilities) and my outcome variables can be generated using the unstandardized regression coefficients from a polynomial regression equation. These graphs can be used to interpret exactly how the two independent variables and their combinations predict different levels of the outcome variables (Atwater, Ostroff, Yammarino, & Fleenor, 1998; Edwards & Rothbard, 1999) which was the primary goal of this study. Therefore, polynomial regression and surface plot analyses were used to test my hypotheses.

When polynomial regression results are being interpreted, more emphasis is placed on the variance explained by the set of independent variables and the surface pattern yielded by the regression equation than on the significance of specific regression weights (Edwards, 1994). Therefore, as a first step towards testing my hypotheses, separate hierarchical ordinary least squares regression equations were calculated for emotional demands and abilities where each outcome variable was regressed on the centered emotional demand and emotional ability terms. Based on the work of Edwards and

colleagues and other researchers (Atwater et al., 1998; Edwards & Parry, 1993; Edwards, 2002), in the second step, I added the quadratic terms which included the cross-product of emotional demands and abilities and the square of both the demands and abilities factor to the regression equation resulting in the following quadratic regression equation:

$$Z = b_0 + b_1D + b_2A + b_3D^2 + b_4DA + b_5A^2$$

In this equation,  $D$  corresponds to a person's perceived emotional job demands,  $A$  represents a person's perceived emotional abilities, and  $Z$  is the outcome variable (e.g., job satisfaction, felt inauthenticity). I estimated a separate quadratic regression equation for each dependent variable and used each of the demand and ability dimensions that emerged from the factor analytic work (to be discussed in a subsequent section) as predictor variables.

This two step approach allowed me to determine whether I had a nonlinear relationship between emotional demands and abilities and each outcome variable. A nonlinear relationship is indicated by a significant change in  $R^2$  in step 2 (Atwater et al., 1998; Edwards, 2002). Next, I confirmed whether the independent variables were related to the outcome variables as predicted in the hypotheses, by graphing and analyzing the shape of the three-dimensional response surface associated with each set of variables. The response surface slopes and curvatures allowed me to determine the shape of the surface when demands and abilities are equal and the shape when the emotional demands exceed the emotional abilities or when abilities are greater than demands. Prior to running any analyses, all of my independent variables (demands, abilities) were centered by subtracting each demand and ability from the midpoint of my scales (i.e., 4 on a 7-

point scale). Centering the data in this way makes interpretation of the surface of the graphs easier and helps reduce the influence of multicollinearity (Edwards, 1994).

## CHAPTER V

### RESULTS

Table 1 presents the descriptive information and intercorrelations for all of the study variables.

Table 1. Means, standard deviations, and correlations between all variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Integrative_D	5.15	1.35	(.89)												
2. Differentiating_D	2.41	1.41	-.04	(.87)											
3. Masking_D	3.46	1.23	.05	.51**	(.76)										
4. Regulation_D	4.54	1.39	.41**	.22**	.47**	(.76)									
5. Integrative_A	6.25	0.91	.23**	-.21**	-.07	.11	(.93)								
6. Differentiating_A	5.21	1.33	-.06	.13*	.21**	.12*	.32**	(.92)							
7. Masking_A	4.87	1.39	-.30	.16**	.24**	.03	.15*	.72**	(.85)						
8. Regulation_A	5.49	1.07	.22**	.01	.05	.14*	.46**	.35**	.53**	(.89)					
9. Felt Inauthenticity	2.33	0.99	.03	.33**	.49**	.39**	-.19**	.14*	.18**	-.07	(.95)				
10. Emo Exhaustion	2.62	1.56	-.06	.19**	.32**	.27**	-.14*	.14*	.12*	-.01	.58**	(.96)			
11. Job Performance	6.42	0.87	.15*	-.26**	-.04	.13*	.53**	.14*	.02	.19**	-.19**	-.17**	(.94)		
12. Physical Symptom	2.34	0.89	-.01	.24**	.23**	.14*	-.19**	.07	.03	-.15*	.39**	.52**	-.24**	(.87)	
13. Job Satisfaction	5.28	1.54	.16**	-.14*	-.27**	-.17**	.21**	-.11	-.08	.09	-.48**	-.64**	.28**	-.36**	(.85)

Note. Reliabilities are reported in parentheses. D= Demands; A=Abilities

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

### Confirmatory Factor Analysis of Demand and Ability Items

To investigate the factor structure and item performance of demands and abilities scales, confirmatory factor analysis in LISREL 8.3 (Jöreskog & Sörbom, 1993) was used. For each of the CFA models, individual items were only allowed to load on one factor and the latent variables were allowed to freely correlate. Additionally, because each of the demand and ability items were specifically created to be commensurate (i.e., item one

for demands and abilities referred to the same emotional action) and contained nearly identical wording (e.g., my job requires me to express positive emotions; I am capable of expressing positive emotions), I allowed the residual error terms of each demand and the corresponding ability item to freely correlate. The following indicators of model fit were examined, including (a) the  $\chi^2$  Goodness of Fit statistics, (b) the Tucker Lewis Index (TLI), (c) the root mean square error of approximation (RMSEA), (d) the standardized root mean square residual (SRMR) and (e) the Comparative Fit Index (CFI). The lower bound of the good fit for the TLI and the CFI indices is considered to be .90. For the RMSEA and the SRMR, the upper bounds for good fit are considered to be .08 and .10 (Vandenberg & Lance, 2000). Additionally, because the models were nested, their fit could be directly compared using the  $\chi^2$  difference test.

Several models representing various combinations of the items were tested. The first two models divided the items into factors based on the theoretical notion that demands and abilities could be separated either by (a) the type of affect involved or (b) the type of emotion management involved. Specifically, one *a priori* theoretical structure (Model A) suggested eight factors with items dividing into demands and abilities for integrative (i.e., positive) emotions, differentiating (i.e., negative) emotions, neutral emotions (i.e., emotional masking), and regulating emotions (Arvey et al., 1998; Glomb & Tews, 2004; Grandey, 2000). A second *a priori* structure (Model B) suggested a six factor structure with items dividing into demands and abilities to express, feel, and regulate emotions, ignoring the valence of the emotions involved (Arvey et al., 1998; Ekman & Friesen, 1975; Hoschild, 1983). We also examined variations of these models that more parsimoniously depicted the factor structure. Specifically, a two-factor model

(Model C) that distinguished emotional demands and abilities was examined, as well as a four-factor model (Model D) that combined emotional demands and abilities, but separated the items based on emotion type (e.g., integrative, differentiating, emotional masking, and emotional regulation). We also examined a six factor model (Model E) that formed three factors each for the demands and abilities (instead of four each, as depicted in Model A). More specifically, this model separated the emotional demands and abilities for the dimensions of positive, negative, and emotional regulation, but combined emotional masking with negative emotions, based on the observation that these two scales correlated most strongly with one another (See Table 1).

A comparison of these five models indicated that Model A fit the data significantly better than all other models, though none of the models fit the data especially well (See top of Table 2). To determine if model fit could be improved, sources of misfit were investigated in the data. Modification indices revealed a large increase in model fit could be achieved by allowing the residual error terms of three sets of emotional demand items to correlate, as well as the error terms of the corresponding emotional abilities items. The existence of correlated error terms among items from the same dimension suggests the presence of a common, secondary influence that may be the result of similarity in item wording or content that is not derived from the primary underlying factor. The first set of items both involved feeling a positive emotion (demand items 3 and 4 and ability items 18 and 19; See Appendix H). The second set began with the identical phrase, (“e.g., My job requires me to change the emotion I am...” demand items 10 and 11 and ability items 25 and 26). The third set each involved expressing no emotions (demand items 12 and 13 and ability items 27 and 28).



Table 2. Summary of fit statistics

Model	$\chi^2$	$df$	RMSEA	SRMR	TLI	CFI	Comparing Model to Model A	
							$\Delta df$	$\Delta\chi^2$
<i>Primary Sample, Set 1: 30 items</i>								
A. 8 Factors (4 Demands & 4 Abilities)	1107.77*	362	0.08	0.07	0.85	0.88		
B. 6 Factor <sup>a</sup> (Exp, Feel, Reg - Demands & Abilities)	2316.82*	375	0.14	0.13	0.63	0.68	13	1209.05*
C. 2 Factor <sup>b</sup> (1 Demand & 1 Ability)	3929.07*	389	0.21	0.16	0.35	0.42	27	2821.30*
D. 4 Factor <sup>c</sup> (1 Integr, 1 Diff, 1 Reg, 1 Mask)	3868.40*	384	0.21	0.20	0.35	0.43	22	1760.63*
E. 6 Factor <sup>d</sup> (3 Demands & 3 Abilities)	1777.82*	375	0.12	0.11	0.73	0.77	13	670.05*
<i>Primary Sample, Set 2: 30 Items and 3 sets of correlated uniquenesses</i>								
A. 8 Factors (4 Demands & 4 Abilities)	812.02*	356	0.07	0.06	0.91	0.92		
B. 6 Factor <sup>a</sup> (3 Demands & 3 Abilities Altern)	1649.20*	369	0.11	0.12	0.75	0.79	13	837.18*
C. 2 Factor <sup>b</sup> (1 Demand & 1 Ability)	3325.08*	383	0.19	0.17	0.45	0.52	27	2513.06*
D. 4 Factor <sup>c</sup> (1 Integr, 1 Diff, 1 Reg, 1 Mask)	3167.68*	378	0.19	0.19	0.47	0.54	22	2355.66*
E. 6 Factor <sup>d</sup> (3 Demands & 3 Abilities)	1392.76*	369	0.10	0.11	0.80	0.83	13	580.74*

Note. \*significant at  $p < .05$ . Integr = Integrative; Diff = Differentiating; Reg = Regulation; Mask = Emotional Masking; Exp = Expression; Feel = Feeling. RMSEA, root mean square error of approximation; SRMR, standardized root mean squared residual; TLI, Tucker-Lewis Index; CFI, comparative fit index.

<sup>a</sup> is combining Exp, Feel, & Reg demands and Exp, Feel, & Reg. abilities; <sup>b</sup> is combining integrative, differentiating, emotional masking, and emotional regulation; <sup>c</sup> is combining demands and abilities; <sup>d</sup> is combining diff and mask demands and diff and mask abilities

Models A-E were re-estimated with the freely estimated correlation between the uniqueness of the twelve demand and ability items. This set of analyses produced a substantially better fit than the first set of analyses (see the bottom portion of Table 2). However, model A was the only model to achieve good fit ( $\chi^2 = 812.02$ ,  $df = 356$ ,  $p < .05$ ; RMSEA = 0.065; SRMR = 0.061; TLI = 0.91; CFI = 0.92). Additionally, this model fit significantly better than every other model, based on the  $\chi^2$  difference test: Model A versus Model B ( $\Delta\chi^2$  (13) = 837.18,  $p < .001$ ); Model A versus Model C ( $\Delta\chi^2$  (27) = 2513.06,  $p < .001$ ); Model A versus Model D ( $\Delta\chi^2$  (22) = 2355.66,  $p < .001$ ); Model A versus Model E ( $\Delta\chi^2$  (13) = 580.74,  $p < .001$ ). Thus Model A with four emotional job demands and four emotional abilities was retained as the final model. In the final eight-factor model, all the items had primary factor loadings that were greater than .45 and negligible cross-loadings (See Appendix H for primary factor loadings). As shown in Table 1, the eight scale internal consistency reliabilities were acceptable.

## Hypothesis Testing Using Polynomial Regression

As discussed above, I used polynomial regression to test my hypotheses.

However, because the results of confirmatory factor analysis revealed that my two independent variables, emotional job demands and emotional abilities, were best modeled by eight factors (four complementary factors for demands and abilities), I tested each of my hypotheses four times, once for each of the four main categories of demands/abilities (integrative, differentiating, emotional masking, and emotional regulation). In order to determine whether a nonlinear relationship was present, I followed the two-step hierarchical regression procedure described in the analyses section for each of my four emotional demands and abilities factors and their relationship with each of my five dependant variables.

Each equation has a corresponding surface plot, however for ease of presentation, only the equations where the set of quadratic terms ( $D^2$ ,  $DA$ , and  $A^2$ ) explained additional variance above the linear terms ( $D$  and  $A$ ) were plotted. Additional, variance in the outcome variable explained by the nonlinear terms beyond the linear terms indicates a nonlinear relationship between the set of predictors and the outcome variables which means that outcomes differ depending on the levels demands and abilities (Atwater et al., 1998; Edwards, 2002).

To aid in the interpretation of the plots, I estimated the slope and curvature of each surface along two lines. The first was the  $x = y$  line, referred to as the line of congruence. The line of congruence runs from the back left to the front right corner of each graph and corresponds to the line agreement (i.e., fit) where emotional demands are

equal to the level of emotional abilities (See Figure 1). I calculated the statistical significance of all slope and curvature estimates for nonlinear regression equations.

