

HAPPY TO HELP: STATE POSITIVE AFFECT, STATE NEGATIVE  
AFFECT AND AFFECTIVE AMBIVALENCE AS PREDICTORS  
OF EMOTIONAL LABOR STYLE AND CUSTOMER  
SERVICE PERFORMANCE

By

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## **CHAPTER I**

### **INTRODUCTION**

This research investigates the relationship between emotional labor styles and state affect in an effort to inform these growing fields both theoretically and methodologically. Specifically, this study hopes to identify significant antecedents to emotional labor styles as well as to further understand the relationship between state affect (positive, negative and ambivalent) and performance in the context of a negative customer service interaction.

#### The Research Problem

Many organizations depend on service agents to be the primary customer-interface for the company. These individuals are expected to interact with customers in a manner that benefits the business by retaining customers, increasing sales, properly representing the brand, etc. Theory and empirical studies investigating emotional labor or the process of regulating both feelings and expressions for organizational goals (Grandey, 2000), have posited and empirically supported that the expression of genuine positive emotion by service agents during customer interactions leads to positive outcomes such as these (Grandey, 2003; Totterdell & Holman, 2003). Unfortunately, expressing genuine positive emotions can be quite difficult particularly when the service agent is interacting with a negative customer. Negative interactions or events cause negative emotional reactions in employees (Weiss & Cropanzano, 1996). These negative emotional reactions

will make it more difficult for the service agent to express the genuine positive emotions required on the job (Totterdell & Holman, 2003).

This issue seems to be particularly problematic of late as many organizations have had to cut costs associated with customer service. Reducing customer service staff and thus their availability to customers, implementing systems that require customers to wait for answers (such as pressing phone buttons to route a customer's call), or "ping-ponging" (being transferred many times before reaching someone who can help with the problem) have exacerbated customer frustration. In fact, in 2003, Customer Care Alliance found that 45% of households have experienced at least one serious problem with a product or service and two-thirds of those customers experienced "rage" in response to how the problem was handled. Furthermore, eight percent of these customers admitted they had cursed at the service agent and 28% yelled or raised their voice at the agent (Spencer, 2003).

Emotional labor theory posits that when an individual is in a negative situation such as these that produce negative emotions, the individual will "act" in order to display the appropriate emotion. Research suggests that acting can take two forms: deep acting and surface acting (Hochschild, 1979, 1983; Ashforth & Humphrey, 1993). Deep acting involves trying to feel the emotions one is required to display. Surface acting, on the other hand, involves presenting emotions that are not actually felt. Studies have shown that deep acting is related to increased customer service performance while surface acting is not. Thus, it is essential for organizations to understand antecedents to deep acting and surface acting in the context of a negative interaction in order to inform their employees how to provide optimal customer service.



According to recent popular press articles, service agents are not currently “acting” effectively on the job. For example, in 2002, Time magazine reported that eight out of ten Americans believed that lack of courtesy is a problem and nearly half of those surveyed had walked out of stores because they received bad service. Another study, conducted by Customer Care Alliance, found that just 18% of complainant customers were satisfied with the customer service received concerning their problems (Spencer, 2003). With the popularity of online complaint forums such as complaints.com and planetfeedback.com and low switching costs in many industries (i.e. wireless carriers, insurance, and airlines), it is essential that customer service agents exhibit emotions and behaviors that retain customers. These complaint forums contain countless stories of service agents whose inability to control their negative emotions resulted in a loss of a customer as well as a scathing recommendation that may be read by potential future customers. A study conducted by Jupiter Research found that 59% of consumers said they would not purchase from a company again if they were dissatisfied with their customer-service experience (Prince, 2005). This statistic does not include other losses based on negative word-of-mouth from the unsatisfied customer. Thus, these service issues can relate exponentially to customer losses which, clearly, will have large bottom line costs for organizations.

As mentioned above, research has established that emotional labor styles are related to customer service performance and customer retention (Grandey, 2003; Totterdell & Holman, 2003). Thus, it is crucial for organizations to understand how service agents successfully express genuine positive emotions in the context of a negative encounter which, as mentioned above, can be quite common in customer service settings.

In other words, organizations must understand the antecedents to emotional labor. Establishing this understanding will identify possible intervention techniques for organizations.

Theoretical and empirical research has presented and investigated dispositional and organizational factors as antecedents to emotional labor (Grandey, 2000; Totterdell & Holman, 2003). Although these influences may exist, studies have thus far not identified many significant influences. This may be due to particular dispositional or organizational factors or measures that have been chosen. Alternatively, the primary influences on emotional labor style may be more state-like in nature. Studying possible state influences on emotional labor style may lead to a greater understanding of important organizational outcomes such as customer service performance. Additionally, because states are by definition malleable, studying states as antecedents to emotional labor style may help organizations develop intervention techniques that help service agents regulate negative emotions. This study posits that state affect may be a significant antecedent to the emotional labor-performance relationship.

State affect or mood is comprised of feeling states that are relatively enduring and without a salient antecedent cause (Watson, 1992). State affect is distinguished from emotions which are more intense, shorter lived and have a definite cause. State affect is generally studied as two constructs, positive and negative; however, studies have shown that individuals can also experience affective ambivalence (Amabile, Barsade, Mueller, & Staw, 2005) or the simultaneous experience of both state positive and negative affect. Physiological and brain imaging studies suggest that this is because state positive affect and state negative affect are two separate channels in the brain (Davidson, 1995;

Davidson, 1992; Davidson, 1998; Damasio, 1995; LeDoux, 2000). Based on these studies, several researchers propose that individual behavior influenced by affect is likely a function of both of these channels concurrently (e.g. Cacioppo & Gardner, 1999). Unfortunately, previous theories and empirical studies have looked at the relationship between state positive and state negative affect and behaviors such as performance separately and have not looked at the possible simultaneous influence. This is particularly unfortunate because physiological evidence points to evolutionary benefits of each type of affect (e.g. Frederickson, 1998; Martin, Ward, Achee, & Wyer, 1993). Therefore, when an individual is experiencing both positive and negative affect, he or she may be able to reap the benefits of each type. Thus, further investigation into the relationship between affect (positive, negative and ambivalent) and performance is important. If affective ambivalence is indeed related to performance, organizations should intervene not by attempting to reduce state negative affect that occurs in their employees but by infusing state positive affect and educating employees on how to use the simultaneous experience of these affective states to their advantage.

The relationship between affect and performance may be particularly important in jobs requiring emotional labor. This study posits that affect is related to customer service performance in that it predicts emotional labor style. As previously mentioned, emotional labor is a very important issue for organizations employing service agents in that recent statistics point to a high volume of negative interactions with service agents in the field today and the failure of many of these agents to regulate their emotions. Additionally, emotional labor styles have been shown to relate to performance. Understanding processes like emotional labor through which individuals may use their experienced

affect (positive, negative and ambivalent) to improve performance will help organizations train service agents to perform better. Furthermore, developing techniques to regulate negative emotions using an employee's own mood will empower employees to initiate a self-recovery process when facing a negative customer service interaction. This will reduce the need for management intervention in these cases.

### Dissertation Objectives

This research presents and tests a model (presented in Figure 1) that investigates combining the affect and emotional labor streams of research with the objectives of extending the knowledge concerning the relationship between state affect and customer service performance outcomes as well as to investigate the state-like antecedents to emotional labor. Specifically, this research will address the question – does state affect, positive, negative or ambivalent, affect the emotional labor style used by employees experiencing a negative customer service event and thus, affect customer service performance outcomes?

### Overview of the Literature

#### Emotional Labor

As mentioned above, emotional labor is the process of regulating both feelings and expressions for the organizational goals (Grandey, 2000). Most organizations have display rules or requirements concerning which emotions employees should express as well as how and when they should express them, especially in customer contact jobs. In many cases, however, an employee may not be feeling the particular emotion that is

required of him or her and will attempt to regulate that emotion. Hochschild (1983), Ashforth and Humphrey (1993) and others have proposed that in these circumstances employees will “act” in order to display the appropriate emotion. As mentioned above, this acting is thought to take two forms: deep acting and surface acting (Hochschild, 1979, 1983; Ashforth & Humphrey, 1993). Deep acting involves trying to feel the emotions one is required to display whereas surface acting involves presenting emotions that are not actually felt.

These dramaturgical styles have been hypothesized to relate to customer service performance. Grandey (2000) and others have posited that deep acting leads to positive customer service performance outcomes in that the emotional display will be perceived as genuine. Surface acting, on the other hand, will be negatively related to customer service performance because the suppressed feelings are likely to “leak out” or be perceived as insincere. Building on this work, Grandey (2000) posited various antecedents to and consequences of the two types of acting. Specifically, she proposed that the emotional labor process will be predicted by various situational cues, emotional events, individual factors and organizational factors. Again, she proposed that deep acting would positively predict customer service performance and surface acting would negatively predict customer service performance. (See figure 2).

Some of these propositions have been empirically supported. Deep acting has been found to be positively related to customer service performance related outcomes while surface acting has not (Grandey, 2003; Totterdell & Holman, 2003). However, empirical tests investigating proposed antecedents to emotional labor have not been supported. In fact, gender and knowledge of display rules were found to be the only

significant individual factors (Totterdell & Holman, 2003) that predicted acting style and no organizational factors were found to be significant. Because emotional labor types have been linked to customer service performance, determining antecedents to these types would be very helpful for organizations. This research proposes that state affect, positive, negative and ambivalent, could be one such antecedent.

### State Affect

In order to understand the relationship between state affect and customer service performance, researchers must first understand the nature of affect. Unfortunately, the definition of state affect has been the source of confusion and debate in the literature for years, primarily regarding its distinction from trait affect and emotion and in its polarity. Russell (2003), in an effort to distinguish state affect from trait affect and emotion, defined state affect as having no cognitive component, as experienced in relation to no known stimulus and as continuous or always present. State affect, thus, is akin to mood and is commonly characterized as being positive and/or negative. Emotion, on the other hand, is composed of other components including appraisal, physiological and expressive changes and attribution. Emotions are referred to as positive and negative but are also assessed as discrete entities (i.e. happiness, pride, guilt, anger). Trait affect is dispositional affect, meaning the tendency of a person to experience an affective state over time. Emotion and state affect (mood) are thought to be malleable while trait affect is a more stable component of one's personality (e.g. Watson & Clark, 1992). Although emotion and affect are distinguishable, they are not completely distinct constructs. Many researchers would agree these constructs are hierarchical such that emotions are

subsumed under the broader constructs state positive and state negative affect and that findings in one area can inform the other (e.g. Fong, 2006).

Although, much of the literature on state affect has focused on positive or state negative affect, affective ambivalence is beginning to receive some attention in the field. Affective ambivalence is the simultaneous experience of both state positive and state negative affect. Despite the common usage of words and phrases such as “bittersweet” and “mixed feelings” in every day language, the notion that individuals can experience both state positive and state negative affect is highly contested by some. Some researchers believe that state positive and state negative affect reside on opposite ends of a continuum rather than as distinct and independent constructs (e.g. Russell, 2003). However, empirical investigations have shown instances where individuals do feel both state positive and state negative affect as well as positive and negative emotions (Folkman, 1997; Beach & Tesser, 1993; Larsen, McGraw, & Cacioppo, 2001).

Physiological studies also lend support for the two factor structure of state positive and state negative affect and the simultaneous occurrence of state positive and state negative affect. State positive affect stems from the basal ganglia while state negative affect is produced in the amygdala (Damasio, 1995; LeDoux, 2000). Thus, production of state positive affect and state negative affect can occur simultaneously given their distinct neurological pathways. These results lend support for the argument that state positive and state negative affect are two different dimensions and are not opposite ends of a single continuum. In addition, the distinct pathways support the existence of affective ambivalence.

Thus, if indeed, individuals do experience affective ambivalence, previously supported relationships between state positive and state negative affect and performance where co-occurrence was not measured may need to be reassessed and the relationship between affective ambivalence and performance should be investigated. Physiological researchers acknowledge that one's behavior is most often bipolar (approach or withdraw), however, the affective brain channels influencing that behavior are not bipolar. Thus in order to understand how state affect influences behavior, research assessing the levels of activation of both channels must be conducted.

This study will investigate the effects of state positive and state negative affect and affective ambivalence on customer service performance. Specifically, this study posits that in the context of a negative event, state affect influences the style an individual will use to regulate his or her emotions to meet service expectations and that the style used will be related to customer service performance.

### Theoretical and Practical Implications

This research has four primary theoretical implications. First, studying state affect and emotional labor may point to additional processes not considered in previous affective models and point to the lack of distinction between felt emotion and expressed emotion in previous literature. Weiss and Cropanzano's (1996) affective events theory, (see figure 3) for example, posits that work events result in experienced emotion which in turn lead to affect-driven behaviors. However, research has shown that individuals are capable of regulating their emotions such that these emotions will not affect their behavior (Grandey, 2003; Totterdell & Holman, 2003). Thus, felt emotion may differ



from the expressed emotion that predicts behavior or felt emotion may be reassessed and replaced by a new emotion. This new emotion may actually predict behavior better than the original felt emotion. This type of management and reassessment is not considered in Weiss and Cropanzano's (1996) model.

Second, models such as Frederickson's broaden and build model of positive emotions (1998) present a framework for understanding how state positive affect and emotion relates to performance, however, the relationship between affective ambivalence and performance remains unknown and untested. Behavior is thought to be influenced by the two affective channels simultaneously, thus studying the effects of affective ambivalence is essential. Third, studying affective ambivalence and emotional labor styles may also help explain previous findings in affect and emotion. For example, Bauman and Kuhl (2002) found that state negative affect reduced performance on intuitive judgments of coherence for participants who have an impaired ability to down-regulate state negative affect while participants who are able to down-regulate state negative affect did not show this tendency. Baumann and Kuhl did not, however, measure state positive affect. This may have explained why some were able to down-regulate and some were not.

Fourth, research on affective ambivalence might explain the inconsistency in previous findings linking state negative affect and performance. Some studies have found a negative relationship between state negative affect and performance (e.g. Wright, Cropanzano, & Meyer, 2004) and some studies have found a positive relationship between state negative affect and performance (e.g. George & Zhou, 2002; Hirt, Levine, McDonald, Melton & Martin, 1997). Individuals with affective ambivalence were not

identified in these studies. It is possible that affective ambivalence affects emotional labor style, which in turn affects performance.

This research has several practical implications as well. First, studies have indicated that emotional labor style is linked to customer service performance. Clearly, this is a very important outcome for organizations. Determining antecedents to emotional labor styles, particularly malleable antecedents, can help organizations improve the performance of their employees. In organizations, service employees are told to be happy and that their emotions will affect their performance through customer satisfaction, however, employees are not told *how* to be happy when they are not. Establishing antecedents to emotional labor will allow organizations to develop techniques that help service employees regulate their negative emotions and perform well.

Again, in many jobs, negative events occur that are outside of the organization's control and result in negative affective states among employees. Introducing positive events into an employee's day can result in an employee feeling ambivalent. This research posits that an employee can draw upon the advantages of state positive affect as well as the advantages of state negative affect and regulate his or her emotion using deep acting during a negative service interaction. Deep acting results in reappraisal of negative emotion and has been shown to result in increased customer service performance. Furthermore, while this is of particular interest in emotional labor jobs, many jobs involve emotional norms and it is possible that this model may also be broadly generalizable.

Second, empirically supporting the existence of affective ambivalence adds additional credence to the hotly-debated polarization of state affect. If state positive affect

is indeed independent of state negative affect, then intervention aimed at reducing state negative affect may not increase state positive affect and vice versa. Because state affect, particularly state positive affect, has been linked to positive performance, understanding the polarization of this variable is important in developing intervention techniques.

Third, physiological studies point to evolutionary benefits of experiencing state positive and state negative affect. Thus, experiencing these states simultaneously could be more beneficial than experiencing state positive affect alone. If ambivalence is indeed more closely linked to performance than state positive affect, organizations must use different intervention techniques. Negative events and thus, state negative affect are arguably inherent in most individuals' daily lives. However, if organizations can teach employees to increase their state positive affect and to use the evolutionary benefits of each state, job performance should increase. Furthermore, instructing an individual on how to use the benefits of each state can give employees the skills necessary to regulate their emotions on a continual basis and thus remove the need for the manager to continually intervene.

### Summary

This chapter introduced the research model to be examined in this study. A more detailed explanation of the model's relationships and hypotheses is presented in the following chapter. Methodology is presented in Chapter III, followed by the results in Chapter IV and the discussion and conclusion in Chapter V.

## **CHAPTER II**

### **LITERATURE REVIEW**

Following is a literature review of affect and emotional labor research as well as a more detailed presentation of the hypotheses tested in this research and the theoretical rationale for testing them. First is a discussion of the affect literature followed by a discussion of how state affect has been shown to relate to performance. Because the model to be tested involves the relationship between affect and performance, a review of the theories describing this relationship will be presented next along with the empirical evidence supporting these theories. Then, a review of the emotional labor literature will be presented. The proposed model presents antecedents as well as performance consequences of emotional labor style and thus, previous theories such as the affective events theory and the broaden and build model of positive emotions and empirical evidence for these will also be presented. Finally, the model hypotheses will be developed and theoretically supported.

#### **Affect**

Over the past two decades, state affect and emotion research was handicapped by inconsistency in terminology and disagreement as to the polarity of affect. Some defined affect as an all encompassing construct that refers to emotion, mood and trait affect (e.g. Amabile, Barsade, Mueller, & Staw, 2005) while others identified state affect as comprising both mood and emotion and discussed trait affect as a separate construct (e.g.

Forgas & George, 2001), and still others used mood and state affect interchangeably and distinguished this construct from emotion and trait affect (e.g. Russell, 2003; Watson, Clark, & Tellegen, 1988; Forgas, 2002). Recently, however, some consensus as to these definitions has been reached. Russell (2003), Watson and Clark (1992), Forgas (2002) and others generally agree that state positive and state negative affect (mood) can be defined as states that are relatively enduring and without a salient antecedent cause. Emotions, on the other hand, are more intense, shorter lived and have a definite cause. Trait affect is dispositional affect, meaning the tendency of a person to experience an affective state over time. Additionally, researchers have generally come to agree that these constructs are hierarchical such that emotions are subsumed under the broader constructs state positive and state negative affect (e.g. Watson & Clark, 1992; Russell, 2003).

Further, most researchers have characterized state affect as being modeled on a circumplex in which the different feeling states are arranged around the circumference (e.g. Remington, Fabrigar, & Vissar, 2000; Russell, 1980; Warr, 2002; Watson & Tellegen, 1985). However, as can be seen when comparing Figures 4 and 5, there are two primary schools of thought as to the rotation of this circumplex and thus, to the polarity of affect.

As can be seen in Figure 4, Watson and colleagues present state positive and state negative affect on rotated dimensions. State positive affect reflects the extent to which a person feels enthusiastic, active and alert (Watson, Clark & Tellegen, 1988). A person with high state positive affect exhibits high energy, concentration and pleasurable engagement, whereas a person with low state positive affect exhibits sadness and

lethargy. State negative affect is a general dimension of subjective distress and unpleasurable engagement. Individuals with high state negative affect feel a variety of adverse emotional states, including anger, contempt, disgust, fear, and nervousness. Conversely, individuals with low state negative affect are characterized by calmness and serenity (Watson, Clark & Tellegen, 1988). Some have suggested that the terms state positive affect and state negative affect are misleading (e.g. Larsen & Diener, 1992). As can be seen in figure 4, state positive affect consists of high activation positive items and low activation negative items and state negative affect consists of high activation negative items and low activation positive items. To reduce this confusion and to provide greater explanatory power, some authors have suggested using unipolar affect scales which incorporate only the high activation items for both state positive and state negative affect (e.g. Burke, Brief, George, Roberson, & Webster, 1989).

Russell and colleagues have championed another circumplex seen in figure 5. Proponents of this model contend that affect is bipolar. Russell and other proponents of the bipolar nature of affect contend that although simultaneous experience of positive and negative emotions are possible, these emotions experienced simultaneously in effect cancel each other out in the production state affect, resulting in a neutral state. Russell goes on to explain this by differentiating between state affect and affective quality. He defines affective quality as “the ability to cause change in state affect” (Russell, 2003, pg. 147). He contends that although affective quality is bipolar, individuals can experience many different and opposite affective qualities simultaneously. Thus, ambivalence can be experienced as a perception of two opposing affective qualities of a complex object or event, but that these affective qualities combine to form a single state affect. Russell

(2003) does not believe that individuals can experience both state positive affect and state negative affect at the same time; however, he acknowledges that this hypothesis remains to be tested.

Empirical evidence, in contrast, has supported the existence of two factors that can be experienced simultaneously. Folkman (1992), for example, assessed caregivers' ability to feel multiple states of mind and found that both state positive and state negative affect occurred as a result of caring for the terminally ill. Beach and Tesser (1993) point out a full range of situations that may elicit these mixed feelings in their self-evaluation maintenance model. Additionally, studies have shown that a change in one factor does not always coincide with changes in another. For example, students who performed well on an exam showed an increase in state positive affect relative to their beginning-of-class level but their state negative affect remained unchanged. Conversely, students who performed poorly showed an increase in state negative affect but no change in state positive affect (Goldstein & Strube, 1994).

In addition, physiological theories point to the co-occurrence of state positive and state negative affect. Neuroscientists and theorists have posited that affect is produced by two specialized channels – one in which threat-related (negative) information is derived and the second from which safety and appetitive (positive) information is derived (e.g. Cacioppo & Gardner, 1999; Gilbert, 1993; Marcus & Mackuen, 1993; Watson & Clark, 1992). Many of these theorists acknowledge that behavioral expressions may be bipolar in nature; however, this does not mean that the underlying mechanisms are also bipolar. In other words, the approach-withdrawal response may be bipolar but it is a consequence

of two intervening channels – the activation function for positivity and the activation function for negativity.

Thus, multiple modes of activation are possible for the two channels: 1) reciprocal activation occurs when a stimulus has opposing effects on the activation of positivity and negativity, 2) uncoupled activation occurs when a stimulus affects the activation of only positivity or negativity, and 3) nonreciprocal activation occurs when a stimulus increases (or decreases) positivity and negativity (Cacioppo & Bernston, 1994; Cacioppo, Gardner, & Bernston, 1997). These modes or channels, activated by various stimuli, produce an underlying affective state which can be primarily positive, primarily negative, or both positive and negative.

Brain studies support independent activation of state positive and state negative affect as well. For example, findings from human lesion and functional neuroimaging studies link amygdala activity to state negative affect while state positive affect has been shown to relate to activation of the basal ganglia (Damasio, 1995; LeDoux, 2000). Additionally, studies have shown asymmetrical activation of the prefrontal cortex (PFC) while one is experiencing state positive affect as opposed to state negative affect (Davidson, 1995; Davidson, et al., 1990; Davidson, 1992; Davidson, 1998). Sutton and Davidson (1997), using an extended picture presentation, found that during the production of state negative affect, right sided increases in the PFC metabolic rate were found and during production of state positive affect, left-sided increases in the PFC metabolic rate were found.

