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## Controlling Our Emotion At Work: Implications For Interpersonal And Cognitive Task Performance In A Customer Service Simulation

Moshe Feldman  
*University of Central Florida*



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CONTROLLING OUR EMOTION AT WORK: IMPLICATIONS FOR  
INTERPERSONAL AND COGNITIVE TASK PERFORMANCE IN A CUSTOMER  
SERVICE SIMULATION

by

MOSHE FELDMAN  
B.S. University of Florida, 2001  
M.S. University of Central Florida, 2005

A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
in the Psychology Department, Industrial and Organizational  
in the College of Sciences  
at the University of Central Florida  
Orlando, Florida

Summer Term 2008

Major Professor: Kimberly A. Smith-Jentsch

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## ABSTRACT

Display rules are used by organizations to define appropriate behaviors and expressions while interacting with others in the workplace. Emotional labor is a function of the effort required to adhere to these display rules and has been associated with negative outcomes such as stress and burnout which can lead to higher levels of turnover and health care costs for the organization. In addition, evidence suggests that emotional labor may come at a cognitive cost as well. Hence, reducing the amount of emotional labor should be beneficial to both employees and organizations alike.

The current study used a customer service simulation to investigate the effects of emotion regulation training on cognitive, affective, and performance outcomes. Furthermore, personality display rule congruence was proposed as a moderator. Specifically, I compared the effects of training participants to use deep acting or surface acting strategies. Deep acting involves cognitively reappraising situations so that one genuinely feels the appropriate emotion whereas surface acting simply involves modifying the outward display of one's emotions. I expected deep acting to improve interpersonal performance through an affective route and to improve cognitive task performance through a reduction in emotional labor. Seventy-three participants were randomly assigned to one of the two training conditions. Performance was assessed during an interactive customer service simulation. Training participants to use deep acting strategies improved their positive mood, reduced their emotional labor, and increased their cognitive task performance. Emotional labor was negatively associated with cognitive task performance whereas positive mood was positively related to interpersonal performance. Finally, the effects of training on emotional labor, mood, and cognitive performance differed depending on the degree to which participants' personality was congruent with the display rules given to them. However, contrary to expectations, training condition had a stronger effect on negative mood (reduced it),

emotional labor (reduced it), and cognitive performance (increased it) the more congruent participants' personalities were to the display rules given. These findings have implications for both employee selection and training.

This dissertation is dedicated to my entire family... past, present, and future. We are all connected and you are with me always.

## ACKNOWLEDGMENTS

Words cannot possibly capture the amount of thanks and appreciation I have for those who have supported and helped me toward this achievement. To this extent, I consider this dissertation and degree as a joint accomplishment rather than an individual one.

First and foremost I would like to thank my Ema and Aba, Dorit and Mordechey Feldman. My parents have always worked their hardest and sacrificed to put their children as first priority in their lives. At the same time, they've provided me with unwavering support and unquestionable determination to give me greater opportunities in life than were afforded to them. In addition, they have given me guidance and diverse experiences that have carried through to my work and how I live my life. Their emphasis on education, above all else, to achieve my dreams and goals even at their expense gave me the drive and freedom to pursue a secure and happy future for my family. The value of their contribution to my success is immeasurable. I also want to express the greatest appreciation and thanks to my sister, Shirley Feldman. It is her who I looked up to and followed to the University of Florida to begin my collegiate career. She has always shown me the importance of education as well as considering others in the world who are less fortunate. These family ideals have given me an appreciation for life and encouraged me to persevere in difficult times.

My amazing wife, Adrienne, is my *quam*. She held me up when I fell and gave me her strength when I was weak. Most importantly she has provided me with unwavering love, understanding, and support. Adrienne is my motivation for success to provide her and my family with the life they deserve. Thank you for being my foundation and source of joy. To my mother and father-in-law, Alyn and Barry Segal, thank for all your support, patience, and above all else, raising such a wonderful and perfect daughter for me.

A special thanks goes to my mentor and advisor Kimberly Smith-Jentsch. Kim and Florian have supported and guided me these past 5 years. They gave me the opportunity to

pursue my multiple interests and provided me with an opportunity to combine these interests in a unique way that has blossomed into a unique career opportunity. Also, I'd like to thank my entire committee, Florian Jentsch, Stephen Fiore, and Shawn Burke, for their time and effort towards helping me finish this dissertation. Last but not least, I'd like to thank all of my research assistants: Ariel Afek, Chris Wiese, Jackie Schwartz, Kendra Brown, and Mason Bonner. I could not have asked for a more competent and hard working set of colleagues.



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## CHAPTER ONE: INTRODUCTION

### Statement of the Problem

Most organizations require their employees to behave professionally and express positive affect (e.g. smiling, speaking in a positive tone) while interacting with customers, coworkers, and supervisors. Often referred to as display rules, these guidelines instruct employee behavioral and affective expression in the workplace. Display rules are especially relevant to customer service oriented job roles where emotional display is inherently tied to outcomes such as customer satisfaction (Schneider, Parkington, & Buxton, 1980).

Many times, display rules may be incongruent with the employee's current affective state. For example, employees may feel a negative mood when dealing with an aggressive customer or being mocked by a coworker. This creates a dilemma because the employee's natural behavioral tendencies to respond angrily cannot be realized and, instead, they must express themselves in line with the display rules by responding politely. In response to this discrepancy, employees must engage in emotion regulation strategies in order to effectively adhere to display rules. This process requires effort in the form of emotional labor that is directed towards strategies that reduce this discrepancy internally, and behaviorally. This adds to the workload for the employee in addition to that expended on more task related job role requirements. Emotional labor is related to negative individual and organizational outcomes such as well-being, turnover and absenteeism (Bond & Bunce, 2003; Diefendorff & Gosserand, 2003; Goldberg & Grandey, 2007). With rising costs for health care and additional new hire training as a result of turnover, organizations and their employees would benefit from research modeling the processes, and consequences of emotion regulation in the work place in an effort to develop more adaptive strategies for handling emotional labor.

Organizations often fail to provide adequate training on how to adaptively regulate affect, especially for jobs high in emotional labor (e.g. customer service). Training employees to use specific emotion strategies should be beneficial, given research showing that certain antecedent focused strategies that target cognitive appraisal ameliorate negative outcomes resulting from emotional labor more effectively than other response focused strategies that target manipulating the outward expression of emotion (Gross, 1999, Richards & Gross, 2006; Robinson & Demaree, 2007). These strategies are referred to as deep acting and surface acting respectively. Research on emotion regulation in the workplace can help guide the development of more effective training programs. This should lead to beneficial consequences for the employee (i.e. decreased stress and burnout), the organization (i.e. increased performance, decreased turnover), and the customer (i.e. higher satisfaction). In jobs where emotional labor is common, necessary, and sometimes extreme such as customer service work, using a specific emotion regulation strategy over another should lead to more beneficial outcomes. Furthermore, previous studies that have manipulated emotion regulation in the laboratory have used simple tasks (e.g. emotion regulation while watching a film clip) (Demaree et al., 2006; Gross, 1998) that may not generalize to more complex and applied tasks. Hence, I developed emotion regulation training used for a more complex and applied task.

### Purpose of the Current Study

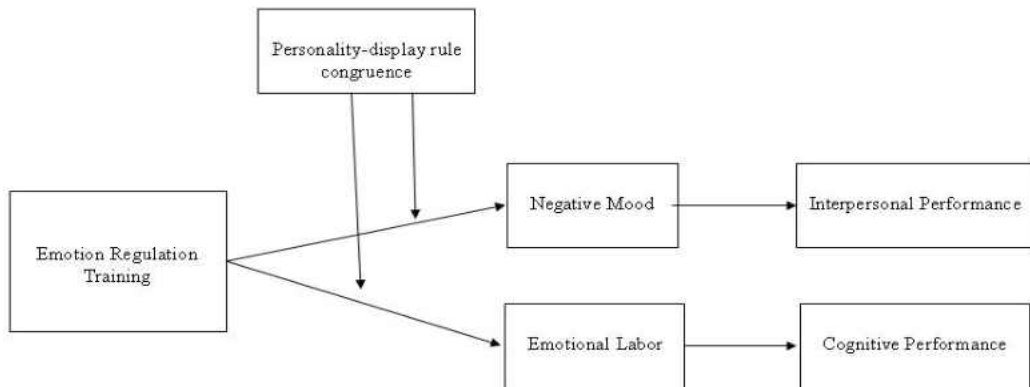
This study investigated the affective, behavioral, and cognitive outcomes of emotion regulation training while performing a customer service task. Most research to date investigating emotional regulation in the workplace has almost exclusively relied on questionnaire data and quasi-experimental designs, thereby limiting the ability to make causal inferences. Other studies that have manipulated emotion regulation experimentally have used



overly simplex tasks that may not generalize to a real work setting where task complexity is much greater. To ameliorate these issues, I used an augmented simulation environment to create an immersive and interactive test bed that offered more experimental control while strengthening both internal and external validity. This study introduced simulated environments as a viable tool to investigate the effects of emotion regulation training on performance outcomes. The purpose of this study was threefold: (a) to experimentally manipulate emotion regulation strategies used during a customer service task, (b) test the effects of emotional regulation training on interpersonal task performance and cognitive task performance in the same study, (c) investigate possible underlying mechanisms explaining this process.

### Proposed Model

The proposed model shows how emotion regulation training impacts both interpersonal and cognitive task performance and the mechanisms mediating these processes (Figure 1). One route is affective in nature and has its main impact on interpersonal performance (e.g. emotional expressivity) while a second route is cognitive in nature and impacts cognitive task performance (e.g. problem solving, math). These processes are said to be distinct yet occur in parallel within a performance episode. Personality-display rule congruence is shown moderating both routes. Specifically, this model predicts that training individuals to more adaptively regulate their emotion while performing a customer service task will result in decreased negative mood, increased cognitive functioning and increased performance.



**Figure 1 Proposed model of emotion regulation training**

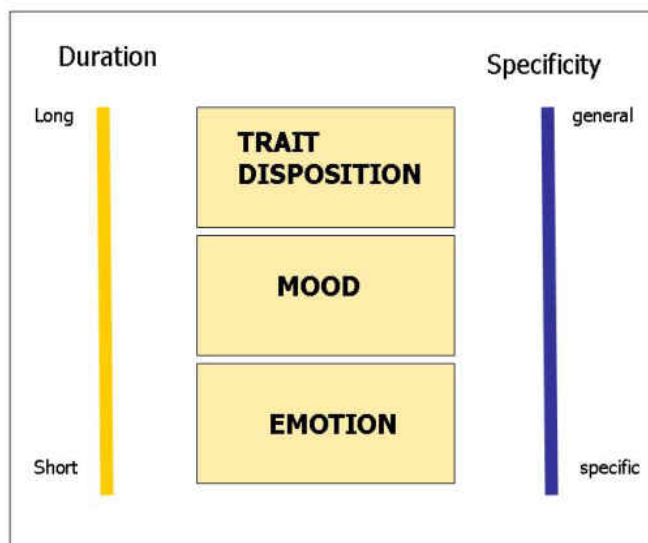
Previous studies have showed inconsistencies between self report and physiological measures of the experience of affect. This study collected both types of measures to test for differences in the subjective and objective experience of affect during an applied task. This also affords the ability to test for mono-method bias. An experimental study was conducted to test the above model and propositions in a controlled laboratory setting that was augmented by using a simulated environment of a customer service desk in a hospital emergency room.

## CHAPTER TWO: LITERATURE REVIEW

### Affect in the Workplace

A clear explication of the criterion domain of affect is first needed to study affective processes in the workplace. Previous definitions of affect have differed in how the time course of an affective experience is described and are often determined by how affect is measured (Watson, Clark, & Tellegen, 1988). Affect is defined as the general phenomenon of feeling states that may be acute or persistent and may vary in valence (i.e. positive, negative) and in arousal (i.e. activation). This criterion space is multidimensional and includes several affective typologies. Hence, it is important to make some critical distinctions within the general affect construct. One important distinction is made between trait and state affect (Watson, Clark, & Tellegen, 1988; Watson & Tellegen, 1985). Trait affective dispositions are stable characteristics that represent individual differences in how emotions are perceived and regulated. State affect represents the current emotional experience that is time dependent and can fluctuate with changes in the external environment. A trait is an individual tendency that shows through observations over time. In contrast, a state refers to the current moment that is bound by both individual and environmental parameters.