The second line of interest was the  $x = -y$ , referred to as the line of incongruence, which runs from the front left to the back right corner of each graph (see Figure 1). Moving from left to right along this line, emotional abilities decrease (i.e., indicate people have less emotional abilities) and emotional job demands increase (i.e., more emotional job demands) until becoming equal at Point ( $x = 0, y = 0$ ) and continuing beyond this point emotional abilities exceed emotional job demands for the rest of the line. Again, for each nonlinear relationship I calculated the statistical significance of all slopes and curvature estimates along this line. The slope and the curvature of the line of congruence and incongruence indicate the shape of the plot and the pattern of results.

#### *Integrative Emotional Demands and Abilities*

Hypothesis 1a-c predicted that felt inauthenticity will be low and constant when employees' integrative emotional abilities exceed emotional demands (H1a), when employee' emotional abilities are congruent with the emotional demands of the job (H1b), and that felt inauthenticity will increase as emotional job demands exceed employees' emotional abilities (H1c). As shown in Table 3, for integrative emotions, adding the quadratic terms in Step 2 resulted in a significant increase in  $R^2$  ( $\Delta R^2 = .038$ ,  $\Delta F = 3.92$ ,  $p < .01$ ) and the overall  $R^2$  of .083 was significant  $F(5,286) = 5.07$ ,  $p < .01$ . This finding suggests that there is a nonlinear relationship between integrative emotional job demands and abilities and felt inauthenticity, providing initial support for the first set of hypotheses.

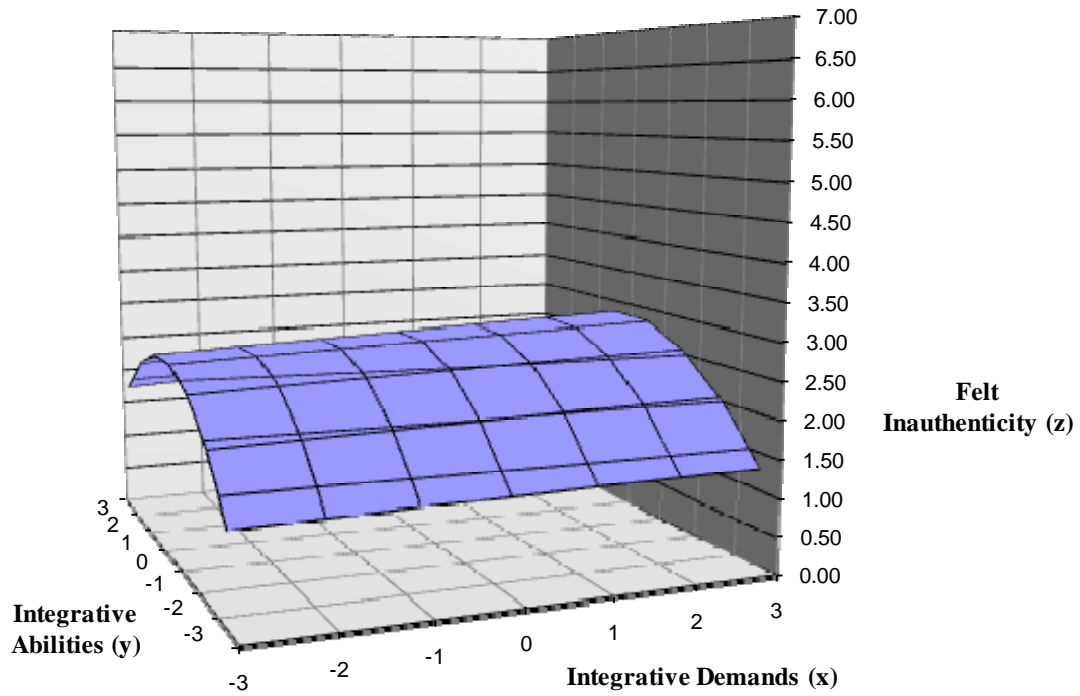


Figure 1. The three-dimensional shape of the data for integrative demands and abilities predicting felt inauthenticity.

Table 3. Integrative (Positive) Emotional Demands and Abilities

<i>Dependent Variable</i>	Step 1			Step 2				
	D	A	R <sup>2</sup>	D <sup>2</sup>	A <sup>2</sup>	DxA	R <sup>2</sup>	ΔR <sup>2</sup>
Felt Inauthenticity	.05	.11	.044**	.00	-.38**	.02	.082**	.038**
Emotional Exhaustion	.08	-.10	.020*	-.10	-.01	-.06	.029**	.009
Job Performance	-.18	.60**	.277**	.02	-.12	.22	.282**	.005
Physical Symptoms	.12	-.28*	.036**	-.02	.11	-.08	.038**	.002
Job Satisfaction	-.07	.18	.056**	.10	-.03	.14	.067**	.011

*Note.* All coefficients are from step 2 (final step). All standardized Betas are centered.

\* $p \leq .05$ . \*\* $p \leq .01$ .

In order to confirm whether integrative emotional demands and abilities are related to felt inauthenticity as predicted, I graphed the results and analyzed the shapes of the surface connected with each of the variables. The higher order equation for integrative demands and abilities was significant, therefore the equation could be graphed in a three-dimensional plane (Edwards, 1993) (See Figure 1). After graphing the results, salient features of the surface can be identified by locating the stationary point of the graph and the principle axes (Edwards, 2002). These features of the graph are then used to calculate and describe the slopes and curvatures of the surface which will help confirm (or fail to confirm) the hypothesized effects (Edwards, 2002).

For integrative emotional demands and abilities' effects on felt inauthenticity, the stationary point was located at  $x = 19.42$ ,  $y = 0.97$ . The first principle axis (the line of minimum downward curvature) had an intercept of 0.50 and a slope of 0.03. The second principle axis (the line of downward maximized curvature) had an intercept of 418.98 and a slope of -21.52. These axes are perpendicular to one another and cross at the stationary point. The line of congruence ( $x = y$ ) runs from the top left corner of the graph to the bottom center corner of the graph whereas the line of incongruence ( $x = -y$ ) runs from the bottom left corner of the graph to the bottom right corner.

Along the line of congruence, I calculated the slope by letting  $a_1 = b_1 + b_2$  and curvature by letting  $a_2 = b_3 + b_4 + b_5$ , where  $b_1$  is the beta for integrative demands,  $b_2$  is the beta for integrative abilities,  $b_3$  is the beta for the job demands squared,  $b_4$  is the beta for the cross-product of demands and abilities, and  $b_5$  is the beta for abilities squared. If  $a_1$  is significantly different from zero but  $a_2$  is not, then there is a linear slope along the line of perfect agreement whereas, the opposite pattern of results would indicate a

curvature along the line of congruence where integrative emotional demands are equal to abilities ( $x = y$ ). For integrative demands and abilities predicting felt inauthenticity, there was a significant negative curvature ( $a_2 = -.01, p < .05$ ) along the  $x = y$  line and no significant slope ( $a_1 = 0.16, p = 0.23$ ). The significant negative coefficient of the curvature indicates that there is a concave or downward surface along the line of incongruence (See Table 4 for a summary of the statistics).

Table 4. Ordinary Least Squares Regression Results for Integrative Emotional Demands and Abilities for Felt Inauthenticity

Variable	Felt Inauthenticity		Along $X = Y$ line		Along $X = -Y$		Lateral Shift
	Step 1	Step 2	Slope	Curvature	Slope	Curvature	
			0.16	-0.01*	-0.09	-0.13*	
Predictors							
Integ Demands	.06	.03					
Integ Abilities	-.23**	.12					
Integ Demands <sup>2</sup>		.00					
Integ Demands X Abilities		-.12**					
Integ Abilities <sup>2</sup>		.01					
$R^2$	.044**	.083**					
	$F(2,284) = 6.59$	$F(5,281) = 5.07$					
$\Delta R^2$		.038**, $\Delta F(3,281) = 3.92$					

Note. All are unstandardized regression coefficients for equations.

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

In conjunction with these results, examination of Figure 1 shows that felt inauthenticity increases rather sharply as both integrative emotional demands and abilities become higher until the midpoint of the graph, and then begin to decrease again when both integrative emotional demands and abilities increase from the midpoint of the scale. Therefore, hypothesis 1b, which predicts that felt inauthenticity will be low and constant when employees' emotional abilities are congruent with emotional job demands, was partially supported. Felt inauthenticity decreased, rather than staying constant, and was lowest when both integrative emotional demands and abilities were high or low. To

further explore and understand the surface of the graph, I tested the slope and curvature along the line of incongruence. The slope was calculated as  $a_3 = b_1 - b_2$  along the incongruent axis and  $a_4 = b_3 - b_4 + b_5$  which is the curvature along the line of incongruence. As with interpretations of the  $x = y$  curvature ( $a_4 = -0.13, p < .05$ ) is significantly different from zero, but the slope is not ( $a_3 = -0.09, p = .71$ ). Again, the curvature is negative which indicates the surface for integrative demands and abilities is curved downward (i.e., concave) along the line of incongruence.

Again, in conjunction with these results, examination of Figure 1 reveals that felt inauthenticity decreases in both directions from the midpoint of the scale. More specifically, as the arced curve along the line of incongruence shows, felt inauthenticity decreases as integrative abilities exceed integrative emotional job demands *and* as integrative emotional job demands exceed integrative emotional abilities. This pattern of results fails to support hypothesis 1c, which predicts that felt inauthenticity will increase as demands exceed abilities. However, hypothesis 1a, which predicts that felt inauthenticity will be low and constant when employees' emotional abilities exceed emotional abilities was partially supported by the fact that felt inauthenticity was low when integrative emotional abilities exceeded emotional job demands.

Taken together the results of the surface response interpretation suggests that the surface is arced along both the  $x = y$  and the  $x = -y$  line. This means that felt inauthenticity is highest when there is a mid-level of both integrative demands and abilities. Not surprisingly, felt inauthenticity is lowest when integrative abilities exceed integrative emotional job demands and when there are low levels of integrative emotional demands and integrative emotional abilities. However, contrary to predictions, felt

inauthenticity decreased as integrative emotional job demands exceeded integrative emotional abilities and as both integrative demands and abilities decreased together and increased together from the midpoint of the scale.

In addition to examining the slope and the curvature of the surface, one can examine trends in the surface considering lateral shifts ( $a_5$ ) in the surface along the  $x = y$  line. The direction of this shift is determined by the formula  $-(b_2 - b_1)/(b_3 - b_4 + b_5)$  (Atwater et al., 1998). After calculating the shift, a positive value indicates a shift towards the region where  $x > y$  (demands greater than abilities) and a negative value indicates a shift toward the region where  $x < y$  (Gibson, Cooper, & Conger, 2009). For integrative emotional demands and abilities, the lateral shift calculation resulted in a value of -0.346, indicating a shift in the region towards  $x < y$  (abilities are greater than demands). Therefore, most of the graph and corresponding effects occur in the region where abilities are greater than demands.

Hypotheses 2a-c predicted that emotional exhaustion will be low and constant when employees' emotional abilities exceed emotional job demands (H2a), when employees' emotional abilities are congruent with emotional demands (H2b), and that felt inauthenticity will increase as emotional job demands exceed employee's emotional abilities (H2c). As shown in Table 3, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between integrative emotional demands and abilities and emotional exhaustion is linear, and thus provides no support for hypotheses 2a-c. However, examination of the direct linear effect in step 1 showed that integrative emotional abilities' effect on emotional exhaustion is significant and negative ( $\beta = -.13, p < .05$ ,



$\Delta R^2 = .02$ ). This implies that emotional exhaustion is highest when employees possess low integrative emotional abilities. Additionally, integrative emotional job demands were unrelated to emotional exhaustion which failed to provide evidence that perceived integrative emotional demands was related to the experience of emotional exhaustion.

Hypotheses 3a-c predicted that job performance will increase as emotional abilities exceed emotional job demands (H3a), when there is greater congruence between emotional job demands and emotional abilities (H3b), and job performance will decrease as emotional job demands exceed emotional abilities (H3c). As shown in Table 3, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between integrative emotional demands and abilities and job performance is linear, and thus provides no support for Hypotheses 3a-c for integrative emotional job demands and abilities. However, examination of the direct linear effects in step 1, show that integrative emotional abilities' effect on job performance is significant and positive ( $\beta = .52, p < .01, \Delta R^2 = .25$ ). This finding suggests that perceived job performance is highest when employees have high integrative emotional abilities. Finally, integrative emotional demands was not related to job performance.

Hypotheses 4a-c predicted that experienced physical symptoms will be low and constant when employees' emotional abilities exceed emotional job demands (H4a), when employees' emotional abilities are congruent with the emotional job demands (H4b), and that physical symptoms will increase as emotional job demands exceed emotional abilities (H4c). As shown in Table 3, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting

that the relationship between integrative emotional demands and abilities and physical symptoms is linear, and thus provides no support for hypotheses 4a-c for integrative emotional demands and abilities. However, examination of the direct linear effects in step 1 showed that integrative emotional abilities' effect on physical symptoms is significant and negative ( $\beta = -.20, p < .01, \Delta R^2 = .04$ ). This suggests that experienced physical symptoms are highest when integrative emotional abilities are low; further no link between integrative emotional demands and physical symptoms was detected.