Because of the substantial theoretical and empirical support for the co-occurrence of state positive and state negative affect, this study will adopt this model of affect. In



accordance with this model, state positive and state negative affect or mood are defined as *independent* affective states that are relatively enduring and without a salient antecedent cause (e.g. Forgas, 1992; Watson & Clark, 1992). Emotions are more intense, shorter lived and have a definite cause (e.g. Forgas, 1992; Watson & Clark, 1992). Trait affect is dispositional affect, meaning the tendency of a person to experience an affective state over time (e.g. Watson & Clark, 1992).

### State Affect and Performance

State affect is an important variable for research in organizational behavior because it has been linked to performance outcomes. Clearly, understanding antecedents to performance is of the utmost importance for organizations. The proposed model recognizes the importance of this relationship and attempts to build upon existing theories by presenting intermediary processes that may help explain this relationship. Understanding intermediary processes may help organizations to develop techniques that train individuals to utilize the evolutionary benefits and counteract the negative consequences characteristic of state affect. Two widely recognized theories addressing the relationship between state affect and performance are affective events theory (AET) and the broaden and build model of positive emotions. Following is a review of these theories as well as a description of how the present study will inform each.

### Affective Events Theory (AET)

Weiss and Cropanzano's (1996) AET posits that events and conditions in the workplace lead to experienced emotions, both positive and negative, and that these

experienced emotions shape work attitudes and behaviors. (See figure 2). Specifically, this model proposes that emotional reactions may have immediate influence on work actions (affect-driven behaviors) and may influence work attitudes and cognitive-driven behaviors over time. Thus, affect-driven behaviors are behaviors that follow directly and immediately from affective experiences and are not mediated by overall attitudes.

Judgment-driven behaviors are behaviors that are the consequences of decision processes where one's evaluation of one's job is part of the decision matrix. Further, this model posits that these affective reactions will be driven by trait affect within the individual.

Although few published studies have directly tested the AET framework, some support for this model has been found. Lubbers and colleagues (2005) found that state affect and job self-efficacy mediated the relationship between interpersonal work conflict and performance and that state affect mediated the relationship between job characteristics and performance. Fisher (2000) asked employees to indicate their experience of 16 emotions five times a day. The subjects were asked to fill out surveys when alarms sounded on their watches. She found that positive and negative emotions related to reports of global satisfaction, supporting the emotion-attitude link in this model. Additionally, Nicklas and Dormann (2005) using multiple measurements obtained in a diary study, found that affective experiences in terms of state positive and state negative affect were related to state job satisfaction. Grandey and colleagues (2002) conducted a partial test of the AET using an event-contingent sampling method. She asked employees to immediately record an event when they feel strongly at work. She found that positive trait affect was marginally related to positive emotions ( $p < .07$ ) and negative trait affect was positively and significantly related to negative emotions. The

composite of negative emotions was positively related to intention to leave. However, she found no relationship between composite positive emotions and attitude (job satisfaction) or judgment-driven behavioral intention (turnover intentions). Although these studies find some support for this model, they have only investigated the relationship between events, affective reactions and *attitudes over time* and have not addressed the *immediate* relationship between events, affective reactions and affect-driven behavior.

It is possible that published studies assessing this relationship are not available because this relationship is missing a crucial component and thus, if tested, findings may not support the model. The AET does not account for the reappraisal or suppression of emotion on the job. Emotional labor is described in detail below; however, put simply, reappraisal or suppression could affect the relationship between events, emotions and affect-driven behaviors. For example, reappraisal of a negative event may result in an ensuing positive emotion and suppression of a negative emotion may change one's affect-driven behavior. Thus, the events, affective reactions and affect-driven behavior connection may not be as simple as Weiss and Cropanzano (1996) posit.

Furthermore, state affect preceding the event is not accounted for in this model. The model discusses immediate emotional reactions and emotional reactions over time<sup>1</sup> and includes trait affect. However, state affect and the well-supported Mood Congruence Theory are not taken into account in this model. Mood Congruence Theory contends that individuals who are experiencing positive state affect are more likely to evaluate cues as correspondingly more positive than individuals experiencing negative state affect and

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<sup>1</sup> Some studies have measured emotional/affective reactions over time as mood (e.g. Lubbers et al., 2005) thus mood is included in these models, however, mood preceding the event is not. Others (Grandey et al., 2002) measure this variable as a true aggregate of emotional reactions. Weiss & Cropanzano (1996) do not specify how affective reactions should be aggregated over time.

vice versa (Forgas & Bower, 1987). For example, people experiencing positive state affect have been shown to form more positive impressions of others (Forgas, Bower, & Krantz, 1984) while individuals experiencing negative state affect are more likely to evaluate people and situations more negatively (Forgas & Bower, 1987). Various theories have been proposed to explain this relationship. Two of the most widely recognized are Bower's (1981) Affect Priming Theory and Schwarz and Clore's (1983) Affect-as-Information Model.

Affect Priming Theory contends that affect and cognitions are linked in one's semantic network. As a result, individuals will more likely assess situations as positive as their perceptions and assessment of the situation is positively biased. The affect-as-information model contends that when presented with a judgment of a target, individuals assess their feelings surrounding the target rather than objective information surrounding that target. Thus, when experiencing state positive affect, they are more likely to judge the target more positively. According to both of these theories, work events will be perceived more positively or negatively based on the state affect of the employee. This perception of the event will thus, affect the ensuing affective reaction of the employee. AET incorporates trait affect which is a predictor of state affect; however, state affect is a separate construct that has been shown to effect one's perception of work events. Furthermore, state affect is a malleable or changeable construct while trait affect is stable and thus, it's inclusion in this model is of great interest and may explain inconsistencies in affective reactions.

In sum, the AET does not account for state affect or individuals' ability to regulate their emotions. This research will incorporate these variables into the general

framework of the AET in the context of a negative event with the hopes of improving the explanatory power of the AET.

### The Broaden and Build Model of Positive Emotions

The broaden and build model of positive emotions contends that positive emotions lead to positive performance outcomes by broadening the scope of attention, cognition and action and building physical resources, intellectual resources and social resources where negative emotions narrow one's focus (Frederickson, 1998). Although this model specifically addresses emotion rather than state affect, much of the support for the model comes from research on state affect rather than discrete emotions. This is not to say that emotions do not fit in the model, but more likely that the model provides support for the hierarchical relationship of emotion and state affect and their effects on performance.

According to empirical support for this model, state positive affect broadens the scope of attention, cognition and action. For example, Frederickson (2001) pointed out that studies of manic individuals have shown that these individuals were apt to use over-inclusive categories (Andreason & Powers, 1975; Jameson, 1993; Richards & Kinney, 1990) and that this expansive thinking was diminished by the use of lithium, which stabilizes state affect (Shaw, Mann, Stokes, & Manevitz, 1986) supporting the relationship between state positive affect and scope of attention. She cites Isen's work which has shown that individuals experiencing state positive affect used more inclusive categories, were more creative, and produced more unusual cognitive associations (Isen, Daubman, & Nowicki, 1987; Isen & Daubman, 1984) supporting the relationship

between state positive affect and the scope of cognition. Additionally, she pointed to research that showed a relationship between state positive affect and using objects in creative and unusual ways to solve a problem (Isen et al., 1987; Greene & Noice, 1988) and between state positive affect and seeking more variety among consumer products (Kahn & Isen, 1993) supporting the relationship between state positive affect and scope of action.

Frederickson goes on to support the relationships between state positive affect and building physical resources, intellectual resources and social resources. She cites work that correlates play (which Frederickson argues is an expression of experienced state positive affect) with building physical resources (Groos, 1898, 1901) as well as work showing rats that were deprived of play were slower to learn complex motor tasks (Einon, Morgan, & Kibbler, 1978). Additionally, students experiencing induced state positive affect were more likely to negotiate optimal agreement than those in a neutral condition (Carnevale & Isen, 1986) supporting the relationship between state positive affect and building intellectual resources. Finally, studies have shown that individuals experiencing state positive affect are more likely to help others (Isen, 1987; George, 1991) supporting the relationship between state positive affect and building social resources.

Consistent with the broaden and build model, state positive affect has been shown to be related to performance. In fact, in a recent article assessing over 220 studies, 293 samples comprising 275,000 participants, Lyubomirsky and colleagues (2005) found that state positive affect is consistently related to performance related outcomes in cross-sectional research, longitudinal research, experimental research and field research.

As mentioned above, Frederickson and others contend that state negative affect, on the other hand, is associated with narrowing of focus. It is believed that the relationship between state negative affect and focus is an evolutionary adaptation which allows individuals to identify and focus on threatening situations for survival (e.g. Cacioppo & Gardner, 1999; Derryberry & Tucker, 1994). For example, when facing an approaching predator, an animal will focus all its attention on the predator and drown out other non-essential information. Scientists have discovered that this focus can also arise from state negative affect in non-life threatening circumstances. For example, Mogg, Matthews, Bird and MacGregor-Morris (1990) found that individuals experiencing anxiety showed a positive bias towards threatening information.

The relationship between state negative affect and performance is outside the scope of the broaden and build model. However, because behavior is thought to be a consequence of two intervening affective channels it is important to understand the relationship between state negative affect and performance as well as the effect of ambivalence on performance. Studying all of these relationships may prove more informative than studying these channels in isolation and help clear up some confusion caused by current research which suggests that the relationship between state negative affect and performance is conflicting. Some studies have found a negative relationship between state negative affect and performance (Wright, Cropanzano, & Meyer, 2004) and some studies have found a positive relationship between state negative affect and performance (George & Zhou, 2002; Hirt, Levine, McDonald, Melton & Martin, 1997).

Too much focus on a threat may lead to performance decrements when one cannot complete the task at hand; however, focusing one's attention on a threat may also

facilitate increased performance when an individual is capable of dealing with that threat. For example, when an employee is dealing with an irate customer, focusing on that threat may enable the employee to isolate the problem and placate the customer.

Further, state negative affect may have effects on performance as suggested by the “Mood-as-Input” Model. This model suggests that people use their current mood to assess a situation (Martin, Ward, Achee, & Wyer, 1993). Individuals experiencing a positive mood will feel that all is well and thus, stop working on a task while individuals experiencing a negative state will feel that something is amiss and continue to work on the task.

Although few studies have empirically assessed any outcomes of affective ambivalence, Amabile, Barsade, Mueller, and Staw (2005) reasoned that affective ambivalence may predict performance variables by increasing the breadth of cognitive material available. Using Mood Congruence Theory, they argued that state affect can enhance the likelihood of recalling information that was encoded during the experience of similar state affect (Blaney, 1986). Thus, experiencing state positive and state negative affect may lead to cross-over of memory nodes that may have been separate had only one mood been experienced. An individual would have more cognitive material available and thus, be able to perform better. Furthermore, some empirical evidence supports this view. Fong (2006) demonstrated in a laboratory study the positive effect of affective ambivalence on creativity.

The combined influence of state positive and state negative affect may also lead to positive performance in that it may allow an individual to both focus on a threat, feel that something is amiss and use their broadened scope of attention, cognition and action



and desire to build physical, intellectual and social resources to develop a means of dealing with the threat. In the aforementioned example, an employee may focus his or her attention on an irate customer because the customer is seen as a threat or the employee feels that something is amiss, however, the customer's broadened attentional and cognitive scopes may allow him or her to consider a solution to the problem and the customer's desire to build social resources and broadened scope of action may provide them means to implement this solution.

In sum, the broaden and build model and empirical data assessing the relationship between affect and performance support a positive relationship. The relationship between state negative affect and ambivalent state affect and performance is less clear and warrants further research.

The preceding was a review of the affect literature along with the theories and empirical evidence describing the relationship between affect and performance. The following sections present a literature review of the emotional labor literature in general along with the research on antecedents and performance consequences of emotional labor.

### Emotional Labor

Emotional labor is the process of regulating both feelings and expressions for the organizational goals (Grandey, 2000). Most organizations have requirements concerning the emotions that employees should express as well as how and when they should express them. In many cases, however, an employee may not be feeling the particular emotion that is required of him or her and will attempt to regulate that emotion. Thus, emotional

labor occurs when an individual attempts to display the appropriate emotion even when the felt emotion differs from this required emotion.

Hochschild (1983), Ashforth and Humphrey (1993) and others proposed that when an employee's emotions do not match what the job requires, the employee will "act" in order to display the appropriate emotion. Again, this acting can take two forms: deep acting and surface acting (Hochschild, 1979, 1983; Ashforth & Humphrey, 1993). Deep acting involves trying to feel the emotions one is required to display. These feelings can be induced by exhorting, where one tries to evoke or suppress an emotion, and trained imagination, where one actively invokes thoughts, images, and memories to induce an associated emotion. For example, an individual may think of something good that happened to them earlier that day, or one might imagine him or herself in a customer's shoes to try to feel empathy. Surface acting, on the other hand, involves presenting emotions that are not actually felt. This can be done through both verbal and nonverbal cues, such as facial expressions, gestures and voice tone. Thus, an employee may put on a happy or empathetic face in an interaction but his or her feelings do not match this expression.

In an effort to further explain the processes behind "acting" and emotional labor, Grandey (2003) proposed an integration of the emotion regulation literature and the emotional labor literature. Emotion regulation has been defined as "the processes by which individuals influence which emotions they have, when they have them and how they experience and express these emotions" (Gross, 1998, p.275). Emotion regulation theory posits two types of emotion regulation, antecedent-focused emotion regulation and response-focused emotion regulation.

Antecedent-focused emotion regulation can take four forms: situation selection, situation modification, attention deployment, and cognitive change (Gross, 1998). The first two, situation selection and situation modification, involve adjustments in the emotion inducing situations. Because of this, Grandey argued that service employees have little opportunity to use these beyond choosing their job and refusing to interact with a customer and thus, are not as relevant to emotional labor. The second two, attentional deployment and cognitive change, involve modifications to how an individual perceives the situation and are thus, more relevant to emotional labor.

Specifically, attentional deployment involves thinking about events that call up the emotions one needs in a particular situation. For example, a mountain climber picturing a beautiful vista while dealing with negative customers at a call center is an example of attentional deployment. As this example illustrates, Hoshchild's concept of deep acting as attempting to feel the emotion one is trying to display is very similar to attentional deployment. Cognitive change involves intentionally perceiving the situation so that the emotional impact is lessened. Hoshchild (1983) presented an example of cognitive reappraisal in which flight attendants reappraised passengers as children when they found they were becoming angry at infantile behavior. Grandey (2000) argued that this type of regulation is also deep acting in that internal processes are modified with a goal of making expressions more genuine.

Response-focused emotion regulation involves response modulation or manipulation of one's emotional expression of one's reaction to a situation. Grandey (2000) argued that this type of emotion regulation corresponds to surface acting in that this regulation style is concerned with modifying expression, not the internal feelings.

Totterdell and Holman (2003) tested Grandey's propositions using an interval dependent time sampling method in which subjects filled out surveys on a pocket computer four times a day. Consistent with Grandey's propositions, they found that individuals who reported greater use of cognitive change and/or attentional deployment were also more likely to report modifying their feelings and those who reported response modulation were more likely to report only showing the required expressions within each time period.

In sum, emotional labor involves acting in order to meet organizational goals. A recent model of emotional labor integrates emotional labor and emotional regulation, a previously separate line of research, in an attempt to further explain the processes involved in emotional labor as well as posit potential antecedents to and consequences of emotional labor (Grandey, 2000).

#### Antecedents to Emotional Labor

Grandey's (2000) model not only integrated the two streams of literature but also included various antecedents to and consequences of emotional labor (see Figure 2). Drawing on the emotion regulation propositions posited by Gross (1998), Grandey proposed that emotional labor style will be predicted by various situational cues (interaction frequency, duration, variety, and display rules) and emotional events. Drawing on emotional labor studies, she incorporated individual factors (gender, emotional expressivity, emotional intelligence, and trait affect) and organizational factors (job autonomy, supervisor support and coworker support) as antecedents to emotional labor.

Although combining these research streams seemed to help illuminate the processes behind deep acting and surface acting, thus far it has not helped identify antecedents to emotional labor. In a test of Grandey's model, Totterdell and Holman (2003) found very weak support for the individual factors and no support for the organizational factors proposed by Grandey and their relationship to acting. In fact, gender was the only significant individual factor relating to acting in that females were more likely to modify their feelings and to fake their emotions.

Thus, further research into the antecedents of emotional labor should improve upon Grandey's model as well as inform managers why some negative emotions are successfully regulated while others are not during a service encounter.

### Emotional Labor and Performance

Emotion regulation and emotional labor styles have both been posited to relate to performance. Grandey (2000) and others have proposed that deep acting or attentional deployment and cognitive change lead to positive performance outcomes in that the emotional display will be perceived as genuine. Surface acting or response modulation, on the other hand, will be negatively related to performance because the suppressed feelings are likely to "leak out." Grandey (2003) supported this hypothesis showing a positive relationship between deep acting and perceived authentic delivery and a negative relationship between surface acting and perceived authentic delivery in customer service representatives. Totterdell and Holman (2003) found that cognitive change was related to proactivity in helping behaviors. They also found that both attentional deployment and cognitive change were related to quality of service performance while response

modulation was not. Furthermore, cognitive change and attentional deployment were positively and significantly related to positive expressed emotion while response modulation was not.

In sum, although performance consequences of emotional labor have been empirically supported, antecedents to the two types of acting have not been identified. The present study posits that one possible antecedent to emotional labor is state affect.

### State Affect and Emotional Labor

This research proposes an integration of these two streams of research using the proposed model (figure 1). It is important to note that this model is being tested in the context of a negative event. The rationale behind this context involves the idea that the emotional labor process is simplified when employees felt emotions are in line with the required emotional displays (Ashforth & Humphrey, 1993). In this case, emotional labor is not necessary; one simply displays emotions in line with what he or she is feeling. Thus, this research does not assess positive events because theory and empirical evidence supports the notion that positive events lead to positive emotions (e.g. Weiss & Cropanzano, 1996). Furthermore, when one is feeling positive emotions, he or she will have no reason to act. It is the negative event that is of most interest, then, because it does involve emotional labor.

### Affective Ambivalence and Acting

Although few studies have empirically assessed the outcomes of affective ambivalence, researchers have pointed out the need to study such outcomes because

behavior is thought to be a result of both types of affect simultaneously despite its production in two different channels in the brain (e.g. Cacioppo & Gardner, 1999). Additionally, there may be benefits of experiencing simultaneous state positive and state negative affect (e.g. Cacioppo & Gardner, 1999). Studies have shown that both state positive and state negative affect have evolutionary benefits in that state negative affect focuses one's attention while state positive affect broaden and builds. Thus, the co-occurrence of state positive and state negative affect could be advantageous over either one experienced in isolation. For example, as mentioned above, Amabile, Barsade, Mueller, and Staw (2005) reasoned that affective ambivalence may predict performance by increasing the breadth of cognitive material available.

The simultaneous experience of state positive and state negative affect may also relate to emotional labor. One possible mechanism for this relationship is that the narrow focus and preparation for the defense characteristic of state negative affect allows an individual to anticipate a negative emotion by understanding something is amiss. While the broaden and build component of state positive affect allows him or her a broad scope of attention to direct toward experiencing positive emotions required of the job. Theoretically, the more an individual experiences both types affect, the more that individual will be focused and will experience a broadened scope and a desire to build resources.

These ideas are supported by neuropsychological research. The anterior cingulate cortex (ACC) is thought to be critical for assessing the presence of conflicts between the current functioning states of an organism (Davidson, Pizzagalli, Nitschke, & Putnam, 2002). Thus, the ACC is activated when an individual experiences state positive and state

negative affect simultaneously. Theoretically, in this situation, the ACC is telling the brain to focus attention on this conflict. Furthermore, the ACC is subdivided into two regions: the affective subdivision and the cognitive subdivision. Although the relationship between the affective and cognitive subdivisions of the ACC is not well understood, several authors have suggested that the affective subdivision may integrate salient affective and cognitive information and subsequently adjust attentional processes within the cognitive subdivision (Mega, Cummings, Salloway, & Malloy, 1997; Mayberg, 1997; Mayberg, Brannan, Mahurin, Jerabek, Brickman, et al., 1997). It is believed that the affective subdivision is thus involved in “behaviors characterized by monitoring and evaluation of performance, internal states, and presence of reward or punishment” (Davidson, et al., 2002, pg. 553). And, indeed, evidence suggests that the affective region of the ACC is activated when effortful emotion regulation is conducted (Bush, Luu, & Posner, 2000).

Furthermore, one of the major output routes of the ACC is to the prefrontal cortex (PFC). Activation of the left-sided PFC is associated with state positive affect and is involved in approach-related appetitive goals and the ability to anticipate positive incentives and direct behavior towards those goals while activation of the right-sided PFC will focus an individual on a threat. The combination of these processes may create optimal performance when an individual encounters a negative event. The existence of both state positive and state negative affect before encountering a negative situation may allow an individual to anticipate threats while the still having the resources to deal with those threats and stay focused on their goals. He or she may then stay focused on the overall goal of displaying the positive emotion required by the organization. Thus, the



individual focuses his or her attention on something positive in order to feel positive (attentional deployment) and/or reappraises the situation so that the impact of the negative emotion is lessened (cognitive change).

As the proposed research model indicates, this may occur because state positive affect is present with state negative affect; individuals will regulate their emotions with deep acting.

**Hypothesis 1-Deep acting will increase as state positive affect levels increase towards state negative affect (affective ambivalence) and decrease as state positive affect levels exceed state negative affect.**

**Hypothesis 2-Deep acting will increase as state positive and state negative affect increase along the ambivalent line (where state positive and state negative affect levels are equal).**

#### State Positive Affect and Acting

As outlined in the previous literature review, state positive affect is thought to elicit approach behaviors. It is thought to broaden the scope of attention, cognition and action and build physical, intellectual and social resources. Despite agreement as to these aspects of state positive affect, theoretical and empirical evidence support two opposing relationships between state positive affect and emotional labor style.

Some evidence supports a positive relationship between state positive affect and deep acting when confronted with a negative event. As previously mentioned, when experiencing state positive affect, one's body chemistry is releasing an approach signal in

the brain. One is experiencing a broadened scope of cognition, attention and action as well as a desire to build physical, intellectual, and social resources. Thus, when presented with a negative stimulus, it is possible that one will recognize the stimulus as negative and expect an ensuing negative emotion. However, the individual's broadened scope of cognition, attention and action and his or her desire to build physical, intellectual, and social resources may result in antecedent-focused emotion regulation of that emotion. He or she may then stay focused on the overall goal of displaying the positive emotion required by the organization. Thus, the individual can employ cognitive change and/or attentional deployment.

This idea is supported by neuropsychological research. As mentioned above, the anterior cingulate cortex (ACC) is thought to be critical for assessing the presence of conflicts between the current functioning states of the organism (Davidson, Pizzagalli, Nitschke, & Putnam, 2002). When an individual who is experiencing state positive affect is confronted with a negative event, the affective subdivision of the ACC will activate in response to and in an effort to process this conflict. The affective subdivision will then activate the cognitive subdivision to focus attention to the conflict. Again, one of the major output routes of the ACC is to the prefrontal cortex. Activation in the left-sided PFC characteristic of experiencing state positive affect should induce one to be goal directed. Thus, by recognizing the conflict and understanding one's goals, people experiencing state positive affect and little state negative affect will regulate negative emotions using deep acting so that their behavior will be in line with approach-related goals.