A common typology used to differentiate affective experiences distinguishes between dispositions, moods, and emotions (Barsade, 2002). These affect types differ along two dimensions. Specifically, they differ according to their duration and specificity. Duration is defined by the length of time a given affective experience persists in a consistent matter. Specificity relates to the degree to which the affective experience is directly related to a specific causal influence. Figure 2 compares moods, emotions, and disposition or trait affect along dimensions of duration and specificity.



**Figure 2 Comparison of Affective Constructs**

---

Dispositions represent the trait category of affect. They are the longest in duration and least specific. Dispositions help describe individual affective experiences when aggregated across variations in time and settings. Their consistency makes them the least specific compared to moods and emotions because dispositions are insensitive to changes in the external environment. Moods are shorter in duration and more sensitive than dispositions. Moods can vary over time and may change due to environmental influences. They are shorter in duration because of their greater variability compared to dispositional affect. Moods also reflect the state component of an emotion because it is the emotional experience an individual has at any given time. Finally, an emotion is found on the other extreme of this continuum. An emotion is the shortest in duration and has a specific cause that is attributed to it. An emotion is intense, relates to a specific event, and can end abruptly due to a second event. A critical distinction between a mood and an emotion is that an individual does not attribute a

mood to a specific event which is why it persists longer than an acute event. In contrast, an individual does relate a specific event as the cause of an emotion. Dispositions, moods, and emotions also vary along the dimensions of valence and activation.

The role of affect in the workplace is increasingly gaining research attention (e.g. Barsade, Brief, & Spataro, 2003; Brief & Weiss, 2002). Emotions experienced at work impact job performance, attention towards a task, and leader effectiveness (Fisher & Ashkanasy, 2000; Lewis, 2000). Job incumbents must regularly adapt to emotionally charged events in the workplace (e.g. set backs in progress towards finishing a project, interpersonal stressors between team members, elation of goal attainment, frustration with limited resources, and other external obstacles). Negative affect in the organizational context has been associated with less favorable attitudes (e.g. job satisfaction) (Cote & Morgan, 2002; Grandey, Fisk, & Steiner., 2005), greater job burnout (Maslach, 2003), greater levels of job strain (Ashforth & Humphrey, 1993), and higher levels of turnover intentions (Cote & Morgan, 2002). Finally, affective states have been shown to explain unique variance in performance, absenteeism, and employee attitudes in the workplace (Grandey et al., 2005).

Research investigating the influence of affect on workplace behavior has been predominantly trait oriented. In other words, researchers have tended to ignore the transient influences of mood by focusing on individual differences over time. Although trait dispositional affect may influence affective experiences, it does not account for behaviors resulting from shorter changes in affect due to external influences. For example, someone with low dispositional positive affect may start their workday in a relatively morose mood. During their morning they are relatively flat towards their teammates and not very talkative. After lunch, though, they may come back to work in a positive state mood because of the very satisfying lunch they just ate. This mood may persist for a few hours and when asked why they are in a positive mood they would not give any particular reason for it. The positive

mood then causes this individual to be more talkative and lively with their teammates. This sequence reflects the typical dynamics between dispositional and state affects in relation to daily moods.

More recently, research interest in affect in the workplace has grown, partly because of the ability to model emotional processes with greater temporal resolution. Technological advances allow researchers to collect measures more frequently, for example, by using small hand held devices. This allows one to model the degree to which states explain unique variance in processes and outcomes above and beyond that explained by traits. Also, researchers can link processes and event characteristics to their cognitive, physiological, and behavioral consequences. Common methods such as ecological momentary assessment (Beal, Weiss, Barros, & MacDermid, 2005) and experience sampling methodology use repeated measures designs to explain behavioral, physiological, and cognitive outcomes of the emotion generative and regulation process in the workplace (Fisher, 2002).

### Affective Events Theory

The growing ability to model dynamic processes has driven theory that accounts for state fluctuations in mood that show promise for explaining emotion management strategies in the workplace. Weiss and Crompanzano (1996) developed affective events theory (AET) based on the idea that workplace events (and how they are perceived) trigger affective reactions that have certain attitudinal and behavioral consequences. This theory directly takes into account changes in mood (i.e. state affect) as an important contributor to affective processes at work. AET proposes that events occurring at the workplace will activate certain positive and negative affective response tendencies. The main contribution of AET is that it effectively shows that within person variability in affective states in response to certain emotionally salient events at work explains unique and systematic variance in organizational

(e.g. turnover, absenteeism) and individual (e.g. job satisfaction, emotional exhaustion) outcomes (Lee & Ashforth, 1996; Saxton, Phillips, & Blakeney, 1991). This model has also been shown to predict performance job attitudes, mood, and well-being (Wright & Bonett, 1997; Wright & Cropanzano, 1998). AET is novel in that it that state affect is a function of environmental influences and how these influences are perceived by the individual. Hence, this model accounts for state and trait influences of emotional processes and their consequences in the workplace. In this way, it breaks away from trait theories which would treat state fluctuations as random error. An appropriate theory should consider both state and trait influences on work behavior. This dissertation used AET to provide an overarching framework to understand how individual and environmental influences impact the experience of affect and its outcomes in the workplace.

An individual's mood has automatic and controlled behavioral consequences. According to AET, events at work can influence an employee's mood, perceptions, and behavior at work. Individuals consistently reporting more negative mood also report experiencing more stressful events at work (Miner & Dejun, 2002). The same pattern has been found for physiological indicators (i.e. increased physiological reactivity) and self report measures of negative mood (Mauss, Cook, Cheng, & Gross, 2005). The impact of the event on mood is dependent on the emotional saliency of the event and the personality of the individual that experiences the event. Specifically, negative events (i.e. interacting with an aggressive customer) will induce a negative mood while positive events (i.e. receiving praise from a supervisor) will induce a more positive mood. While positive mood also plays a role on workplace attitudes and behaviors (Bagozzi, 2006; George & Brief, 1992), negative mood is related to more negative outcomes and has been found to be associated with increased employee health problems (Bond & Bunce, 2003). Hence, it is important to gain an understanding of the emotion generative process and behavioral manifestations of negative

affect in the workplace. Negative affect is a subject mood state that may include the experience of anger, disgust, nervousness, and anxiety (Watson et al., 1988). A mood with low negative affect would include the experience of calmness and relaxation. It reflects a division in affect along the valence and activation dimensions. For instance, a high level of negative affectivity relates to a feeling state that is both negative in valence and high in activation.

Studies have shown support for the AET model. Employees reporting more customer aggression reported higher levels of emotional exhaustion, absenteeism, and negative affect (Grandey, Dickter, & Sin, 2004; Rupp & Spencer, 2006). This has been found for interactions with customers, coworkers, and supervisors in various job roles (Grandey, Kern, & Frone, 2007). In fact, Miner, Glomb, and Hulin (2005) showed that negative perception and evaluation in the workplace are positively associated with experiencing negative job events. These findings show support for the impact AET in predicting the effects of workplace events on affective and attitudinal outcomes. Ameliorating these negative consequences may provide benefits for the individual and organization.

#### Negative Affect and Interpersonal Performance

The behaviors associated with negative affect may be especially relevant in environments where those behaviors are detrimental to performance as in a customer service context. Negative affect is associated with more negative employee attitudes about their job (i.e. lower job satisfaction) and their coworkers (Judge & Ilies, 2004). Research has also found that negative mood is related to emotional expressivity (Diener, Larsen, Levine & Emmons, 1985; George, 1990). One study that supports this claim showed that people high on trait negative activity are more likely to report negative mood and to provoke peers and supervisors at work (George, 1990). Behavioral manifestations of negative mood are



especially important when performance outcomes are dependent on interpersonal interactions such as in a customer service context, although interpersonal performance is critical in many job roles. Interpersonal performance has been identified as an important and unique component of overall job performance (Campbell, 1991; Viswesvaran, Ones, & Schmidt, 1996). Even though some job roles would benefit from behavioral expressions of negative or aggressive mood (e.g. the military rewarding aggressive behavior), most roles regard positive emotional expression as desirable (e.g. smiling, speaking in a positive tone). At the same time, extreme positive emotion (i.e. laughing uncontrollably) or expressing positive emotion inappropriately (i.e. joking in a courtroom) may also be related to poorer performance.

Interpersonal performance for most job roles is a function of the degree to which customers or clients perceive the employee favorably. In other words, an employee expressing more positive and less negative moods would receive higher interpersonal customer service ratings. Although employees may purposively change their expressions to influence customer perceptions, research has shown that individual observers can detect genuine behavior and whether an expression is authentic or not (Brotheridge & Lee, 2002; Manstead, Wagner, & MacDonald, 1984) by detecting implicit facial expressions and speech patterns that indicate a negative mood (Mauss, Levenson, McCarter, Wilhelm, & Gross, 2005). In this case where better interpersonal performance depends on positive expressivity, negative mood should be detrimental because of its behavioral consequences (Bagozzi, Verbeke, & Gavino Jr., 2003). This leads me to my first hypothesis:

H1: Negative mood will be negatively related to interpersonal performance.

## Emotion and Cognition

Traditionally, theory on emotions in the workplace has separated the experience of emotion from cognitive influences taking the view that affect should be studied independently from cognition (e.g. Duncan & Feldman-Barrett, 2007). Affect and cognition have been treated as separate entities despite evidence showing that cognitive functions such as memory are indeed dependent on an individual's affective state (e.g. Bower, 1981). This distinction directed studies to focus on measuring mood as an automatic or unconscious response to a physical or psychological stressor. This perspective fails to recognize the ability of an individual to purposely control one's affective state and its expression. Theoretical models that view emotion and cognition as inherently linked have grown because of developments in methods that afford the ability to model emotional processes more dynamically (e.g. Bell & Wolfe, 2004, Gross, 1998). This perspective proposes that an individual's cognitions influence the cognitive appraisal of the stressor encountered and in turn the emotions felt and the resultant behavioral outcomes (Lazarus & Folkman, 1984). The increased ability to utilize neurological and physiological tools to measure cognitive states on multiple levels has shed light on the relation between emotion and cognition on a neuronal level. Similarly, the job attitude literature has shown that cognitions can influence emotion and the behaviors that result from an emotionally salient event (see Thoresen, Kaplan, Barsky, Warren, & de Chermot, 2003).

### Psychophysiological Evidence

Tools such as functional magnetic resonance imaging (fMRI) have been used to show a link between emotion and cognition through synaptic connections between emotional cortical structures such as the amygdala and structures associated with higher order executive processes within prefrontal regions (Erk, Abler, & Henrik, 2006; Ochsner, Bunge, Gross, &

Gabrielli, 2002; Ochsner et al., 2004; Ochsner & Gross, 2000). Specifically, cortical activity in prefrontal regions has been shown to be negatively associated with amygdala cortical activity while trying to manipulate the experience and expression of affect. Similar evidence has been found for emotive passive tasks (i.e. no intervention in the emotion generative process) and emotive active tasks (i.e. intervene in emotion generative processes or expression of emotion) (e.g. Richards & Gross, 2000).

A seminal study conducted by Ledoux (1995) was the first to clearly identify two distinct yet parallel pathways when experiencing a threatening stimulus. Specifically, when presented with an emotionally salient stimulus (e.g. picture of attacking snake), two parallel cortical pathways were activated in synchrony. One pathway originated in the occipital lobe and took a direct route to the amygdala while the second pathway is routed from the occipital lobe through the prefrontal cortex and ending in the amygdala. This provided the first direct links between the experience of affect and executive cognitive processes. Affective states have also been linked to memory function and attention using more simple tasks (Bower, 1981; Egloff, Schmukle, Burns, & Schwerdtfeger, 2006; Gellatly, & Meyer, 1992; Richards & Gross, 2000). For example, viewing emotionally salient pictures was shown to be detrimental to goal directed behavior (Blair et al., 2007).

One limitation of prior studies linking cognitive functions to affective events is that they have usually included simple tasks that do not generalize to a real workplace environment. More research is needed testing whether these findings are generalizable to more complex and applied tasks. For instance in real environments, various tasks are concurrently being performed that require both interpersonal and cognitive components in a real work environment. More so, the interaction of environmental factors across time is not taken into account in simplified laboratory environments. In an applied environment, conversely, the individual must choose where to allocate effort among various tasks, where as

within a laboratory participants may have only one task. Therefore, one would expect workload to be higher within an applied context compared to a single experimental task, thereby creating higher competition between tasks for resources. Work related factors such as increased workload, time constraints, and psychosocial demands compete for valuable cognitive resources necessary to successfully perform a task. This is important to organizations because affective states and reactions have been shown to explain unique variance in performance, absenteeism, and employee attitudes in the workplace (Grandey et al., 2005).