Hypotheses 5a-c predicted that job satisfaction will increase when there is greater congruence between emotional job demands and emotional abilities (H5a), and that job satisfaction will decrease as employees' emotional abilities exceed emotional job demands (H5b), and when emotional demands exceed emotional abilities (H5c). As shown in Table 3, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between integrative emotional demands and abilities and job satisfaction is linear, and thus provides no support for hypotheses 5a-c for integrative emotional job demands and abilities. However, examination of the direct linear effects in step 1 showed that integrative emotional abilities' effect on job satisfaction is significant and positive ( $\beta = .18, p < .01, \Delta R^2 = .03$ ). These results suggest that job satisfaction is highest when integrative emotional abilities are high and is unaffected by integrative demands.

#### *Differentiating Emotional Demands and Abilities*

Hypothesis 1a-c predicted that felt inauthenticity will be low and constant when employees' differentiating emotional abilities exceed emotional demands (H1a), when employee' emotional abilities are congruent with the emotional demands of the job

(H1b), and that felt inauthenticity will increase as emotional job demands exceed employees' emotional abilities (H1c). As shown in Table 5, for differentiating emotional demands and abilities, adding the higher order terms in Step 2 resulted in a significant increase in  $R^2$  ( $\Delta R^2 = .025$ ,  $\Delta F = 2.69$ ,  $p < .05$ ) and the overall  $R^2$  of .141 was significant  $F(5,286) = 9.25$ ,  $p < .05$ . Therefore, these results for differentiating emotional demands and abilities provide initial support for the first sets of hypotheses. As with felt inauthenticity and integrative ED-A fit, I graphed the results and analyzed the shapes of the surface of the graph in order to confirm whether differentiating emotional demands and abilities are related to felt inauthenticity as predicted (See Figure 2).

Table 5. Differentiating (Negative) Emotional Demands and Abilities

<i>Dependent Variable</i>	Step 1			Step 2				
	D	A	$R^2$	$D^2$	$A^2$	$D \times A$	$R^2$	$\Delta R^2$
Felt Inauthenticity	.40**	.21	.117**	.15	-.18*	.01	.142**	.025*
Emotional Exhaustion	.34**	.00	.050**	.07	-.05	-.20	.063**	.013
Job Performance	-.45**	.42**	.098**	.04	-.01	.34**	.127**	.029*
Physical Symptoms	.58**	-.19	.061**	.22**	-.01	-.32*	.096**	.035*
Job Satisfaction	-.09	-.12	.026*	.06	.07	.03	.032**	.006

*Note.* All coefficients are from step 2 (final step). All standardized Betas are centered.

\* $p \leq .05$ . \*\* $p \leq .01$ .

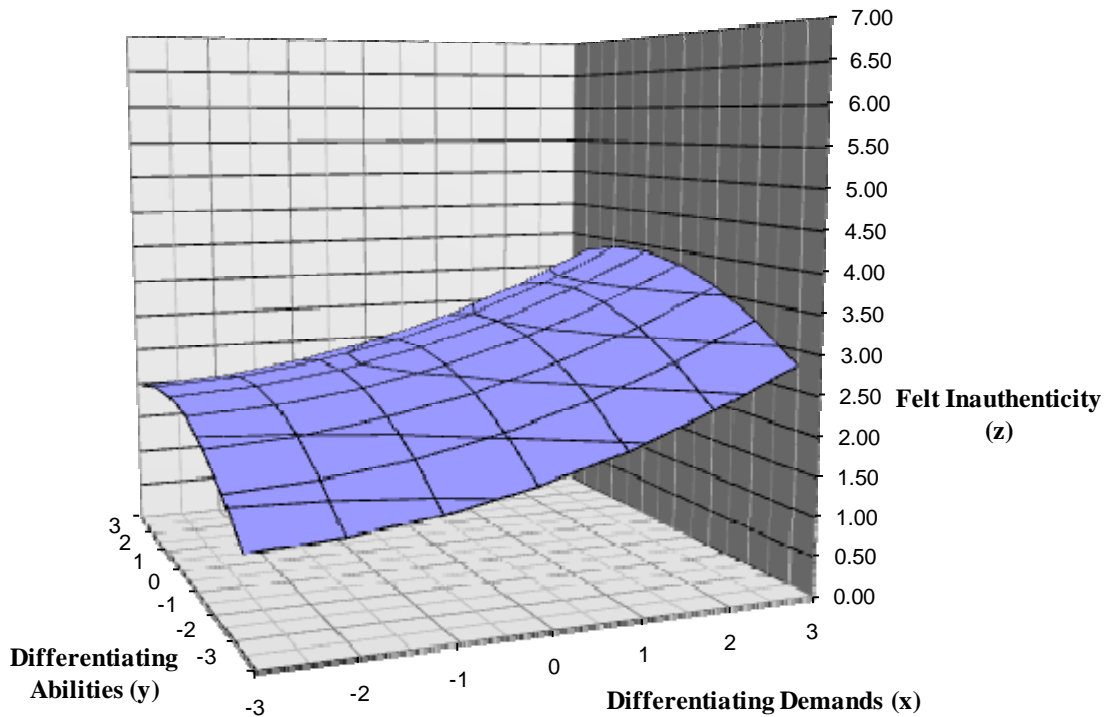


Figure 2. The three-dimensional shape of the data for differentiating demands and abilities predicting felt inauthenticity.

For the relationship between differentiating emotional demands and abilities and felt inauthenticity, the stationary point was located at  $x = -3.29$ ,  $y = 1.27$ . The first principle axis (the line of maximum upward curvature) had an intercept of 1.30 and a slope of 0.01. The second principle axis (the line of downward maximized curvature) had an intercept of -331.75 and a slope of -101.01. There was a significant positive slope ( $a_1 = .44$ ,  $p < .01$ ) and a non-significant curvature ( $a_2 = -0.01$ ,  $p = 0.78$ ) along the line of congruence. The significant positive coefficient of the slope indicates that felt inauthenticity is higher as both the differentiating demands and abilities become higher, and felt inauthenticity becomes lower as both differentiating emotional demands and abilities become lower, thus failing to support hypothesis 1b which predicted that felt

inauthenticity would be low and constant when there is congruence between emotional demands and abilities. To further explore and understand the surface of the graph, I tested the slope and curvature along the line of incongruence. The pattern of results revealed that neither the slope ( $a_3 = 0.13, p = .45$ ) nor the curvature ( $a_4 = -0.02, p = .74$ ) were significant. Thus, hypotheses 1a and 1c were not supported (See Table 6 for summary of statistics).

Taken together the results of the surface response interpretation suggests that the surface has a positive linear slope along the  $x = y$  and no significant surface slope or curvature along the  $x = -y$  line. This means that felt inauthenticity increases as both differentiating emotional demands and abilities increase together and is highest when both differentiating demands and abilities are high. However, contrary to predictions, no significant patterns of results were found for the situation in which differentiating demands are incongruent (i.e., demands exceed abilities or abilities exceed demands) with differentiating abilities. Therefore this pattern of results fails to support hypotheses 1a-c for differentiating ED-A fit.

Table 6. Ordinary Least Squares Regression Results for Differentiating Emotional Demands and Abilities for Felt Inauthenticity

Variable	Felt Inauthenticity		Along $X = Y$ line		Along $X = -Y$		Lateral Shift
	Step 1	Step 2	Slope	Curvature	Slope	Curvature	
Predictors							
Differ Demands	.22**	.28**	0.44*	-0.01	0.13	-0.02	3.74
Differ Abilities	.07	.15					
Differ Demands <sup>2</sup>		.04					
Differ Demands X Abilities		-.06*					
Differ Abilities <sup>2</sup>		.00					
$R^2$	.12**	.14**					
	$F(2,284) = 18.75$	$F(5,281) = 9.25$					
$\Delta R^2$		.025*, $\Delta F(3,281) = 2.69$					

Note. All are unstandardized regression coefficients for equations.

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

To add to the interpretation of the surface response of the graph, I examined trends in the surface considering lateral shifts ( $a_5$ ) in the surface along the  $x = y$  line. A positive value indicates a shift towards the region where  $x > y$  and a negative value indicates a shift toward the region where  $x < y$  (Gibson et al., 2009). For differentiating emotional demands and abilities, the lateral shift calculation resulted in a value of 3.74, indicating a shift in the region towards  $x > y$ . Therefore, most of the corresponding effects are occurring in the region where differentiating emotional demands ( $x$ ) exceed differentiating emotional abilities ( $y$ ).

Hypotheses 2a-c predicted that emotional exhaustion will be low and constant when employees' emotional abilities exceed emotional job demands (H2a), when employees' emotional abilities are congruent with emotional demands (H2b), and that felt inauthenticity will increase as emotional job demands exceed employee's emotional abilities (H2c). As shown in Table 5, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between differentiating emotional demands and abilities and emotional exhaustion is linear, and thus provides no support for hypotheses 2a-c for differentiating ED-A fit. However, examination of the direct linear effects in step 1 showed that both differentiating emotional demands ( $\beta = .18, p < .01, \Delta R^2 = .03$ ) and abilities ( $\beta = .12, p < .05, \Delta R^2 = .01$ ) effects' on emotional exhaustion are significant and positive. This finding suggests that when differentiating emotional demands and abilities are high, emotional exhaustion is also high.

Hypotheses 3a-c predicted that job performance will increase as emotional abilities exceed emotional job demands (H3a), when there is greater congruence between

emotional job demands and emotional abilities (H3b), and job performance will decrease as emotional job demands exceed emotional abilities (H3c). As shown in Tables 5, for differentiating emotional demands and abilities, adding the higher order terms in Step 2 resulted in a significant increase in  $R^2$  ( $\Delta R^2 = .029$ ,  $\Delta F = 3.06$ ,  $p < .05$ ) and the overall  $R^2$  of .127 was significant  $F(5,284) = 8.10$ ,  $p < .01$ . Therefore, these results for differentiating emotional demands and abilities provide initial support for the third set of hypotheses. In order to confirm whether differentiating emotional demands and abilities are related to job performance as predicted, I graphed the results and analyzed the shape of the surface associated with each set of variables (See Figure 3).

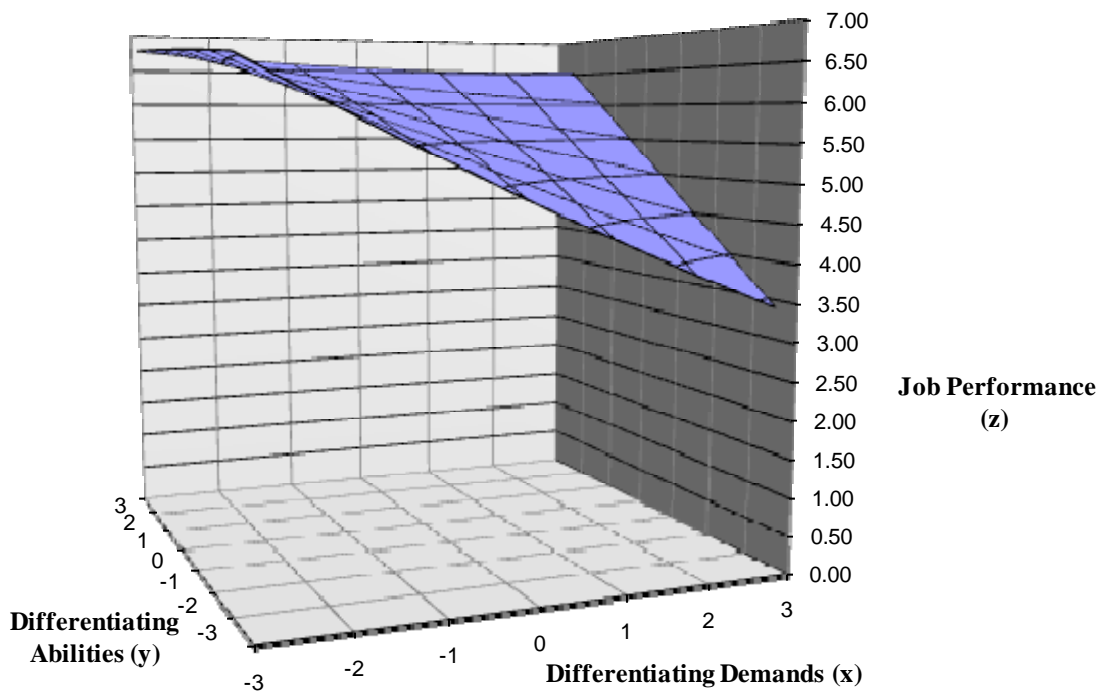


Figure 3. The three-dimensional shape of the data for differentiating demands and abilities predicting job performance.

For differentiating emotional demands and abilities' effects of job performance, the stationary point was located at  $x = -3.25$ ,  $y = 4.33$ . The first principle axis (the line of maximized upward curvature) had an intercept of 7.10 and a slope of 0.85. The second principle axis (the line of upward minimized curvature) had an intercept of 0.51 and a slope of -1.17. As before, I calculated and tested the significance for the slope and the curvature along the line of congruence. In the case of differentiating demands and abilities, for job performance, there was a significant positive curvature ( $a_2 = .09$ ,  $p < .05$ ) and no significant slope ( $a_1 = 0.00$ ,  $p = 0.97$ ). The significant positive coefficient of the curvature indicates that there is a convex or upward surface along the line of congruence (See Table 7 for summary of statistics).