However, consistent with hypothesis 1, because individuals experiencing state positive affect in isolation will not have a heightened awareness of threats going into an encounter as is the case with an individual experiencing affective ambivalence, it is posited that affective ambivalence will be more closely related to deep acting than state positive affect experienced with little state negative affect. On the other hand, because those experiencing state positive affect will have a broadened scope and a desire to build resources, deep acting will be more closely related to state positive affect experienced with little state negative affect than vice versa (See figure 6 for graphical representation of Hypotheses 1, 2 and 3a).

**Hypothesis 3a-Deep acting will be more strongly related to state positive affect than to state negative affect.**

Alternatively, other theories point to a different relationship between state positive affect experienced with little state negative affect and acting style. Mood congruence theory posits that an individual experiencing a positive mood is less likely to perceive a negative event as negative and thus, less likely to experience a negative emotion as a result. According to this theory and evidence supporting this theory, in the context of a negative event, state positive affect should not be related to either deep acting or surface acting. An individual would be more likely to perceive a negative event as positive and thus, be less likely to feel a negative emotion. Thus, these individuals would have no reason to regulate their emotion; the state positive affect experienced with little state negative affect will be directly and positively related to performance and will not be related to deep acting and surface acting. (See figure 7 for graphical representation of Hypotheses 1, 2 and 3b and figure 8 for graphical representation of Hypothesis 4.)

**Hypothesis 3b-Deep acting will not be more strongly related to state positive affect than to state negative affect.**

**Hypothesis 4-The direct effects of state positive and state negative affect on performance will be significant such that performance will increase as state positive affect levels exceed state negative affect levels.**

#### State Negative Affect and Acting

Numerous theorists have argued that state negative affect evolved because it promotes specific action in threatening circumstances. When the negativity channels in an individual's nervous system (i.e. right-sided PFC, amygdala, etc.) are activated, individuals experience heightened awareness and focus along with an avoidance sensation. Thus, state negative affect is thought to narrow an individual's thought-action repertoire (Frederickson, 1998; Derryberry & Tucker, 1994). These hypotheses are supported in neuropsychological research wherein scientists have linked the amygdala, which is associated with state negative affect, to processes that direct attention to affectively salient stimuli and issue a call for further processing of stimuli that have significance for the individual (Davidson, et al., 2002). Additionally, the right-side activation of the PFC is related to state negative affect and with goals that require behavioral inhibitions and withdrawal.

Thus, if state negative affect is experienced with little state positive affect and if the individual were in a situation in which he or she could act freely, his or her actions would most likely reflect these feelings. The individual would focus on the threat but

would not have the resources to deal with this threat; thus they may try to avoid the threat or withdraw. However, this is not always a possibility on a job. An individual is required to perform his or her job duties regardless of this avoidance sensation. This can be particularly true for customer service representatives who must interact with customers regardless of how they are feeling. When an employee who is in a negative mood encounters a negative event, this individual's negativity channel will already be firing, resulting in an avoidance sensation and defensiveness based on the body's protective reaction. This avoidance sensation and focus on potential harm experienced will result in an inability to refocus or invoke attentional deployment or cognitive change. The individual instead will attempt to control his or her response and attempt to fake a positive emotion in order to meet job expectations.

Furthermore, according to Mood Congruence Theory, an individual experiencing state negative affect will see a negative stimulus as more negative. Thus, this stimulus is likely to produce a strong negative emotion. In this circumstance, an individual would have great difficulty refocusing and employing attentional deployment or cognitive changes. To meet job expectations, he or she will be more likely to fake his or her emotion or surface act. (For graphical representation of Hypothesis 4, see figure 8.)

**Hypothesis 5-Surface acting will increase as state negative affect levels exceed state positive affect levels.**

#### Acting and Performance

Deep acting has been positively related to customer service performance. When an individual actually feels the emotion he or she is required to display, his or her

performance will be better than instances in which this emotion is not present. Grandey (2003) found a positive relationship between deep acting and perceived authentic delivery in customer service representatives. Totterdell and Holman (2003) found that perspective taking, an aspect of deep acting was related to proactivity in helping behaviors. They also found that deep acting was related to overall quality of service performance.

Surface acting has been negatively linked to customer service performance. Because customers do not perceive the service representative as genuine and because true emotions can leak out, surface acting is thought to have a negative relationship with performance. And, in fact, Grandey (2003) found a negative relationship between surface acting and perceived authentic delivery in customer service representatives.

**Hypothesis 6-Deep acting will positively predict performance.**

**Hypothesis 7-Surface acting will negatively predict performance.**

#### Affect and Performance

As mentioned above, mood congruence theory points to a direct relationship between state positive affect and performance in the context of a negative event. Although ample empirical evidence has found state positive affect is significantly and positively related to performance in general, few empirical studies have been conducted in the context of a negative event. And, in fact, some empirical evidence points to the potential negative consequences of experiencing state positive affect with little negative mood in the context of a negative event. The Mood-as-Input Model posits that individuals experiencing a positive mood are less likely to see that something is amiss. Instead, the

state positive affect will signal that all is well and, therefore, individuals will stop working on tasks. Hirt and colleagues found support for the model on quantitative aspects of performance. Additionally, George and Zhou (2002) hypothesized that individuals experiencing state positive affect and were aware of that state would interpret their state as an indication that they had met their creative goals, and thus additional effort was not needed. Individuals experiencing state negative affect and who were aware of that state would try harder to find a creative solution. Their results supported these hypotheses.

These authors did not look at the effects of simultaneous experience of state positive and state negative affect. It is possible that individuals who experience affective ambivalence will recognize that something is amiss as well as have a broadened scope of attention, cognition and action and a desire to build physical, social and psychological resources. This may allow an individual to recognize a problem and have the resources available to procure a solution. Whereas an individual experiencing only state positive affect may not recognize the problem or that something is amiss and therefore will not use his or her resources toward fixing that problem. In the context of a negative service interaction, an individual experiencing affective ambivalence entering the interaction will more likely recognize problems with the customer or with the interaction than someone experiencing only state positive affect. They will then use their broadened scope of attention, cognition and action and a desire to build physical, social and psychological resources to stay goal directed, express the appropriate emotion and perform well.

Individuals experiencing state negative affect with little state positive affect will be overly focused on threats and will not have the resources to deal with those threats, express the appropriate emotion or perform. Conversely, individuals who are

experiencing state positive affect with little state negative affect are thought to have a broadened scope of attention, cognition and action and a desire to build physical, intellectual and social resources. These individuals may not recognize the threat as well as those experiencing affective ambivalence; however, their broadened scope and desire to build resources should enable them to perform better than those experiencing state negative affect in isolation. Thus, performance should be highest among those experiencing affective ambivalence but also should be more strongly related to state positive affect than state negative affect. This research posits that state affect is related to performance through acting style. Thus, the following is hypothesized:

**Hypothesis 8–The indirect effects of state positive and state negative affect on performance through deep acting will be significant such that performance will increase as state positive affect levels increase towards state negative affect levels (affective ambivalence) and decrease as state positive affect levels exceed state negative affect levels.**

**Hypothesis 9–Performance will increase as state positive and state negative affect levels increase along the ambivalent line (where state negative affect is equal to state positive affect).**

**Hypothesis 10–The indirect effects of state positive and state negative affect through deep acting will be more strongly related to state positive affect levels than to state negative affect levels.**

**Hypothesis 11–The indirect effects of state positive and state negative affect on performance through surface acting will be significant such**



**that performance will increase as state positive affect levels increase towards state negative affect (affective ambivalence) and decrease as state positive affect levels exceed state negative affect levels.**

### Summary

Emotion and state affect research has received a great deal of attention in recent years. Substantial research on both affect and emotional labor has been conducted. These advances have led to a greater understanding of the influences of state affect and emotion in the workplace. However, these two lines of research can enforce one another and should be combined for additional knowledge. This will advance the affect literature by presenting acting style as intermediary processes that influence the relationship between state affect and important organizational outcomes such as performance. Additionally, these intermediary processes lead to a greater understanding of how state affect influences performance and what types of performance are particularly influenced.

Combining these two research tracks can inform emotional labor research by providing a greater understanding of what influences particular acting styles. Studies have shown that deep acting is preferable in relation to performance. Understanding the factors that influence which styles an individual uses will support interventions that benefit both employees and organizations.

Further, empirical evidence supports the co-occurrence of state positive and state negative affect; however, no studies have assessed outcomes of this co-occurrence. It is

possible that experiencing both these state simultaneously, affective ambivalence, may allow an individual to reap the positive consequences characteristic of both.

## **CHAPTER III**

### **METHODS**

The purpose of this chapter is to outline the methods used to examine the impact of state affect (positive, negative and ambivalent) on emotional labor style and its subsequent relationship with customer service performance. This section begins with a description of the research design and experimental context in which the study was conducted, followed by a description of the sample, data collection procedures, operationalizations of the constructs and measures used, and data analysis techniques.

#### **Research Design, Context and Data Collection Procedures**

A quasi-experimental design was used to examine the relationship between state affect, acting styles and performance. A quasi-experimental design was chosen to better pinpoint causality, in an attempt to improve upon previous studies of emotional labor and because of the nature of state affect induction. Previous studies measuring acting style have asked individuals whether or not they tended to use deep acting and surface acting (e.g. Grandey, 2003) in general. This measures dramaturgical styles as fairly stable characteristics. Acting style, however, is seldom defined as a stable characteristic and there is no empirical evidence to suggest that individuals are consistent with the style they use. The style may change during each interaction, so it is important to measure these interactions using an event-specific procedure.

State affect variance was induced by eliciting several discrete emotions directed toward different targets. As previously mentioned, state affect is thought to be hierarchical to emotion (Watson & Clark, 1992); thus, eliciting emotions for several different targets should affect state affect. State affect variance was induced because this research relies on the presence of variance, and because physiological mood theories suggest that a state affect manipulation aimed at creating distinct experimental groups is very difficult. This is because multiple modes of activation are possible for the two affective channels (reciprocal, uncoupled and nonreciprocal). Reciprocal activation occurs when a stimulus has opposing effects on the activation of positivity and negativity, uncoupled activation occurs when a stimulus affects the activation of only positivity or negativity, and nonreciprocal activation occurs when a stimulus increases (or decreases) positivity and negativity (Cacioppo & Bernston, 1994; Cacioppo, Gardner, & Bernston, 1997). When established techniques are used to elicit state affect (including the recall technique), it is exceedingly difficult to remove instances in which the stimulus causes uncoupled activation in at least some subjects.

For example, if the particular stimulus causes uncoupled activation in an individual experiencing state positive affect and who is assigned the state negative affect manipulation, then he or she will retain the state positive affect and begin to experience state negative affect, which results in affective ambivalence. Because this study is distinguishing between those experiencing ambivalence and those experiencing state positive affect with little state negative affect and vice versa, eliciting state affect variance is more appropriate than using random assignment to groups. State affect

variance was assessed in a pilot study to ensure that the state affect variance induction was sufficient in creating variance (See Pilot Study 1a and 1b).

Acting style used and resulting customer service performance were assessed during a standardized customer service interaction over the phone. The interaction consisted of one confederate customer and one participant who was assigned the role of customer service agent. The confederate customer was a hired actor who was given a script to memorize and use to guide the interaction. Participants signed up for specific time slots that would allow them to complete each step of the experiment individually and without delays. When the participant arrived at his or her assigned time, he or she was asked to sign a consent form that outlined the tasks involved in the study as well as information concerning how the data would be stored. Next, the participant was assigned to one of three state affect variance conditions. To induce state affect variance, subjects were asked to recall two emotion-eliciting events. This state affect induction technique has been successfully used in previous studies (e.g. Baron, 1993; Hom & Arbuckle, 1988; Tiedens & Linton, 2001).

State positive affect was induced by asking the participant to remember, relive and vividly recall a positive event that made them feel positive emotions. The participant was instructed to write about the experience and how it made him or her feel. The subject was instructed to take five minutes for this recall task. He or she was then asked to repeat the process for a second positive event. State negative affect was induced in a similar manner by asking participants to remember, relive and vividly recall two negative events that have not been resolved and that made them feel negative emotions. Ambivalence was

elicited by asking subjects to remember, relive and vividly recall first a positive event and then, a negative event.

After the state affect variance induction, the participant filled out a state affect survey to assess current state affect. They were then asked to read a one-page document that described the display rules of the organization and what was expected of him or her during the ensuing interaction with the customer. Display rules are expressed positive emotions expected by frontline service organizations. Knowledge of display rules was assessed by asking the participant to fill out a short survey. A pilot study was also conducted to ensure that reading the one page document was sufficient for understanding the display rules of the organization (See Pilot Study 2).

After completing these surveys, the participant was asked to enter another room with a phone. The confederate customer then called the participant, acted extremely irritated and inquired about returning a previously purchased product. The confederate customer used a script to guide the interaction and ensure it was negative (See Appendix A for script). Pilot study analysis indicated that the interaction was clearly viewed as negative by the participants (See Pilot Study 2). This interaction was audio taped. Following the interaction, the participant was asked to complete a survey measuring his or her acting style and the confederate customer was asked to complete a survey measuring the performance of the participant. Finally, the audio taped interactions were evaluated by an independent committee of experts who rated the performance of each participant. (See Appendix B for all surveys.)

Data was collected outside of class. Participants were informed that they were taking part in a research experiment about customer service interactions. They were told that the experiment involved simulating a customer service interaction over the phone.

### Sample

The final sample in this study consisted of 217 undergraduate students in a large Midwestern university's satellite campus. Students received class points for participation in the study as well as extra credit for recruiting others to participate. The sample was fairly evenly split by gender (52.7% female and 45.0% male), their average age was 29.1 years (*S.D.* 9.9), their average years of general work experience was 11.3 (*S.D.* 8.72) and their average years of customer service work experience was 6.22 (*S.D.* 6.325). The study participants were primarily juniors (49.1%) and seniors (17.6%) or recruited non-students (25.2%). Freshman and sophomores made up only 2.7% and 5.4% of the sample respectively.

In order to determine the appropriate sample size for this study, power analyses were conducted. With significance levels of 0.05 and power of 0.80, it was determined that a sample size of 208 would be adequate to detect a reduction in  $R^2$  of 0.03 for squared difference constraints (see Data Analysis below for explanation of squared difference constraints). Previous research indicates that reduction of  $R^2$  produced by difference score constraints is typically much larger than 0.03 and statistical power available to test these constraints should be adequate (Edwards, 1994; Edwards & Harrison, 1993). Additionally, using an alpha of 0.05 and power at 0.80, this sample size will be able to detect increases in  $R^2$  of 0.01 for the sets of terms one order higher than

those in the unconstrained squared difference equations. This increase in  $R^2$  represents a small effect size (Cohen, 1988), and therefore the statistical power for tests of higher order terms should be adequate. Finally, with an alpha at 0.05 and power at 0.80, this sample will be able to detect an increment of  $R^2$  of 0.04 for the full quadratic equation including the mediation variable. This value represents a small effect size for applications of polynomial regression (e.g. Edwards, 1996; Edwards & Rothbard, 1999).

## Measures

### Study Variables

**State Positive and State Negative Affect.** State positive and state negative affect are independent feeling states that are relatively enduring and without a salient antecedent cause. State positive and state negative affect were measured using Watson and Clark's (1992) PANAS-X. The PANAS-X is a 60-item schedule that measures state positive and state negative affect as well as eleven emotions (fear, sadness, guilt, hostility, shyness, fatigue, surprise, joviality, self-assurance, attentiveness and serenity). Using a 5-point Likert-type scale, participants were asked to indicate to what extent they feel each of the 60 feelings or emotions right now from "A little or not at all" (1) to "Extremely" (5). The internal consistency reliability for the state positive affect scale was 0.88 and for the state negative affect scale, the alpha was 0.84.

**Affective Ambivalence.** Polynomial regression was used to calculate affective ambivalence using state positive and state negative affect scores. This approach was used to determine if a three-dimensional approach is more appropriate than using the two



dimensional difference score approach by testing the constraints imposed by the difference score approach (see Data Analysis for more details).

**Acting type.** Acting can take two forms, surface acting and deep acting. Subjects were given two separate scales to assess the degree to which each acting-type was used. Grandey's (2003) 4-item surface acting and 3-item deep acting scales developed from Brotheridge and Lee's (1998) scale was used. Participants were asked to indicate how much they carried out specific behaviors during the customer service interaction in order to do the job effectively. Responses were measured on a 5-point Likert-type scale from "Never" (1) to "The whole time" (5) and contained items such as "Put on an act in order to deal with customers in an appropriate way" for surface acting, and "Tried to actually experience the emotions that I was supposed to show" for deep acting. The internal consistency reliability for the surface acting scale was 0.88 and for deep acting scale, alpha was 0.85.

**Performance.** Performance was assessed using four different customer service performance related variables: affective delivery, breaking of character, proactive customer help and overall performance. These are described below.

**Affective delivery.** Affective delivery or perceived authenticity of affective displays have been shown to relate to important customer outcomes such as intention to return, intention to recommend a store to others and overall perception of service quality (e.g. Parasuraman, Zeithaml, & Berry, 1985; Pugh 2001; Tsai, 2001). Affective delivery was measured using five items from Grandey's (2003) scale slightly modified to fit the event contingent sampling method. Confederate customers were asked to respond to items on a 5-point Likert-type scale from "Strongly Disagree" (1) to "Strongly Agree" (5)

with representative items “This person showed friendliness and warmth” and “This person treated me with courtesy, respect and politeness.” The internal consistency reliability for this scale was 0.92.

Breaking character. Breaking character involves revealing negative emotions to the customer. Grandey’s (2003) three item scale based on Bailey and McCollough’s (2000) qualitative research was adapted for an event-contingent sampling method. Confederate customers were asked to respond to items on a 5-point Likert-type scale from “Strongly Disagree” (1) to “Strongly Agree” (5) with representative items “This person revealed his or her angry feelings to me” and “This employee acted negatively toward me.” As is apparent in these examples, higher values for this scale are an indication of poorer performance. Internal consistency reliability for this scale was 0.86.

Proactive customer help. Proactive customer help involves how much the service agent went out of his or her way to help the customer. This variable was measured using a one-item, 5-point Likert-type rating scale asking customers “How much did the service agent put him or herself out to help you” (Totterdell & Holman, 2003). Responses ranged from “Very little or not at all” (1) to “An extreme amount” (5).

Overall job performance. Overall job performance during the interaction was also assessed using a one-item, 5-point Likert-type scale asking the confederate customer to indicate overall how well the participant performed from “Very poorly” (1) to “Outstanding” (5).

## Control Variables

Because the design of this study is a quasi-experimental design as opposed to a true experimental design meaning no random assignment, the control variables, knowledge of display rules and years of customer service work experience, will be used in an effort to reduce confounding variables.

Knowledge of display rules. Service employees are usually expected to express positive emotion (Rafaeli & Sutton, 1987). The customer service agent's knowledge of these display rules is important for predicting their acting style. Thus, display rules were described to each of the participants in a one page document and measured for effectiveness as well as for use as a control variable. Grandey's (2003) scale was used to measure display rules. It contains items "This organization would say that part of the product to customers is friendly, cheerful service" and "Part of my job is to make the customer feel good" and was measured on a 5-point Likert-type scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). The internal consistency reliability for this scale was 0.78.

Customer service experience. Participants' customer service experience may affect how well they perform as well as how proficient they are at acting. Thus, customer service experience was measured in years and used as a control variable.

#### Pilot 1a and 1b

The purpose of pilot 1a was to assess the ability of the recall task to create variance in state affect. Participants in this pilot were 138 undergraduate students in management classes from a large Midwestern university's satellite campus. The pilot consisted of the event recall task in which state positive affect was induced by asking

participants to remember, relive and vividly recall a positive event that made them feel positive emotions. Next, participants were instructed to write about the experience and how it made them feel. Subjects were instructed to take five minutes for this recall task. They were then asked to repeat the process for a second positive event. State negative affect was induced by asking participants to remember, relive and recall two negative events that made them feel negative emotions. Ambivalence was elicited two different ways. In one manipulation, subjects were asked to recall, remember and relive two events that made them feel both negative emotions and positive emotions. In the other manipulation, subjects were asked to recall, remember and relive first a positive event and then, a negative event. Finally, subjects were asked to fill out a state affect survey to measure their state positive and state negative affect.

Results indicated significant differences in state positive and negative affect between those who received the positive manipulation and those that received the negative manipulation (see table 1). No significant difference was found in state positive or state negative affect between the ambivalent conditions and the positive and negative conditions. These results were as expected. In the ambivalent condition, both state positive affect and state negative affect were being elicited. Thus, the mean of state positive affect in the ambivalent conditions should not be significantly different from the mean of state positive affect in the positive condition. Along these same lines, the mean of state negative affect in the ambivalent conditions should not be significantly different from the mean of state positive affect in the negative condition.

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ENTER TABLE 1 ABOUT HERE

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The results also indicated that the mean of state negative affect was not significantly different in the ambivalent conditions and was not significantly different than the mean of state negative affect in the positive condition. Additionally, the mean of state positive affect was not significantly different in the ambivalent conditions than the mean of state positive affect in the negative condition. Finally, the mean of the state negative affect of those in the positive condition was not 1 (the lowest possible value) nor was the mean of state positive affect of those in the negative condition 1. In other words, at least some of those in the positive condition were still experiencing some state negative affect and at least some of those in the negative condition were still experiencing some state positive affect.

These results can be explained by the theory that when one individual encounters a positive stimuli, he or she may experience reciprocal activation where the stimulus has opposing effects on the two affect channels while another individual might experience uncoupled activation in which the stimulus increases activation of one channel but does not affect the other. In other words, some individuals in the positive condition were experiencing increased state positive affect due to the manipulation; however, their state negative affect was not reduced by this stimulus while other individuals were experiencing an increase in state positive affect and a decrease in state negative affect. As previously mentioned, this is the reason it is exceedingly difficult to place participants in experimental groups based on the state affect manipulation.

Because this is a relatively untested concept in the organizational behavior field, I conducted an additional pilot to further investigate this issue. Subjects in this pilot were

125 undergraduate students in management classes at a large Midwestern university. Data collection in pilot 1b was similar to 1a except that participants were asked to fill out a state affect survey (PANAS) to indicate their state positive and state negative affect when they arrived at the study (SPA1 and SNA1). Additionally, I attempted to strengthen the negative condition. Subjects participated in an event recall task in which positive, negative and ambivalent state affect was induced in the same manner as pilot 1a with the exception of only one ambivalent condition being used and the wording for the negative condition was changed from “remember, relive and recall a negative event...” to “remember, relive, and recall a negative event that has not been resolved...”. Because there weren’t significant differences between the two ambivalent conditions in pilot 1a, I used only the condition in which the participant was asked to recall a positive event and then a negative event. After completing the manipulation, subjects completed the PANAS-X to measure both state positive and negative affect again (SPA2 and SNA2)

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ENTER TABLE 2 ABOUT HERE

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Results indicated no significant differences between SPA1 and SNA1 (see table 2) for any of the conditions; however, a significant difference was found between SPA2 and SNA2 in the positive versus the negative condition. Once again, no significant difference was found between SPA2 and SNA2 in the ambivalent condition versus the positive condition or the ambivalent condition versus the negative condition. State positive affect in the negative condition was reduced (mean difference =  $-.37$ ;  $S.D. = .60$ ) and state negative affect in the positive condition was reduced (mean difference =  $-.16$ ;

*S.D.* = .30) but it was not reduced to 1. These findings were consistent with results found in pilot 1a.