In response to these issues, researchers can design more complex task environments that represent real world tasks found in the workplace. One way to do this is through simulations designed to mimic the workplace. This can be accomplished by collecting measures at the workplace or to use simulations. Simulated task environments have been shown to be effective for studying affective processes within more complex and applied task environments (Karoly & Newton, 2006; Egloff et al., 2006). Simulations offer the advantage of increased experimental control with increased psychological fidelity. Therefore, this study used an augmented task environment to extend external generalizability of previous studies that have trained emotion regulation for use in non-applied tasks.

### Emotion and Cognition at Work

Most studies testing the AET framework have been mainly interested in affective behavioral tendencies or interpersonal performance. This fails to provide a mechanism for cognitive factors. Beal and colleagues (2005) explicated one such model that provides a comprehensive framework for understanding the impact of affect on workplace performance using a conservation of resource framework. This is based on the idea that individuals have a finite limited resource store to use for goal directed behavior. All tasks within a given

performance episode compete for these resources especially under high workload conditions. When the resource store is unable to meet the needs of all tasks then task performance must suffer. Beal et al. argued that cognitive and affect management processes detract from this resource pool. Their episodic process model of affective influences on performance is more specific than AET and includes the underlying mechanisms involved in experiencing, regulating, and expressing emotion in the workplace and these factors influence performance. This model provides a mechanism for explaining the impact of affect on cognitive factors. Beal et al. suggested that an emotion affects performance through appraisal, ruminative, and arousal components. I will use this episodic framework in an experimental study that allows the direct manipulation of some of these factors and allows the investigation of the causal direction of these relations.

According to the Beal et al. (2005) framework, emotional labor requires attentional and motivational resources that deplete the energy store. This model specifically addresses the impact of affect and affect management on performance episodes. This model specifies a specific time period that constitutes a performance episode. Tasks are bounded by the time interval within the starting and end point of each performance episode in that they all deplete the same finite cognitive resource store.

Beal's model shows how various tasks within a performance episode all take up resources from a finite store. I argue that managing emotions in the workplace is one task that requires cognitive resources to successfully complete organizational tasks. One way in which affect is likely to take up cognitive resources is through emotional labor. Grandey et al. (2005) adopted a similar resource depletion framework and called for more experiments testing this model. This dissertation answered this call by experimentally controlling for participant experiences while strengthening external validity through the use of an augmented simulated task bed.

## Emotional Labor

As described above, organizations often impose display rules that require their employees to express certain emotions while interacting with customers, coworkers and supervisors (Glomb & Tews, 2004; Morris & Feldman, 1997, Rafaeli & Sutton, 1987). Display rules may determine the content, range, frequency, intensity and duration that certain emotion should be expressed (Brotheridge & Lee, 2003; Morris & Feldman, 1997). For example, a display rule may require that employees always act in a professional, polite, and courteous manner while expressing themselves in a way so that others will perceive them to be in a positive mood. In many instances, though, an individual's affective state is incongruent with the display rule. For example, a customer service representative may feel angry or hurt after being yelled at by an angry customer, yet the representative must respond in a friendly manner as stipulated by the display rule. Hence, individuals must regulate their emotions to resolve this discrepancy. Many of us can probably think of a similar time where you had to behave differently than how we felt. In the same way, a customer service agent must regulate their emotion to deal with the discrepancy of experienced affect and behavioral display. The effort allocated to his process is emotional labor and is cognitive in nature.

### Definition of Emotional Labor

Studies vary in how they define the construct of emotional labor; although all include a component of effort that is necessary and directed towards compliance with organizational display rules (*see* Grandey, 2000). These conceptualizations differ by how they emphasize behavioral, affective, and cognitive indicators of emotional labor. A key distinction that needs to be made is between whether emotional labor is defined as a process or a product. The influence of emotional labor on workplace behaviors is especially relevant to customer service professions. For example, customer service representatives must often interact with

rude and aggressive customers and respond in a friendly manner even though the customer service representatives feel angry or stressed. In these contexts, individuals constantly use emotional regulation strategies throughout the workday to deal with the discrepancy between display rules and state affect (Grandey, 2003).

This study defined emotional labor as the degree of effort expended by the individual to adhere to display rules and is influenced by the environment or individual and is a function of the discrepancy between the motivation to adhere to display rules and degree to those display rules match the real affective state of the individual. This definition emphasizes emotional labor as a cognitive process in line with previous conceptualizations (e.g. Morris & Feldman, 1996; Rupp & Spencer, 2006). It makes a clear distinction between the behaviors engaged in during emotion regulation (i.e. strategy) and the effort required to engage in that strategy. Further, this effort is cognitive in nature. It is important to note that an organization may have display rules but employees may consciously choose not to expend effort to adhere to display rules. Also, individuals whose mood states are naturally in line with display rules do not need to expend emotional labor to manage their expressions.

#### Emotional Labor and Cognitive Task Performance

Emotional labor provides a mechanism to test the cognitive component of the proposed model. Emotional labor is important because it has been linked to negative individual and organizational outcomes. For example, emotional labor is positively related to job burnout and emotional exhaustion (Brotheridge & Grandey, 2002) and negatively related to job satisfaction (Bond & Bunce, 2003). These individual outcomes are positively associated with organizational outcomes such as turnover (Lee & Ashforth, 1993). Hence, assuaging these negative outcomes associated with emotional labor is critical for both employees and organizations.

Emotional intensity has been shown to be a unique component of the process of managing emotional labor (Brotheridge & Lee, 2003). This is important because two individuals may adhere equally well to display rules as measured through emotional expressivity (i.e. facial expressions), yet expend different levels of cognitive effort to accomplish this. This cognitive effort is part of a larger cognitive resource store which is depleted as described by the Beal et al. (2005) model. Consequently, less cognitive resources are available for other tasks within a specific performance episode. The depletion of cognitive resources should predominantly impact the cognitive component of tasks performance, since these are the tasks that require the most cognitive effort and resources for successful task completion. This leads me to my second hypothesis.

H2: Emotional Labor will be negatively related to cognitive task performance.

### Emotion Regulation

One way in which an individual can influence the cognitive and affective (i.e. negative mood) consequences of negative workplace events is through engaging in emotion regulation processes. The discrepancy between an employee's true affective state and the emotions they must express according to display rules is likely to cause some dissonance for the individual which they may strive to reduce in some way. Emotion regulation is the process of controlling and managing one's own internal affective state or the expression of emotion. Emotion regulation is distinguished from emotional labor as a process in the former case and a product in the latter case. Emotional labor is the effort or workload required to engage in emotion regulation. This process requires an individual to expend effort in the form of emotional labor. Two distinct emotional regulation strategies that are used to expend emotional labor are surface acting and deep acting. Research has shown that these strategies



require different processes and have differential outcomes (Brotheridge & Grandey, 2002; Gross, 1998). Furthermore, deep acting emotion regulation has been shown to have more beneficial outcomes than surface acting emotion regulation. This is said to occur because deep acting intervenes much earlier in the emotion generative process, thereby limiting the cognitive and physiological consequences of a negative event. These strategies will be described in more detail in the next section.

Most of the research manipulating emotion regulation strategy has been conducted on a more basic level, but the same processes should generalize to more applied tasks. For example, studies have used picture and film viewing to understand how people strengthen or weaken a particular emotional experience in an extremely controlled environment. These studies have identified certain strategies to be superior to others when regulating an emotion. For example, a deep acting strategy has been found to lead to more positive outcomes (e.g. performance) and ameliorate negative outcomes (e.g. stress, burnout) compared to a surface acting strategies (Egloff et al., 2006, Martinez-Inigo, Totterdell, Alcover, & Holman, 2007). These strategies also use different amounts of cognitive resources to execute. Hence, it is beneficial to the worker and the organization to use one strategy over another at the workplace.

### Defining Emotion Regulation

A number of researchers have explored constructs that share a degree of similarity to the construct of emotion regulation such as emotional intelligence (Feyerherm & Rice, 2002; Salovey & Mayer, 1990), emotional dispositions, affective impression management (Kelly & Barsade, 2001), emotional control, emotional expressiveness, and dispositional hardiness (Maddi, 1997). Each of these constructs differs in how much control the individual has over the physical, cognitive, and behavioral consequences of a salient event. For instance,

emotional intelligence (EI) was first explicated by Salovey and Mayer (1990) as the ability to monitor, discriminate, and guide one's own feelings and emotions. The construct of EI was later revised to represent a composite of abilities, cognitions, and traits inherent to a person that is relatively stable over time and situations (Goleman, 1995). Another component of EI, managing emotion, positively correlated with team performance criteria (Feyerhem & Rice, 2002).

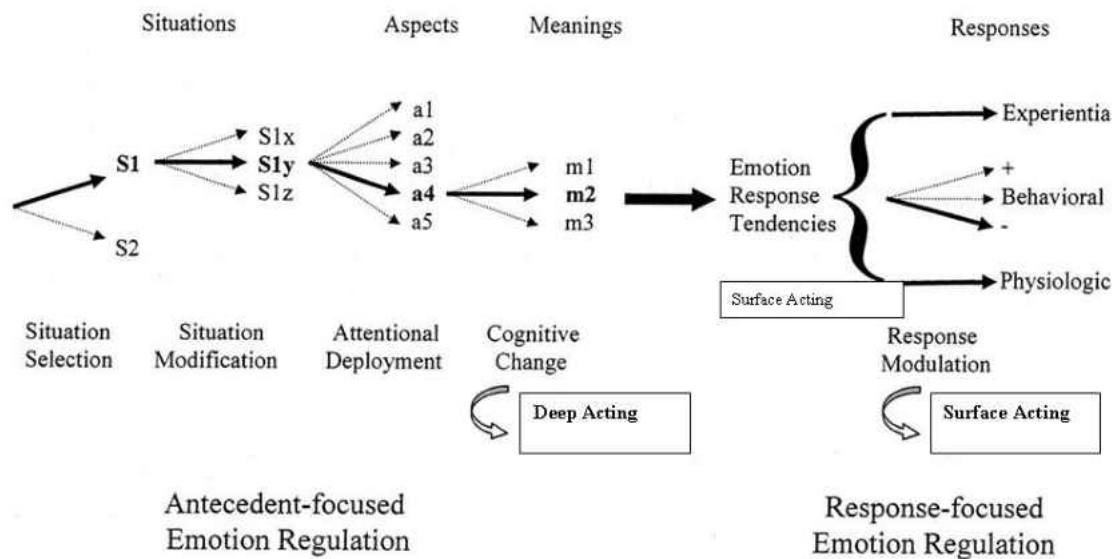
Affective impression management differs from EI as it proposes that the individual gauges the emotions of proximate others as well as the appropriateness of his/her own emotions. This individual then displays emotions that are 'appropriate' but are not necessarily internalized by the individual (Kelly & Barsade, 2001).

The importance of emotions in moderating behavior became a central focus of research. Leading theories of emotion regulation provide strong evidence that processing biases exist and certain regulation strategies impact an emotional experience and its behavioral consequences (i.e., Oatley & Johnson-Laird, 1987). Specifically, ER is believed to impact the behavioral consequences of emotion by reducing the cognitive resources spent in suppressing an emotional response. Through the use of a more efficient reappraisal strategy, an individual is able to use the freed cognitive resources to attend to goal-relevant information and tasks (e.g., Miller & Cohen, 2001; Smith & Jonides, 1999) and associated working memory processes (Barcelo & Knight, 2002; Barcelo, Suwazono, & Knight, 2000).

#### Process Model of Emotion Regulation

Gross (1998) explicated a process model of emotion regulation that identifies antecedent focused (or deep acting) and response focused (or surface acting) emotion regulation strategies. Emotion regulation is the process by which cognition explicitly influences (a) which emotions are experienced, (b) when they are experienced, and (c) how

they are manifested behaviorally (Gross, 1998). His model specifies the specific moment where an emotion can be proactively or retroactively moderated. Figure 3 shows Gross's model across the emotion generative process.



**Figure 3 Gross's (2001) Process Model of Emotion Regulation**

Deep acting occurs early in the emotion generative process and involves changing the perception of an emotional stimulus or event. An example of reappraisal would be to recall that 'supervisor Joe' had been under a lot of pressure lately and probably did not intend to be so harsh in his feedback. Therefore, any harsh criticism received from 'supervisor Joe' is reappraised as caused by overload rather than true dissatisfaction with performance. An

example of attentional deployment would be to try to forget how harsh ‘supervisor Joe’ had been this morning and instead focus on the task at hand. Surface acting occurs later in the emotion generative process and involves inhibiting the expression of an experienced emotion. The distinction to be made is two fold: (a) the timing of these two processes (b) the impact on consequential behavior and expression of the emotion. Reappraisal represents an antecedent focused approach because it involves changing an emotion before consequences of that emotion become fully active. Suppression is more response focused because it involves active inhibition of an emotion after response consequences have begun (Gross, 2001). Gross has shown that reappraisal techniques in response to negative events will reduce negative behavioral tendencies and increase positive behaviors. In contrast, suppression techniques will reduce negative behaviors, but also reduce positive response behaviors (Gross, 2001).