Table 7. Ordinary Least Squares Regression Results for Differentiating Emotional Demands and Abilities for Job Performance

Variable	Job Performance		Along $X = Y$ line		Along $X = -Y$		Lateral Shift
	Step 1	Step 2	Slope	Curvature	Slope	Curvature	
Predictors							
Differ Demands	-.17**	-.28**	0.00	0.09*	-0.56**	-0.07	-3.88
Differ Abilities	.12**	.28**					
DifferDemands <sup>2</sup>		.01					
Differ Demands X Abilities		.00					
Differ Abilities <sup>2</sup>		.08**					
$R^2$	.10**	.13**					
	$F(2,282) = 15.33$	$F(5,279) = 8.10$					
$\Delta R^2$		.03**, $\Delta F(3,279) = 3.06$					

Note. All are unstandardized regression coefficients for equations .

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

In conjunction with these results, examination of Figure 3 shows that the slight U-shape of the surface indicates that job performance is lower when both differentiating emotional demands and abilities are at the midpoint of the scale. In line with this, job performance increases in both directions as both demands and abilities decrease together,



and as they increase together when moving away from the midpoint of the scale. This provides partial support for hypothesis 3b, which predicts that employees will have higher job performance when there is greater congruence between emotional job demands and emotional abilities, but this only true for lower and higher levels of differentiating emotional demands and abilities.

Next I calculated and tested the slope and curvature along the line of incongruence. The data indicate that the slope ( $a_3 = -0.56, p < .01$ ) is significantly different from zero, but the curvature is not ( $a_4 = -0.07, p = .09$ ). The slope is negative which indicates that job performance becomes higher as differentiating emotional abilities exceed differentiating demands, which supports hypothesis 3a. Additionally, this also indicates that job performance decreased and was the lowest when differentiating emotional demands exceed emotional abilities, which supports hypothesis 3c. These results can clearly be seen in Figure 3.

Taken together the results of the surface response interpretation suggests that job performance is highest when there are high and low levels of both differentiating emotional demands and abilities and that job performance increases as differentiating emotional abilities exceed emotional job demands. Therefore, this pattern of results provides support for hypotheses 3a and 3c, and partial support for hypothesis 3b.

As with previous surface response interpretations, I examined trends in the surface considering lateral shifts ( $a_5$ ) in the surface along the  $x = y$  line. A positive value indicates a shift towards the region where  $x > y$  and a negative value indicates a shift toward the region where  $x < y$  (Gibson, Cooper, & Conger, 2009). For differentiating emotional demands and abilities, the lateral shift calculation resulted in a value of -3.88,

indicating a shift in the region towards  $x < y$ . Therefore, most of the corresponding effects are occurring when differentiating emotional demands ( $x$ ) are less than differentiating emotional abilities ( $y$ ).

Hypotheses 4a-c predicted that experienced physical symptoms will be low and constant when employees' emotional abilities exceed emotional job demands (H4a), when employees' emotional abilities are congruent with the emotional job demands (H4b), and that physical symptoms will increase as emotional job demands exceed emotional abilities (H4c). As shown in Table 5, for differentiating emotional demands and abilities, adding the higher order terms in Step 2 resulted in a significant increase in  $R^2$  ( $\Delta R^2 = .035$ ,  $\Delta F = 3.58$ ,  $p < .05$ ) and the overall  $R^2$  of .096 was significant  $F(5,286) = 5.96$ ,  $p < .01$ . Therefore, these results for differentiating emotional demands and abilities provide initial support for the fourth set of hypotheses. In order to confirm whether differentiating emotional demands and abilities are related to physical symptoms as predicted, I graphed the results and analyzed the shapes of the surface associated with each set of variables (See Figure 4).

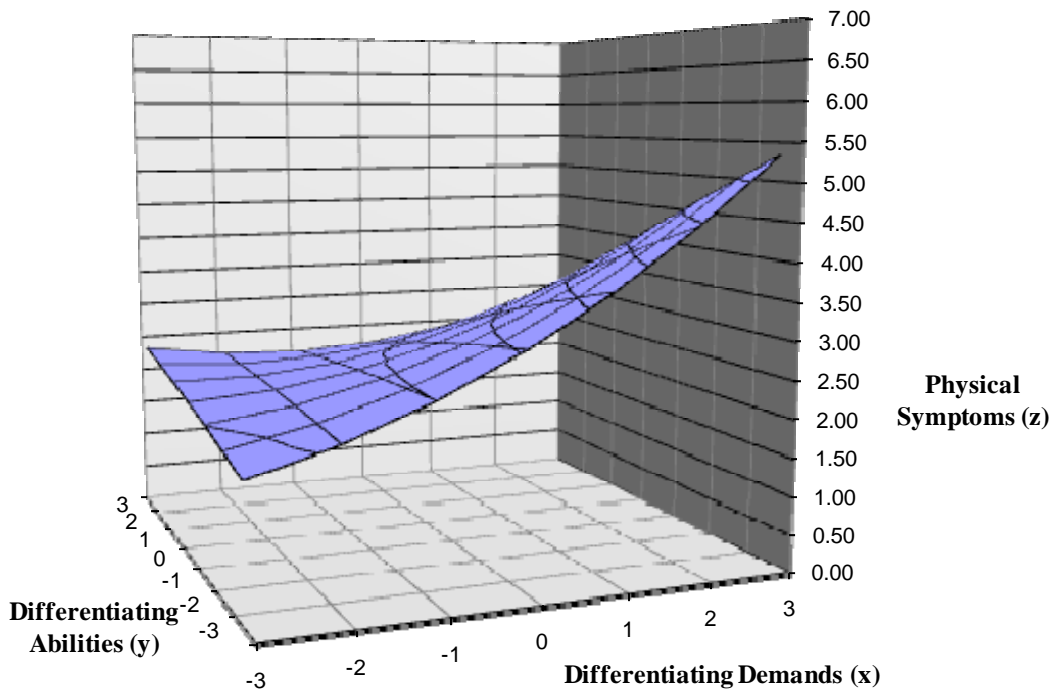


Figure 4. The three-dimensional shape of the data for differentiating demands and abilities predicting physical symptoms.

For differentiating emotional demands and abilities' effects of physical symptoms, the stationary point was located at  $x = -1.85$ ,  $y = 2.03$ . The first principle axis (the line of maximized upward curvature) had an intercept of 1.13 and a slope of -0.49. The second principle axis (the line of upward minimized curvature) had an intercept of 5.81 and a slope of 2.05. Again, because the relationship between differentiating ED-A fit and physical symptoms was nonlinear I calculated and tested the slope and curvature along the line of congruence. In the case of differentiating demands and abilities, for physical symptoms, there was a significant positive slope ( $a_1 = .24$ ,  $p < .01$ ) and no significant curvature ( $a_2 = -0.03$ ,  $p = 0.58$ ) along the line of congruence. The significant positive coefficient of the slope indicates that physical symptoms increase as both differentiating emotional demands and abilities increase and are highest when there are

high levels of both demands and abilities, failing to support hypothesis 4b (See Table 8 for summary of statistics).

Table 8. Ordinary Least Squares Regression Results for Differentiating Emotional Demands and Abilities for Physical Symptoms

Variable	Physical Symptoms		Along $X = Y$ line		Along $X = -Y$		Lateral Shift
	Step 1	Step 2	Slope	Curvature	Slope	Curvature	
Predictors							
Differ Demands	.15**	.36**	0.24**	-0.03	0.49**	0.13**	-1.9
Differ Abilities	.03	-.13					
Differ Demands <sup>2</sup>		.06**					
Differ Demands X Abilities		-.01					
Differ Abilities <sup>2</sup>		-.08*					
$R^2$	.06**	.10**					
	$F(2,284) = 9.27$	$F(5,281) = 5.96$					
$\Delta R^2$		.04**, $\Delta F(3,281) = 3.59$					

Note. All are unstandardized regression coefficients for equations.

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

To further understand the surface response, I calculated and tested the slope and curvature along the line of incongruence. The data indicate that both the slope ( $a_3 = 0.49$ ,  $p < .01$ ) and the curvature ( $a_4 = 0.13$ ,  $p < .01$ ) are significantly different from zero. The slope is positive which indicates that physical symptoms become higher as differentiating emotional demands exceed differentiating emotional abilities. More specifically, physical symptoms are highest when differentiating emotional job demands are high and emotional abilities are low which provides strong support for hypothesis 4c.

Additionally, the significant positive curvature suggests a convex surface or an upward curve along the line of disagreement. As shown in Figure 4, the smooth curved check-marked shape of the surface indicates that physical symptoms decrease slightly as abilities decrease and demands increase until the midpoint of the scale at which point physical symptoms increase rather sharply as differentiating emotional demands exceed

differentiating emotional abilities, providing additional support for hypothesis 4c.

Physical symptoms are lowest when differentiating abilities are greater than demands and increase whenever demands are higher than abilities, thus providing partial support for hypothesis 4a.

Taken together the results of the surface response interpretation suggests that physical symptoms are highest when there are both higher levels of differentiating demands and abilities and that physical symptoms are also highest when differentiating emotional demands exceed emotional job abilities. Therefore, this pattern of results provides support for hypotheses 4c and partial support for hypothesis 4a and no support for hypothesis 4b.

To further understand the surface response, I examined the trends in the surface considering lateral shifts ( $a_5$ ) in the surface along the  $x = y$  line. A positive value indicates a shift towards the region where  $x > y$  and a negative value indicates a shift toward the region where  $x < y$  (Gibson, Cooper, & Conger, 2009). For differentiating emotional demands and abilities, the lateral shift calculation resulted in a value of -1.90, indicating a shift in the region towards  $x < y$ . Therefore, most of the corresponding effects occur when differentiating emotional demands ( $x$ ) are less than differentiating emotional abilities ( $y$ ).

Hypotheses 5a-c predicted that job satisfaction will increase when there is greater congruence between emotional job demands and emotional abilities (H5a), and that job satisfaction will decrease as employees' emotional abilities exceed emotional job demands (H5b), and when emotional demands exceed emotional abilities (H5c). As shown in Table 5, the addition of the higher order terms in Step 2 of the regression

equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between differentiating emotional demands and abilities and job satisfaction is linear, and thus provides no support for hypotheses 5a-c for differentiating demands and abilities. Examination of the direct linear effects in step 1, reveal that differentiating emotional demands' effect on job satisfaction is significant and negative ( $\beta = -.12, p < .05, \Delta R^2 = .02$ ). This suggests that job satisfaction is lowest when differentiating emotional demands are high. Additionally, differentiating abilities were unrelated to job satisfaction.

#### *Emotional Masking Demands and Abilities*

Hypothesis 1a-c predicted that felt inauthenticity will be low and constant when employees' integrative emotional abilities exceed emotional demands (H1a), when employee' emotional abilities are congruent with the emotional demands of the job (H1b), and that felt inauthenticity will increase as emotional job demands exceed employees' emotional abilities (H1c). As shown in Table 9, for emotional masking demands and abilities, adding the higher order terms in Step 2 of the regression equation failed to result in a significant increase in  $R^2$ . This suggests that the relationship between emotional masking demands and abilities and felt inauthenticity is linear and thus provides no support for hypotheses 1a-c for emotional masking demands and abilities. Examination of the direct linear effects in step 1 show that emotional demands' effect on felt inauthenticity is significant and positive ( $\beta = .48, p < .01, \Delta R^2 = .22$ ). This suggests that felt inauthenticity is highest when emotional masking job demands are high. Additionally, emotional masking abilities were unrelated to felt inauthenticity.

Table 9. Emotional Masking (Show no emotion) Demands and Abilities

<i>Dependent Variable</i>	Step 1			Step 2				
	D	A	R <sup>2</sup>	D <sup>2</sup>	A <sup>2</sup>	DxA	R <sup>2</sup>	ΔR <sup>2</sup>
Felt Inauthenticity	.53**	.15*	.250**	.13*	-.13	.00	.263**	.013
Emotional Exhaustion	.33**	.04	.104**	-.02	-.03	-.07	.11**	.006
Job Performance	-.07	-.04	.002	-.01	.13	.04	.013	.011
Physical Symptoms	.29**	.00	.056**	.09	-.07	-.04	.063**	.007
Job Satisfaction	-.22**	-.07	.071**	.06	.06	-.03	.077**	.006

*Note.* All coefficients are from step 2 (final step). All standardized Betas are centered.

\* $p \leq .05$ . \*\* $p \leq .01$ .