## Pilot 2

The purpose of pilot 2 was to ensure the interaction with the customer dictated by the script was perceived as a negative event and to ensure that the display rules document was sufficient in establishing knowledge of the display rules expected during the interaction. Participants were 78 undergraduate students from management classes at a large Midwestern university. Participants received course points for participation in the pilot. First, participants were given written information on the performance expectations during an interaction. Then, they completed a survey asking about their knowledge of the display rules and assessing their state affect. Next, participants were played an audio recording. On the recording was the scripted negative interaction between the confederate customer and a service agent. The confederate customer was the same individual hired for this role for the actual experiment and was using the same script. After listening to the audio tape, subjects were asked to answer survey items assessing whether or not they believed the interaction constitutes a negative event.

State affect was collected in this pilot as a possible confounding variable. As mentioned in the hypothesis development above, Mood Congruence Theory suggests that individuals experience state positive affect will view an event as positive or in congruence to their own mood. Thus this variable was collected and controlled for in this pilot.

Results supported the use of both the display rule document and the actor and script. The display rules scale was measured on a scale of “1” to “5”. Higher numbers (4-5) represent understanding of the display rules of the organization and therefore, the adequacy of the document describing the display rules. The mean for this scale was 4.137 and of 78 participants, 73.1% scored 4 or higher and no one scored a 1 (15.1% scored between 1.5 and 2.5 and the remaining 12.9% scored between 3.0 and 3.5). Additionally, subjects were asked how negative and how positive (on a scale of 1 (low) to 5 (high)) they perceived the taped interaction between the customer (actor) and the customer service representative. The mean score for negative question was 4.36 while the mean score for the positive question was 1.71. Eighty-six percent of the subjects scored the interaction a 4 or a 5 for how negative it is while only 5.2% scored a one or two. Furthermore, eight-five percent scored the interaction as a 1 or 2 in regards to how positive it was (while only 3.8% scored the interaction a 4 and no one scored the interaction a five for how positive it was). State affect was not significantly related to how positively or negatively the interaction was viewed (see Table 3 for means, standard deviations and bivariate correlations).

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ENTER TABLE 3 ABOUT HERE

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Thus, the results of pilot 2 supported the use of the display rules document as sufficient in describing the display rules to participants. Additionally, the interaction script and actor were supported as highly negative and not at all positive and thus, sufficient for use in creating a negative event.



### Actor Selection

The hired confederate customer was selected based on his acting experience. This individual was a drama student at private Midwestern University with extensive acting experience. The actor auditioned and performed the role of confederate customer effectively. Furthermore, as mentioned above, Pilot 2 assessed the effectiveness of the actor in inducing a negative interaction. Because only one actor was used for each interaction with each participant, a large degree of standardization was possible from subject to subject.

### Expert Rater Selection and Training

Two expert raters were recruited based on their customer service management experience. Both raters own and operate retail establishments in which customer service is very important. Additionally, both raters have had extensive training in customer service management. I provided additional training for the expert raters to ensure understanding of what constitutes good and bad performance in this particular study.

### State Affect Variance Check with Study Data

Similar to checks run in pilots 1a and 1b, I ran an ANOVA to assess the variance in state affect resulting from the state affect variance induction. Results were similar to results found in pilots 1a and 1b. Once again, a significant difference was found between state positive affect and state negative affect in the positive versus the negative condition but no significant difference was found between state positive affect and state negative

affect in the ambivalent condition versus the positive condition or the ambivalent condition versus the negative condition.

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ENTER TABLE 4 ABOUT HERE

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### Data Analysis

Conceptually, hypotheses 1-5 and 8-11 address the difference between and congruence of state positive affect and state negative affect. Although affective ambivalence has not been measured before, difference scores have been used to measure both emotional and attitudinal ambivalence (e.g. Fong, 2006; Preister & Prestley, 1996). Unfortunately, these studies have neglected to acknowledge the problems associated with difference scores (see Edwards, 1994) and therefore the use of differences scores has not been shown to be appropriate for the construct ambivalence. In the present study, the appropriateness of using algebraic and squared difference scores was tested using Edwards' (1994) procedure.

Thus, for the algebraic difference, unconstrained linear equations were used with the control variables, state positive and state negative affect as separate predictors. For the squared difference, linear unconstrained equations were used with the control variables, both state positive, and state negative affect, their squares and their product as predictors. Next, the following criteria was assessed a) the unconstrained equation must explain a significant amount of variance in performance (in the present study, this is supported by significant variance explained by the predictors over and above what is

predicted by the control variables), b) the appropriate coefficients are significant and in the direction implied by the difference score, c) the pattern of constraints imposed by the difference score is supported, and d) the set of terms one order higher than those in the unconstrained equation do not significantly increase  $R^2$ .

Because affective ambivalence was operationalized using polynomial regression, state positive affect and state negative affect were scale centered. In polynomial regression, scale centering is recommended to reduce multicollinearity and facilitate graphical interpretation of coefficients (Edwards, 2002). Thus the scale midpoint, three, was subtracted from each participant's state positive affect and state negative affect total score. Had the data held up to criterion testing, analyses investigating hypotheses 1-3b and 5 were based on the following quadratic equation where Y represents deep acting for hypotheses 1-3b and surface acting for hypothesis 5, CWE represents years of customer service work experience, KDR represents knowledge of display rules, SPA represents state positive affect, and SNA represents state negative affect:

$$Y = b_0 + b_1 \text{CWE} + b_2 \text{KDR} + b_3 \text{SNA} + b_4 \text{SPA}^2 + b_5 \text{SPA} \times \text{SNA} + b_6 \text{SNA}^2 + e \quad [1]$$

Different aspects of this equation would have been used based on which of hypotheses above was being tested. Hypothesis 1 predicted that deep acting will increase as state positive affect levels increase towards state negative affect levels and decrease when state positive affect levels exceed state negative affect levels. This hypothesis focuses on what I termed the isolation line or the line where  $\text{SNA} = -\text{SPA}$ . The isolation line begins where SNA is high and SPA is low. As SPA increases and SNA decreases, the isolation line intersects with the ambivalent line and beyond as SPA continues to increase and SNA decreases. This hypothesis predicted that deep acting will increase

along the isolation line as it approaches the ambivalent line and decrease along the isolation line past the ambivalent line. The shape of this surface can be evaluated by substituting  $SNA = -SPA$  into equation 1. This substitution results in equation 2 below.

$$Y = b_0 + b_1 \text{CWE} + b_2 \text{KDR} + (b_3 - b_4) \text{SPA} + (b_5 - b_6 + b_7) \text{SPA}^2 + e \quad [2]$$

Hypothesis 1 predicted an inverted U shape along the isolation line, which implies a negative value for the term  $(b_5 - b_6 + b_7)$  in equation 2 above. Hypothesis 3a predicted that state positive affect will be more strongly related to deep acting than will state negative affect. This hypothesis is supported if (from equation 2)  $(b_3 - b_4)$  is positive while competing hypothesis 3b will be supported if (from equation 2)  $(b_3 - b_4) = 0$ . Finally, hypothesis 5 which predicted that surface acting will increase as state negative affect levels exceed state positive affect levels is supported if (in the equation where  $Y = \text{surface acting}$ ),  $(b_3 - b_4)$  is negative and the value for the term  $(b_5 - b_6 + b_7)$  is null. Additionally, the slope of the line  $SPA = -SNA$  where  $SNA > SPA$  should be negative.

Hypothesis 2 predicted an increase in deep acting along what I have termed the ambivalent line or the line where  $SNA = SPA$ . Thus, this hypothesis predicts that as affective ambivalence increases so will deep acting. The shape of the surface along this line is found by substituting this equation ( $SNA = SPA$ ) into equation 1 which yields equation 3 below. Hypothesis 2 predicted a positive slope but no curvature along the ambivalent line and thus is supported if  $(b_3 + b_4)$  yields a positive value and  $(b_5 + b_6 + b_7)$  yields a null value from equation 3.

$$Y = b_0 + b_1 \text{CWE} + b_2 \text{KDR} + (b_3 + b_4) \text{SPA} + (b_5 + b_6 + b_7) \text{SPA}^2 + e \quad [3]$$

Hypotheses 6 and 7 were tested using 4 different ordinary least square regression runs. Deep acting and surface acting were regressed on each of the four performance variables to determine if indeed, deep acting positively relates to performance and surface acting negatively relates to performance.

To test hypotheses 4 and 8-11, first, I ran the same procedure outlined above testing the conditions under which the use of difference scores is acceptable. Because the results (see Results below) indicated the use of polynomial regression with the outcome affect delivery, next, a variation of Edwards and Lambert's (working paper) mediation and moderation path analysis approach was used. To assess the indirect effects of state affect on affective delivery through the mediators (Hypotheses 8-11), results from the equation assessing the effects of the predictors and deep acting on affective delivery was used along with the results from equations testing hypotheses 1-3b and 5. In the mediation equations, these latter results represent the relationship between predictors and the mediators and are substituted into the equation for affective delivery (where the predictors and the mediator are regressed on affective delivery). The resulting equation is seen below [4] with P representing the affective delivery, CWE represents years of customer service work experience, KDR represents knowledge of display rules, SPA representing state positive affect and SNA representing state negative affect.

$$P = (b_1a_0 + b_0) + (b_1a_1 + b_2)CWE + (b_1a_2 + b_3)KDR + (b_1a_3 + b_4)SPA + (b_1a_4 + b_5)SNA + (b_1a_5 + b_6)SPA^2 + (b_1a_6 + b_7)SPASNA + (b_1a_7 + b_8)SNA^2 + b_1e_m + e_y \quad [4]$$

To assess the direct effect of affect on affective delivery that does not go through acting (hypothesis 4), beta coefficients from the polynomial equation where affect (SPA,

SNA, SPA<sup>2</sup>, SPASNA and SNA<sup>2</sup>) and each of the acting styles were predictors of affective delivery were used. (In other words, the b\* coefficients in equation 4 above).

Similar to the first 3 hypotheses, different aspects of this equation will provide support for hypotheses 4 and 8-11. Hypothesis 4 predicts that, in regards to direct effects as state positive affect levels exceed state negative affect levels, affective delivery will increase. This hypothesis predicts an increase along the isolation line (SPA = -SNA) and thus is supported if  $(b_4 - b_5)$  yields a positive value and  $(b_6 - b_7 + b_8)$  is null from equation 5 below where SPA=-SNA has been substituted into equation 4 above and only the coefficients representing the direct relationship are shown. These results would indicate a positive slope but no curvature along the isolation line.

$$P = b_0 + b_2 \text{CWE} + b_3 \text{KDR} + (b_4 - b_5) \text{SPA} + (b_6 - b_7 + b_8) \text{SPA}^2 + e \quad [5]$$

Hypothesis 8 predicted that performance will increase as state positive affect levels increase towards state negative affect levels and decrease when state positive affect levels exceed state negative affect levels. This hypothesis also focuses on the isolation line (SNA = -SPA); however, in this hypothesis I am testing indirect effects (the b1a\* coefficients from equation 4) rather than direct effects (the b\* coefficients as in tests of hypothesis 4).

$$P = b_1 a_0 + b_1 a_1 \text{CWE} + b_1 a_2 \text{KDR} + (b_1 a_3 - b_1 a_4) \text{SPA} + (b_1 a_5 - b_1 a_6 + b_1 a_7) \text{SPA}^2 + e \quad [6]$$

Hypothesis 8 and 11 predicted an inverted U shape along the isolation line, which implies a negative value for the term  $(b_1 a_3 - b_1 a_4 + b_1 a_5)$  in equation 6 above where SPA=-SNA has been substituted into equation 4 and only the coefficients

representing the indirect effects are shown ( $b_1 a_3^*$ ). Hypothesis 8 predicts this relationship with deep acting as the mediator while hypothesis 11 predicts this relationship with surface acting as the mediator. Hypothesis 10 predicts that state positive affect will be more strongly related to deep acting the state negative affect. This hypothesis is supported if (from equation 6)  $(b_1 a_3 - b_1 a_4)$  is positive.

Hypothesis 9 predicted that the indirect effects of state positive affect and state negative affect on performance is significant such that as state positive and state negative affect increase so will performance. Thus, it predicted that performance will increase along what I have termed the ambivalent line or the line where SNA=SPA. The shape of the surface along this line is found by substituting this equation (SNA=SPA) into equation 4 and extracting the coefficients which represent the indirect effects. This yields equation 7 below. Hypothesis 9 predicted a positive slope but no curvature along the ambivalent line and thus is supported if  $(b_1 a_3 + b_1 a_4)$  yields a positive value and  $(b_1 a_5 + b_1 a_6 + b_1 a_7)$  yields a null value from equation 7 below.

$$P = b_1 a_0 + b_1 a_1 \text{CWE} + b_1 a_2 \text{KDR} + (b_1 a_3 + b_1 a_4) \text{SPA} + (b_1 a_5 + b_1 a_6 + b_1 a_7) \text{SPA}^2 + e \quad [7]$$

The combinations of coefficients used to test the hypotheses 1-5 and 8-11 were tested for significance using bootstrapping with 1000 bootstrap samples using percentile method with bias correction (Efron & Tibshirani, 1993).

### Summary

This chapter detailed the participants, procedures, measures, data collection and data analysis procedures employed to test the proposed research model. Additionally,

methodology and results of two pilot studies were explained and presented. The following chapter presents the results of this study.



## CHAPTER IV

### RESULTS

#### Descriptive Statistics

Descriptive statistics, reliability estimates (both coefficient alpha and interrater reliability) and correlations are reported in table 5. Coefficient alpha reliability estimates ranged from 0.79 to 0.92, indicating good reliability for all the scales in the study. As recommended by Shrout and Fleiss (1979), interclass correlations (ICC) were used to assess interrater reliability for the four performance-related outcomes (affective delivery, breaking character, proactive customer help, and overall performance). Interclass correlations (3, 1) were selected because the judges used in this experiment were not from a larger population of judges but were only in this experiment (thus ICC (3) is appropriate) and because I wanted to assess the reliability of the confederate customer's ratings (thus, ICC (3, 1) is appropriate). The ICC values for all four of the performance variables were significant at the  $P < .01$  level. Although significant, the ICC for proactive customer help at 0.29 was well below the other three variables which ranged from 0.52-0.63. In the experimental setting, participants may have had little capability to go out of their way to help the customer. This may have made it difficult for the raters to rate proactive customer help and thus produced a lower ICC value.

The correlation between state positive and state negative affect was -0.19 ( $p < 0.01$ ) indicating that individuals can experience both state positive and state negative affect

simultaneously. Additionally, the lack of a high negative correlation between these two variables indicates support for the two factor structure of affect. Deep acting, affective delivery and overall performance were positively and significantly correlated with the algebraic difference score, the squared difference score and state positive affect. Breaking character (a negative performance outcome) was negatively and significantly correlated with the algebraic and squared difference scores and state positive affect. State negative affect was negatively and significantly related to deep acting and affective delivery while state positive affect was positively and significantly correlated to two positive measures of performance (affective delivery and proactive customer help) and negatively and significantly correlated to the negative measure of performance (breaking character).

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ENTER TABLE 5 ABOUT HERE

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#### Affect and Acting Hypotheses (1-3b and 5)

##### Algebraic Difference Scores

Presented in table 6 are the results for criteria testing for algebraic difference scores testing hypotheses 1-3b and 5. In step 1, control variables years of customer service work experience and knowledge of display rules were regressed on both deep acting and surface acting. Results (see table 6) indicated a positive and significant relationship between knowledge of display rules and deep acting but no relationship between years of customer service work experience and deep acting or either of the control variables and surface acting.

In regard to the criteria tests for algebraic difference scores for both surface acting and deep acting, results did not support conditions 1 and 2 in that the unconstrained equation did not explain a significant amount of variance in the outcome variables over and above the control variables as evidenced by the non-significant change in F. Regarding to the second condition, neither state positive affect nor state negative affect were significantly related to deep acting. However, with regards to both types of acting, the third and fourth conditions were supported. F-tests ( $F_c$ ) indicated no significant difference in  $R^2$  between the constrained and unconstrained equations, and the set of terms one order higher than those in the unconstrained equation did not significantly increase  $R^2$ .

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ENTER TABLE 6 ABOUT HERE

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Because these criteria were not satisfied, algebraic difference scores are not appropriate. However, as indicated by the non-significant change in the F statistic from step 1 to step 2 in the unconstrained equations, the results indicated a lack of significant variance explained in either of the dependent variables by the independent variables. Additionally, as indicated by the lack of significance in the  $F_h$  column, the higher order equations are not significant. Thus, testing the constraints imposed by the higher order equation is not necessary. Instead, the results of the tests of the algebraic difference scores indicated a lack of support for hypotheses 1-3b and 5. Although state positive affect and state negative affect (as independent factors) were significantly related to deep

acting (as indicated by significant correlations), when years of customer service work experience and knowledge of display rules were entered as controls, the relationship became non-significant.

#### Acting and Performance Hypotheses (6 and 7)

Four ordinary least squares regressions were run to test the effects of acting on the various performance indicators. Results indicated support for hypothesis 6 but no support for hypothesis 7. As can be seen in table 7, deep acting was positively and significantly related to affective delivery, proactive customer help, and overall performance and negatively related to the negative performance outcome, breaking character. Surface acting, on the other hand was not significantly related to any of the performance outcomes.

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ENTER TABLE 7 ABOUT HERE

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#### Mediation Hypotheses (4, 8-11)

The mediation hypotheses, like the state affect and acting hypotheses, incorporate congruence predictions and thus, the constraints for using difference scores must be assessed.

#### Algebraic Difference Scores

Presented in table 8 are the results for algebraic difference scores testing hypotheses 4, and 8-11. Step 1 represents the effect of the control variables on the each

of the outcomes, step 2a represents equations in which deep acting is the mediator and step 2b indicates equations in which surface acting is the mediator. In step 1, results showed a positive and significant relationship between years of customer service work experience and affective delivery, proactive customer help, and overall performance. A positive and significant relationship was also found between knowledge of display rules and affective delivery and overall performance. A negative and significant relationship was found between knowledge of display rules and breaking character.

Post hoc mediation analyses were conducted to determine the indirect and direct effects of these control variables on the outcome variables (see table 9) using Baron and Kenny's (1986) process to test mediation. Results indicated that deep acting partially mediated the relationship between knowledge of display rules and affective delivery and breaking character and fully mediated the relationship between knowledge of display rules and overall performance.

Results of criteria testing, in regard to affective delivery and breaking character, supported condition 1 when the mediator was deep acting in that the unconstrained equation did explain a significant amount of variance in the outcome variables over and above the control variables as evidenced by the significant change in F from step 1 to step 2a. However, as indicated by the non-significant change in  $R^2$  in Step 2b, the first condition was not supported when the mediator was surface acting.

The second condition was not supported when deep acting was the mediator in that neither state positive affect nor state negative affect were significantly related to affective delivery or breaking character; however, when surface acting was entered as the mediator, state positive affect was positively related to affective delivery. The third

condition was fully supported. F-tests ( $F_c$ ) indicated no significant differences in  $R^2$  between the constrained and unconstrained equations. Finally, the fourth condition was not supported for affective delivery with either deep acting or surface acting as the mediator or for breaking character with surface acting as the mediator as the set of terms one order higher than those in the unconstrained equation did significantly increase  $R^2$ . However, this condition was supported for breaking character with deep acting as the mediator as the higher order equation was not significant. In no case were all four criteria satisfied, and therefore algebraic difference scores are not appropriate.

Because the equations with surface acting as the mediator did not explain significant additional variance over the control variables, further analysis was not needed. These results supported the conclusion that the indirect effects of affect on performance through surface acting were not significant. Furthermore, the direct effects of affect on performance when accounting for surface acting were not significant. Thus, hypothesis 11 was not supported. Additionally, in the equation in which breaking character was the dependent variable and deep acting was the mediator, results did not support the usage of algebraic differences scores because the predictors were not significant (criteria 2) and did not support the usage of a higher order equation because the higher order equation was not significant. In regard to the outcome affective delivery with the mediator deep acting, because the tests of the higher order terms were significant, results indicated a curvilinear relationship and thus, constraints imposed by the higher order model were investigated (see Squared Difference Scores below).

In regard to proactive customer help, results did not support condition 1 in that the unconstrained equation did not explain a significant amount of variance in the proactive

customer help over and above the control variables as evidenced by the non-significant change in F in both Step 2a and Step 2b. The second condition was also not supported with either mediator as neither state positive affect nor state negative affect was significantly related to proactive customer help. The third condition was fully supported. F-tests ( $F_c$ ) indicated no significant difference in  $R^2$  between the constrained and unconstrained equations. Finally, the fourth condition was supported as the set of terms one order higher than those in the unconstrained equation did not significantly increase  $R^2$ .

In regard to overall performance, results supported condition 1 in that the unconstrained equation did explain a significant amount of variance in overall performance. The second condition was partially supported in that state positive affect was positive and significantly related to overall performance but state negative affect was not significantly related to performance. The third condition was fully supported. F-tests ( $F_d$ ) indicated no significant difference in  $R^2$  between the constrained and unconstrained equations. Finally, the fourth condition was supported as the set of terms one order higher than those in the unconstrained equation did not significantly increase  $R^2$ .

Results for proactive customer help and overall performance did not support the use of algebraic difference scores (the constrained equation in table 8); as the predictors did not explain a significant amount of variance in proactive customer support (criterion 1); both predictors were not significant in relation to overall performance (criterion 2). Furthermore, these relationships did not warrant additional investigation with higher order terms as the higher order equations for both proactive customer help and overall performance were not significant.

Additionally, as can be seen in the unconstrained equation results in table 8, results also indicated that when state positive affect and state negative affect were not investigated as simultaneous influences but independent influences, state positive affect was positively and significantly related to overall performance (both when surface acting is a mediator and when deep acting is a mediator) when controlling for years of customer service work experience and knowledge of display rules.

In sum, the equation in which deep acting was the mediator and affective delivery was the outcome was the only equation that merited further investigation. Because the tests of the higher order terms were significant, results indicated a curvilinear relationship and thus, the constraints imposed by the higher order model were investigated. The remaining equations either did not explain a significant portion of variance in the outcome over that explained by the control variables and/or did not result in significant higher order equations.

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ENTER TABLES 8 & 9 ABOUT HERE

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#### Squared Difference Scores

Edwards' (1994) four conditions were tested with the mediator deep acting and the outcome affective delivery for the constraints associated with squared difference scores (see table 10). Condition 1 was supported in that the unconstrained equation explained a significant amount of variance in affective delivery over and above the control variables as evidenced by the significant change in F. Condition 2 was not



supported. Although both state positive affect and state negative affect were significantly related to affective delivery, in order to support condition 2, state positive affect would have to be positively related instead of negatively related. Condition 3 was also not supported as indicated by the significant change in  $R^2$  between the constrained and unconstrained equations. Finally, the fourth condition was supported as the set of terms one order higher than those in the unconstrained equation did not significantly increase  $R^2$ .

In sum, the four conditions supporting the use of squared difference scores were not met. Instead these findings indicate a curvilinear relationship between affect and deep acting and affective delivery and thus, polynomial regression and response surface modeling were used to assess these relationships.