Affective states have physiological, cognitive, and behavioral consequences and emotion regulation strategies differentially affect each type of consequence (Miner & DeJun, 2002). In other words, if someone activates a reappraisal strategy (i.e. antecedent focused) then the change in and behavioral consequences may be different than if the same individual uses a suppression strategy (i.e. response focused). Antecedent focused emotion regulation occurs when an individual cognitively reappraises a stimulus before or during its occurrence. A customer service example would be when a customer service agent reappraises rude comments from the customer as irrelevant to the task. This would enable the agent to focus on the task relevant information by preventing the emotional valence of the interaction to elicit a negative affective state. Response focused strategies aim at controlling affective consequences after an event has occurred. It is response focused because the immediate physiological, affective, and cognitive reactions have already begun before the individual intervenes. For example, in the same customer service context the agent would feel the increase in heart rate and develop negative cognitions after dealing with a rude customer and

then try to suppress these affective consequences. The critical difference between these strategies is that the antecedent focused strategy impacts the formation of negative reactions in response to an affective salient event while the response focused strategy seeks to control or suppress the chain of physiological, cognitive, and behavioral reactions after they have already begun. Figure 4 shows a graphic representation of the model.

### Emotion Regulation Training

Current training programs for jobs high in emotional labor (e.g. customer service) do not commonly train individuals to use one strategy over another. Instead, only a description of the importance of acting professionally and courteously to customers or co-workers is provided. Examples of specific behaviors, appropriate speech, and emotional expressions may be included. This type of training is especially used to deal with customers for customer service positions and co-workers in team oriented environments. For example customer service positions will generally focus training on the effects of emotional expressions on the customer. In other words, customer service representatives are told to smile in face to face interactions or speak in a welcoming tone so that the customer will stay calm and happy. This perspective totally ignores the effects of emotional regulation on the actual customer service representative.

Research applying emotion regulation in the workplace can help develop more effective training programs for regulating emotion. This may have beneficial consequences for the employee (i.e. decreased stress and burnout), the organization (i.e. increased performance, decreased turnover), and the customer (i.e. higher satisfaction). Previous studies investigating emotion regulation in an applied context (e.g. customer service task) have predominantly used self report measures that ask individuals the degree to which they employ deep and surface acting emotion regulation on the job. In contrast, emotion regulation has

been manipulated in several studies using more basic tasks such as viewing emotionally salient video clips and pictures. The manipulations in these studies have generally been very basic, usually consisting of a brief set of instructions given to participants prior to viewing each stimulus. For example, prior to watching a disgusting film clip Gross (1998) instructed participants to either (a) think about the film in such a way that they would feel nothing (i.e. deep acting), (b) behave in a way that someone watching them would not know they were feeling anything (i.e. surface acting), or (c) watch the film (i.e. control). While these simple instructions have been shown to significantly effect behavior (i.e. emotional expression), physiological reactivity, and cognitive performance (i.e. memory about the film), I decided that more elaborate training would be necessary for the complex task that will be used in this study. Furthermore, the display rule used in this study (i.e. assertiveness) is a complex skill with several facets and requires more elaborate training.

Gross (1998) found that people instructed to use an antecedent focused strategy reported similar levels of emotive expressive behavior but showed less physiological reactivity than those using a response focused strategy. Miner and DeJun (2002) replicated these results when they found that antecedent focused emotion regulation decreased the experience of negative emotion and subsequential emotive expressive behavior while a response focused strategy only decreased emotive expressive behavior after viewing a negative film. Emotion regulation may serve two primary functions for the individual. These are to help control expressive behavior and to manipulate the affective state itself. Miner and DeJun (2002) found that emotion regulation did reduce levels of self reported stress. This is important in the work context because people who use a response focused strategy develop a more negative bias which may affect job satisfaction and turnover, yet continue to appear content to coworkers and managers.

Gross's (2002) process model of emotion regulation proposes that the manner in which emotions are regulated will impact performance on a given task. Currently, Gross and his colleagues have only tested this theory in laboratory settings using tasks that may be insignificant to the participants. However, it is reasonable to hypothesize that individuals will behave differently in a work setting than he/she might in their personal lives outside of the workplace because the employee may be more invested in the outcomes of job related tasks. One of the advantages of using ER to increase performance is the ability to train individuals to change his/her current strategies to use the most effective strategy for a given task (Barrett, Gross, Christensen, & Benvenuto, 2001). This training should affect both the affective and cognitive outcomes.

H3: Emotion regulation training will be negatively related to negative mood so that individuals receiving deep acting training will experience less negative mood than individuals receiving surface acting training.

#### Emotion Regulation Training and Emotional Labor

Emotion regulation aims to regulate the experience of affect and affective behavioral reactions. This process is also linked with cognitive functions (Bell & Wolfe, 2004) and requires cognitive resources to perform. Recent evidence using fMRI found brain activation patterns suggesting that attention and higher cognitive structures such as the prefrontal cortex are systematically and functionally linked to emotion regulatory processes (Ochsner & Gross, 2000). Therefore, individuals will have different amounts of resources available for the task depending on the energy expunged on regulating their emotions. For example, Richards and Gross (2000) had participants watch either an affectively salient film or slideshow and later tested their memory. Both studies showed that suppression, but not reappraisal led to memory

decrements. These same cognitive resources are critical for processing information necessary for successfully completing the task.

As previously discussed, emotional regulation training is meant to train individuals to use a specific strategy to help them more adaptively manage their emotional labor. Strategies aim to reduce the effort required to successfully adhere to organizational display rules.

Research has shown that suppressors will have increased heart rates after an emotionally salient event compared to reappraisers (Gross, 1998).

H4: Emotion regulation training will be negatively related to emotional labor so that individuals receiving deep acting training will experience less emotional labor than individuals receiving surface acting training.

#### Personality-Display Rule Congruence

According to AET, another source influencing affective processes in the workplace stems from individual differences that impact the perception of negative workplace events. While much research has supported these results, individual differences in how events are perceived is only one way to explain the role of personality using AET. In the case where individual differences create a more favorable perception of the work environment, the discrepancy between automatic behavioral tendencies and required behavioral tendencies becomes smaller. For example, individuals with high negative trait affectivity may perceive a critical comment from a boss in a more negative manner than someone who is low on negative affectivity. This negative perception will activate behavioral tendencies that are inconsistent with display rules. Another way in which individual differences impacts the emotion regulatory process that has been overlooked is through the degree of fit or personality-display rule congruence between the individual's personality and task



requirements. This perspective emphasized an interaction between individual differences and display rules. Hence, perceiving an event more negatively may be detrimental when display rules are positive and beneficial when display rules are negative.

Person-environment fit (PE) theory provides insight into how personality impacts emotional processes in the workplace by emphasizing the interaction of individual differences and environmental influences on work attitudes and behavior. PE theory proposes that the degree to which an individual's personality fits the work environment is positively related to work related attitudes, behavior, and outcomes. This is based on the notion that organizations have certain needs that the employee can fulfill and the employee has certain needs that the organization can fulfill. Greater fit indicates need fulfillment and benefits individual attitudes and organizational outcomes.

Fit can be operationalized as either supplementary fit or complementary fit (e.g. Kristof-Brown, Zimmerman, & Johnson, 2005). The supplementary fit perspective argues that employees who have characteristics more similar to what the organization already possesses have greater fit and are associated with better outcomes. In other words, a closer fit indicates more congruence between natural individual behavioral tendencies and existing organizational behavioral norms. In this case, personality-display rule congruence represents the degree to which there is a greater supplementary fit between an individual and the organization. The complementary fit perspective also holds that an interaction between the person and environment is important, but instead argues that fit is the degree to which an individual possess characteristics that the organization does not possess but in order to improve effectiveness. The choice of perspective has implications for measuring fit and interpreting study findings (Edwards, 1996; Edwards, Cable, Williamson, Lambert, & Shipp, 2006). For example, personality-display rule congruence would be desirable for a supplementary method and undesirable for a complementary method. A supplementary fit is

more applicable for explaining the role of personality in customer service roles since individuals who have natural behavioral tendencies that are congruent with display rules (i.e. assertiveness) will reduce the effort needed to adhere to display rules. In this way, a supplementary fit perspective informs how to measure and test the proposed moderating influence of personality on the effects of emotion regulation training on affective (i.e. negative mood) and cognitive (i.e. emotional labor) outcomes.

One way in which personality-display rule congruence impacts emotion regulation processes is by influencing individual attitudes. In prior studies, personality-display rule congruence positively predicted job satisfaction and was positively related to well-being (Chilton, Hardgrave, & Armstrong, 2005; Edwards et al., 2006; Kaldenberg & Becker, 1992, Furnham & Schaeffer, 1984). In addition, personality-display rule congruence has been negatively associated with stress related outcomes (i.e. strain, well-being) (Brandstatter, 1994; Furnham & Schaeffer, 1984; Vagg & Spielberger, 1998). A pilot study of the simulation showed that personality-display rule congruence with a display rule for assertiveness predicted decreased heart rate, a common physiological indicator of negative affect (Feldman, Afek, & Smith-Jentsch, 2008). Together, these findings indicate that greater personality-display rule congruence is associated with more beneficial attitudinal and affective outcomes. These findings support that people with personalities more congruent with display rules given to them will be more satisfied that they do not have to regulate their natural behavior. When someone's natural tendencies are more congruent with the organizational display rules there will be less apprehension about having to express oneself in an incongruent way with one's own personality. In contrast, the more incongruent the more apprehension should be felt about completing the task. This leads me to the following hypotheses:

H5: Personality-display rule congruence will moderate the effect of emotion regulation training on negative mood so that this effect will be attenuated when personality-display rule congruence is higher. Specifically, individuals will benefit less from deep acting training compared to surface acting training when personality is more congruent with display rules.

Also, with higher personality-display rule congruence less cognitive effort is required to regulate emotional behavioral tendencies thereby leaving additional resources for other cognitive tasks. Emotion regulation is the specific strategy used to manage affect effectively. Emotional labor is the mental effort required to adhere to organizational behavioral expectancies and is a function of the discrepancy between natural behavioral tendencies and those required by the organizational display rules. Personality-display rule congruence for the personalities that match those behaviors required for the job role is a measure of this discrepancy and should work to reduce emotional labor. Therefore I hypothesize the following:

H6: Personality-display rule congruence will moderate the effect of emotion regulation training on emotional labor so that this effect will be attenuated when personality-display rule congruence is higher. Specifically, individuals will benefit less from deep acting training on emotional labor when personality is more congruent with display rules.

#### Emotion Regulation Training and Performance

One of the overarching goals of organizations is to increase performance through workforce development such as training. Organizations currently focus on interpersonal performance to measure how well an employee adhered to display rules. This ignores the cognitive consequences of regulating one's emotions, hence I argue that the cognitive

dimension of task performance is often ignored by organizations and should be collected in tandem with measures of behavioral display. Emotion regulation training should also impact performance outcomes. A customer service job requires the individual to process various types of information from various sources, input this information into a database, and problem solve to find an appropriate course of action. All of these processes occur while communicating in a polite and professional manner to the customer. Similar functions are required when interacting with coworkers especially in team oriented jobs. If ratings are based on explicit behaviors then the measure of performance will be more sensitive to interpersonal processes. In contrast, measures of performance that use task completion will be more sensitive to the cognitive component of performance. In this study I will measure both aspects of performance to help explain these discrepancies.

Studies have also found conflicting results of the relation between emotion regulation and performance. These discrepancies may be explained by differences in the way performance was measured. Some studies used memory and task performance that are specifically linked to a cognitive process, but job performance is a multidimensional construct that includes behavioral and cognitive components (Motowidlo, Borman, & Schmidt, 1997). Hence, measures of performance may include either component or both. All of these processes occur while communicating in a polite and professional manner to the customer. Similar functions are required when interacting with coworkers especially in team oriented jobs as well. If ratings are based on explicit behaviors then the measure of performance will be more sensitive to explicit behavior tendencies indicative of emotional expression. In contrast, measures of performance that use task completion will be more sensitive to the cognitive component of performance. In this study we measured both aspects of performance to help explain these discrepancies. Considering this, emotion regulation training should impact interpersonal and cognitive dimensions of performance, through their

affective (i.e. negative mood) and cognitive (i.e. emotional labor) indicators. Specifically, I predict that:

H7: Negative mood will mediate the effect of emotion regulation training on interpersonal task performance.