The hypothesized relationship in the second set of hypotheses predicted that emotional exhaustion will be low and constant when employees' emotional abilities exceed emotional job demands (H2a), when employees' emotional abilities are congruent with emotional demands (H2b), and that felt inauthenticity will increase as emotional job demands exceed employee's emotional abilities (H2c). As shown in Table 9, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between emotional masking demands and abilities and emotional exhaustion is linear, and thus provides no support for hypotheses 2a-c. However, examination of the direct linear effects in step 1 show that emotional masking demands' effect on emotional exhaustion is significant and positive ( $\beta = .31, p < .01, \Delta R^2 = .09$ ). This implies that emotional exhaustion is highest when there are high emotional masking job demands. However, emotional masking abilities were unrelated to emotional exhaustion.

Hypotheses 3a-c predicted that job performance will increase as emotional abilities exceed emotional job demands (H3a), when there is greater congruence between

emotional job demands and emotional abilities (H3b), and job performance will decrease as emotional job demands exceed emotional abilities (H3c). As shown in Table 9, emotional masking demands and abilities were unrelated to job performance. Therefore, hypotheses 3a-c was not supported for emotional masking demands abilities.

Hypotheses 4a-c predicted that experienced physical symptoms will be low and constant when employees' emotional abilities exceed emotional job demands (H4a), when employees' emotional abilities are congruent with the emotional job demands (H4b), and that physical symptoms will increase as emotional job demands exceed emotional abilities (H4c). As shown in Table 9, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between emotional masking demands and abilities and physical symptoms is linear, and thus provides no support for hypotheses 4a-c. However, examination of the direct linear effects in step 1, shows that emotional masking demands' effect on physical symptoms is significant and positive ( $\beta = .24, p < .01, \Delta R^2 = .06$ ). This suggests that physical symptoms are highest when emotional masking job demands are high. However, emotional masking abilities were unrelated to physical symptoms.

Hypotheses 5a-c predicted that job satisfaction will increase when there is greater congruence between emotional job demands and emotional abilities (H5a), and that job satisfaction will decrease as employees' emotional abilities exceed emotional job demands (H5b), and when emotional demands exceed emotional abilities (H5c). As shown in Table 9, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between emotional masking demands and abilities and job satisfaction is linear, and thus



provides no support for hypotheses 5a-c for emotional masking demands and abilities. Examination of the direct linear effects in step 1, shows that emotional demands' effect on job satisfaction is significant and negative ( $\beta = -.26, p < .01, \Delta R^2 = .06$ ). This suggests that job satisfaction is lowest when emotional masking job demands are high. Additionally, emotional masking abilities were unrelated to job satisfaction.

#### *Emotional Regulation Demands and Abilities*

Hypothesis 1a-c predicted that felt inauthenticity will be low and constant when employees' emotional regulation abilities exceed emotional demands (H1a), when employee' emotional abilities are congruent with the emotional demands of the job (H1b), and that felt inauthenticity will increase as emotional job demands exceed employees' emotional abilities (H1c). As shown in Table 10, for emotional regulation demands and abilities, adding the higher order terms in Step 2 of the regression equation failed to result in a significant increase in  $R^2$ . This suggests that the relationship between emotional regulation demands and abilities and felt inauthenticity is linear and thus provides no support for hypotheses 1a-c. Examination of the direct linear effects in step 1, shows that emotional regulation demands' effect on felt inauthenticity is significant and positive ( $\beta = .42, p < .01, \Delta R^2 = .17$ ) and that the direct effect of abilities was significant and negative ( $\beta = -.13, p < .05, \Delta R^2 = .02$ ). Thus felt inauthenticity is highest when emotional regulation job demands are high and abilities are low.

Table 10. Emotional Regulation Demands and Abilities

<i>Dependent Variable</i>	Step 1			Step 2				
	D	A	R <sup>2</sup>	D <sup>2</sup>	A <sup>2</sup>	DxA	R <sup>2</sup>	ΔR <sup>2</sup>
Felt Inauthenticity	.42**	-.14	.174**	.07	.00	-.03	.179**	.005
Emotional Exhaustion	.29**	-.12	.074**	.03	.09	-.03	.078**	.004
Job Performance	.26*	.04	.051**	.06	.19	-.20	.071**	.020
Physical Symptoms	.20	-.28**	.048**	.08	.13	-.06	.060**	.012
Job Satisfaction	-.15	.16	.044**	-.05	-.04	-.04	.048**	.004

*Note.* All coefficients are from step 2 (final step). All standardized Betas are centered.

\* $p \leq .05$ . \*\* $p \leq .01$ .

The hypothesized relationship in the second set of hypotheses predicted that emotional exhaustion will be low and constant when employees' emotional abilities exceed emotional job demands (H2a), when employees' emotional abilities are congruent with emotional demands (H2b), and that felt inauthenticity will increase as emotional job demands exceed employee's emotional abilities (H2c). As shown in Table 10, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between emotional regulation demands and abilities and emotional exhaustion is linear, and thus provides no support for hypotheses 2a-c. However, examination of the direct linear effects in step 1 show that emotional regulation demands' effect on emotional exhaustion is significant and positive ( $\beta = .28, p < .01, \Delta R^2 = .07$ ). This implies that emotional exhaustion is highest when there are high emotional regulation job demands. Additionally, emotional masking abilities were unrelated to emotional exhaustion.

Hypotheses 3a-c predicted that job performance will increase as emotional abilities exceed emotional job demands (H3a), when there is greater congruence between

emotional job demands and emotional abilities (H3b), and job performance will decrease as emotional job demands exceed emotional abilities (H3c). As shown in Table 10, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between emotional regulation demands and abilities and job performance is linear, and thus provides no support for hypotheses 3a-c. However, examination of the direct linear effects in step 1 show that emotional regulation abilities' effect on job performance is significant and positive ( $\beta = .18, p < .01, \Delta R^2 = .03$ ). This suggests that job performance is highest when emotional regulation abilities are high. However, emotional regulation demands were found to be unrelated to job performance.

Hypotheses 4a-c predicted that experienced physical symptoms will be low and constant when employees' emotional abilities exceed emotional job demands (H4a), when employees' emotional abilities are congruent with the emotional job demands (H4b), and that physical symptoms will increase as emotional job demands exceed emotional abilities (H4c). As shown in Table 10, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between emotional regulation demands and abilities and physical symptoms is linear, and thus provides no support for hypotheses 4a-c. However, examination of the direct linear effects in step 1 show that emotional regulation demands' effect on physical symptoms is significant and positive ( $\beta = .16, p < .01, \Delta R^2 = .03$ ) and emotional regulation abilities is negative and significant ( $\beta = -.17, p < .01, \Delta R^2 = .03$ ). This suggests that physical symptoms are highest when emotional regulation job demands are high and abilities are low.

Hypotheses 5a-c predicted that job satisfaction will increase when there is greater congruence between emotional job demands and emotional abilities (H5a), and that job satisfaction will decrease as employees' emotional abilities exceed emotional job demands (H5b), and when emotional demands exceed emotional abilities (H5c). As shown in Table 10, the addition of the higher order terms in Step 2 of the regression equation failed to result in a significant change in  $R^2$ , suggesting that the relationship between emotional regulation demands and abilities and job satisfaction is linear, and thus provides no support for hypotheses 5a-c. Examination of direct linear effects in step 1 show that emotional demands' effect on job satisfaction is significant and negative ( $\beta = -.19, p < .01, \Delta R^2 = .04$ ) and abilities is positive and significant ( $\beta = .12, p < .05, \Delta R^2 = .01$ ). This suggests that job satisfaction is highest when emotional regulation job demands are low and abilities are high.

## CHAPTER VI

### DISCUSSION

Although the concept of “fit” between emotional demands of the job or organization and an employee’s emotional capabilities was discussed by Arvey et al., (1998) over a decade ago, research has just now begun to explore this area of study (Diefendorff et al., 2008, April). Recently, Diefendorff et al. (2008, April) developed the concept of emotional-demands abilities (ED-A) fit to capture this idea of congruence between a person’s emotional abilities and the emotional demands of the person’s job. The results of the current study further the understanding of ED-A fit in several important ways.

First, this study demonstrated that both emotional demands and abilities are best conceptualized as multidimensional. Specifically, there are four emotional demands and corresponding abilities in the domains of integrative (show/experience positive), differentiating (show/experience negative), emotional masking (show/neutral neutral), and emotional regulation (manage). No prior research has as comprehensively examined the dimensionality of emotional job demands and the corresponding personal abilities.

Second, this study demonstrated that these demands and abilities related to five key outcomes in different ways. Generally, integrative abilities, but not demands, predicted outcomes (i.e., higher abilities to show positive emotions related to better

outcomes), emotional masking demands, but not abilities, predicted outcomes (i.e., higher demands to hide emotions related to worse outcomes), both regulating demands and abilities predicted outcomes (i.e., higher demands to regulate emotions related to worse outcomes and higher abilities to regulate emotions related to better outcomes), and differentiating demands predicted all outcomes while differentiating abilities related to some outcomes (i.e., higher demands to show negative emotions related to worse outcomes and higher abilities to show negative emotions had mixed effects on outcomes).

Third, this study demonstrated the existence of non-linear relationships of demands and abilities in predicting outcomes in four cases. Nonlinear relationships suggest that outcome variables differ depending on the levels of demands, abilities, or combinations of demands and abilities. Specifically, nonlinear relationships were found for the integrative demands and abilities in predicting felt inauthenticity and for the differentiating demands and abilities in predicting felt inauthenticity, job performance, and physical symptoms. These findings are discussed in more detail below.

#### Dimensionality of Demands and Abilities

Using confirmatory factor analysis, this study revealed that ED-A fit is comprised of four dimensions – integrative (positive), differentiating (negative), emotional masking (neutral), and emotional regulation demands and abilities. This is the first study to attempt to comprehensively measure employee perceptions of emotional job demands and their corresponding emotional abilities. Results confirmed the distinction among demands proposed by Wharton and Erickson (1993), with factors corresponding to integrative, differentiating, and masking emerging, while also adding a dimension corresponding to emotion regulation. The tests of alternative factor structures did not

support the idea that these items could be distinguished primarily on the modality of the emotional demands/abilities (i.e., express, feel, regulate), but rather on the type of emotion involved. Thus, individuals consider demands to feel positive and express positive emotions, for instance, to be roughly equivalent, and to be distinct from demands to feel and express negative emotions or no emotions. Such findings advance our understanding of the dimensionality of emotional demands at work, which have typically focus on the expression of positive emotions and the suppression or hiding of negative emotions (Diefendorff & Richard, 2003). As such, future work on emotional job demands may benefit from taking a broader approach to conceptualizing and measuring such perceived expectations.

#### Understanding the Relations of Emotional Demands and Abilities with Outcome Variables

By measuring emotional demands and abilities separately, I was able to determine whether outcomes were primarily driven by emotional abilities, emotional job demands, or varied depending on both demands and abilities in terms of whether demands exceed abilities, abilities exceed demands, or when demands match abilities (i.e., they are congruent).

#### *Integrative Emotions*

Integrative emotions refer to positive emotions that bring people together. This type of emotional demand is commonly discussed in the emotional labor literature and is prevalent in many occupations (see Grandey, 2000). Prior research has repeatedly found that emotional job demands can have negative consequences for individuals (Brotherridge & Grandey, 2002; Diefendorff & Richard, 2003; Glomb & Tews, 2004;

Grandey, 2003; Montgomery et al., 2006; Schaubroeck & Jones, 2000; Totterdell & Holman, 2003). However, the results of the current study demonstrate that for the integrative dimension, a person's integrative abilities predict outcomes, but the integrative job demands were unrelated to outcomes. In particular, higher levels of integrative abilities were associated with lower levels of emotional exhaustion and physical symptoms and higher levels of job satisfaction and job performance. Demands to express and feel positive emotions were unrelated to these outcome variables. This set of findings suggests that consequences of integrative ED-A fit have less to do with the level of demands to experience and express positive emotions and more to do with a person's abilities to experience and express positive emotions. Therefore, regardless of the level of demand for integrative emotions, employers may benefit from hiring employees who have high ability to show and feel positive emotions.

Additionally, a nonlinear relationship of integrative demands and abilities with felt inauthenticity was detected. Lower levels of felt inauthenticity occurred when both integrative demands and abilities were low, both were high, when abilities exceeded demands and when demands exceeded abilities. Interestingly, felt inauthenticity was highest when there were moderate levels of both demands and abilities. Taken together, this finding suggests that the greater the integrative ED-A misfit in either direction (i.e., demands exceed abilities, abilities exceed demands) and even certain levels of fit are associated with lower levels of felt inauthenticity. Lower levels of felt inauthenticity are only present at the extreme ends of both integrative demands and abilities fit (congruence). This means that fit results in better (i.e., lower) levels of felt inauthenticity when a person's integrative abilities and the integrative demands are low and when both



are high. Fit between moderate levels of integrative abilities and integrative job demands resulted in the highest level of felt inauthenticity.

In sum, these findings suggest that the positive and negative consequences of emotional labor demands that require employees to express and experience positive emotions have more to do with a person's abilities than with the actual demands of the job. Therefore, requiring employees to engage in integrative emotional labor does not contribute to or predict whether a person will experience positive or negative consequences from the job. Instead, consequences associated with integrative emotional labor are determined primarily by person's integrative emotional abilities. Regardless of the integrative emotional job demands, better outcomes were found to be predicted by higher levels of integrative abilities. This suggests that employees with low levels of integrative abilities will suffer the most negative consequences.