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ENTER TABLE 10 ABOUT HERE

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### Polynomial Regression

Coefficients representing the direct effects of affect on affective delivery can be found in table 10 and the combination of coefficients pertaining to hypothesis 4 can be found in table 11. A graph of the response surface model representing these values is presented in figure 12. Hypothesis 4 predicted with regard to direct effects, (when the mediator deep acting is entered into the equation), as state positive affect levels exceed state negative affect levels performance will increase and thus was supported if  $(b_4 - b_5)$  yields a positive value and  $(b_6 - b_7 + b_8)$  is null. This hypothesis was not

supported. Although,  $(b_6 - b_7 + b_8)$  is null and  $(b_4 - b_5)$  is positive, the latter value was not significant indicating a lack of support for hypothesis 4.

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ENTER TABLE 11 ABOUT HERE

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ENTER FIGURE 12 ABOUT HERE

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Although not hypothesized, these direct effects coefficients also indicated a significant and negative value for  $(b_4 + b_5)$  and a significant and negative value for  $(b_6 + b_7 + b_8)$ . These values and the response surface model indicated an inverse U- shape along the ambivalent line. Thus, as levels of both state positive and state negative affect increased toward the isolation line, the performance outcome affective delivery increased; however as levels of affect continued to increase along the ambivalent line (past the isolation line), the performance indicator affective delivery decreased. Additionally, these values indicated that high levels of affective ambivalence had a more negative effect on affective delivery than did low levels of affective ambivalence.

Finally, as the surface model indicates, although, there are not significant differences between the effect of state negative affect experienced in isolation and state positive affect experienced in isolation; the highest scores for affective delivery were given to individuals experiencing high levels of state positive affect and low levels of state negative affect. Individuals experiencing a moderate amount of state negative affect

and little to no state positive affect were given the second highest scores for affective delivery and those experiencing little of both types of affect were a close third.

The coefficients representing the indirect effects of affect on affective delivery through deep acting are found in table 12 and the combination of coefficients pertaining to hypothesis 8-10 are found in table 13. A graph of the response surface model representing these values is presented in figure 13. Hypothesis 8 would be supported by a negative value for the term  $(b_1 a_3 - b_1 a_4 + b_1 a_5)$  in equation 6. This hypothesis was not supported. The value of the term  $(b_1 a_3 - b_1 a_4 + b_1 a_5)$  was not negative or significant, indicating a lack of support for hypothesis 8.

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ENTER TABLE 12 & 13 ABOUT HERE

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ENTER FIGURE 13 ABOUT HERE

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Hypothesis 9 predicted a positive slope but no curvature along the ambivalent line and thus is supported if  $(b_1 a_3 + b_1 a_4)$  yields a positive value and  $(b_1 a_5 + b_1 a_6 + b_1 a_7)$  yields a null value from equation 7. This hypothesis was not supported. Although  $(b_1 a_5 + b_1 a_6 + b_1 a_7)$  is null,  $(b_1 a_3 + b_1 a_4)$  was not positive or significant indicating a lack of support for hypothesis 9.

Hypothesis 10 predicted that state positive affect will be more strongly related to deep acting the state negative affect. This hypothesis is supported if (from equation 6)

$(b_1 a_3 - b_1 a_4)$  yields a positive value. Once again, this hypothesis was not supported.

Finally, as mentioned above, hypothesis 11 was also not supported. The equations assessing the indirect effects of affect on performance through surface acting did not yield significant additional variance explained over and above that explained by the control variables.

In sum, only hypothesis 6 was supported by the data (see table 14 for summary of hypotheses and results). Despite this lack of support of specific hypotheses, significant relationships were found in relation to affective ambivalence and affective delivery. Specifically, as affect increased along the ambivalent line as the ambivalent line approached the isolation line, affective delivery increases. As both state positive and state negative affect continue to increase, affective delivery decreased. Additionally, the decrease in affective delivery was more strongly related to high affective ambivalence than low affective ambivalence.

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ENTER FIGURE 14 ABOUT HERE

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## CHAPTER V

### CONCLUSIONS AND IMPLICATIONS

The purpose of this chapter is to interpret the results of the data analysis and to draw conclusions concerning the findings from a theoretical and practical perspective. Implications for management practice are also presented, followed by a discussion of the limitations of this study and suggestions for future research on affect and emotional labor.

#### Discussion

This research investigated the links among state affect, acting styles and customer service performance. Previous literature has supported a relationship between acting style and customer service performance as well as a link between state affect and performance. Previous literature has not, however, identified antecedents to acting style, nor has previous literature investigated the link between affective ambivalence and emotional labor or performance outcomes. Consistent with previous research, this study found a significant relationship between deep acting and customer service performance. Furthermore, although, additional antecedents to acting style were not found and thus, *indirect* relationships were not significant, significant and *direct* relationships were found between state affect and affective delivery (one measure of customer service performance).

Consistent with Grandey's (2003) findings, knowledge of display rules was positively related to deep acting but not to surface acting. These findings indicated that if

a customer service representative is aware of what emotional displays are expected of him or her by the organization, they are more likely to use the more successful acting strategy. Recall that deep acting has been equated to antecedent-focused emotion regulation in that people either use attentional deployment in which they think of an event that calls up the emotion that they are required to display or they use cognitive change in which they perceive the situation so that the emotional impact is lessened (Grandey, 2003). Surface acting, on the other hand, has been equated to response-focused emotional regulation, which is faking one's emotions (Grandey, 2003). Knowledge of display rules may be more closely related to deep acting because when an individual is aware of what emotions they should display, he or she may be more prepared to display that emotion going into the customer service interaction, and therefore employ antecedent-focused emotional regulation rather than response-focused emotional regulation.

Past research has not examined the relationship between customer service work experience and acting style. In this study, years of customer service work experience was not related to either form of acting. Because antecedents to acting style have not yet been identified, including customer service experience as a possible antecedent was important from a control perspective. The argument could be made that acting style is a learned behavior acquired through previous successful experiences. The lack of a relationship found in this research, however, suggests that acting is *not* a behavior acquired simply through experience and provides some support for the notion that, despite the benefits of deep acting, customer service representatives have not been taught to act during their experiences in customer service work environments.

Positive and negative state affect, assessed as independent factors and assessed as having a simultaneous influence, prior to a negative customer service interaction did not affect the acting style used during the interaction. Perhaps acting style is acquired through training rather than arising naturally from the individual's mood state. Individuals who did act may have been taught to act through courses, books or advice designed to highlight the power of positive thinking (e.g., Seligman's (1990) "Learned Optimism"). Even when experiencing an affective state that is beneficial to performance, individuals who were never taught to act may not understand how they can manage their emotions in dealing with angry or challenging customers.

Deep acting was related to all of the performance measures in the expected direction (positively to the three positive performance measures and negatively to the negative performance measure) whereas surface acting was not related to affective delivery, proactive customer help or breaking character. Surface acting was positively related to overall performance, although not as strongly related as deep acting. These results support previous findings (Grandey, 2003; Totterdell & Holman, 2003) in that deep acting is more closely related to performance than surface acting and has thus, been considered the more effective acting style. Surface acting may be related only to overall performance because although individuals employing surface acting may not have consistently excelled in the other measures of performance, their attempt to display the appropriate emotions was seen as positive by customers. In other words, although their emotions were not believed to be genuine (as indicated by the lack of relationship with affective delivery), their attempts to display the right emotions was acknowledged by the

customer and thus, the customer rated the customer service representatives using surface acting higher in overall performance than those employing no acting.

Years of customer service work experience was related positively to all of the positive performance outcomes while knowledge of display rules was related to all but one of the performance outcomes (proactive customer help). These results suggest that experience in customer service increases one's ability to present genuine affective displays, to refrain from displaying negative emotions, to go out of their way to help the customer and to perform better in general. Knowing what emotions are expected during the customer service interaction will also increase one's ability to display perceived genuine emotion, to refrain from displaying a negative emotion and to perform better overall. However, knowing what emotion is expected does not help the customer service representative go out of his or her way to help the customer. This is presumably because simply knowing the emotion to display does not give them any indication of how they can go out of their way to help the customer. Previous experience (as found in this study) and perhaps targeted training may be better predictors of this outcome. Interestingly, years of customer service experience relates to customer service performance but is not related to deep acting. These results prompted the post hoc mediation analysis discussed below.

The exploratory post hoc mediation analysis revealed that customer service work experience resulted in higher performance, but not because individuals were deep acting. In other words, more experience at this type of job did not predispose individuals to deep act, but experience did lead to better performance. Knowledge of display rules also increased customer service performance but at least partially because this knowledge



results in deep acting and deep acting is in turn related to customer service performance. Thus, individuals who are more experienced are not more likely to act; however they do perform better. One possible explanation for this is the more experienced customer service representatives, although not more likely to act, were more skilled at controlling the *customer's* emotions and thus, positively affected the customer's ratings of these individuals while individuals who were aware of the display rules were more likely to deep act and that deep acting resulted in their displaying the affect perceived as genuine, refraining from displaying inappropriate emotions and generally performing better. This implies that organizations should be very explicit in their expectations of their customer service representatives so that they will be able to regulate their emotions better as well as perform better.

Although, affect did not *indirectly* relate to any of the performance outcomes through deep acting or surface acting, affect was *directly* related to affective delivery. Results indicated that individuals experiencing high state positive affect with low state negative affect were reported as having the most genuine affective displays, individuals with medium levels state negative affect and low levels of state positive affect were reported as having the second most genuine affective displays, and finally individuals experiencing little affect in general were reported as having the next most genuine affective displays. It is important to note that although, the response surface model indicated this rank order, the differences in affective delivery between individuals experiencing high state positive affect with low state negative affect, those experiencing high state negative and low state positive affect and those experiencing low levels of both were not significant. However, individuals experiencing high levels of both state positive

and state negative affect did experience significant detriments in how genuine their affective displays were perceived. Thus, state positive affect is beneficial when experienced in isolation; however when experienced simultaneously with state negative affect, aspects of customer service performance may suffer.

These results both support and refute the theory developed in this study. Previous research has investigated state positive affect and state negative affect as independent factors rather than simultaneous influences. In general, these studies have supported the notion that state positive affect is positively related to performance while the relationship between state negative affect and performance has been less consistent. Recall that in a recent article assessing over 220 studies, 293 samples comprising 275,000 participants, Lyubomirsky and colleagues (2005) found that state positive affect is consistently related to performance related outcomes in cross-sectional research, longitudinal research, experimental research and field research. Additionally, recall that some studies have found a negative relationship between state negative affect and performance (e.g., Wright, Cropanzano, & Meyer, 2004) and some studies have found a positive relationship between state negative affect and performance (George & Zhou, 2002; Hirt, Levine, McDonald, Melton & Martin, 1997). However, in none of these studies was state positive affect and state negative affect investigated as simultaneous influence despite the physiological evidence indicating that this is the case (Cacioppo & Gardner, 1999).

One of the central theses of the present study is that these two variables should be assessed as simultaneous influences because the two separate channels in the brain responsible for these states operate simultaneously. From an empirical perspective, this means that the relationship between affect and various outcome variables may be

curvilinear such that when individuals experience high levels of both types of affect, the outcomes may be different than when they experience high levels of just one type of affect.

Results of the study strongly supported this thesis. The effect of state positive affect experienced in isolation on affective delivery was not significantly different from the effect of state negative affect experienced in isolation on affective delivery. However, when individuals experienced high levels of both state positive affect and state negative affect, affective delivery was diminished. Affective ambivalence had a negative effect on the performance outcome affective delivery. This latter finding runs counter to the theories discussed in this study but there are plausible theoretical explanations for the results.

First, for the highly affectively ambivalent person, the intensity and variety of affect experienced may create a situation in which the individual is allocating the majority of his or her resources to rectifying the affect discrepancy; therefore, the individual does not have enough leftover resources to perform well. Some physiological evidence exists to support this point. Recall that the anterior cingulate cortex (ACC) is thought to be critical for assessing the presence of conflicts between the current functioning states of the organism (Davidson, Pizzagalli, Nitschke, & Putnam, 2002). In an individual who is experiencing state positive affect and state negative affect, the affective subdivision of the ACC will activate in response to and in an effort to process this conflict. The affective subdivision will then activate the cognitive subdivision to focus attention to the conflict. Additionally, neuroscientists believe that despite the unipolar activation of affect from a physiological perspective, humans possess a bipolar

evaluative dimension (c.f. Lang, Bradley, & Cuthbert, 1990) because of bipolar constraints on behavioral manifestations of these affective states. Thus, when individuals are experiencing high levels of both state positive and state negative affect, they are focusing their resources on resolving this conflict which is very difficult for them to understand due to their natural inclination for bipolar representations. Thus, the task at hand suffers. Furthermore, this may be particularly true for tasks involving displays of appropriate emotion. Individuals' affective systems are already firing and thus, performing well on a task that requires appropriate emotions may be particularly difficult.

Additionally, according to the mood-as-input model, individuals use their own moods as guides for assessing situations (Martin, Ward, Achee, & Wyer, 1993). Individuals who are experiencing both state positive and state negative affect may not assess situations accurately. As mentioned previously, neuroscience research acknowledges that individuals conceptually organize affect and emotion in a bipolar manner (c.f. Lang et al., 1990). Individuals who are experiencing both state positive and state negative affect and who are attempting to use this information to provide clues as to how to assess their environment may become confused.

As a result, ambivalent individuals may not make accurate assessments when diagnosing the problem and selecting the appropriate goal-directed strategy. Ambivalent individuals may not go so far as to yell at the customer (break character), and their ambivalence may not affect the steps they go to in order to help the customer (proactive customer help), so ambivalence may not affect their overall performance. The unclear and inaccurate assessment they make, however, may diminish their ability to determine the appropriate affective tone to take with the customer and thus, their affective delivery

is not perceived as genuine. Because affective displays have been shown to relate to important customer outcomes such as intention to return, intention to recommend a store to others and overall perception of service quality (e.g. Parasuraman, Zeithaml, & Berry, 1985; Pugh 2001; Tsai, 2001), this inability can have serious outcomes for the customer service representative and his or her organization.

All of these results, taken together, support a variety of conclusions. First, deep acting is the most effective type of acting as it relates to customer service performance. Second, acting style is not affected by the individual's affective state preceding the interaction, nor is it affected by the individual's experience in customer service work. Knowing what the organization expects in terms of appropriate displays of emotion leads individuals to deep act, and may indicate that direct training is the key to improving customer service performance. Third, interestingly, an individual's mood preceding a negative customer service interaction did affect the performance of the individual. However, contrary to what was hypothesized, the greater levels of state positive and state negative affect experienced by an individual, the worse they performed. These findings imply that organizations need to outline clear expectations of what emotional display is expected of the employee as well as encourage and train employees to deep act. Finally, high levels of state positive and state negative affect may have detrimental effects on an individual's ability to display the appropriate emotion, thus, organizations should try to reduce ambivalence in these individuals.

#### Theoretical and Practical Contributions

Several theoretical contributions were made by this work. First, although knowledge of display rules was the only significant antecedent to acting style observed, subjects did act, and acting did affect their performance. This finding indicates that theories such as affective events theory (Weiss & Cropanzano, 1996) need to consider suppression and reassessment in models assessing affect and behavior linkages. If individuals can change the way they feel before they act, work events that cause negative (or positive) emotions may not actually influence behavioral outcomes as this model stipulates. Second, this research provided additional support for the proposition that state positive and state negative affect are two independent factors (e.g. Watson & Tellegen, 1985). Evidence indicated that both of these states can be activated within an individual simultaneously. Third, some previous research on state negative affect has found negative relationships between state negative affect and performance (Wright, Cropanzano, & Meyer, 2004) while other research has found no relationship or a positive relationship between state negative affect and performance (e.g., George & Zhou, 2002; Hirt, Levine, McDonald, Melton & Martin, 1997). These conflicting findings may be, in part, explained by the simultaneous influences of state positive affect with state negative affect. In these previous studies, state positive affect was not assessed in conjunction with state negative affect and thus, results from previous studies may not paint a complete picture.

Fourth, and importantly, this research supported the theory developed herein that state positive and state negative affect should be assessed simultaneously. When these variables were assessed independently, results indicated that state positive affect was positively related to affective delivery and state negative affect was not related to

affective delivery. This means that theories such as the broaden and build model of positive emotions that address the effects of positive affect and emotions in isolation need to be expanded to include negative emotions and affect. Broaden and build theory discusses the negative effects of state negative affect and emotions in that they narrow one's thought-action repertoire and the positive effects of state positive affect and emotions in that they broaden the one's scope (Frederickson, 1988). However, state positive and state negative affect and emotions can be experienced simultaneously and each type have evolutionary significance, having advantages and disadvantages. Furthermore, this study shows differences in affective delivery for different levels of both type of affect. Such differences would go unnoticed if both types of affect are assessed independently (as the correlations in the present study indicate).

From a practical perspective, previous studies suggest to managers that increasing state positive affect is beneficial in terms of performance (see Lyubomirsky et al, 2005 for review). However, when the effects of state positive and state negative affect were examined together, results indicated that although high levels of state positive affect led to the highest scores in affective delivery, this was only when high levels of state positive affect were experienced in isolation or without state negative affect. When high levels of state negative affect were experienced with high levels of state positive affect the lowest scores on affective delivery were recorded. These results imply that individuals may experience the benefits of state positive affect only when state negative affect is not present.

If a manager accepted the notion that state positive affect is always beneficial because it is related to performance, he or she might continually try to manipulate state

positive affect in his or her employees. However, if state negative affect is also present, these attempts by the manager could have detrimental effects. Instead, a manager's best option may be to develop techniques that increase state positive affect and decrease state negative affect simultaneously. To do so, a manager may need to reduce the negative events in an individual's day and infuse their work experiences with positivity (see Dasborough, 2006 for techniques). Alternatively, a manager could develop techniques to reduce both as low levels of both exhibited the third highest scores on affective delivery. Meditation or relaxation training may help in this aim (Davidson, et al., 1986)

Additionally, this research suggests that managers should ensure that their customer service representatives are thoroughly aware of the display rules of the organization. In doing so, they encourage deep acting which should improve customer service performance. Previous customer service experience should also be sought out as individuals with more experience performed better even though it did not result in more deep acting.

#### Limitations and Future Research

The primary limitation of this study is the quasi-experimental design. Participants were not actually at work but were involved in a simulated experience in which affect and behavior may have been different than in an actual work environment. However, participants were told that the bonus points they received for their class were related to how well they performed the tasks asked of them. The purpose of this instruction was to emulate a work environment in which performance would be evaluated and results would have some significance to them.



Additionally, as with all experimental designs, generalizability may be in question. However, the average years of customer service experience in the sample was 6.22 indicating the sample did pull from the larger customer service population. Furthermore, this design allowed for more control particularly in relation to causality, allowing me to isolate state affect before the interaction and ensure sufficient variance. Future research should investigate these relationships in a field study.

Another limitation of this study is its potential for common method variance because the predictors and the mediators were rated by the participant (Podsakoff & Organ, 1986). The outcomes, however, were other-rated, helping to minimize the liability of common method variance. In addition, this particular limitation appears inconsequential in terms of the results as no significant relationships were found between state affect and acting style.

Future research should continue to search for antecedents of acting style. Previous research has investigated personality factors as well as organizational factors without much success (Totterdell & Holman, 2003). However, additional individual and organizational influences may exist and should be pursued. In the current study, knowledge of display rules was the only significant predictor of acting style; however, this finding coupled with other findings in this study may point to deep acting training as a solution for organizations seeking to improve customer service performance. Future research should investigate the effectiveness of deep acting interventions for customer service representatives and other jobs that require specific emotional displays. Customer service agents are typically expected to be positive but studies should investigate the effects of affect and deep acting on performance when the appropriate emotion is not

happiness and positivity. For instance, some jobs require employees to display negative emotions (collection agents) or empathetic emotions (nurses) and thus should be investigated rather than simply happiness and helpfulness.

Furthermore, future research should investigate the effects of the simultaneous influences of state positive and state negative affect and a variety of different performance variables. Affect may relate quite differently to contextual performance or objective measures of performance. Because of the great variety of types of performance and the different types of emotional and cognitive resources necessary for these types of performance, affect may have quite different effects which should be investigated.

### Conclusion

In conclusion, this study investigated the links among affect, acting style, and performance. Studying the simultaneous effects of state positive and state negative affect on outcome variables can provide a more accurate understanding of how these two variables influence job related outcomes. As can be seen in this study, when state positive and state negative affect are assessed independently the results indicate a positive relationship; however, when these variables are assessed together, a different relationship emerges. Because physiology indicates that these two channels operate simultaneously, evaluating positive and negative affect as simultaneous influences is a necessary step before advocating particular management techniques involving manipulating state affect. The present research shed some light on these relationships; however, more work is necessary to adequately understand the effects of the simultaneous influence of state

positive and state negative affect on variables like acting and performance and to understand how to reap the benefits of deep acting.