H8: Emotional labor will mediate the effect of emotion regulation training on cognitive task performance.

### Summary

In summary, this dissertation presents a model that proposes emotion regulation training and deep acting training specifically will lead to more beneficial affective, cognitive, behavioral, and performance related outcomes. More so, the model provides a means to test the cognitive and affective components of emotion regulatory processes. It enhances previous models by specifying a specific time period (i.e. a performance episode) that groups tasks in a more realistic way and integrates emotion theory from multiple levels.

### Present Study

The present study was designed to test the proposed model and specific hypotheses related to that model. I manipulated the type of training given to participants prior to completing a customer service role. Next, I describe the method used for data collection.

## CHAPTER THREE: METHOD

### Power Analysis

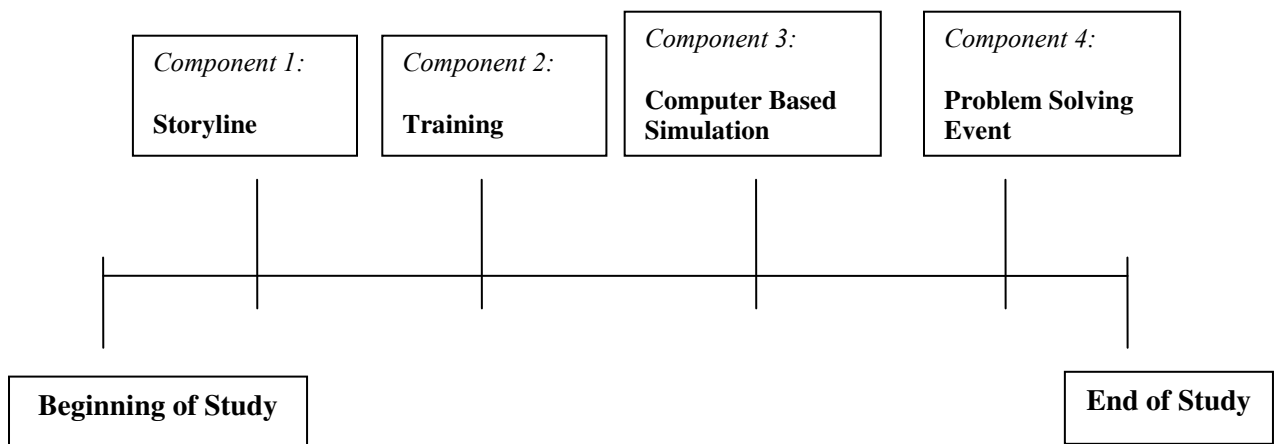
It is critical to consider the number of participants that are needed for a study to have sufficient power to detect significant effects. Hence, a power analysis was conducted to estimate how many participants are needed to provide enough power to analyze my data in lieu of the study hypotheses. This analysis was performed using the statistical software, G\*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007) which allows the researcher to enter parameters of the study and then estimate the required sample size in order to detect a specified effect size. When using an alpha of .05, it was estimated that a sample size of 68 would be sufficient to detect an effect size of .20. In other words, I can be at least 95% confident that I will correctly reject the null hypothesis when I have an effect size of .20 or greater.

### Participants

82 student dyads from a large southeastern university participated in this study. All participants received course credit for participating and were treated ethically in accordance with guidelines of the American Psychological Association (APA) and the UCF Institutional Review Board (IRB). 7 dyads were removed from the data set because of technical problems (e.g. simulation stopping early) and were excluded from further analysis. This resulted in total of 75 usable participants for this study with 40 of those participants receiving surface acting training and 35 receiving deep acting training. The mean age was 20 years old with 47 females and 29 males. Participants consisted of 39 Whites, 17 Hispanics, 16 Blacks, and 4 Asians.

### Experimental Taskbed

The entire experiment was embedded within a simulated task environment that was designed to look like a hospital customer service counter located in a hospital emergency room. This was accomplished through a realistic storyline and putting up props such as signs normally found in a hospital. The experimental task bed was comprised of 4 main components occurring in the following order: storyline, training, simulation, problem solving event. It is important to note that a component represents a convenient marker according to the timeline of events and tasks occurring during the experimental task bed. A summary of each component follows.



**Figure 4 Timeline of Four Major Components of Study.**

#### Component 1: Storyline

The entire experiment occurred within the context of a common narrative where participants played the role of a newly hired hospital emergency room customer service representative beginning their first day of work. Participants were told that they were being video recorded so that their supervisors could assess their performance as part of an initial probationary period for the position. This was intended to help participants become more

immersed in their role and the storyline. The storyline was read by the experimenter using a standardized script (Appendix D). The use of narrative was possible through carefully scripting events in a way that immersed participants in their job role and strengthens psychological fidelity.

## Component 2: Training

Approximately 30-40 minutes in duration, the training component was delivered through a self guided Microsoft PowerPoint presentation. The emotion regulation training manipulation was given during this component of the study and will be described in detail in the manipulation section below. Each slide included narration that was heard over computer speakers as participants read each slide. The PowerPoint concluded with an active practice portion in which participants viewed sample video scenarios that they responded to using the emotion regulation strategies that were given earlier in the presentation. Experimenters then provided live structured feedback to participants. The feedback was based on the emotion regulation strategies to ensure participants understood the required display rules and used the specific emotion regulation strategies while responding.

All participants received the same instructions on how to operate the input devices, respond to voicemails, and operate the public announcement system of the hospital. They were also given the same job role specific information (e.g., background on job, characters, and situation). Additionally, training provided information about hospital rules, regulations, and display rules. For example, it was important for the customer service representative to know that patients are seen in order of the severity of their condition and not on a first come first serve basis.

The display rules were developed around assertive behavior. Assertive behavior is a multifaceted interpersonal skill (Alberti & Emmons, 1974) in that includes verbal and



nonverbal communication (e.g. expressions). Display rules were the expressions and behaviors customer service representatives were required to display when interacting with patients, coworkers, and supervisors. These expressions were a facet of assertiveness. Hence, the display rules reflected the behavioral expressions associated with assertiveness. For example, all participants were told it was very important that patients perceived them to be polite and professional so as to represent the hospital in a positive light. At the same time, expressing inappropriate passive responses (e.g. laughing at an offending remark) was also inappropriate.

### Component 3: Computer Based Simulation

The main component of the experimental taskbed was an interactive computer based simulation task (CBS) where the participant played the role of a customer service representative working in the lobby of a hospital emergency room. In this CBS, participants interacted with the characters (i.e. customers, co-workers, supervisors) in a face to face format so that participants could see the characters' expression and gestures on the screen (i.e. high psychosocial cues). Participants listened through computer speakers and verbally responded into an attached microphone as they normally would as a series of video-based characters spoke to them in a first-person perspective. Voice activated technology allowed the CBS to detect when the participant began and finished speaking. At each point requiring a response, video of the character loops while the participant speaks and then continued with the next scene when the software no longer detected speech for at least three seconds. Events were scripted to unfold seamlessly creating an immersive 40-minute workplace story.

The scenarios in the simulation were developed by conducting a thorough job analysis of the customer service position and eliciting critical incidents from subject matter experts. This was done to provide realistic scenarios and roles helping strengthen external validity.

Various tasks related to the customer service role were embedded within the events in the simulation allowing responses to be collected unobtrusively and avoiding having to interrupt the unfolding story. For example, a scenario may have required the participant to calmly and politely interact with an aggressive patient demanding to be seen while another scenario may have required the participant to calculate the amount of break time available to a coworker. The ability of the simulation to react to participant responses provided a more realistic experience for the participant in that they became more embodied within their role. At the same time, this created a greater demand for a timely response from the participant as would be the case in an applied setting. The simulation included events that required participants to respond to characters, voicemails, over the hospital public announcement system and through email. In summary, the computer based simulation tasks afforded greater experimental control while allowing participants to behave more naturally when completing the task.



**Figure 5** Screen shot of customer service simulation.

#### Component 4: Problem Solving Task

The last component of the study was a problem solving task where participants were told that there was a ‘disturbance’ in the hospital. Their task was to try and remember the day’s events and the characters they interacted with to debrief police officers en route to the scene. Participants were required to generate as many possible scenarios that were probable as being the cause of the hospital disturbance. For each scenario that was generated, they identified the perpetrator, any accomplices, the perpetrator’s target (i.e. who the directed action was intended for), and the motive for causing the disturbance. The experimenter wrote down each scenario. Experimenters were trained to only ask participants about the details of each scenario and not to discuss anything additional with the participant. This was to ensure that the experimenter did not lead the participant to provide a particular explanation over another. Appendix F shows the script used by experimenters for this component.

#### Manipulation

The emotion regulation training was manipulated on two levels: (a) surface acting and (b) deep acting. Specifically, participants were trained to use either surface acting or deep acting emotion regulation strategies to effectively adhere to the display rules required by their job role. It is important to note that both training conditions included the same rules, regulations, display rules, and took approximately 40 minutes to complete. Hence, the only difference between the surface and deep acting training conditions was the content describing how to adhere to display rules for surface and deep acting respectively. Furthermore, the amount of information given for each strategy was approximately equal. Appendix G shows the training slides for the surface acting condition and appendix H shows the training slides

for the deep acting condition. The specific surface acting and deep acting emotion regulation manipulations will be described in detail below.

### Surface Acting Training

According to Gross's (1998) process model of emotion regulation individuals who use surface acting intervene very late in the emotion generative process. Surface acting emphasizes the expression of affect and how others perceive the individual. To this extent, the surface acting training did not aim to change the actual experience of negative affect, but only how an individual appears to others. Hence, a customer service representative (i.e. participant) who felt angry (i.e. aggressive) or withdrawn (i.e. passive) was told they had to suppress their natural behavioral tendency (e.g. verbally attack others or avoid the situation) and mask it in line with the required display rules. In other words, an individual using a surface acting strategy must fake how they appear to others so they are perceived as polite, courteous and assertive.

Several strategies were provided that enabled participants to adhere to display rules by manipulating their facial muscles, posture and voice when interacting with patients and coworkers. Specifically, participants were told to control their facial muscles by relaxing tension in their mouth and to lift their eyelids and cheeks slightly to portray a confident, assertive toned expression (Goldberg & Grandey, 2007). Also, they were told to control their vocal characteristics to be neutral and to avoid raising their voice too loud or lowering their voice to soft. These display rules are in line with behaviors linked to assertiveness (Lorr & Moore, 1980). Examples of polite and angry faces and audio clips were provided to help differentiate these expressions. At the end of training, participants practiced using these strategies in response to written and video scenario. The experimenter gave feedback that

focused on the specific strategies participants used during practice and emphasized the use of these surface acting strategies during the actual task.

### Deep Acting Training

The deep acting training was designed to train participants to intervene much sooner in the emotion generative process as compared to surface acting. Deep acting training provided several strategies that helped participants cognitively reappraise a situation before unwanted physiological and cognitive response tendencies of an emotional event could develop. The three strategies provided were positive refocus, perspective taking, and attentional allocation. Positive refocus involved reappraising the task as a positive experience (Gross, 1998). For example, participants were told to think of their job as an opportunity to develop customer service skills and help patients. Perspective taking was a strategy used to help participants imagine the situation from other's point of view. For example, participants were told that patients may be angry or aggressive towards them because of being injured and uncomfortable rather than perceiving the patient's anger as a personal attack towards the participant. Attentional allocation was a strategy training participants to control their attentional focus so that they disregarded the emotional content of the interaction and instead focused on the patient's or coworker's needs and how it related to organizational rules or policies (Gross, 1998). These strategies were not mutually exclusive and have been shown to be effective strategies used to manage emotion during task completion (e.g. Belschak, Verbeke, & Bagozzi, 2006; Folkman & Moskowitz, 2000). As with the surface acting condition, participants were provided several practice scenarios and given feedback to ensure they understood and used the targeted deep acting strategies during the actual task.

## Summary of Manipulation

This study manipulated whether participants were trained to use surface acting or deep acting emotion regulation strategies while interacting with patients and coworkers during a customer service simulation. Both training conditions presented participants with the same job rules, regulations, and display rules. In addition, both conditions required participants to practice the trained strategies with the same practice scenarios and receive the same amount of canned feedback from the experimenter. The critical difference between the two conditions was the strategies participants were instructed to use to adhere to display rules while performing their job roles. Specifically, surface acting training focused on suppression techniques that trained participants to fake how they appeared to others by intervening at the end of the emotion generative process while deep acting focused on cognitive reappraisal techniques that changed the actual affective experience and intervened much sooner in the emotion generative process.