#### *Differentiating Emotions*

Differentiating emotions refer to negative emotions that create conflict or distance between individuals. A different pattern of results emerged for differentiating emotional demands and abilities. In considering the main effects, higher levels of differentiating job demands were associated with higher felt inauthenticity, emotional exhaustion, and physical symptoms, and lower job satisfaction and job performance. Additionally, high levels of differentiating abilities were associated with higher emotional exhaustion and higher job performance. Importantly, nonlinear relationships were found for differentiating ED-A fit and felt inauthenticity, physical symptoms, and job performance suggesting that outcomes vary depending on the combined levels of differentiating demands and abilities. However, further examination of the nonlinear relationships

generally demonstrated that higher levels of differentiating job demands resulted in more negative outcomes (e.g., physical symptoms, felt inauthenticity) regardless of an individual's differentiating emotional abilities. The only exception was for differentiating ED-A fit and job performance. Job performance was highest when both demands and abilities were congruent (ED-A fit) and low in value as well as congruent and high in value, whereas moderate levels of both demands and abilities resulted in lower job performance.

For differentiating ED-A fit, it was found that felt inauthenticity was lowest when both differentiating demands and abilities were low and was highest when both differentiating demands and abilities were high. This finding suggests that felt inauthenticity is experienced the most by individuals who have high levels of differentiating emotional abilities and who are in jobs with many differentiating emotional demands. Thus, these are individuals who are often expected to show negative emotions and are capable of doing so. One explanation for this pattern of results may be that while individuals believe that they have the ability to express and experience negative emotions, they may not enjoy or benefit from having to engage in this type of emotional behavior. This in turn may make them feel more inauthentic, even though they actually meet the differentiating demands of the job. A job in which one is expressing and in turn experiencing negative emotions may lead people to feel as though they have to be a different person at work than in other aspects of their life. This may make these people feel more inauthentic at work because they normally do not have to experience and express negative emotions as frequently as they have to at work. Future work on this

issue is needed. No effects of differentiating demands (abilities) exceeding abilities (demands) on felt inauthenticity were found.

For physical symptoms, the results of this study indicate that individuals experience the most physical symptoms when both differentiating emotional demands and abilities are high and when differentiating emotional demands exceed differentiating abilities. Taken together, these results suggest that employees will likely experience more physical symptoms in jobs where there are high levels of differentiating job demands, and these employees lack the corresponding abilities to handle such demands. Interestingly, the results of this study also suggest that even when differentiating emotional abilities are high, higher levels of differentiating emotional job demands can still be detrimental to employees by increasing experienced physical symptoms. Therefore, fit between differentiating emotional abilities and demands do not safeguard employees from experiencing physical symptoms when the differentiating demands of the job are high.

Finally, a nonlinear relationship between differentiating ED-A fit and job performance was found. More specifically, these results demonstrate that job performance is highest when both differentiating emotional demands and abilities are low, when they are both high, and when differentiating emotional abilities exceed differentiating job demands. Additionally, job performance is lowest at moderate levels of ED-A fit and when differentiating emotional demands are high, but differentiating emotional abilities are low. Taken together, these results suggest that job performance for jobs with high differentiating demands can be facilitated by selecting individuals who have higher levels of differentiating emotional abilities.

In sum, the pattern of results for differentiating ED-A fit is much different from the pattern of results which emerged from integrative ED-A fit. The results of differentiating ED-A fit suggest that jobs with many negative emotional demands can have a variety of detrimental effects on employees, including physical symptoms and felt inauthenticity, even when these employees' abilities 'fit' or match the high levels of differentiating emotional demands. The results of this study clearly demonstrate that jobs that place many differentiating demands on employees are associated with higher levels of felt inauthenticity, physical symptoms, emotional exhaustion and lower levels of job satisfaction, regardless of an individual's differentiating emotional abilities. In line with prior research demonstrating negative consequences associated with emotional labor (e.g., Montgomery et al., 2006; Schaubroek & Jones, 2000) the results of the current study show that jobs that require employees to express and experience negative emotions consistently lead to more negative outcomes. Interestingly, differentiating ED-A fit did result in one positive outcome which was that job performance was generally higher when employees' differentiating abilities matched the differentiating demands of the job, especially when both demand and abilities were high.

This type of emotional demand is often discussed in jobs for police work and bill collecting (Arvey et al., 1998; Bakker & Heuven, 2006; Glomb et al., 2004; Sutton, 1991; Van Gelderen, Heuven, Van Veldhoven, Zeelenberg, & Croon, 2007), but may also be found in a variety of jobs in which conflict occurs as part of the normal work function. For instance, a manager may need to show displeasure or disapproval towards subordinates when job performance falls below expectations or when work rules, procedures, and policies are disregarded or violated (e.g., employees repeated failure to

wear safety equipment during production or employee repeatedly shows up late).

Examination of the data revealed that only 17% of the sample (49 participants) reported having differentiating job demands higher than the scale midpoint of “neither agree nor disagree” (i.e., average scale score was greater than or equal to the scale midpoint). Of those participants reporting jobs with high differentiating job demands, 20% (ten participants) reported occupying a supervisor or a higher hierarchical position (e.g., manager, ceo), 14% (seven participants) were office and administrative support workers (e.g., receptionists, payroll clerk, administrative assistant), interestingly 10% (five participants) reported occupying an information technology position (e.g., software developer, computer/information systems worker), eight percent (four participants) were maintenance or repair service workers. The remaining 23 participants (46%) fell into one job category including, but not limited to the following occupations a librarian, postal worker, teacher, unspecified engineer, psychiatrists, parking lot attendant, and laboratory technician. This descriptive look at the data suggests that demands to express negative emotions at work may be more widespread than the prototypical occupations discussed in the literature, including managers and other common occupations.

Taken together, the results of this study further demonstrate the negative effects that differentiating job demands can have on employees. Therefore, jobs that have many differentiating job demands should consider placing greater emphasis on assessing and selecting individuals who have higher levels of differentiating emotional abilities as well as implementing programs that offer social support or counseling that may help employees cope with having to frequently express and experience negative emotions, thereby buffering the negative effects of differentiating job demands. Research has found

that for the occupation of bill collectors which have demands to show differentiating emotions, organizations use selection, socialization, and rewards and punishment to ensure employees comply with these demands (Sutton, 1991). Although this prior work provides insight into how organizations with many differentiating job demands can encourage employees to fulfill these demands, the research does not explore the implications of achieving these emotional job demands. The results of the current study demonstrate that such demands and abilities may be detrimental to well-being outcomes, suggesting that it may be wise to consider ways to protect employees against the negative outcomes associated with meeting these differentiating job demands.

#### *Emotional Masking*

Emotional masking demands refer to requirements to show no emotion, such as when an employee must remain impartial and neutral. This type of demand may occur in situations where expressions of emotion may upset or disturb others (e.g., a paramedic arrives on the scene of an accident and must remain calm and show no emotion, despite perhaps experiencing disgust upon seeing a patient's injuries). Unlike integrative and differentiating emotional demands and abilities dimensions, no nonlinear relationships of emotional masking demands and abilities with any of the outcomes were found.

However, results showed that higher demands to mask emotions were associated with higher levels of felt inauthenticity, emotional exhaustion, and physical symptoms and lower levels of job satisfaction. Emotional masking abilities were unrelated to all of the outcomes. Interestingly, neither emotional masking demands nor abilities predicted self-rated job performance.

These results suggest negative consequences of emotional labor which require employees to mask or hide their emotions have more to do with the job demands than to a person's masking abilities. Therefore, the masking demands required by these jobs appear to contribute more to negative consequences experienced by the employee than an individual's masking abilities. In line with prior research which has found negative consequences associated with emotional labor (e.g., Montgomery et al., 2006; Schaubroeck & Jones, 2000), this study found that negative consequences are primarily determined by the amount of emotional masking demands placed on an employee rather than by an individual's masking abilities. Regardless of the emotional masking abilities, individuals will suffer from poor outcomes in jobs with many masking demands.

These findings are consistent with Diefendorff and Richard (2003) who found that perceived demands to suppress negative emotions was associated with lower job satisfaction, whereas perceived demands to show positive emotions was associated with high satisfaction. The results of the current study suggest that job demands that require employees to suppress or hide their emotions result in more negative outcomes than jobs that require employees to express positive emotions. Although, the results of the current study contribute to understanding the outcomes associated with job demands to mask emotions, many occupations require employees to express and experience positive emotions in addition to suppressing and hiding other emotions (e.g., negative emotions). In sum, the results of the study compliment prior research findings in that job demands that require employees to express positive emotions appear to be unrelated to negative outcomes whereas job demands to mask one's emotions are related to more negative outcomes (e.g., Diefendorff & Richard, 2003). To date, the research on the consequences

associated with emotional labor are mixed, however, this may be due to the fact the many jobs require employees to express certain emotions while suppressing or hiding other emotions (See Grandey 2000 for a review). Therefore, the positive and negative consequences associated with emotional labor may be determined by the frequency or extent to which an employee must either express more positive emotions or suppress negative emotions. However, future research is needed to explore this idea.

### *Emotional Regulation*

Emotion regulation abilities refer to the need to manage or change one's emotions depending on the dynamics of the situation on a regular basis. For example, an elementary school teacher may need to manage and change their emotions several times throughout the day depending on whether the students begin to misbehave, make progress on a lesson, or do something disruptive but humorous. Both regulation demands and abilities uniquely predicted outcomes. In particular, higher levels of demands were associated with higher emotional exhaustion, physical symptoms, and felt inauthenticity, and lower job satisfaction. Emotion regulation demands were unrelated to performance. Simultaneously, higher levels of emotion regulation abilities were associated with lower levels of felt inauthenticity and physical symptoms, and higher levels of job performance and job satisfaction. Emotion regulation abilities were not associated with emotional exhaustion. Further, these demands and abilities did not combine to impact outcomes, suggesting that the fit between demands and abilities was not relevant for these variables. The results of this study did not find any nonlinear relationships between emotional regulation demands and abilities with any of the outcomes.



### Relative Contribution of the Different Dimensions of Demands and Abilities

Although not hypothesized or explicitly theorized in this manuscript, it is possible to examine the relative contribution of each of the demands and abilities in predicting the five outcomes in this study. Such a test would help to clarify which of the demands and abilities uniquely relate to the particular outcomes, controlling for each of the other demands and abilities. These exploratory analyses are included in Table 11. At Step 1, each demand and ability was included as a predictor of each dependent variable (i.e., predictors at step 1) and when non-linear effects were observed in previous analyses, the full set of additional terms were included at Step 2. As a result, non-linear effects were added at Step 2 for the dependent variables of felt inauthenticity, physical symptoms, and job performance.

As can be seen in Table 11, for the dependent variable of felt inauthenticity, emotional masking demands ( $\beta = .23, p < .01$ ) and emotion regulation demands ( $\beta = .33, p < .01$ ) were both significant predictors, whereas integrative and differentiating demands were non-significant predictors. These results are similar to prior analyses. It seems that demands to be neutral and regulate emotions are primarily associated with feeling inauthentic in one's emotional displays at work. On the abilities side, masking ( $\beta = .26, p < .01$ ) and regulation abilities ( $\beta = -.18, p < .01$ ) were significant predictors of felt inauthenticity. These results are different from those of the previous regression results, in that emotional masking abilities is now a significant predictor. These results indicate that emotional regulation and emotional masking abilities are important for predicting feelings of inauthenticity in one's emotional displays. Further, as seen in Table 11, the only significant non-linear effect observed for felt inauthenticity was the integrative

abilities-squared term ( $\beta = -.27, p < .05$ ). This pattern of results differs from previous findings in that the squared differentiating abilities term was no longer a significant predictor of feelings of felt inauthenticity.

For the outcome variable of emotional exhaustion, integrative demands ( $\beta = -.13, p < .05$ ), emotional masking demands ( $\beta = .18, p < .05$ ), and regulation demands ( $\beta = .24, p < .01$ ) all uniquely predicted emotional exhaustion (see Table 11). These results are different from the previous analyses in that differentiating emotional demands no longer predicted and integrative emotional job demands became a significant predictor of emotional exhaustion. Although the integrative ability ( $\beta = -.17, p < .05$ ) component was still a unique ability predictor of emotional exhaustion, the differentiating ability component was not longer a significant predictor of emotional exhaustion as it was in previous analyses. These results seem to suggest that job demands to show or experience no emotions as well as to regulate one's emotions are associated with higher emotional exhaustion, whereas demands and abilities pertaining to the display and experience of positive emotions are associated with lower emotional exhaustion. The previous analyses did not detect any non-linear effects for emotional exhaustion, so none were included in these exploratory analyses.