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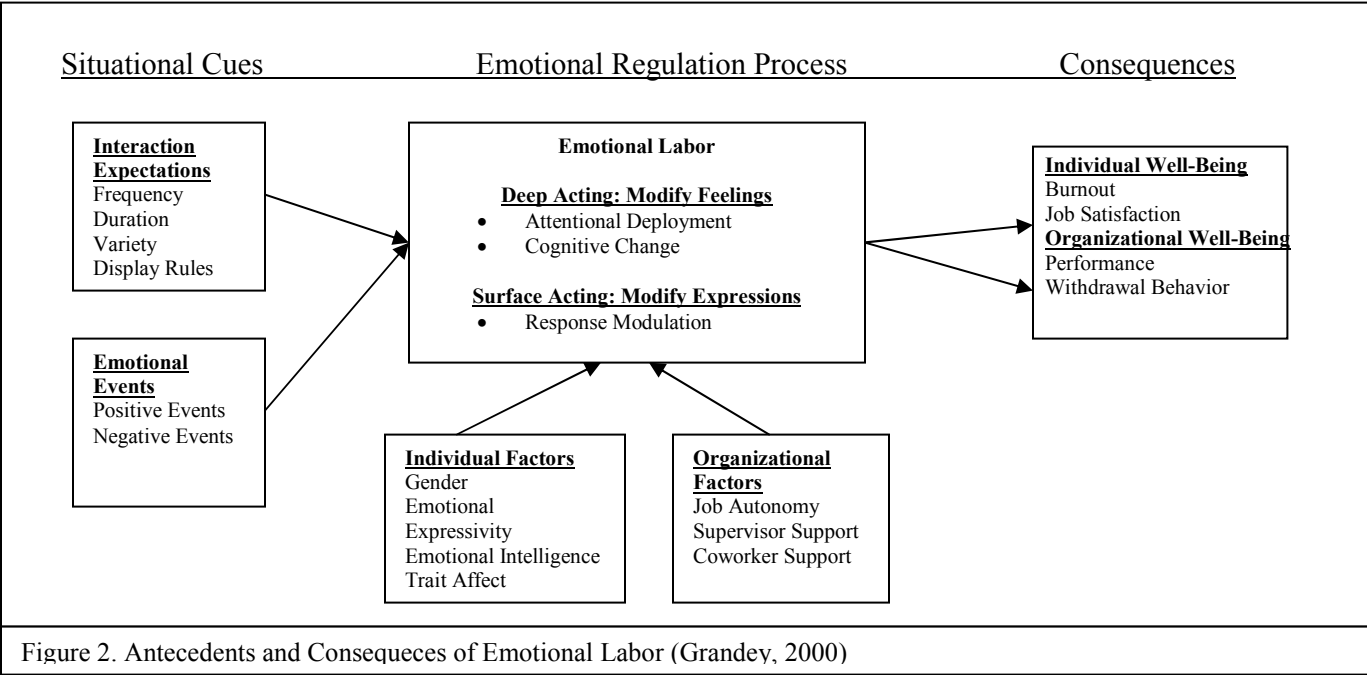
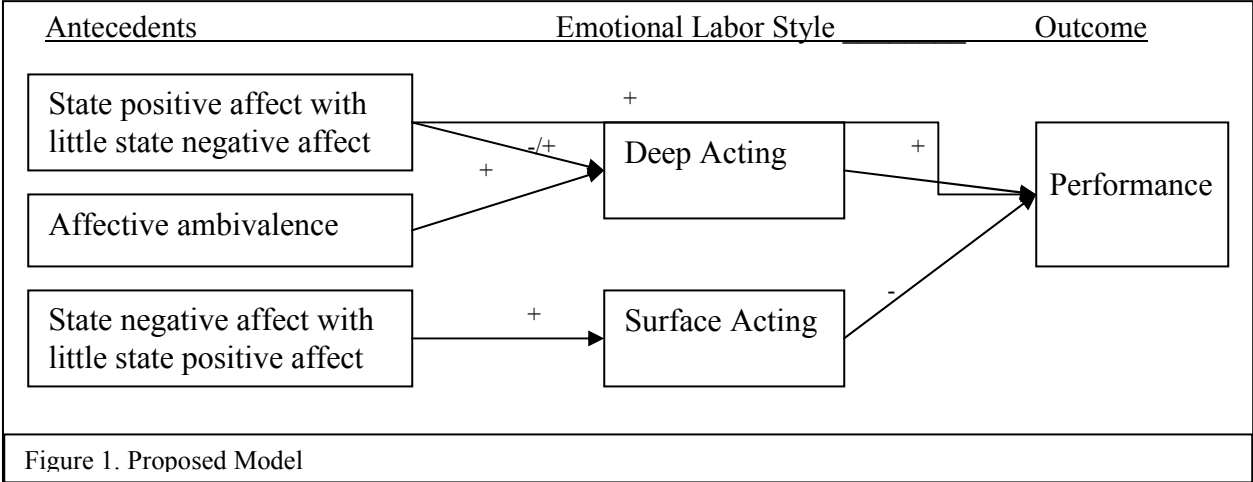
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APPENDIX A – FIGURES



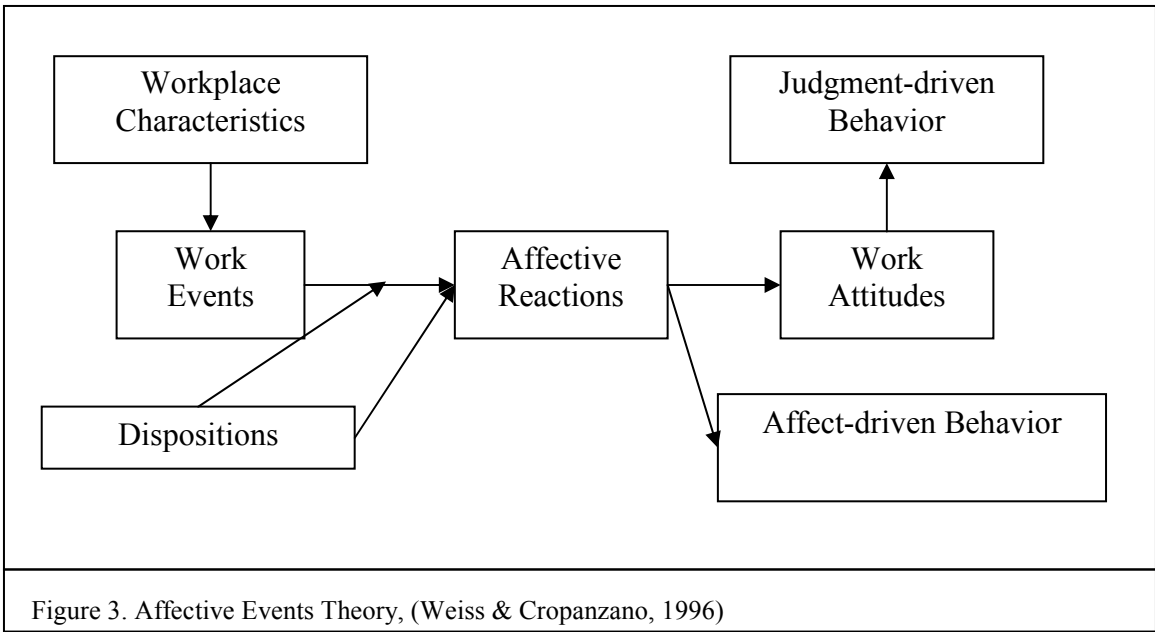


Figure 3. Affective Events Theory, (Weiss & Cropanzano, 1996)



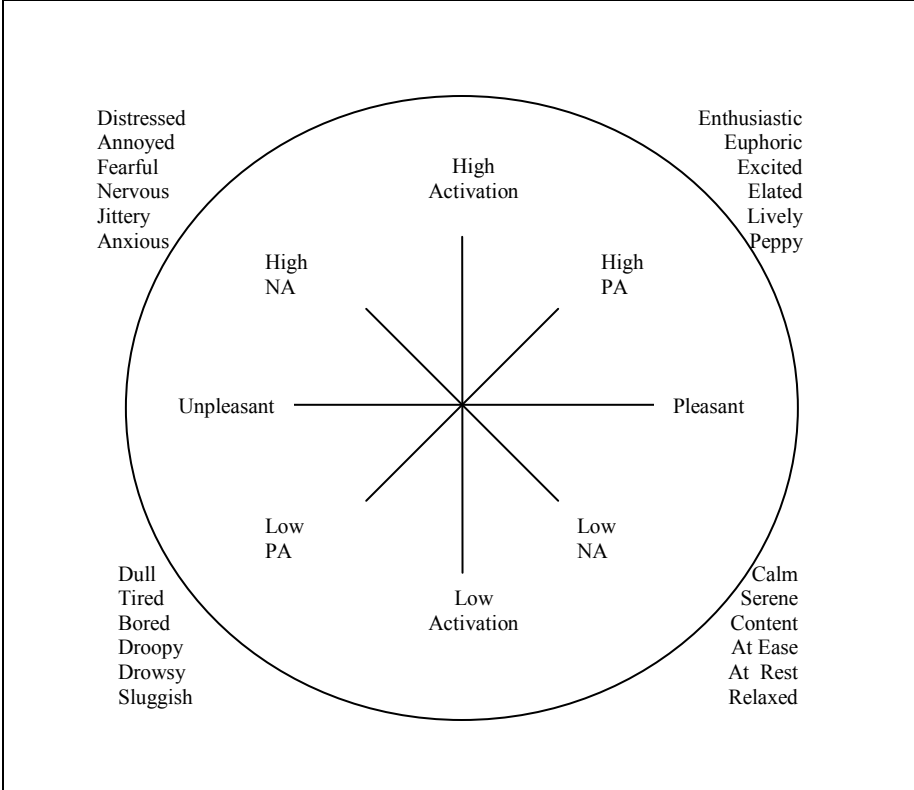


Figure 4. Affective Circumplex (Watson & Tellegen, 1985)

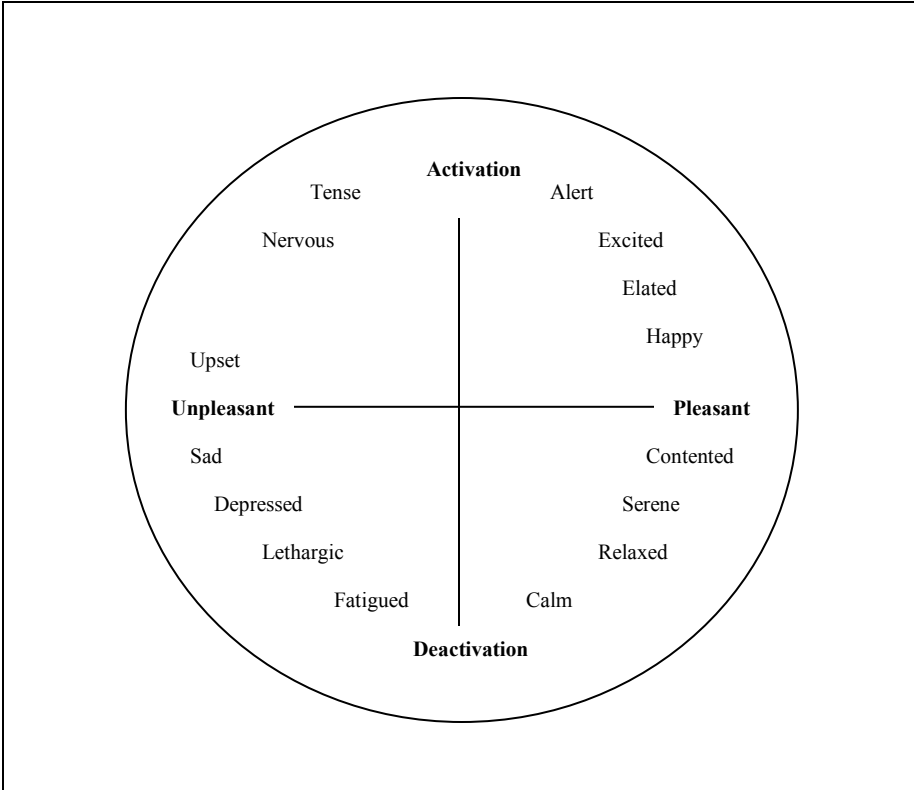
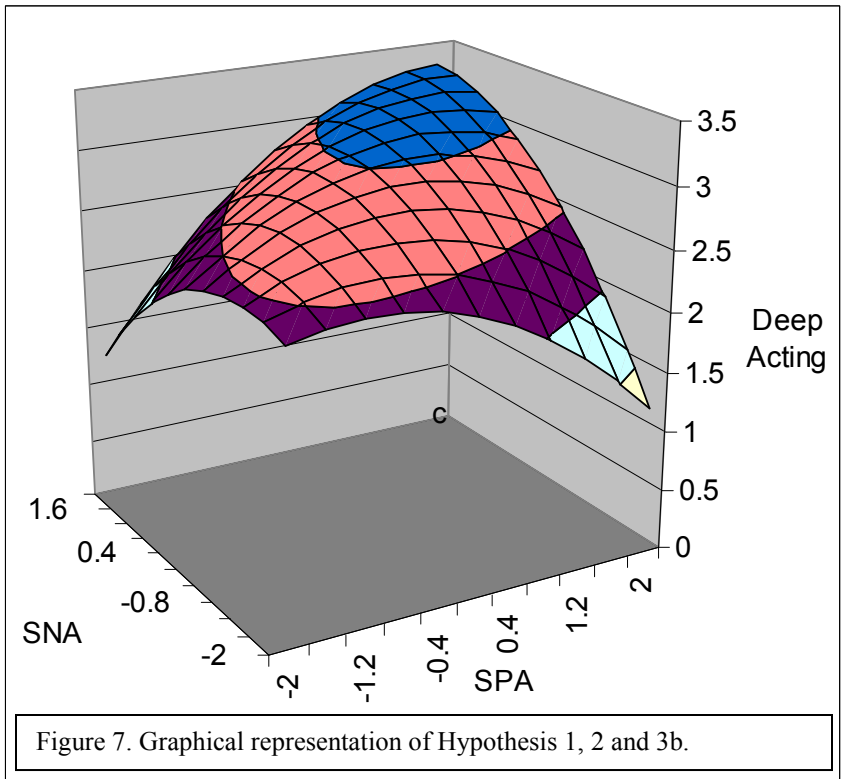
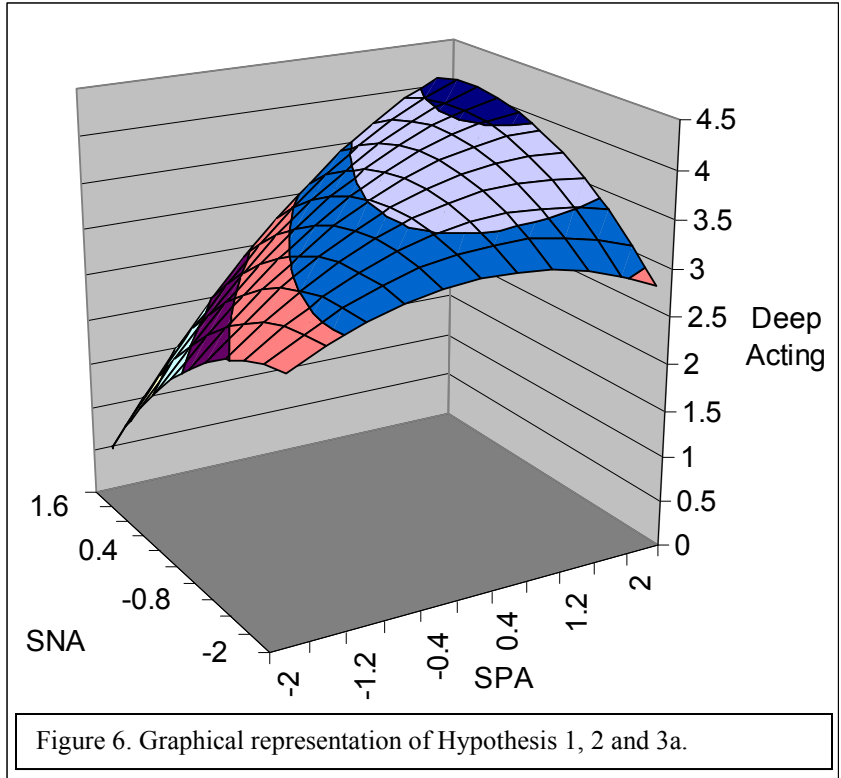


Figure 5. Affective Circumplex (Russell & Feldman Barrett, 1999)



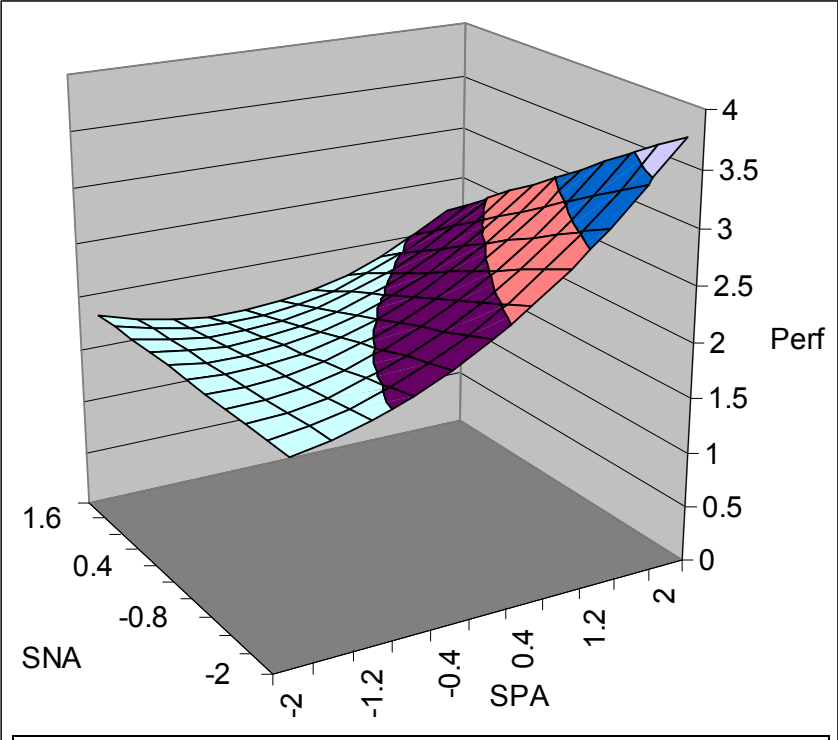


Figure 8. Graphical representation of Hypothesis 4 (Direct Effects)

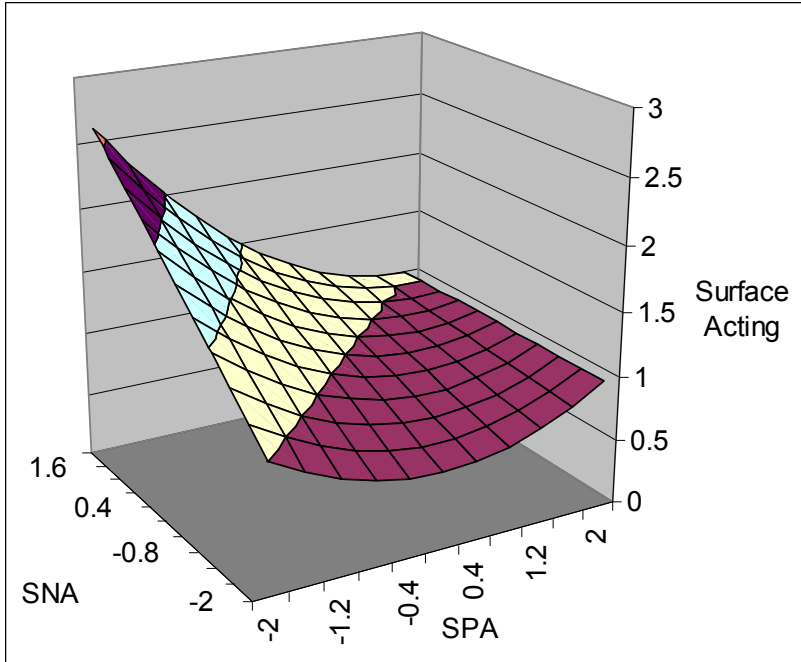
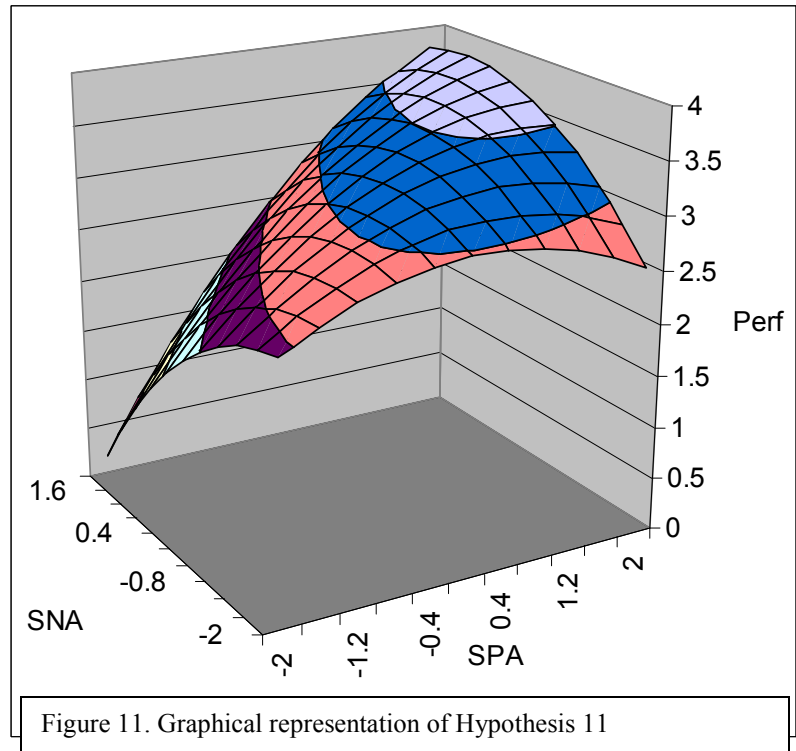
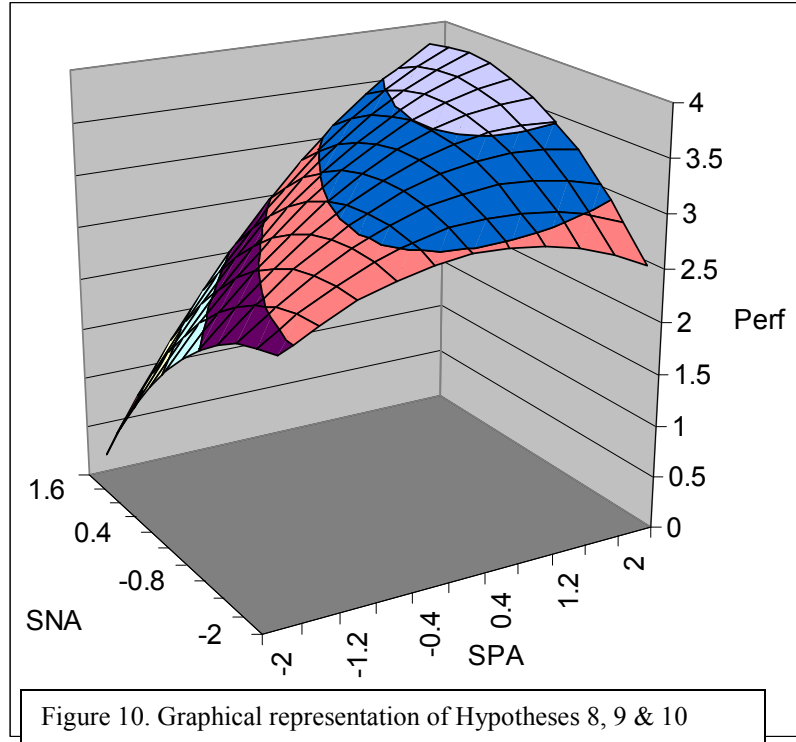
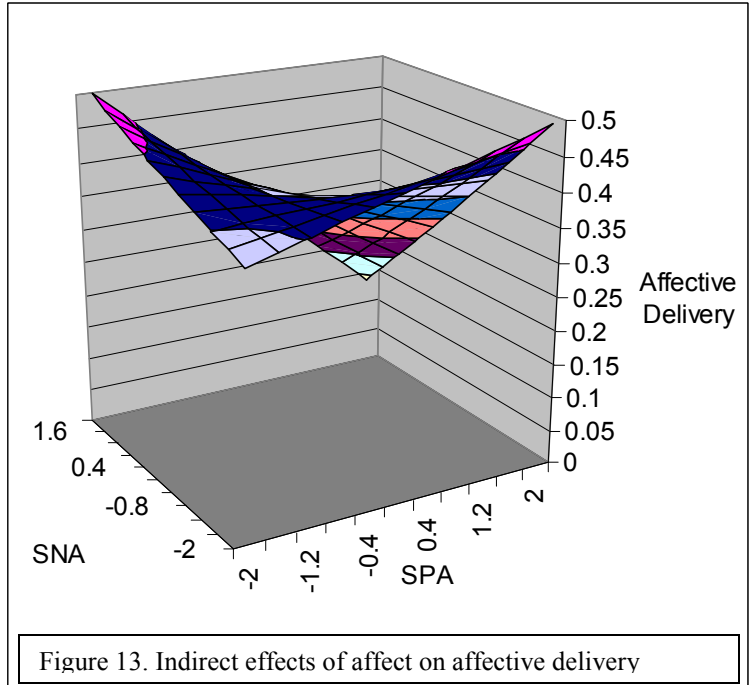
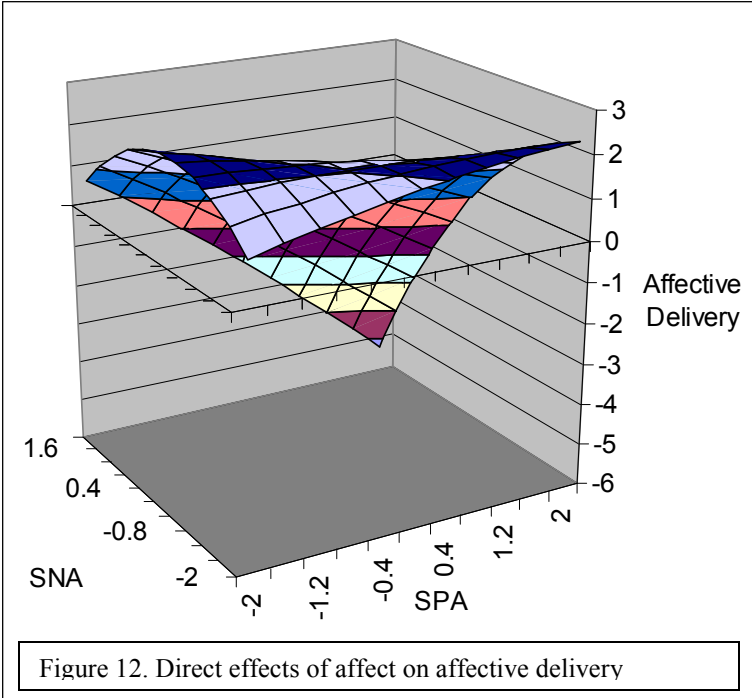


Figure 9. Graphical representation of Hypothesis 5





## APPENDIX B – SCRIPT AND SURVEYS

### Script

Customer: You are angry with lots of complaints. You bought a television cabinet on the internet that you must put together yourself. You can't figure out the instructions. You lost the receipt and destroyed the original package. You refuse exchanges or help in assembly. You just want to vent. You are very stressed.