## Equipment and Materials

### Paper Based Measures

A series of paper based measures were collected and can be found in the appendices. These include the Demographics (appendix I), Emotion Regulation Questionnaire Trait (ERQ-T) (appendix J), Emotion Regulation Questionnaire State (ERQ-S) (appendix K), Positive and Negative Affect Schedule (PANAS) (appendix L), self report emotional labor (EL) (appendix M), and Option Generation Form (appendix E). These measures will be described in detail in the measures section.

## Training Materials

As previously mentioned, training was given using a combination of computer based instruction, and active practice. The computer based instruction for both conditions was presented via Microsoft Office® PowerPoint 2003® software. Slides included both written information and video behavioral examples. The training slides are provided in appendix G and H.

## Computer-Based Simulation

The computer based simulation task (CBS) was run on a Dell desktop computer with a Pentium 4 processor and 512mb RAM. Participant vocal responses were captured using a standard PC lapel microphone. The software used to develop the simulation was Macromedia Director®. The simulation image was projected on a wall approximately 10 feet from the customer service counter by a Toshiba projector. Hence, patients and coworkers that participants interacted with were approximately life sized. A separate 24” LCD display displayed hospital rules and information updates while performing the tasks. A standard set of computer speakers were used to project any sounds coming from the CBS. Miniature cameras were positioned in front of the participant’s workstation and around the room to give them the impression they were being recorded.

During the CBS participants received periodic informational updates on the 24” LCD display mentioned above. These updates were sent at specific points during the CBS by the experimenter from a separate room. To accomplish this we used Marratech 5.1 a freely downloadable virtual network meeting software application ([www.marratech.com](http://www.marratech.com)). The Marratech whiteboard and chat functions were used for this study. The whiteboard function allowed the experimenter’s computer to share an image of the hospital rules and regulations (Figure 6). The chat function enabled the experimenter to send informational updates (i.e.

clues) to the participant's computer. This worked by first typing the message and then sending the complete message to the participant's computer after pressing enter. Hence, the participant was not able to see the experimenter actually type the message. This aided in giving the impression that messages were being sent over a larger system rather than being sent by the experimenter. The software was set so that participants could only receive messages disabling their ability to respond. A screenshot of the information update screen

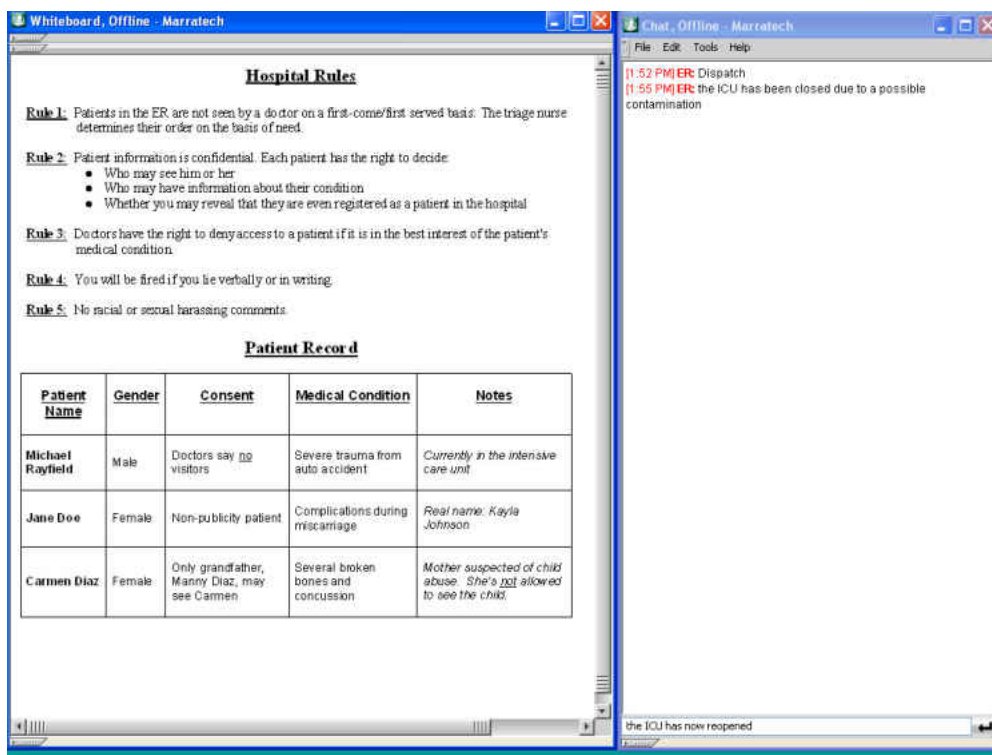


Figure 6. Screenshot of information update screen.

## Measures

### Trait Emotion Regulation

Individuals may have a tendency to use one type of emotion regulation strategy more than another (Gross & John, 2003). Hence, individual differences in emotion regulation were



measured using the Emotional Regulation Questionnaire (ERQ) (Gross & John, 2003). The ERQ asked participants to rate 10 items on a scale from 1 (strongly disagree) to 7 (strongly agree) the degree to which they agree or disagree to a list of statements that deal with “how you control (that is, regulate and manage) your emotions”. Example items included “When I am faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm” and “When I feel negative emotions, I try not to express them”. An average score was then computed separately for surface acting ( $\alpha = .76$ ) and deep acting ( $\alpha = .75$ ) by taking the average rating for all items loading on each strategy. I will refer to this trait version of the ERQ as the ERQ-T.

#### State Emotion Regulation

This study aimed to manipulate whether individuals used a deep or surface acting emotion regulation strategy. In order for this manipulation to be effective participants must comply with the training they were given. Demaree, Robinson, Pu, & Allen (2006) found that individuals told to suppress, a surface acting strategy, reported using a cognitive reappraisal or deep acting strategy while viewing a 2 minute film clip. This highlights the need to measure emotion regulation training compliance during the simulation task. Hence, the ERQ-T was modified to reflect the use of surface and deep acting during the simulation task. The state version of the ERQ mirrors the ERQ-T except with instructions and items that were modified by changing the reference to how someone generally experiences and regulates emotions to how they used emotion regulation strategies during this study. For example, a trait item such as “in general I usually keep my emotions to myself” was modified to read “during the simulation, I kept my emotions to myself”. The state version of the ERQ-T will be referred to as the ERQ-S. Reliabilities for surface acting items on the ERQ-S was .78 and for deep acting items was .82.

## Customer Service Experience

The amount of experience in a service oriented position should impact levels of performance in a customer service situation. Also, employees with less experience have been found to engage in more surface acting (Grandey, 2003). Customer service experience was measured by asking participants whether they had any experience in a customer service oriented position and was coded dichotomously (1 = no customer service experience, 2 = some customer service experience).

## Personality-Display Rule Congruence

Personality-display rule congruence (P-D congruence) was operationalized as the degree to which an individual's personality is congruent with display rules that define successful interpersonal performance. The applied nature of the customer service task required display rules that were representative of assertiveness so the degree to which someone was more typically assertive in situations, the more congruent they were with the display rules used for this study. Hence, personality-display rule congruence was measured using peer ratings of assertiveness. Participants were required to bring with them individuals who they were familiar with. Peers then rated participants on how assertive they would typically behave in response to 8 scenarios that were included in the CBS and used to measure interpersonal performance (i.e. assertiveness responses in the simulation). Peer ratings were used rather than self report ratings because they represented how participants typical behavior as seen by others rather than how participants perceived themselves. Prior research has shown that self perceptions may differ from others perceptions (Connolly, Kavanagh, & Viswesvaran, 2007), which was the focus of interpersonal performance in this study. Also, peer ratings were found to be more predictive of typical behavior in the CBS in previous studies (Feldman et al., 2008; Smith-Jentsch, Griffin, & Onyejiaka, 2006).

Peer ratings were made on a 3 point scale on how assertive or passive the participant was expected to behave in response to the 8 scenarios ( $\alpha = .73$ ). This measure gave a score representing the degree to which the participant typically behaves assertively or passively where a higher score indicates that an individual is more assertive and a lower score indicates that the participant is more passive. Since assertive behaviors define better interpersonal performance in this particular study, a score is indicative of being more congruent with the environmental demands. Hence in this study, a higher assertiveness peer rating indicated greater personality-display rule congruence with display rules.

#### Negative and Positive Mood

Negative mood and positive mood were measured using the Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988). This scale specifically targeted state affect or mood rather than trait affect because of the temporal reference given in the directions. In other words, the instructions specifically focused the participant's attention on their current emotional state. This measure has shown to have strong psychometric validity (Grandey et al., 2004) and to be positively related to state but not trait outcomes. The PANAS presented participants with 20 emotional adjectives with instructions to "Indicate to what extent you feel this way right now, that is, at the present moment" on a Likert type 5 point scale ranging from very slightly to extremely. Example items for negative mood included irritable, upset, and distressed. Example items for positive mood included interested, excited, and enthusiastic. Positive and negative mood were collected prior to receiving training as a baseline measure and after the CBS component of the simulation. State negative ( $\alpha = .87$ ) and positive mood ( $\alpha = .91$ ) were computed using the mean rating for all items loading on negative and positive affect. Higher scores represented higher negative or positive mood respectively.

## Emotional Labor

Emotional labor (EL) was collected using a self report measure. Self report EL was an 8 item measure asking participants to “rate how much effort each item required during the simulation” and was developed to assess emotional labor experienced during the simulation. Participants rated each item on a scale of 1 (not effortful at all) to 5 (extremely effortful). An example item was “adhering to hospital rules and regulations”. A final score was computed by taking the mean rating across all items. A higher score on the self reported EL indicated more perceived emotional labor. This measure was shown to have sufficient reliability ( $\alpha = .83$ ). An important distinction between the self report EL and ERQ measures was that the ERQ measured which emotion regulation strategies an individual used while self report EL was developed to capture the effort expended to engage in these strategies. Self report EL can be thought of as a measure of workload specific to managing one’s emotions.

## Interpersonal Task Performance

Eight events occurring at different points throughout the simulation specifically targeted the ability of participants to adhere to display rules (i.e. respond assertively). These events were scripted to challenge participants to respond assertively to aggressive or passive requests that were in conflict with some hospital rule or regulation. Participants had to reject these requests without backing down (i.e. passive) or attacking (i.e. aggressive) the character. For example, one of the events involved a coworker running late for work who made a request in a friendly manner for the participant to lie to the supervisor and cover for them. For this event, backing down and lying for their coworker was considered a passive response because they are backing down to a request that breaks hospital policy. Refusing this request using an even tone of voice and at the same time respecting the coworker’s feelings was considered an assertive response.

Two raters were thoroughly trained to listen and rate responses to each of the 8 events. Raters used descriptions of courteous and professional behavior that included phrases (e.g. using the word I and beginning with a greeting) and expressions (e.g. speaking clearly in an even tone of voice) that were indicative of assertiveness. Each rater then rate each of the 8 scenario on a 3 point scale indicating the degree to which responses were assertive with lower ratings indicating passive responses and higher ratings indicating a more assertive response ( $\alpha = .78$ ). Interpersonal task performance scores were calculated by averaging raters' ratings across all scenarios with higher scores representing better interpersonal task performance.

#### Cognitive Task Performance

The cognitive performance task was completed after participants were introduced to the problem solving hospital event. To review, participants were told that a hospital emergency alarm had been activated and they were to try to remember today's events on the job in order to debrief police officers who were en route. They were then given a series of pictures to facilitate this process. The pictures included all the characters that participants interacted with during the CBS as well as additional characters who were not in the CBS to serve as distracters (appendix N).

The actual task required various cognitive components such as working memory and deductive reasoning skills. Hence, performance on this task was sensitive to attentional resources available during the simulation. Their task was to deduce as many possible explanations that could help explain the disturbance. Furthermore, participants were instructed to use the previous task's events in order to come up with plausible explanations. To accomplish this, participants had to successfully remember suspicious patients (e.g. angry patient with wounded arm), any confrontations that occurred, and clues that were given. For

example, one plausible explanation was that one of the patients just came from robbing a bank. Cues were provided throughout the simulation that implicate the character actually responsible and had to be utilized by the participant to deduce the correct answer. In order to problem solve and identify this explanation a participant must have remembered the patient in the beginning of their shift who showed aggressive behavior and had a bloody wound to his arm. In addition, a participant must have remembered one of the informational updates that informed them of an armed robbery where the culprit had a gun shot wound to his arm. Together, these circumstances make the patient a likely cause of the hospital disturbance.