Physical symptoms were uniquely predicted by differentiating demands ( $\beta = .47, p < .01$ ), as well as regulation abilities ( $\beta = -.17, p < .05$ ). In contrast to the regression analyses without all of the simultaneous predictors, these results suggest that integrative abilities as well as, regulation and masking demands no longer relate to physical symptoms when the other demands and abilities were taken into account. These results suggest that job demands to display and experience negative emotions and abilities to

regulate one's emotions are the best predictors of physical symptoms. Additionally, the nonlinear effects for the differentiating demands and abilities remained significant after controlling for the full set of emotional demands and abilities which is consistent with prior analyses.

Differentiating emotional job demands ( $\beta = -.32, p < .01$ ) and integrative emotional abilities ( $\beta = .48, p < .01$ ) were the only significant unique predictors of self-reported job performance. These results are somewhat different from prior analyses in that regulation abilities were no longer significant predictors of self-rated job performance. These findings suggest that job performance is most strongly predicted by demands to display and experience negative emotions as well as one's ability to express and experience positive emotions. Additionally, the significant non-linear effect for differentiating emotions observed in the previous analyses (e.g., differentiating interaction term) was no longer a significant predictor of job performance when the effects for the linear terms were controlled.

Finally, integrative ( $\beta = .18, p < .01$ ), masking ( $\beta = -.18, p < .05$ ), and regulation ( $\beta = -.19, p < .01$ ) demands as well as integrative abilities ( $\beta = .22, p < .01$ ) uniquely predicted job satisfaction. These findings suggest that higher demands to experience and express positive emotions and higher abilities to do so are associated with more job satisfaction. Conversely, higher job demands to regulate and mask one's emotions are related to lower job satisfaction. These results differ from the prior analyses, whereby integrative demands were not previously significant predictors of job satisfaction and regulation abilities and differentiating demands are no longer predictors of job

satisfaction. There were no significant non-linear effects for job satisfaction in the previous tests therefore, no further analyses were run for job satisfaction.

In sum, the results of the supplemental analyses further clarify the relationships between different dimensions of demands and abilities with the five outcome variables examined in this study. The supplemental analyses included all eight linear terms as predictors of each of the five outcome variables. First, in terms of emotional job demands, these analyses revealed that higher levels of integrative job demands are associated with lower emotional exhaustion and higher job satisfaction. Higher levels of differentiating job demands predicted higher physical symptoms and lower job performance. Higher demands to regulate and mask one's emotions predicted higher levels of felt inauthenticity and emotional exhaustion and lower job satisfaction. Therefore, each emotional job demand uniquely predicted the outcomes differently.

In addition to emotional job demands, an individual's emotional abilities were also found to be unique predictors of the outcome variables. Specifically, higher abilities to display and experience positive emotions were associated with lower emotional exhaustion and higher job performance and satisfaction. Individuals' abilities to display and experience negative emotions did not uniquely predict any of the outcome variable examined in the current study. Emotional masking abilities only uniquely predicted felt inauthenticity, with more masking abilities predicting higher felt inauthenticity. Finally, the ability to regulate emotions uniquely predicted felt inauthenticity and physical symptoms, with higher abilities being associated with lower levels of both outcomes.

Additionally, the non-linear effects for felt inauthenticity, physical symptoms, and job performance were examined after controlling for the effects of all eight of the linear

terms. As shown in step 2 of Table 11, for the outcome variable felt inauthenticity, the analyses revealed that when the effects of the linear terms were controlled for, the squared-integrative ability term was the only significant non-linear effect for felt inauthenticity. Additionally, consistent with previous analyses this also revealed that the change in  $R^2$  was significant from step 1 to step 2 which again indicates the presence of a non-linear relationship for emotional demands and abilities in predicting felt inauthenticity. Consistent with previous analyses the non-linear differentiating effects observed in prior analyses for physical symptoms remained significant after controlling for all non-linear terms. Additionally, the change in  $R^2$  was significant from step 1 to step 2 suggesting the presence of a non-linear relationship between differentiating emotion demands and abilities and physical symptoms, which again is consistent with previous analyses. Finally, in contrast to prior analyses the non-linear effects for job performance were no longer significant predictors of job performance when the effects of the linear terms were all controlled. Further, the change in  $R^2$  from step 1 to step 2 was not significant for job performance, suggesting the non-linear relationship found in prior analyses between differentiating demands and abilities and job performance may not be as robust effect as previously thought.

Table 11. Supplemental Analyses: Relative Contribution of Various Demands and Abilities

	<i>Dependent Variable</i>				
	Felt Inauthenticity <sup>†</sup>	Emotional Exhaustion	Physical Symptoms <sup>†</sup>	Job Performance <sup>†</sup>	Job Satisfaction
<b>Step 1</b>					
Integrative_D	-.16	-.13*	.01	-.02	.18**
Differentiating_D	.09	-.01 <sup>†</sup>	.47**	-.32**	0.07
Masking_D	.23**	.18*	0.09	.06	-.18*
Regulation_D	.33**	.24**	0.07	.11	-.19**
Integrative_A	.08	-.17*	-.12	.48**	.22**
Differentiating_A	.07	0.11	-.11	.14	-.12
Masking_A	.26**	.00	-.01	-.05	.01
Regulation_A	-.18**	.01	-.17* <sup>†</sup>	-.02	0.02
$R^2$	.351**	.167**	.123**	.318**	.159**
<b>Step 2</b>					
Integrative_D <sup>2</sup>	.10	-	-	-	-
Integrative_A <sup>2</sup>	-.27*	-	-	-	-
Integrative_DxA	.05	-	-	-	-
Differentiating_D <sup>2</sup>	.09	-	.23**	-.03	-
Differentiating_A <sup>2</sup>	-.12	-	.05	-.02	-
Differentiating_DxA	.07	-	-.28*	.15	-
$R^2$	.389**	.167**	.152**	.318**	.159**
$\Delta R^2$	.038**	-	.029**	.003	-

Note. <sup>†</sup>All coefficients are from step 2 (final step). All predictors are centered. D = Demands; A = Abilities. Only significant quadratic terms are entered in step 2 of the polynomial regression equation.

\* $p \leq .05$ , \*\* $p \leq .01$ .

### Implications for Practice

The results of the current study have several important implications for practice.

First, emotional demands and abilities are best conceptualized as multidimensional constructs that differentially predict various outcomes. Emotional labor is usually thought of as a job requirement in which employees must express and experience positive

emotions, with some prior research distinguishing demands to show positive and hide negative (Diefendorff & Richard, 2003; Grandey, 2000). However, the current study demonstrates that there are four types of emotional job demands, only one of which includes requirements to express and experience positive emotions. Therefore, researchers should consider conceptualizing and examining the emotional demands of jobs more broadly, including a focus on showing negative emotions, showing no emotions, and managing emotions at work. One way to determine, if and what type of emotional demands occur in jobs, is to utilize job analysis techniques that are adapted to focus on emotional aspects of jobs.

Arvey et al. (1998) proposed that in the context of the workplace, whether and to what extent specific emotions are important for performing the job can be identified using job analysis techniques that are aimed at examining emotional demands of specific jobs and job families. In addition to identifying the emotional demands of certain jobs, Arvey et al. contend that an emotional job analysis would identify work events that are likely to arise during one's job which evoke emotional reactions that are in direct conflict with the emotional job demands of the job (e.g., experiencing negative emotions in response to an angry customer in a sales or customer service occupation). The benefits of identifying such events would be that they enable the organization to determine a priori the proper response to these situations, which could have implications for training and employee selection (Arvey et al., 1998).

Recently, research has attempted to extrapolate from established job analysis information the emotional demands of jobs (Diefendorff et al., 2006; Glomb et al., 2004; Grandey et al., 2007; Peterson et al., 2001). This work examines particular emotion-

related job characteristics that are present in job information contained in the Occupation Information Network (O\*NET) database (Peterson et al., 2001). This database contains multiple descriptions and ratings of occupations based on extensive job analysis techniques using multiple raters (Peterson et al., 2001). Using the O\*NET database research has identified and generally regarded occupations that entail some form of emotional labor as having job demands that require employees to interact with the public (i.e., “representing the organization to customers”) and jobs that have emotional expectations which are requirements to display positive emotions and hide negative emotions (i.e., “job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude”) (See Diefendorff et al., 2006; Glomb et al., 2004; Grandey et al., 2007 for a review of this methodology). Using this technique researchers have participants report their occupations and major job tasks, this information is then used to identify the occupation of each participant to determine whether or not participants’ jobs involve some component of emotional labor. Although this preliminary research is promising, more research focused on adapting job analyses to specifically examine the emotional job requirements of jobs is needed.

Another important implication of the current research is in the area of employee selection. Organizational decision-makers should explore the emotional requirements of certain jobs because the current study found that the consequences associated with emotional job demands differ depending on type of emotional job demands (e.g., integrative, differentiating), the amount of these demands, and the emotional abilities of the employees. More specifically, for integrative emotional demands and abilities, consequences were found to depend more on the abilities of the person than on the level



of integrative demands place on an employee, with higher integrative abilities related to better outcomes. Therefore, when appropriate, organizational selection systems should include an assessment of individual's integrative abilities to ensure employee well-being.

In contrast to the consequences associated with integrative emotional demands and abilities, a different pattern of results were found for emotional masking and emotional regulation demands and abilities. Specifically, higher levels of emotional masking and regulation demands were primarily associated with higher levels of negative consequences (e.g., higher physical symptoms, lower job satisfaction). Higher levels of emotional masking and emotional regulation abilities were generally not associated with any of the outcomes examined in this study. Therefore selecting employees who have many emotional masking and regulation abilities will do little to protect employees from experiencing the negative outcomes associated with jobs that have many of these emotional demands. Another important finding of this research is that no matter what an individual's level of differentiating emotional abilities, jobs with higher levels of differentiating job demands were generally associated with more negative consequences. Interestingly, higher levels of differentiating abilities which matched the high levels of differentiating job demands resulted in higher job performance. Therefore, occupations that have many differentiating job demands, such as police officers, should strongly consider assessing applicant's differentiating emotional abilities and perhaps focus on selecting individuals with higher levels of differentiating demands if the goal of selection is choose high performers. An individual's emotional capabilities could easily be conceptualized as an individual difference variable. Use of individual difference variables (e.g., personality) for employment selection purposes are widely advocated by

many researchers because they are found to be valid predictors of job performance and are not contaminated with indicators of general mental ability which has widely been found to be associated with adverse impact (Ones, Dilchert, Viswesvaran, & Judge, 2007; Pyburn, Ployhart, & Kravitz, 2008). Although, these individuals will likely have the best job performance, they will not be immune from experiencing the negative outcomes associated with the differentiating demands of the job.

Taken together, selection systems that assess job candidates for occupations requiring many masking, differentiating, and regulation demands may not be able to ensure employee well-being simply by selecting employees with high levels of abilities. Therefore, techniques aimed at protecting employees from the negative consequences of these emotionally demanding jobs should be explored in future research. This could take the form of emotion regulation training that teaches effective techniques for creating in oneself the emotion needed for a situation as well as disengaging from an emotion that is not adaptive for effective functioning.

The third major implication of this work is to begin examining whether employees' emotional abilities can be trained and if this type of training can defend employees against the negative consequences from the emotional demands of the job. In considering the results of the current study, a promising type of training program that might have success protecting employee well-being is to develop and offer training programs that will help individuals with low integrative abilities develop skills to increase these emotional abilities. One promising area of training that might prove effective in reducing the negative consequences associated with emotions job demands is appraisal theory-based training, or cognitive behavioral interventions whereby,

interventions are designed to reduce stress reactions in employees by training them how to reinterpret work situations and scenarios in alternative, more adaptive ways (For a review see van der Klink, Blonk, Schene, & van Dijk, 2001; Murphy, 1996; Saunders, Driskell, Johnston, & Salas, 1996). This type of interventions have been applied to a variety of occupations including military, police officers, nurses, and teachers and have examined several outcomes including physical symptoms, burnout, and stress (Murphy, 1996). Therefore, future research should continue to explore the possibilities of such programs. However, in line with the current study's finding, training programs that can successfully train employees to increase their differentiating, masking, and regulation abilities this will likely do little to buffer the negative consequences. Therefore, occupations with many differentiating, masking, and regulation job demands should begin exploring ways to help employees cope and deal with the emotional demands of their job. Possible ways to help eliminate or buffer the negative effects of differentiating job demands might include access to social support, counseling services, and training programs for how to handle having to comply with these types of emotional demands.

A final implication of the current study is for job choice and recruitment. When considering the type and extent of emotional job demands for a particular job, organizations should not only try to recruit individuals with higher integrative abilities but should also be transparent about the emotional demands of the job. Although the current study was an assessment of ED-A fit, there were very few positive outcomes associated ED-A fit or emotional demands and abilities congruence. This is important because the fit literature is widely concerned with issues of recruitment, selection, and employee attitudes (e.g., Cable & Judge, 1996; Cable & Edwards, 2004). Therefore, an

individual's emotional abilities may do little to protect employees against the negative consequences of job demands, however there may be other characteristics of the job or types of 'fit' (e.g., values) that attract applicants to the position. For example, a police officer's opportunity to serve and protect the public may be so rewarding and fulfilling that dealing with the negative emotional job demands of one's job may not be a problem for that person. However, a job applicant who thinks he or she wants to be a police officer may realize that it was a wrong career choice after being hired and discovering the emotional demands of the job. If these emotional demands are not presented during recruitment, the new hire may realize that the job is not what they expected and will likely turnover or experience lower job satisfaction which will be costly to the organization (Cable & Judge, 1996).