- Customer calls the customer service representative [ready to explode]:

“I've been waiting on hold for 40 minutes. What is going on? Are you just not answering your phone?”

- Rep: Responds

- Customer:

“Oh you actually want to help me? I need to return a television cabinet that I bought from your company.”

- Rep: Responds (should ask the reason for the return) –

- Customer [interrupts]:

“I'm sending it back today and getting my money back, no matter what! I don't know what the deal with your company is. This is the worst piece of furniture I've ever bought! You won't believe how much time I wasted on this. The thing is IMPOSSIBLE to assemble. So how are you going to get my money back?”

- Rep: Responds

- Customer [explain where your frustration came from]

“Well, I can't pay for this! I got fired from my job. I don't know what I'm going to do for money. I don't have much savings, and now I bought this piece of junk that I can't even assemble! I've wasted enough time on this piece of crap already. All I need is an inexpensive, piece of easy-to-assemble furniture that will last a long time. Is that too much to ask?”

- Rep: Responds (should offer exchange or to connect to someone to help assemble)

- Customer [interrupts]:

“So are you going to help me return this thing or what?”

- Rep: Responds

- Customer [refuses all the help]:

“NO! What's wrong with you? Don't you listen? I don't want any of those exchanges or help from you. I'm broke. What am I supposed to do when my credit card bill comes in. Are YOU going to pay my bills?”

- Rep: Responds

- Customer [interrupts]:

“I can’t believe I have wasted another five minutes talking to you and you still haven’t processed my return. You are useless.”

- Rep: Responds (should ask about receipt)
- Customer [frustrated]:

“I don’t have the stupid receipt. I threw it out. I didn’t expect that the product would have any problems. Was I supposed to remember to hold onto the receipt? NO one told me that. Why is it so difficult just to return it like this? “

- Rep: Responds (should talk about policy)
- Customer [persisting]:

“I’m not hanging up until you give my money back! This is ridiculous. Why is this so hard? Why is there a rule that customers have to have the receipt?”

- Rep: Responds
- Customer [persisting]:

“I can’t understand why this is so difficult. I bought this crap from you and now I am trying to return it. Other stores take back stuff not even theirs! No questions asked! I am never buying anything again from your company and also telling my friends never to buy anything from you. Obviously, I am not getting anywhere with you. This is ridiculous.”

Hangs up the phone.





**SECTION C.** This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. **Indicate to what extent you feel this way right now.** Use the following scale to record your answers:

1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
-------------------------------------	---------------	-----------------	------------------	----------------

- |  |                                 |                                  |  |
|--|---------------------------------|----------------------------------|--|
| <input type="checkbox"/> cheerful            | <input type="checkbox"/> sad    | <input type="checkbox"/> active  | <input type="checkbox"/> angry at self                           |
| <input type="checkbox"/> disgusted           | <input type="checkbox"/> calm   | <input type="checkbox"/> guilty  | <input type="checkbox"/> enthusiastic                            |
| <input type="checkbox"/> attentive           | <input type="checkbox"/> afraid | <input type="checkbox"/> joyful  | <input type="checkbox"/> downhearted                             |
| <input type="checkbox"/> bashful             | <input type="checkbox"/> tired  | <input type="checkbox"/> nervous | <input type="checkbox"/> sheepish                                |
| <input type="checkbox"/> sluggish            | <input type="checkbox"/> amazed | <input type="checkbox"/> lonely  | <input type="checkbox"/> distressed                              |
| <input type="checkbox"/> daring              | <input type="checkbox"/> shaky  | <input type="checkbox"/> sleepy  | <input type="checkbox"/> blameworthy                             |
| <input type="checkbox"/> surprised           | <input type="checkbox"/> happy  | <input type="checkbox"/> excited | <input type="checkbox"/> determined                              |
| <input type="checkbox"/> strong              | <input type="checkbox"/> timid  | <input type="checkbox"/> hostile | <input type="checkbox"/> frightened                              |
| <input type="checkbox"/> scornful            | <input type="checkbox"/> alone  | <input type="checkbox"/> proud   | <input type="checkbox"/> astonished                              |
| <input type="checkbox"/> relaxed             | <input type="checkbox"/> alert  | <input type="checkbox"/> jittery | <input type="checkbox"/> interested                              |
| <input type="checkbox"/> irritable           | <input type="checkbox"/> upset  | <input type="checkbox"/> lively  | <input type="checkbox"/> loathing                                |
| <input type="checkbox"/> delighted           | <input type="checkbox"/> angry  | <input type="checkbox"/> ashamed | <input type="checkbox"/> confident                               |
| <input type="checkbox"/> inspired            | <input type="checkbox"/> bold   | <input type="checkbox"/> at ease | <input type="checkbox"/> energetic                               |
| <input type="checkbox"/> fearless            | <input type="checkbox"/> blue   | <input type="checkbox"/> scared  | <input type="checkbox"/> concentrating                           |
| <input type="checkbox"/> disgusted with self | <input type="checkbox"/> shy    | <input type="checkbox"/> drowsy  | <input type="checkbox"/> dissatisfied with self                  |
|  |                                 |                                  | <input type="checkbox"/> a mix of positive and negative feelings |

**SECTION D.** Please answer the following questions.

1. Gender:  Female  Male      2. Age: \_\_\_\_\_      3. Years Work Experience: \_\_\_\_\_

4. What is your class standing?

5. What is your race?

- Freshman
- Sophomore
- Junior
- Senior
- Other (please specify \_\_\_\_\_)

- Asian
- African American
- Hispanic
- Native American
- Latino
- Other
- White

## Pilot 1b Survey

**SECTION A.** This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. **Indicate to what extent you feel this way right now.** Use the following scale to record your answers:

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

- |  |   |
|--|---|
| <input type="checkbox"/> attentive<br><input type="checkbox"/> strong<br><input type="checkbox"/> afraid<br><input type="checkbox"/> irritable<br><input type="checkbox"/> inspired<br><input type="checkbox"/> alert<br><input type="checkbox"/> upset<br><input type="checkbox"/> active<br><input type="checkbox"/> guilty<br><input type="checkbox"/> distressed | <input type="checkbox"/> nervous<br><input type="checkbox"/> excited<br><input type="checkbox"/> hostile<br><input type="checkbox"/> proud<br><input type="checkbox"/> jittery<br><input type="checkbox"/> ashamed<br><input type="checkbox"/> scared<br><input type="checkbox"/> enthusiastic<br><input type="checkbox"/> determined<br><input type="checkbox"/> interested<br><input type="checkbox"/> a mix of positive<br>and negative feelings |
|--|---|



**SECTION C.** This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. **Indicate to what extent you feel this way right now.** Use the following scale to record your answers:

1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
-------------------------------------	---------------	-----------------	------------------	----------------

- |  |                                 |                                  |  |
|--|---------------------------------|----------------------------------|--|
| <input type="checkbox"/> cheerful            | <input type="checkbox"/> sad    | <input type="checkbox"/> active  | <input type="checkbox"/> angry at self                           |
| <input type="checkbox"/> disgusted           | <input type="checkbox"/> calm   | <input type="checkbox"/> guilty  | <input type="checkbox"/> enthusiastic                            |
| <input type="checkbox"/> attentive           | <input type="checkbox"/> afraid | <input type="checkbox"/> joyful  | <input type="checkbox"/> downhearted                             |
| <input type="checkbox"/> bashful             | <input type="checkbox"/> tired  | <input type="checkbox"/> nervous | <input type="checkbox"/> sheepish                                |
| <input type="checkbox"/> sluggish            | <input type="checkbox"/> amazed | <input type="checkbox"/> lonely  | <input type="checkbox"/> distressed                              |
| <input type="checkbox"/> daring              | <input type="checkbox"/> shaky  | <input type="checkbox"/> sleepy  | <input type="checkbox"/> blameworthy                             |
| <input type="checkbox"/> surprised           | <input type="checkbox"/> happy  | <input type="checkbox"/> excited | <input type="checkbox"/> determined                              |
| <input type="checkbox"/> strong              | <input type="checkbox"/> timid  | <input type="checkbox"/> hostile | <input type="checkbox"/> frightened                              |
| <input type="checkbox"/> scornful            | <input type="checkbox"/> alone  | <input type="checkbox"/> proud   | <input type="checkbox"/> astonished                              |
| <input type="checkbox"/> relaxed             | <input type="checkbox"/> alert  | <input type="checkbox"/> jittery | <input type="checkbox"/> interested                              |
| <input type="checkbox"/> irritable           | <input type="checkbox"/> upset  | <input type="checkbox"/> lively  | <input type="checkbox"/> loathing                                |
| <input type="checkbox"/> delighted           | <input type="checkbox"/> angry  | <input type="checkbox"/> ashamed | <input type="checkbox"/> confident                               |
| <input type="checkbox"/> inspired            | <input type="checkbox"/> bold   | <input type="checkbox"/> at ease | <input type="checkbox"/> energetic                               |
| <input type="checkbox"/> fearless            | <input type="checkbox"/> blue   | <input type="checkbox"/> scared  | <input type="checkbox"/> concentrating                           |
| <input type="checkbox"/> disgusted with self | <input type="checkbox"/> shy    | <input type="checkbox"/> drowsy  | <input type="checkbox"/> dissatisfied with self                  |
|  |                                 |                                  | <input type="checkbox"/> a mix of positive and negative feelings |

**SECTION D.** Please answer the following questions.

1. Gender:  Female  Male      2. Age: \_\_\_\_\_      3. Years Work Experience: \_\_\_\_\_

4. What is your class standing?

5. What is your race?

- Freshman
- Sophomore
- Junior
- Senior
- Other (please specify \_\_\_\_\_)

- Asian
- African American
- Hispanic
- Native American
- Latino
- Other
- White

## Pilot 2 Survey

**SECTION A.** Please read the following and answer the questions on the following page.

**Organization Information – *J and J Furniture*** – Online furniture retailer specializing in affordable, easy-to-assemble, quality furniture targeted at college students and first-time home owners.

**Job Description - *Customer Service Representative*** – Duties include receiving telephone calls which involve online sales and returns. The number one priority of this job is to maintain solid customer relationships by handling customers' questions and concerns with speed and professionalism while adhering to the rules and regulations outlined by the company. Employees should exhibit positive emotions and attitudes while interacting with a customer and make every attempt to create a positive shopping experience for each and every customer.

### **Policies**

#### Sales Policy

- All sales are conducted over the internet to ensure customers read and indicate understanding of the return policy.
- If a customer wants to buy something over the phone, refer them to the website

#### Return Policy

- Returns are processed via the phone.
- In order to return an item, the customer service representative must document the reason for the return.
- If the reason for the return involves inability to assemble the product, customer service representatives should offer to connect the customer to the furniture assembly help line where the customer can receive technical assistance.
- If the customer does not want technical assistance, the customer service representative should offer to exchange the item.
- If the customer refuses these two options, the customer service representative should process the return. The customer service representative should only process the return if the customer has refused these options.
- To process the return, the customer must have a receipt.
  - If the customer has the receipt, the customer service representative should ask them for the order ID number on the receipt and give them to following address to mail the product back:

Returns  
J and J Furniture  
700 N. Main St.  
Tulsa, OK 74105
  - If a customer does not have a receipt, they may exchange the item or receive store credit for the current price of the item.

**SECTION A.** Please reread the “Experiment Information” document and indicate your opinion on the following statements concerning your understanding of the job role you will assume for this experiment. For items 1-3, circle the number that most closely reflects the degree of your agreement or disagreement.

		<b>Strongly Disagree</b>		<b>Strongly Agree</b>		
1	This organization would not expect me to express positive emotions to the customers as part of my job.	1	2	3	4	5
2	This organization would say that part of the product to customers is friendly, cheerful service.	1	2	3	4	5
3	Part of my job is to make the customer feel good.	1	2	3	4	5

**SECTION B.** This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. **Indicate to what extent you feel this way right now.** Use the following scale to record your answers:

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

- |  |   |
|--|---|
| <input type="checkbox"/> attentive<br><input type="checkbox"/> strong<br><input type="checkbox"/> afraid<br><input type="checkbox"/> irritable<br><input type="checkbox"/> inspired<br><input type="checkbox"/> alert<br><input type="checkbox"/> upset<br><input type="checkbox"/> active<br><input type="checkbox"/> guilty<br><input type="checkbox"/> distressed | <input type="checkbox"/> nervous<br><input type="checkbox"/> excited<br><input type="checkbox"/> hostile<br><input type="checkbox"/> proud<br><input type="checkbox"/> jittery<br><input type="checkbox"/> ashamed<br><input type="checkbox"/> scared<br><input type="checkbox"/> enthusiastic<br><input type="checkbox"/> determined<br><input type="checkbox"/> interested<br><input type="checkbox"/> a mix of positive<br>and negative feelings |
|--|---|

---Listen to Audio Clip---

**SECTION C.** Please answer the questions below concerning the Audio Clip you just heard.

2 Please describe the interaction you just listened to in one or two words _____.					
		<b>Not at all</b>		<b>Extremely</b>	
1	Please indicate how negative you felt the interaction on the audio clip was	1	2	3	4 5
2	Please indicate how positive you felt this interaction on the audio clip was	1	2	3	4 5
3	Please indicate how authentic the audio clip sounded	1	2	3	4 5

**SECTION D.** Please answer the following questions.

1. Gender: \_\_\_ Female \_\_\_ Male                      2. Age: \_\_\_\_\_                      3. Years Work Experience: \_\_\_\_\_
4. Please indicate the number of years experience you have in customer service oriented jobs \_\_\_\_\_
5. What is your class standing?                      6. What is your race?
- |                                  |                            |
|----------------------------------|----------------------------|
| ___ Freshman                     | ___ Asian/Asian American   |
| ___ Sophomore                    | ___ Black/African American |
| ___ Junior                       | ___ Latino                 |
| ___ Senior                       | ___ Native American        |
| ___ Other (please specify _____) | ___ Other                  |
|                                  | ___ Caucasian              |

## Study Consent Form

### Participant:

This is an informed consent statement for a research study that is being conducted by Laura Little of Oklahoma State University, Department of Management. In this study, you will participate in a customer service interaction portraying the role of customer service representative.

If you agree to participate in this study, you will be asked to do four multi-stepped tasks. First, you will fill out a survey and bring it to your assigned experiment time. Upon arrival at the experiment, you will read a document describing job expectations for the customer service role you will portray and fill out a survey. Next, you will be asked to recall two events, write a brief description of the events and how they made you feel and fill out a survey. Finally, you will assume the role of a customer service representative and interact with a customer over the phone in accordance to the job expectations you read earlier. After this interaction, you will be asked to fill out a final survey. The interaction with the customer will be audio taped. There are no personal risks involved in the study. No identifying information will be entered into the database when surveys are inputted, so, please, be as honest and as accurate as possible. The survey data and the audio tape will be securely kept by the researchers and destroyed upon conclusion of research purposes. This data will be reported as a whole, not individually, in a research project. The actual task takes about 45 minutes to complete for which you will receive the predetermined points of credit toward the business course allowing you to participate in the study.

You are not obligated in any way to participate in this study. Your participation is strictly on a volunteer basis. In lieu of participating in this experiment, all students have the opportunity to complete a writing assignment for an equal amount of points given for participation in this experiment. It is also within your rights to drop out of this experiment at any time. Be advised, however, that only those who complete the experiment or alternative writing assignment will receive credit for participating.

If you have any questions, please feel free to ask them before the experiment or contact Laura Little at (918) 594-8064 or NH 315 or by email at [laura.m.little@okstate.edu](mailto:laura.m.little@okstate.edu).

If you have any questions about the research and your rights as a research volunteer, you may contact Dr. Sue C. Jacobs, IRB chair, 415 Whitehurst Hall, Oklahoma State University, 74078, (405) 744-1676 or [irb@okstate.edu](mailto:irb@okstate.edu).

I have read and I understand the procedure described above. I agree to participate in the procedure and I have received a copy of this statement.

Name (print) \_\_\_\_\_

Signed \_\_\_\_\_



## Study Survey

**SECTION A.** Mood Induction (same as pilot 1b)

**SECTION B.** This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. **Indicate to what extent you feel this way right now.** Use the following scale to record your answers:

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely
<input type="checkbox"/> cheerful	<input type="checkbox"/> sad	<input type="checkbox"/> active	<input type="checkbox"/> angry at self	
<input type="checkbox"/> disgusted	<input type="checkbox"/> calm	<input type="checkbox"/> guilty	<input type="checkbox"/> enthusiastic	
<input type="checkbox"/> attentive	<input type="checkbox"/> afraid	<input type="checkbox"/> joyful	<input type="checkbox"/> downhearted	
<input type="checkbox"/> bashful	<input type="checkbox"/> tired	<input type="checkbox"/> nervous	<input type="checkbox"/> sheepish	
<input type="checkbox"/> sluggish	<input type="checkbox"/> amazed	<input type="checkbox"/> lonely	<input type="checkbox"/> distressed	
<input type="checkbox"/> daring	<input type="checkbox"/> shaky	<input type="checkbox"/> sleepy	<input type="checkbox"/> blameworthy	
<input type="checkbox"/> surprised	<input type="checkbox"/> happy	<input type="checkbox"/> excited	<input type="checkbox"/> determined	
<input type="checkbox"/> strong	<input type="checkbox"/> timid	<input type="checkbox"/> hostile	<input type="checkbox"/> frightened	
<input type="checkbox"/> scornful	<input type="checkbox"/> alone	<input type="checkbox"/> proud	<input type="checkbox"/> astonished	
<input type="checkbox"/> relaxed	<input type="checkbox"/> alert	<input type="checkbox"/> jittery	<input type="checkbox"/> interested	
<input type="checkbox"/> irritable	<input type="checkbox"/> upset	<input type="checkbox"/> lively	<input type="checkbox"/> loathing	
<input type="checkbox"/> delighted	<input type="checkbox"/> angry	<input type="checkbox"/> ashamed	<input type="checkbox"/> confident	
<input type="checkbox"/> inspired	<input type="checkbox"/> bold	<input type="checkbox"/> at ease	<input type="checkbox"/> energetic	
<input type="checkbox"/> fearless	<input type="checkbox"/> blue	<input type="checkbox"/> scared	<input type="checkbox"/> concentrating	
<input type="checkbox"/> disgusted with self	<input type="checkbox"/> shy	<input type="checkbox"/> drowsy	<input type="checkbox"/> dissatisfied with self	
			<input type="checkbox"/> a mix of positive and negative feelings	

**SECTION C.** Please reread the “Experiment Information” document and indicate your opinion on the following statements concerning your understanding of the job role you will assume for this experiment. For items 1-3, circle the number that most closely reflects the degree of your agreement or disagreement.

		<b>Strongly Disagree</b>					<b>Strongly Agree</b>	
1	This organization would not expect me to express positive emotions to the customers as part of my job.	1	2	3	4	5		
2	This organization would say that part of the product to customers is friendly, cheerful service.	1	2	3	4	5		
3	Part of my job is to make the customer feel good.	1	2	3	4	5		

For items 4-6, fill in the blanks.

4 Please indicate why sales are conducted over the internet:

\_\_\_\_\_

5 Please write the four steps that should be followed when processing a return:

\_\_\_\_\_

\_\_\_\_\_

6 Please indicate what information the customer service representative needs from the receipt to process the return:

\_\_\_\_\_

\_\_\_\_\_

**SECTION D.** In the customer service task you just completed, how much did you do the following behaviors? Please circle your response.

		<b>Never</b>		<b>Always</b>		
1	Try to actually experience the emotions that I must show.	1	2	3	4	5
2	Make an effort to actually feel the emotions that I need to display toward others.	1	2	3	4	5
3	Work hard to feel the emotions that I need to show to others.	1	2	3	4	5
4	Put on an act in order to deal with customers in an appropriate way.	1	2	3	4	5
5	Fake a good mood.	1	2	3	4	5
6	Put on a “show” or “performance.”	1	2	3	4	5
7	Just pretend to have the emotions I need to display for my job.	1	2	3	4	5
8	Put on a “mask” in order to display the emotions I need for the job.	1	2	3	4	5

**SECTION E.** Please answer the questions below.

1	Please describe the interaction you just listened to in one or two words _____.
<b>Not at all</b> <b>Extremely</b>	
2	Please indicate how negative you felt this interaction was
3	Please indicate how positive you felt this interaction was

**SECTION F.** Please answer the following questions.

1. Gender: \_\_\_Female \_\_\_Male                      2. Age: \_\_\_\_\_                      3. Years Work Experience: \_\_\_\_\_

4. Please indicate the number of years experience you have in customer service oriented jobs \_\_\_\_\_

5. What is your class standing?

- \_\_\_ Freshman
- \_\_\_ Sophomore
- \_\_\_ Junior
- \_\_\_ Senior
- \_\_\_ Other (please specify \_\_\_\_\_)

6. What is your race?

- \_\_\_ Asian
- \_\_\_ African American
- \_\_\_ Hispanic
- \_\_\_ Native American
- \_\_\_ Latino
- \_\_\_ Other
- \_\_\_ White

## Confederate Customer Survey

**SECTION A.**

1. Please indicate the subject number of the participant you are referencing in this survey \_\_\_\_\_.

**SECTION B.** Please indicate to what degree you agree with the following statements.

		<b>Strongly Disagree</b>				<b>Strongly Agree</b>
1	This person seems sincere when dealing with me.	1	2	3	4	5
2	I liked interacting with this person.	1	2	3	4	5
3	This person showed friendliness and warmth to most me.	1	2	3	4	5
4	This person treated me with courtesy, respect, and politeness	1	2	3	4	5
5	This person smiled and communicated expressively with me.	1	2	3	4	5
6	This person showed enthusiasm when dealing with me.	1	2	3	4	5
7	This person put him or herself out to help me.	1	2	3	4	5
8	This person revealed their true feelings to me when upset or angry	1	2	3	4	5
9	This person had trouble hiding bad feelings from me.	1	2	3	4	5
10	I noticed this person acting negatively toward me.	1	2	3	4	5
11	Overall, this person's performance was excellent.	1	2	3	4	5

## Expert Rater Survey

**SECTION A.**

Please indicate the subject number of the participant you are referencing in this survey \_\_\_\_\_.