A total of 6 probable scenarios were identified a priori by mapping events, characters, and clues during the CBS to likely explanations. These were used as a key to score the explanations developed by each participant. For each explanation, a participant received 2 points if they correctly identified all critical pieces the ‘disturbance’ explanation, 1 point if they got most of the answer right, or 0 points if they did not get the answer right. Hence a maximum of 2 points were possible for each of the 6 correct answers yielding a total possible score of 12.

### Procedure

All participants and peers first signed informed consent forms prior to participating. At this point peer raters were taken to a separate room and given the peer ratings of assertiveness (i.e. P-D congruence) to complete. Participants were taken into a separate room designed to look like a hospital customer service counter. Peers were given the opportunity to complete the CBS on a standard desktop computer, if they chose to, and were debriefed following the CBS (if they chose to).

Participants were randomly assigned to receive either surface acting or deep acting training and were taken into a separate room designed to look like a hospital customer service

counter. All procedures were the same for both conditions. The only difference between conditions was the content of training received and feedback given.

A baseline measure of mood (i.e. PANAS) and heart rate were taken before introducing the storyline. Participants were instructed to relax and sit comfortably for approximately two minutes before collecting the baseline measures. The storyline was then introduced by telling participants to think of themselves as if they were just hired as a customer service representative for a hospital and to complete the entire study as they normally would if on their first day on the job (*see* component 1: storyline). Next, participants received the training component including the manipulation. The training was completed using the 24" computer monitor. During training, participants completed a set of questionnaires or 'new hire paperwork' that included demographics (e.g. gender, age) and the ERQ-T. These measures were integrated into the training so that they were part of the hiring process rather than part of an experimental study. Once training was completed and feedback was given on the practice scenarios, the experimenter projected the CBS image on the wall directly in front of the customer service desk, left the room to the experimenter's station and participants began the CBS. The experimenter monitored the progression of the CBS and provided clues to participant's information update screen at predetermined points throughout the CBS using the Marratech software. Hence, all clues were given during the same events and at approximately the same time for every participant.

The CBS concluded with an event in which a supervisor tells the participant that he is leaving for the day. At this point, the projection of the simulation was turned off from the experimenter's station. The experimenter then entered the simulation room and told participants that the system is down, but and that they needed to collect another measure of HR. Measures of HR and mood were collected at this point using the same procedure as the baseline measures. Participants were introduced to the hospital disturbance and were given

the sheet containing pictures of characters they interacted with and some distracters they didn't interact with. Participants completed the cognitive performance task by verbally providing as many possible explanations for the disturbance using the pictures they were given to identify the perpetrator, accomplices, targets, and motives for each generated explanation. The experimenter recorded their answers on the option generation form. After all explanations were recorded, participants completed the ERQ-S and self report EL measures. This concluded the study and all participants were fully debriefed.



## CHAPTER FOUR: RESULTS

### Data Screening

All data were screened for outliers and checked for normality by visual inspection of variable frequency plots and calculating skewness statistics as described in (Tabachnick & Fidell, 2006). Outliers were defined as values that were more than 3 standard deviations from the mean and were removed from the sample. This resulted in less than 1 percent of the data being removed because of outliers.

An often overlooked yet important step for data analysis is to ensure variables follow a normal distribution. Skewness values exceeding double the standard error were considered significantly skewed. Significantly skewed variables were then transformed following procedures described in Tabachnick and Fidell (2006). P-D congruence was found to be significantly positively skewed ( $skewness = .986, SE = .281$ ), hence a new transformed variable was computed using the square root of the raw values. This transformation was successful in normalizing P-D congruence ( $skewness = -.131, SE = .281$ ), hence, the squared root transformation of P-D congruence was used for all subsequent analyses.

### Manipulation Check

One contribution of this study was to train individuals to use a certain emotion regulation strategy during a simulated customer service job task. In order to test the degree to which this training worked I collected a state measure of emotion regulation (ERQ-S). A manipulation check was conducted to assess the degree to which the training manipulation impacted actual emotion regulation strategies used during the simulation task. This was done by comparing state emotion regulation between the two training groups and levels of state surface and deep acting within in each training group. First, a set of between group one-way

ANCOVAs were run on state surface acting and state deep acting. No significant main effect of training condition was found  $F(1,73) = .685, p = .411$ ) after accounting for trait surface acting ( $F(1,72) = 18.29, p = .0$ ). Similarly, no significant main effect of training condition was found on state deep acting ( $F(1, 71) = 2.03, p = .159$ ) after accounting for trait deep acting ( $F(1,72) = 12.62, p = .001$ ) and customer service experience ( $F(1,71) = 4.83, p = .031$ ).

A pair of t-tests were performed to compare the mean difference between training state surface and deep acting respectively within each training group. In other words, I investigated whether participants in the surface acting training condition reported using more surface acting than deep acting and whether participants in the deep acting condition reported using more deep acting than surface acting during the simulation task. Results indicated that the surface acting training group reported using more surface acting ( $M = 4.26, SD = 1.39$ ) than deep acting ( $M = 3.90, SD = 1.16$ ), although this difference was not statistically significant ( $t(73) = 1.21, p = .23$ ). Also, the deep acting training group reported using more deep acting ( $M = 5.04, SD = .79$ ) than surface acting ( $M = 4.78, SD = 1.22$ ), although this difference was not statistically significant ( $t(73) = -1.08, p = .29$ ). These results are graphed in figure 7. Although the patterns of results are in the intended direction of my training manipulation, I cannot conclude that individuals used more of the trained strategy as indicated by the ERQ-S.

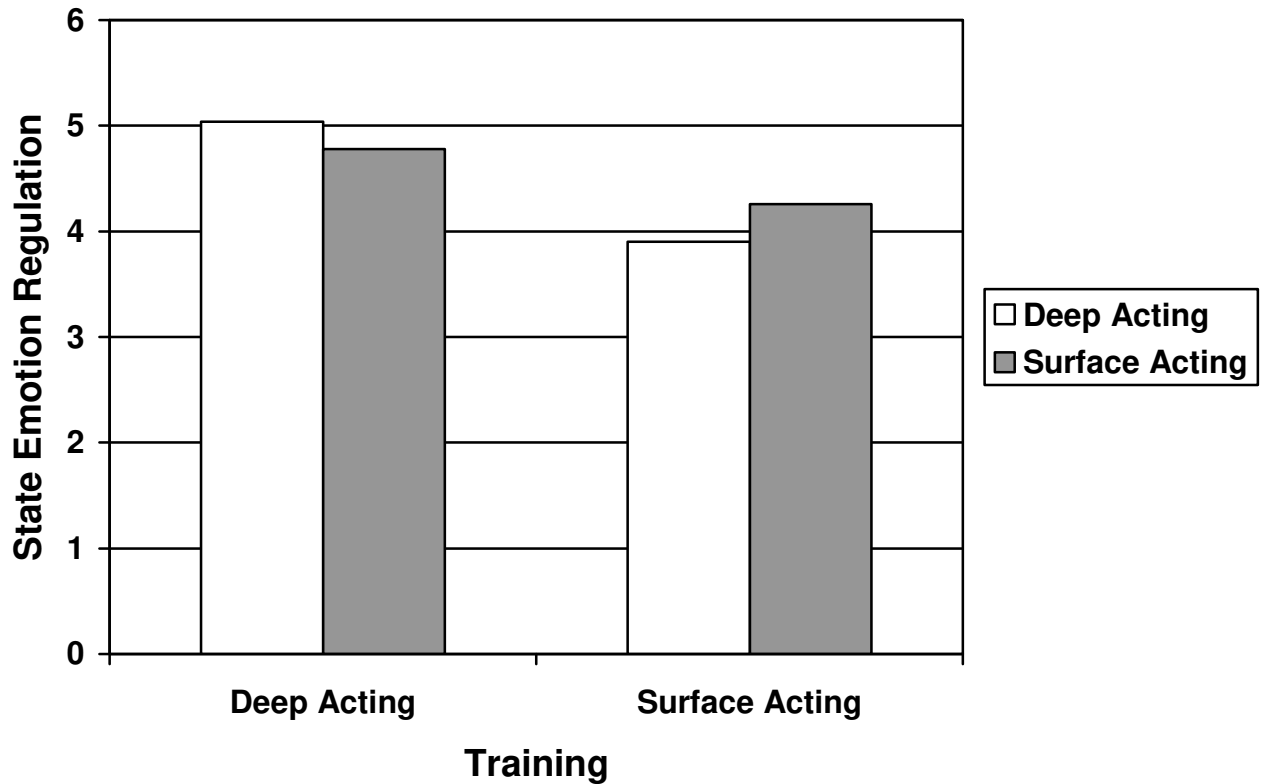


Figure 7 Mean Levels of State Deep and Surface Acting for Training Condition.

### Correlations

Descriptive statistics and intercorrelations among study variables are shown in table 1 with reliability estimates in parentheses. A random assignment check was conducted to ensure that condition was indeed randomly assigned. This was done by visually inspecting the relations between the training condition and a set of variables that should be unrelated to the condition. In other words, I checked to make sure that emotion regulation training did not systematically vary with other variables that should be unrelated to my manipulation. As can be seen in table 1, emotion regulation training did not have significant zero order correlations with any other variables, thus supporting that my manipulation was indeed randomly assigned.

Inspection of the correlation table shows that participant gender and customer service experience were significantly related to several of the study variables. It is important to note that participants indicated whether they were male or female in response to the word gender on the demographic form. It was expected that participants were referencing their biological sex rather than the gender stereotype they most identified themselves with, since no specific instructions to consider their gender were given. Males were higher on trait surface acting ( $r = .31, p = .007$ ), and cognitive task performance ( $r = .26, p = .029$ ). Males also scored lower than females on P-D congruence SQRD ( $r = -.32, p = .007$ ). Finally, males reported experiencing lower levels of emotional labor than females (ERD) ( $r = -.24, p = .042$ ). Individuals with at least some customer service experience reported using less state reappraisal ( $r = -.24, p = .039$ ). Interestingly, individuals with customer service experience performed worse on the problem solving task (i.e. cognitive task performance) ( $r = -.30, p = .012$ ), but performed better on interpersonal performance ( $r = .26, p = .031$ ) than those with no customer service experience. Finally, individuals with more customer service experience reported higher levels of positive mood ( $r = .28, p = .02$ ) prior to beginning the study.

**Table 1. Descriptive Statistics and Intercorrelations among Study Variables**

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Gender	1.38	.49	(-)																
2. Customer Service Experience	1.55	.50	-.07	(-)															
3. Trait Surface Acting	3.16	1.20	.31**	.03	(.76)														
4. Trait Deep Acting	5.23	.85	-.13	.01	.02	(.75)													
5. State Surface Acting	4.09	1.29	.16	-.09	.46**	.12	(.78)												
6. State Deep Acting	4.90	1.04	-.18	-.24*	-.01	.36**	-.10	(.82)											
7. Baseline Negative Mood	13.05	3.07	.13	.07	.13	-.00	.09	.08	(.70)										
8. Baseline Positive Mood	28.76	6.39	-.07	.28*	.08	.23*	.10	-.09	.15	(.85)									
9. Baseline Heart Rate	79.40	13.16	-.18	.02	.00	-.08	.00	-.05	.24*	.10	(-)								
10. P-D Congruence SQRT	-.57	.39	-.32**	.16	-.12	.12	.08	.01	-.05	.12	.26*	(.73)							
11. Emotion Regulation Training	-.08	1	-.07	-.06	-.12	-.11	-.14	.13	-.02	-.03	.08	.05	(-)						
12. Negative Mood	13.44	4.51	.07	.14	-.06	-.11	-.14	.07	.51**	.16	-.09	-.18	.03	(.87)					
13. Positive Mood	26.19	7.89	-.11	.17	.23*	.22	.20	.05	.27*	.72**	.14	.08	-.08	.16	(.91)				
14. Heart Rate	74.01	9.91	-.18	-.01	-.07	-.16	.03	-.06	.19	-.02	.71**	.09	.15	.10	.00	(-)			
15. Emotional Labor (Self report)	3.52	.77	-.24*	.10	-.06	-.13	-.06	-.08	.21	.04	.06	.22	-.13	.20	-.01	.12	(.83)		
16. Interpersonal Performance	-.67	.37	-.16	.26*	-.08	.10	.00	-.07	.08	.21	.15	.12	-.05	.11	.33**	.11	-.06	(.78)	
17. Cognitive Task Performance	4.13	2.42	.26*	-.30*	.09	-.03	.12	-.05	-.05	.08	-.08	-.02	-.03	-.17	.10	-.05	-.26*	.11	(-)

*Note.* *Ns* range from 66 to 75 for all correlations. For Gender: 1 = female, 2 = male. P-D congruence reflects the square root transformation. For Emotion Regulation Training: -1 = surface acting, 1 = deep acting. ERD = Emotion Regulation Difficulty. Reliability estimates are in parentheses.