In sum, the results of the current study provide evidence that there are differences between emotional job demands and the emotional abilities of employees. Importantly, these emotional demands and abilities predict outcomes differently depending on the dimension of ED-A fit being considered, the extent of the job demands, and the extent to which a person possesses certain abilities. Based on the implications discussed above, organizations should do more to assess the emotional demands of the job and the emotional abilities of job applicants and incumbents, explore the possibility of emotional training programs, and take these issues into consideration when recruiting job applicants.

#### Limitations and Future Research

In considering this study, several limitations and recommendations for future research should be addressed. First, the data in this study are cross-sectional, which does

not permit claims that excessive emotional job demands are actually causing employees to experience more negative outcomes (e.g., felt inauthenticity). Future research would benefit from studying ED-A fit longitudinally, to enable a better understanding of whether fit and misfit actually leads to particular outcomes. However, the causal order we have specified is consistent with underlying theory and the belief that stable aspects of the person and situation are likely to be antecedents of well-being-based and behavioral outcomes. In line with this idea, future research will benefit from a longitudinal design to determine whether employee's levels of emotional abilities change over time, as employees become more experienced on the job. Additionally, it would be interesting to examine whether specific outcomes decrease or increase overtime as a function of demands and abilities. More specifically, with more job experience employees may develop increased emotional abilities which may result in better outcomes for these employees. However, future research is needed to explore this idea.

Another limitation of this study is that all measures were collected from the same individuals, increasing the likelihood of common method variance which may have inflated relationships among the variables in this study. Examinations of the correlations in this study are relatively high, suggesting that common method variance is likely present in this study. Future research should address the issue of common method variance by obtaining measures of dependent variables from different sources. Specifically, emotional job demand information could be obtained from co-workers or supervisors and job performance information could be collected from direct reports (e.g., performance appraisal reports) and from supervisors. However, Edwards et al. (2006) warned against collecting person and environment data from different sources as it

confounds source differences (i.e., self vs. supervisor) with target differences (i.e., person vs. situation). Nonetheless, collecting dependent variables from other sources would help to alleviate concerns about same-source bias.

A third limitation of this study is that I did not test for specific mediators or moderators of these relationships. For example, the relationships emotional demands and abilities have with certain outcomes variables might be enhanced or buffered as a function of other third variables. Possible factors that may influence these relationships may include perceptions of co-worker or supervisor support. For instance, it could be that in situations where emotional job demands are greater than emotional abilities, negative outcomes (e.g., physical symptoms) are more likely when employees feel as though they do not have the support of others within their work environment to help them deal with and overcome these short-comings in their emotional abilities. Perhaps, these negative effects could be buffered simply by being able to turn to another organizational member for support or guidance in performing these emotional job demands. Additionally, the relationships that demands and abilities have with outcome variables may operate through other mediating variables. It may be that something such as role clarity, or even perceived fit mediates the relationship between integrative demands and abilities and felt inauthenticity. Future research should consider more complex, process-oriented characterizations of these relationships.

Finally, although the current study expanded the outcome variables of ED-A fit by including outcomes that are commonly found in the emotional labor literature (e.g., physical symptoms) only five outcome variables were examined. Future research would benefit from examining more outcome variables derived from but not limited to the fit

and emotional labor literature. A broader range of outcome variables would enable a better understanding of the consequences from different dimensions of fit as well as different levels of demands and abilities.

### *Conclusion*

Despite these limitations, this study makes several substantial contributions to understanding this relatively new notion ED-A fit. Results of this study demonstrate that ED-A fit is a multidimensional construct consisting of at least four dimensions- integrative, differentiating, emotional masking, and emotional regulation. Additionally, by measuring emotional demands and abilities separately, the current study was able to determine the relative impact that different types of fit (e.g., demands exceed abilities, abilities exceed demands, and demands match abilities) have on outcome variables. The results showed that different levels of outcomes were related to different levels of emotional demands and abilities providing a more comprehensive understanding of how emotional demands and abilities relate to specific outcomes. Finally, by testing each of these relationships using the four dimensions of fit demonstrated that in addition to outcomes varying by level of demands, abilities, and the congruence between the two, outcomes are different depending on the dimension of fit being considered. Important conclusions to draw from this study is that research should begin focusing on ways to match employee emotional abilities to the emotional demands of specific jobs and by focusing on ways to help employees cope with the emotional demands of their jobs by considering training programs and access to other resources (e.g., counseling services, social support).

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## APPENDICES

## APPENDIX A

### EMOTIONAL JOB DEMAND ITEMS

1. My job requires me to express positive emotions (e.g., smiling, happiness).
2. My job requires me to display enthusiasm.
3. My job requires me to express negative (i.e., unpleasant) emotions.
4. My job requires me to show anger.
5. My job requires me to show no emotions.
6. My job requires me to appear neutral.
7. My job requires me to feel positive emotions.
8. My job requires me to feel joyful or happy.
9. My job requires me to feel negative emotions (e.g., stern, angry).
10. My job requires me to feel detached or emotionless.
11. My job requires me to feel neutral emotions.
12. My job requires me to modify my emotions.
13. My job requires me to manage my emotions.
14. My job requires me to change the emotion I am feeling.
15. My job requires me to change the emotion I am expressing.

## APPENDIX B

### EMOTIONAL ABILITIES ITEMS

1. I am capable of expressing positive emotions (e.g., smiling, happiness).
2. I am capable of displaying enthusiasm.
3. I am capable of expressing negative (i.e., unpleasant) emotions.
4. I am capable of showing anger.
5. I am capable of showing no emotion.
6. I am capable of appearing neutral.
7. I am capable of feeling positive emotions.
8. I am capable of feeling joyful or happy.
9. I am capable of feeling negative emotions (e.g., stern, angry).
10. I am capable of feeling detached or emotionless.
11. I am capable of feeling neutral emotions.
12. I am capable of modifying my emotions.
13. I am capable of managing my emotions.
14. I am capable of changing the emotion I am feeling.
15. I am capable of changing the emotion I am expressing.

## APPENDIX C

### FELT INAUTHENTICITY ITEMS

1. I feel that I am not being myself in my interpersonal interactions at work.
2. I feel fake when interacting with others at work.
3. I feel that I am not being 'authentic' in my work interactions with others.
4. To get through my work day, I feel like I have to become mechanical or robot-like.
5. When I'm at work, I become unsure of what my 'real' feelings are.
6. I worry that this job is hardening me emotionally.
7. I don't feel I can be myself at work.
8. I have to fake how I really feel when I'm at work.
9. I basically have to become a different person when I'm at work.

## APPENDIX D

### JOB-RELATED EMOTIONAL EXHAUSTION ITEMS

1. I feel emotionally drained from my work.
2. I feel used up at the end of my work day.
3. I dread getting up in the morning and having to face another day on the job.
4. I feel burned out from my work.
5. I feel frustrated by my job.
6. I feel I'm working too hard on my job.

APPENDIX E

PHYSICAL SYMPTOMS ITEMS

1. Headaches
2. Stomachache/pain
3. Chest/heart pain
4. Runny or congested nose
5. Coughing/sore throat
6. Faintness/dizziness
7. Acne/pimples
8. Stiff/sore muscles
9. Or other.

## APPENDIX F

### SELF-RATED IN-ROLE PERFORMANCE (JOB PERFORMANCE) ITEMS

1. I fulfill the responsibilities specified in my job description.
2. I perform the tasks that are expected as part of the job.
3. I meet performance expectations.
4. I adequately complete responsibilities.

## APPENDIX G

### JOB SATISFACTION ITEMS

1. All in all I am satisfied with my job.
2. In general, I don't like my job (R).
3. In general, I like working here.



## APPENDIX H

### EMOTIONAL DEMANDS AND ABILITIES FACTOR LOADING ITEMS

Scales and Items	Primary Sample Factor Loadings
<i>Integrative Emotional Job Demands (<math>\alpha = .89</math>)</i>	
1. My job requires me to express positive emotions (e.g., smiling, happiness).	0.92
2. My job requires me to display enthusiasm.	0.85
3. My job requires me to feel positive emotions. <sup>a</sup>	0.73
4. My job requires me to feel joyful or happy. <sup>a</sup>	0.63
<i>Differentiating Emotional Job Demands (<math>\alpha = .87</math>)</i>	
5. My job requires me to express negative (i.e., unpleasant) emotions.	0.86
6. My job requires me to show anger.	0.91
7. My job requires me to feel negative emotions (e.g., stern, angry).	0.73
<i>Emotional Regulation Job Demands (<math>\alpha = .87</math>)</i>	
8. My job requires me to modify the emotion I am feeling.	0.83
9. My job requires me to manage my emotions.	0.62
10. My job requires me to change the emotion I am feeling. <sup>b</sup>	0.84
11. My job requires me to change the emotion I am expressing. <sup>b</sup>	0.82
<i>Emotional Masking Job Demands (<math>\alpha = .76</math>)</i>	
12. My job requires me to show no emotions. <sup>c</sup>	0.62
13. My job requires me to appear neutral. <sup>c</sup>	0.46
14. My job requires me to feel neutral emotions.	0.66
15. My job requires me to feel detached or emotionless.	0.79
<i>Integrative Emotional Abilities (<math>\alpha = .93</math>)</i>	
16. I am capable of expressing positive emotions (e.g., smiling, happiness)	0.89
17. I am capable of displaying enthusiasm.	0.90
18. I am capable of feeling positive emotions. <sup>d</sup>	0.84
19. I am capable of feeling joyful or happy. <sup>d</sup>	0.81
<i>Differentiating Emotional Abilities (<math>\alpha = .92</math>)</i>	
20. I am capable of expressing negative (i.e., unpleasant) emotions.	0.90
21. I am capable of showing anger.	0.95
22. I am capable of feeling negative emotions (e.g., stern, angry).	0.83

# EMOTIONAL DEMANDS AND ABILITIES FACTOR LOADING ITEMS (Continued)

Scales and Items	Primary Sample Factor Loadings
<i>Emotion Regulation Abilities (<math>\alpha = .89</math>)</i>	
23. I am capable of modifying the emotion I am feeling.	0.86
24. I am capable of managing my emotions.	0.80
25. I am capable of changing the emotion I am feeling. <sup>e</sup>	0.77
26. I am capable of changing the emotion I am expressing. <sup>e</sup>	0.79
<i>Emotional Masking Abilities (<math>\alpha = .85</math>)</i>	
27. I am capable of showing now emotion. <sup>f</sup>	0.69
28. I am cabable of appearing neutral. <sup>f</sup>	0.67
29. I am capable of feeling neutral emotions.	0.89
30. I am capable of feeling detached or emotionless.	0.78

<sup>a</sup> The error terms of these items were allowed to freely correlate,  $r = 0.37$

<sup>b</sup> The error terms of these items were allowed to freely correlate,  $r = 0.12$

<sup>c</sup> The error terms of these items were allowed to freely correlate,  $r = 0.22$

<sup>d</sup> The error terms of these items were allowed to freely correlate,  $r = 0.15$

<sup>e</sup> The error terms of these items were allowed to freely correlate,  $r = 0.18$

<sup>f</sup> The error terms of these items were allowed to freely correlate,  $r = 0.22$

## APPENDIX I


### IRB APPROVAL



#### NOTICE OF APPROVAL

Date: July 23, 2008

To: Christina Saluan  
4175 Amelia Avenue  
Willoughby, Ohio 44094

From: Sharon McWhorter, IRB Administrator 

Re: IRB Number 20080707  
"Motives for Managing emotions at Work"

Thank you for submitting your Exemption Request for the referenced study. Your request was approved July 23, 2008. The protocol represents minimal risk to subjects and matches the following federal category for exemption:

- ☐ Exemption 1 - Research conducted in established or commonly accepted educational settings, involving normal educational practices.
- ☒ Exemption 2 - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior.
- ☐ Exemption 3 - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior not exempt under category 2, but subjects are elected or appointed public officials or candidates for public office.
- ☐ Exemption 4 - Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.
- ☐ Exemption 5 - Research and demonstration projects conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine public programs or benefits.
- ☐ Exemption 6 - Taste and food quality evaluation and consumer acceptance studies.

Annual continuation applications are not required for exempt projects. If you make changes to the study's design or procedures that increase the risk to subjects or include activities that do not fall within the approved exemption category, please contact me to discuss whether or not a new application must be submitted. Any such changes or modifications must be reviewed and approved by the IRB prior to implementation.

Please retain this letter for your files. If the research is being conducted for a master's thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

Cc: James Diefendorff - Advisor  
Cc: Cecily Becker - Co PI  
Cc: Rosalie Hall - IRB Chair

☐ Approved consent form/s enclosed

Office of Research Services and Sponsored Programs  
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