**SECTION B.** Please indicate to what degree you agree with the following statements.

		<b>Strongly Disagree</b>				<b>Strongly Agree</b>
1	This person seems sincere when dealing with the customer.	1	2	3	4	5
2	This person showed friendliness and warmth to the customer.	1	2	3	4	5
3	This person treated the customer with courtesy, respect, and politeness	1	2	3	4	5
4	This person communicated expressively with the customer.	1	2	3	4	5
5	This person showed enthusiasm when dealing with the customer.	1	2	3	4	5
6	This person put him or herself out to help the customer.	1	2	3	4	5
7	This person revealed their true feelings to the customer when upset or angry	1	2	3	4	5
8	This person had trouble hiding bad feelings from the customer.	1	2	3	4	5
9	I noticed this person acting negatively toward the customer.	1	2	3	4	5
10	Overall, this person's performance was excellent.	1	2	3	4	5

## APPENDIX C – TABLES

Table 1. Results of One-Way ANOVA, Means & Standard Deviations for Pilot 1a

Variables	Mood Variance Condition								F
	Ambivalent 1		Ambivalent 2		Positive		Negative		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	
SPA	2.60	0.86	2.70	0.88	2.93	0.80	2.32	0.86	3.10*
SNA	1.46	0.57	1.62	0.63	1.35	0.54	1.80	0.74	3.10*

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

N=36, 33, 36 and 32 respectively for the above conditions

Post Hoc tests revealed significant mean difference for the positive and negative conditions for both SPA (p=0.02) and SNA (p=.03) but no other significant differences.

Table 2. Results of One-Way ANOVA, Means & Standard Deviations for Pilot 1b

Variables	Mood Variance Condition						F
	Ambivalent		Positive		Negative		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
SPA1	2.94	0.83	2.96	0.72	2.83	0.89	0.30
SNA1	1.60	0.59	1.59	0.63	1.83	0.70	1.86
SPA2	2.81	0.80	3.00	0.89	2.50	0.92	4.10*
SNA2	1.71	0.58	1.43	0.58	1.96	0.82	6.60**

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

N=42,42,40 respectively for the above conditions

Post Hoc tests revealed significant mean difference for the positive and negative conditions for both SPA (p=0.02) and SNA (p=.00) but no other significant differences.

Table 3. Means, Standard Deviation and Correlations for Pilot 2

	Means	S.D.	1	2	3
1. SPA	3.03	0.85			
2. SNA	1.40	0.48	-0.21		
3. Negative Interaction	4.36	0.94	0.15	0.13	
4. Positive Interaction	1.71	0.82	-0.06	0.05	-0.45**

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

Table 4. Results of One-Way ANOVA, Means & Standard Deviations for Study Data

Variables	Mood Variance Condition						F
	Ambivalent		Positive		Negative		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
SPA	3.02	0.75	3.29	0.79	3.00	0.71	3.66*
SNA	1.44	0.51	1.40	0.39	1.64	0.65	4.01*

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

N=81, 69, 72 respectively for the above conditions

Post Hoc tests revealed significant mean difference for the positive and negative conditions for both SPA (p=0.04) and SNA (p=.03) but no other significant differences.

Table 5. Descriptive Statistics, Reliability Estimates, Interrater Reliability & Correlations Among Measures

	M	SD	$\alpha$	1	2	3	4	5	6	7	8	9	10	11
1. SPA-SNA (algebraic difference score)	1.60	1.00												
2. (SPA-SNA) <sup>2</sup> (squared difference score)	3.56	3.15												
3. SPA	3.09	0.76	0.88											
4. SNA	1.50	0.53	0.84			-0.19**								
5. Deep Acting	3.40	0.85	0.85	0.17**	0.18**	0.12	-0.16*							
6. Surface Acting	3.25	1.00	0.88	-0.08	-0.08	-0.08	0.03	0.15*						
7. Affective Delivery	3.09	0.90	0.92	0.22**	0.22**	0.17*	-0.17*	0.23**	0.05	(0.55**)				
8. Breaking Character	2.11	1.19	0.92	-0.18**	-0.23**	-0.16*	0.10	-0.25**	-0.08	-0.46**	(0.63**)			
9. Proactive Customer Help	2.45	0.84		0.12	0.11	0.11	-0.08	0.18**	0.09	0.50**	-0.35**	(0.29**)		
10. Overall Performance	2.64	1.02		0.23**	0.23**	0.23**	-0.12	0.20**	0.17*	0.69**	-0.61**	0.69**	(0.52**)	
11. Customer Service Work Experience(yrs)	6.22	6.33		0.04	0.04	-0.05	-0.15*	0.07	0.05	0.21**	-0.10	0.21**	0.15*	
12. Knowledge of Display Rules	4.51	0.82	0.79	0.17*	0.16*	0.12	-0.16*	0.19**	0.07	0.21**	-0.19**	0.15*	0.20**	0.12

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

Correlations = 0.12 are significant at the .10 level.

Interrater reliabilities for the performance outcomes are indicated in parentheses on the diagonal (ICC (3,1)).

Table 6. Tests of Algebraic Difference Scores

	<u>Constrained Equation</u>					<u>Unconstrained Equation</u>							
	CWE	KDR	(SPA-SNA)	R <sup>2</sup>	$\Delta F$	CWE	KDR	SPA	SNA	R <sup>2</sup>	$\Delta F$	F <sub>c</sub>	F <sub>h</sub>
Deeping Acting Step 1	0.01	0.19**		0.04*		0.01	0.19**			0.03*			
Step 2	0.01	0.17*	0.12*	0.06*	4.43*	0.01	0.17*	0.09	-0.17	0.04*	2.37	-1.04	0.67
Surface Acting Stage 1	0.01	0.08		0.01		0.01	0.08			0.01			
Stage 2	0.01	0.09	-0.09	0.01	1.52	0.01	0.09	-0.10	0.06	0.01	0.79	0.22	0.10

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Step 1 – the effects of the control variables on each of the outcomes.

Step 2 – the incremental effects of SPA and SNA in the constrained equation (representing the difference scores) and in the unconstrained equation.

For columns labeled CWE, KDR, (SPA-SNA), SPA and SNA, values represent unstandardized regression coefficients where CWE = years of customer service work experience, KDR = knowledge of display rules, SPA = state positive affect and SNA = state negative affect.

F<sub>c</sub> represents F-ratios for the difference in R<sup>2</sup> between the constrained and unconstrained equation.

F<sub>h</sub> represents the F-ratios for the test of higher order terms in the quadratic equation.

Table 7. Regression Analysis Investigating the Effects of Acting on Performance

	<u>Performance Outcomes</u>			
	Affective Delivery	Breaking Character	Proactive Customer Help	Overall Performance
Deep Acting	0.23 (3.40)**	-0.24 (-3.61)**	0.17 (2.58)*	0.18 (2.65)**
Surface Acting	0.01 (0.18)	-0.05 (-0.68)	0.06 (0.92)	0.14 (2.16)*
R <sup>2</sup>	0.05**	0.06**	0.04*	0.06**

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Values for Deep Acting and Surface Acting are standardized beta coefficients with t-values in parentheses.

Table 8. Tests of Algebraic Difference Scores with Mediation

	Constrained Equation						Unconstrained Equation								
	CWE	KDR	(SPA-SNA)	M	R <sup>2</sup>	$\Delta F$	CWE	KDR	SPA	SNA	M	R <sup>2</sup>	$\Delta F$	F <sub>c</sub>	F <sub>h</sub>
Affective Delivery															
Step 1	0.03**	0.20**			0.08**		0.03**	0.20**				0.08**			
Step 2a	0.03**	0.14 <sup>+</sup>	0.13*	0.17*	0.13**	6.67**	0.03**	0.14 <sup>+</sup>	0.14 <sup>+</sup>	-0.12	0.17*	0.13**	4.44**	1.65	2.65*
Step 2b	0.18**	0.15*	0.18**	0.04	0.11**	3.65*	0.03**	0.17*	0.16*	-0.15	0.04	0.11**	2.43 <sup>+</sup>	1.32	2.82*
Breaking Character															
Step 1	-0.02	-0.26**			0.04**		-0.02	-0.26**				0.04**			
Step 2a	-0.01	-0.18 <sup>+</sup>	-0.14 <sup>+</sup>	-0.28**	0.10**	6.04**	-0.02	-0.18	-0.19	0.05	-0.28*	0.10**	4.75**	1.11	2.40 <sup>+</sup>
Step 2b	-0.08	-0.15*	-0.15*	-0.08	0.07**	3.19*	-0.02	-0.22*	-0.23*	0.10	-0.10	0.07**	2.26 <sup>+</sup>	0.75	2.85*
Proactive Customer Help															
Step 1	0.03**	0.13 <sup>+</sup>			0.06**		0.03**	0.13 <sup>+</sup>				0.06**			
Step 2a	0.03**	0.09	0.05	0.14*	0.09**	3.05*	0.03	0.09	0.08	0.02	0.14	0.09**	2.19 <sup>+</sup>	0.97	0.85
Step 2b	0.20**	0.10	0.09	0.10	0.08**	1.83	0.03**	0.11	0.10	-0.01	0.08	0.08**	1.35	0.86	0.73
Overall Performance															
Step 1	0.02**	0.19**			0.05**		0.02**	0.19**				0.05**			
Step 2a	0.02*	0.12	0.17*	0.17*	0.09**	6.47**	0.02*	0.12	0.25**	-0.03	0.17*	0.11**	4.89**	0.89	0.12
Step 2b	0.02*	0.13 <sup>+</sup>	0.07**	0.19**	0.12**	8.50**	0.02**	0.13*	0.28**	-0.07	0.19**	0.13**	6.23**	1.10	0.54

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Step 1 – the effects of the control variables on each of the outcomes.

Step 2a – the incremental effects of SPA and SNA in the constrained equation (representing the difference scores) and in the unconstrained equation where M = deep acting.

Step 2b - the incremental effects of SPA and SNA in the constrained equation (representing the difference scores) and in the unconstrained equation where M = surface acting

For columns labeled CWE, KDR, (SPA-SNA), SPA and SNA, values represent unstandardized regression coefficients where CWE = years of customer service work experience, KDR = knowledge of display rules, SPA = state positive affect and SNA = state negative affect.

F<sub>c</sub> represents F-ratios for the difference in R<sup>2</sup> between the constrained and unconstrained equation.

F<sub>h</sub> represents the F-ratios for the test of higher order terms in the quadratic equation.



Table 9. Mediation Tests of Control Variables

	Step 1		Affective Delivery			Breaking Character			Proactive Customer Help			Overall Performance		
	Deep Acting	Surface Acting	Step 2	Step 3	Step3	Step 2	Step 3	Step 3	Step 2	Step 3	Step 3	Step 2	Step 3	Step 3
CWE	0.01	0.01	0.19**	0.18**	0.18**	-0.08	-0.07	-0.08	0.21**	0.20**	0.20**	0.15*	0.14*	0.14*
KDR	0.19**	0.08	0.18**	0.15*	0.18**	-0.18**	-0.14*	-0.18**	0.12	0.10	0.12	0.15*	0.12	0.14*
Deep Acting				0.19**			-0.22**			0.15*			0.17*	0.17*
Surface Acting					0.03			-0.07			0.09			
R <sup>2</sup>	0.04**	0.01	0.08**	0.11	0.08**	0.04**	0.09**	0.05**	0.06**	0.09**	0.07**	0.50**	0.80**	0.80**
$\Delta F$				8.04**	0.20		10.48**	1.14		5.42*	2.05		6.11*	6.68*

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Values are standardized beta coefficients with t-values in parentheses.

Step 1 represents the effects of the control variables on the mediators. (X → M)

Step 2a represents the effects of the control variables on each performance outcome. (X → Y)

Step 2b represents the effects of the control variables and each mediator on each performance outcome (X,M → Y)

Table 10. Tests of Squared Difference Scores with Mediation

	Constrained Equation						Unconstrained Equation											
	CW E	KDR	(SPA- SNA) 2	M	R <sup>2</sup>	$\Delta F$	CW E	KDR	SPA	SN A	SP A <sup>2</sup>	SPA <sub>x</sub> SNA	SN A <sup>2</sup>	M	R <sup>2</sup>	$\Delta F$	F <sub>c</sub>	F <sub>h</sub>
Affective Delivery Step 1	0.03 **	0.20* *			0.08 **		0.03 **	0.20 **							0.08 **			
Step 2	0.03 **	0.14* *	0.04* *	0.17 *	0.13 **	6.67 **	0.03 **	0.11	-0.57 *	-1.02 *	-0.05	-0.45* *	-0.36 *	0.16* *	0.16 **	8.76* **	2.97* **	0.73

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Step 1 represents the effects of the control variables on each of the outcomes.

Step 2 represents the incremental effects of SPA and SNA in the constrained equation (representing the difference scores) and in the unconstrained equation where M = deep acting.

For columns labeled CWE, KDR, (SPA-SNA), SPA and SNA, values represent unstandardized regression coefficients where CWE = years of customer service work experience, KDR = knowledge of display rules, SPA = state positive affect and SNA = state negative affect.

F<sub>c</sub> represents F-ratios for the difference in R<sup>2</sup> between the constrained and unconstrained equation.

F<sub>h</sub> represents the F-ratios for the test of higher order terms in the quadratic equation.

Table 11. Tests Representing Combinations of Coefficients Pertaining to Direct Effects (Hypothesis 4)

	<u>Stationary Points</u>		<u>First Principal</u>		<u>Second Principal</u>		<u>Shape along SPA=-</u>		<u>Shape along SPA=SNA</u>	
	$X_0$	$Y_0$	<u>Axis</u>		<u>Axis</u>		<u>SNA</u>		$b_4+b_5$	$b_6+b_7+b_8$
			$p_{10}$	$p_{11}$	$p_{20}$	$p_{21}$	$b_4-b_5$	$b_6-b_7+b_8$		
Affective Delivery	-0.42	-1.16	-1.38**	-0.53	-0.36	1.90*	0.46	0.05	-1.59**	-0.86**

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Table 12. Indirect Effects of Affect on Affective Delivery

	CW E	KDR	SPA	SN A	SPA 2	SPA <sub>x</sub> SNA	SN A <sup>2</sup>
Affective Delivery				-			
Step 1	0.00	0.03	-0.03	0.03	0.00	-0.03	0.00

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Table 13. Tests Representing Combinations of Coefficients Pertaining to Indirect Effects (Hypothesis 8-10)

	Shape along SPA=-SNA		Shape along SPA=SNA	
	$(b_1 a_3 - b_1 a_4)$	$(b_1 a_5 - b_1 a_6 + b_1 a_7)$	$(b_1 a_3 + b_1 a_4)$	$(b_1 a_5 + b_1 a_6 + b_1 a_7)$
Affective Delivery	-0.00	0.04	-0.07	-0.03

<sup>+</sup> p < .10, \* p < .05, \*\* p < .01

Table 14. Hypotheses Tested and Results

Hypothesis	Supported If	Result
Hypothesis 1-Deep acting will increase as state positive affect levels increase towards state negative affect (affective ambivalence) and decrease as state positive affect levels exceed state negative affect.	$(b_5 - b_6 + b_7) < 0$ (from equation 2)	NOT SUPPORTED
Hypothesis 2-Deep acting will increase as state positive and state negative affect increase along the ambivalent line (where state positive and state negative affect levels are equal).	$(b_3 + b_4) > 0$ $(b_5 + b_6 + b_7) = 0$ (from equation 3)	NOT SUPPORTED
Hypothesis 3a-Deep acting will be more strongly related to state positive affect than to state negative affect.	$(b_3 - b_4) > 0$ (from equation 2)	NOT SUPPORTED
Hypothesis 3b-Deep acting will not be more strongly related to state positive affect than to state negative affect.	$(b_3 - b_4) = 0$ (from equation 2)	NOT SUPPORTED
Hypothesis 4-The direct effects of state positive and state negative affect on performance will be significant such that performance will increase as state positive affect levels exceed state negative affect levels.	$(b_4 - b_5) > 0$ $(b_6 - b_7 + b_8) = 0$ (from equation 5)	NOT SUPPORTED
Hypothesis 5-Surface acting will increase as state negative affect levels exceed state positive affect levels.	$(b_3 - b_4) < 0$ ; $(b_5 - b_6 + b_7) = 0$ The slope of the line SPA=-SNA where SNA>SPA < 0 (from equation 4)	NOT SUPPORTED
Hypothesis 6-Deep acting will positively predict performance.		SUPPORTED
Hypothesis 7-Surface acting will negatively predict performance.		NOT SUPPORTED
Hypothesis 8-The indirect effects of state positive and state negative affect on performance through deep acting will be significant such that performance will increase as state positive affect levels increase towards state negative affect levels (affective ambivalence) and decrease as state positive affect levels exceed state negative affect levels.	$(b_1 a_3 - b_1 a_4 + b_1 a_5) < 0$ (from equation 6)	NOT SUPPORTED

Table 14. Hypotheses Tested and Results (cont)

<p>Hypothesis 9-Performance will increase as state positive and state negative affect levels increase along the ambivalent line (where state negative affect=state positive affect).</p>	<p><math>(b_1 a_3 + b_1 a_4) &gt; 0</math>  <math>(b_1 a_5 + b_1 a_6 + b_1 a_7) = 0</math>          (from equation 7)</p>	<p>NOT SUPPORTED</p>
<p>Hypothesis 10-The indirect effects of state positive and state negative affect through deep acting will be more strongly related to state positive affect levels than to state negative affect levels.</p>	<p><math>(b_1 a_3 - b_1 a_4) &gt; 0</math> when deep acting is the mediator          (from equation 6)</p>	<p>NOT SUPPORTED</p>
<p>Hypothesis 11-The indirect effects of state positive and state negative affect on performance through surface acting will be significant such that performance will increase as state positive affect levels increase towards state negative affect (affective ambivalence) and decrease as state positive affect levels exceed state negative affect levels.</p>	<p><math>(b_1 a_3 - b_1 a_4) &gt; 0</math> when surface acting is the mediator          (from equation 6)</p>	<p>NOT SUPPORTED</p>

## APPENDIX D – IRB APPROVAL

### Oklahoma State University Institutional Review Board

Date: Thursday, August 17, 2006  
IRB Application No BU0635  
Proposal Title: State Affect and Emotional Regulation

Reviewed and Processed as: Expedited

**Status Recommended by Reviewer(s): Approved Protocol Expires: 8/16/2007**

Principal Investigator(s)

Laura Little  
320 Business  
Stillwater, OK 74078

Debra L. Nelson  
320 College of Business  
Stillwater, OK 74078

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The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 415 Whitehurst (phone: 405-744-5700, [beth.mcternan@okstate.edu](mailto:beth.mcternan@okstate.edu)).

Sincerely,



Sue C. Jacobs, Chair  
Institutional Review Board

## APPENDIX E – VITA

LAURA M. LITTLE

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### EDUCATION

*Ph.D.*, August 2003 - May 2007  
Oklahoma State University, William S. Spears School of Business  
Concentration: Organizational Behavior

*MBA*, August, 1999 – May, 2001  
University of Texas at Austin, McCombs School of Business

*BA*, August 1992 - May 1996  
Vanderbilt University  
Major: Psychology

### RESEARCH

#### *Manuscripts Accepted for Publication*

- Wallace, J. C., Little, L., & Shull, A. (in press). The moderating effects of task complexity on the relationship between regulatory foci and safety and production performance. *Journal of Occupational Health Psychology*.
- Little, L.M., Simmons, B.L., & Nelson, D.L. (2007). Health among leaders: Positive and negative affect, engagement and burnout, forgiveness and revenge. *Journal of Management Studies*. 44: 243-260.
- Nelson, D.L., Little, L.M., & Frazier, L. Employee Well Being: The Heart of Positive Organizational Behavior. In Cooper, C.L., Hughes, R., & Kinder, A. (Eds.) *Employee Well Being Support: A Workplace Resource*.(forthcoming 2008).
- Little, L.M., Gooty, J., & Nelson, D.L. (2007). Measurement of positive organizational behavior constructs. In Nelson, D.L. & Cooper, C.L. (Eds.) *Positive Organizational Behavior: Accentuating the Positive at Work*.

#### *Conference Presentations*

- Little, L.M., Gooty, J., & Nelson, D.L. Attachment theory and interpersonal trust at work. To be presented at the 2007 Academy of Management conference, Philadelphia, PA.
- Kluemper, D., & Little, L.M. State or trait: Effects of state optimism on job-related outcomes. To be presented at the 2007 Academy of Management conference, Philadelphia, PA.
- Little, L.M., Gooty, J. & Nelson, D.L. Psychometric properties of the positive organizational behavior constructs. Presented at the 2005 Southern Academy of Management meetings, Charleston, SC.
- Little, L.M. & DeGroot, T. Affect and job design. Presented at the 2005 Academy of Management annual meetings, Honolulu, HI.
- Little, L.M., Simmons, B.L., & Nelson, D.L. Does burnout affect performance? An unanswered question. Presented at the 2005 Western Academy of Management meetings, Las Vegas, NV.
- Little, L.M. & DeGroot, T. Affect and job design: A return to an interactional approach. Presented at the 2004 Southern Academy of Management meetings, San Antonio, TX.

### HONORS AND AWARDS

Robert W. and Jean M. Schuetz Distinguished Graduate Fellowship, 2005, 2006  
Recipient of Outstanding Graduate Teaching Associate Award, 2005



Name: Laura M. Little

Date of Degree: May, 2007

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: HAPPY TO HELP: STATE POSITIVE AFFECT, STATE NEGATIVE AFFECT AND AFFECTIVE AMBIVALENCE AS PREDICTORS OF EMOTIONAL LABOR STYLE AND CUSTOMER SERVICE PERFORMANCE

Pages in Study: 137

Candidate for the degree of Doctor of Philosophy

Major Field: Management

Scope and Method of Study: The purpose of this study was to investigate the effects of state affect, positive, negative and ambivalent, on acting style and subsequently customer service performance during a negative customer service encounter over the phone. Subjects were 217 undergraduate students from a large Midwestern university.

Findings and Conclusions: Results indicated that although acting style did influence customer service performance, state affect was not related to acting style. Furthermore, results indicated some direct relationships between affect and customer service performance. Specifically, findings showed that high levels of state positive affect experienced with low levels of state negative affect are most closely related to affective delivery (a performance indicator) while high levels of both types of affect is negatively related with affective delivery. Implications of these findings are discussed.

ADVISER'S APPROVAL: Dr. Debra L. Nelson

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