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

## Tests of Study Hypotheses

The analyses used to test study hypotheses are presented next. This section will be presented in line with my proposed model. I proposed that emotion regulation training would affect interpersonal and cognitive task performance through two parallel and distinct routes. Analyses testing hypotheses relating to mood and interpersonal performance will be presented first. A second set of analyses will follow testing hypotheses relating to emotional labor and cognitive task performance. Multiple regression analyses were used to test all study hypotheses. An alpha level of .05 was used to test statistical significance for all analyses unless otherwise noted.

### Negative Mood and Interpersonal Performance

Table 2 presents multiple regression analyses testing the effects of mood on interpersonal performance. Hypothesis 1 stated the negative mood would be negatively related to interpersonal performance. Specifically, I expected that individuals in a more negative mood during the CBS would respond less assertively than individuals in a better mood. Interpersonal performance was regressed on customer service experience and negative mood reported at the end of the simulation. Customer service experience was entered as a covariate because individuals with customer service experience were expected to behave more assertively than those without customer service experience. The positive correlation between customer service experience and interpersonal performance supported this notion. The overall model was not significant. Customer service experience did positively predict unique variance in interpersonal performance ( $\beta = .28, p = .026$ ). In contrast, negative mood was not a unique predictor of interpersonal performance ( $\beta = .065, p = .594$ ), thus failing to support an effect of negative mood on subsequent interpersonal performance. Hypothesis 1 was not supported.

## Positive Mood and Interpersonal Performance

I decided to further explore the impact of mood by testing the effects of positive mood on interpersonal performance. Interpersonal performance was regressed onto customer service experience and positive mood. This model was significant with an overall adjusted  $R^2 = .132$ . Customer service experience positively predicted unique variance in interpersonal performance ( $\beta = .235, p = .049$ ). Additionally, individuals with a higher positive mood responded more assertively during the simulation even after accounting for customer service experience ( $\beta = .267, p = .026$ ). These results support the general notion that mood is associated with interpersonal performance.

**Table 2 Regression Analyses of Mood Predicting Interpersonal Performance**

IV	Negative Mood				Positive Mood			
	B	SE	$\beta$	Adjusted $R^2$	B	SE	$\beta$	Total Adjusted $R^2$
Customer Service Experience	-.207	.091	.275*	.057*	-.175	.087	.235*	.132*
Negative Mood	.005	.010	.065	-	-	-	-	-
Positive Mood	-	-	-	-	.013	.006	.267*	-

**Note.** \*  $p < .05$  one-tailed, \*\* $p < .05$  two-tailed.

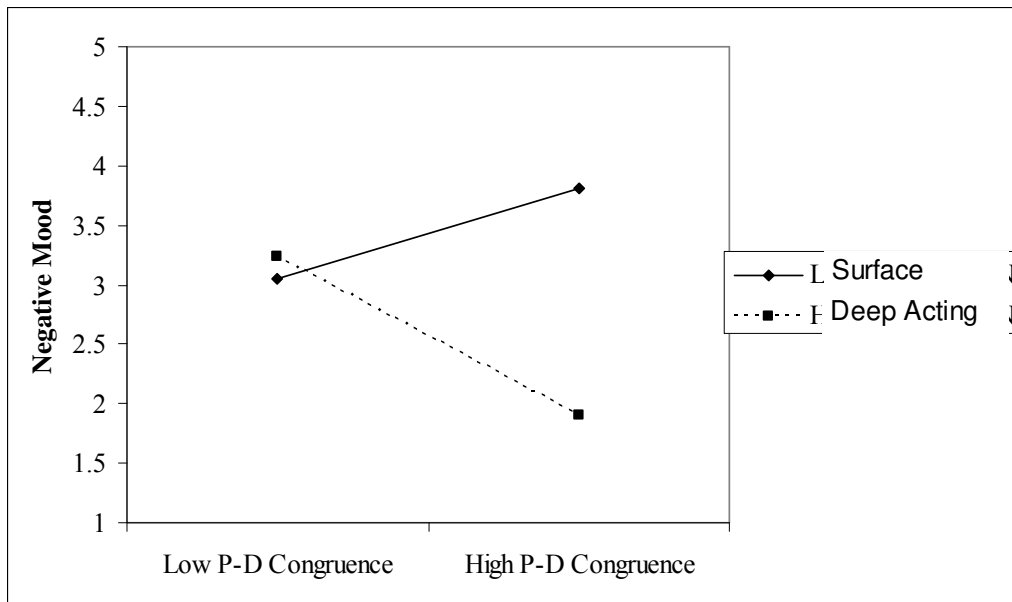
## Emotion Regulation Training and Negative Mood

Hypothesis 3 (H3) predicted a main effect of emotion regulation training on negative mood so that individuals trained to use a deep acting emotion regulation strategy would



experience less negative mood than individuals trained to use a surface acting strategy. Furthermore, hypothesis 5 (H5) predicted that individuals whose personalities were less congruent with the display rules of the position (i.e. assertiveness) would be most affected by of deep acting training. Prior to testing these hypotheses, I first dummy coded emotion regulation training so that the deep acting group was represented by a value of 1 and the surface acting group was represented by a -1 (Tabachnick & Fidell, 2006). Second, an interaction term was computed by multiplying condition by the square root of P-D congruence. Table 3 presents analyses relating to H3 and H5.

Negative mood was regressed onto baseline negative mood, emotion regulation training, P-D congruence SQRT, and the interaction term. This produced an overall significant model accounting for 34.7% of variance in negative mood. Emotion regulation training ( $\beta = -.43, p = .017$ ) and the interaction term ( $\beta = -.53, p = .004$ ) both predicted unique variance in negative mood. Individuals receiving deep acting training reported experiencing lower levels of negative mood, thus supporting H3. The interaction is plotted in figure 8. The interaction did not appear as predicted. The interaction showed that only individuals high in P-D congruence benefited from deep acting training.



**Figure 8 Interaction of Emotion Regulation Training and P-D Congruence on Negative Mood**

#### Emotion Regulation Training and Positive Mood

Effects of emotion regulation training on positive mood were also investigated. Positive mood was regressed on baseline positive mood, emotion regulation training, P-D congruence SQRT, and the interaction term used in the previous model. The overall model was significant ( $adjusted R^2 = .53, p = .000$ ), but no main effect of emotion regulation training ( $\beta = .24, p = .101$ ) or an interaction effect ( $\beta = .07, p = .637$ ) were found. Emotion regulation training did positively predict unique variance in positive mood ( $\beta = .18, p = .029$ ) after removing the interaction term from the model. Specifically, individuals in the deep acting condition reported greater positive mood than those in the surface acting condition.

#### Emotion Regulation Training and Interpersonal Performance

I predicted that negative mood would mediate the effect of emotion regulation training and the interaction of emotion regulation training and P-D congruence SQRT on interpersonal task performance. The Baron and Kenny (1986) procedure for testing mediation

was used. The first step in showing mediation was to establish the effect of emotion regulation training and the interaction term on interpersonal task performance. Interpersonal performance was regressed on customer service experience, emotion regulation training, P-D congruence SQRT, and the interaction term. Emotion regulation training and the interaction showed no significant effects on interpersonal performance; hence no further tests for mediation on interpersonal performance were conducted. No support for hypothesis 7 was found.

**Table 3 Regression Analyses Predicting Mood and Interpersonal Performance**

Dependent Variable	Model	Independent Variable	B	SE	$\beta$	Total Adjusted $R^2$
Negative Mood (NA)	1	Baseline NA	.81	.15	.54**	.35**
		Emotion Regulation Training	-1.97	.80	-.43*	
		P-D Congruence SQRT	-1.67	1.16	-.14	
		Interaction	-3.49	1.16	-.53**	
Positive Mood (PA)	1	Baseline PA	.09	.01	.73**	.54**
		Emotion Regulation Training	.19	.11	.24	
		P-D Congruence SQRT	.02	.17	.01	
		Interaction	.08	.17	.07	
	2	Baseline PA	.09	.01	.73**	.53**
		Emotion Regulation Training	.15	.07	.18*	
		P-D congruence SQRT	.02	.17	.01	
Interpersonal Performance	1	Customer Service Experience	-.19	.09	.26*	.04
		Emotion Regulation Training	-.01	.05	-.03	
		P-D Congruence SQRT	.07	.11	.08	
	2	Customer Service Experience	-.20	.09	.26*	.03
		Emotion Regulation Training	.01	.08	.02	
		P-D Congruence SQRT	.08	.11	.08	
		Interaction	.03	.11	.06	

Note . Interaction = interaction term of emotion regulation training X P-D congruence. \* $p < .05$ . \*\* $p < .01$ .

## Emotional Labor and Cognitive Task Performance

Hypothesis 2 stated that emotional labor would be negatively related to cognitive task performance. This hypothesis was tested using the self reported emotional labor questionnaire. Participant gender and customer service experience were used as covariates because they were shown to be significantly correlated with cognitive task performance. Cognitive task performance was first regressed on gender, customer service experience, and emotional labor. This resulted in an overall significant model explaining 15.7% of variance in interpersonal performance. This model showed support for hypothesis 2 with self report emotional labor negatively predicting cognitive task performance ( $\beta = -.21, p < .05$ , one tailed) (Table 4). In other words, individuals reporting more effort towards regulation emotion during the study performed worse on the problem solving task.

**Table 4. Regression analysis of emotional labor predicting problem solving performance.**

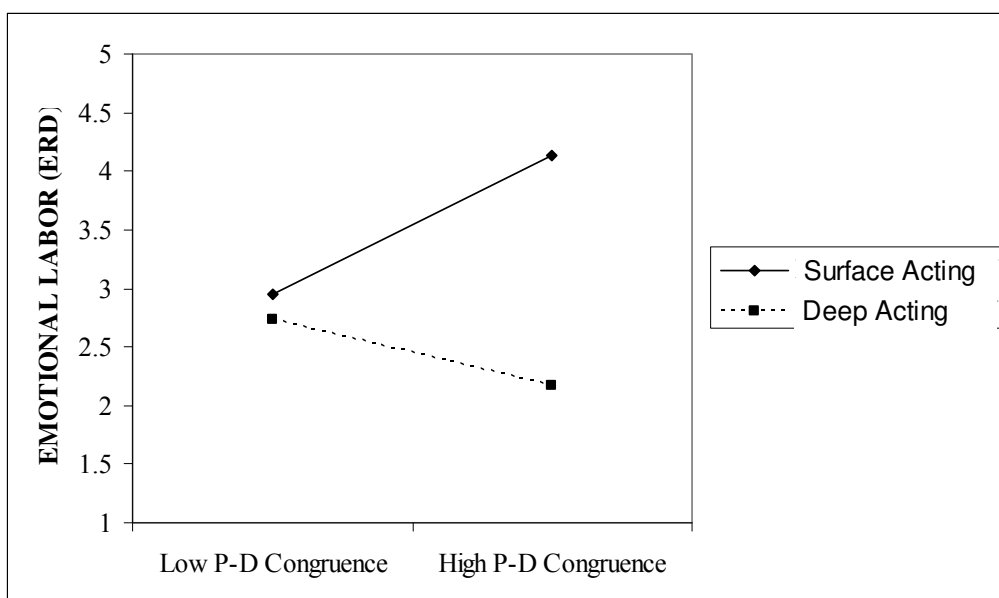
IV	B	SE	$\beta$	Total Adjusted $R^2$
				.16**
Gender	1.06	.57	.22	
Customer Service Experience	1.36	.55	-.28**	
Self Report Emotional Labor	-.65	.37	-.21*	

## Emotional Regulation Training and Emotional Labor

The second set of hypotheses predicted main effects of emotion regulation training and interactive effects of emotion regulation training and P-D congruence on emotional labor.

Hypotheses 4 and 6 predicted that emotion regulation training would be negatively related to emotional labor and that P-D congruence would moderate this relationship so that there would be a smaller effect of training (i.e. smaller difference between surface and deep acting training on emotional labor) when individual's personality was more congruent with display rules.

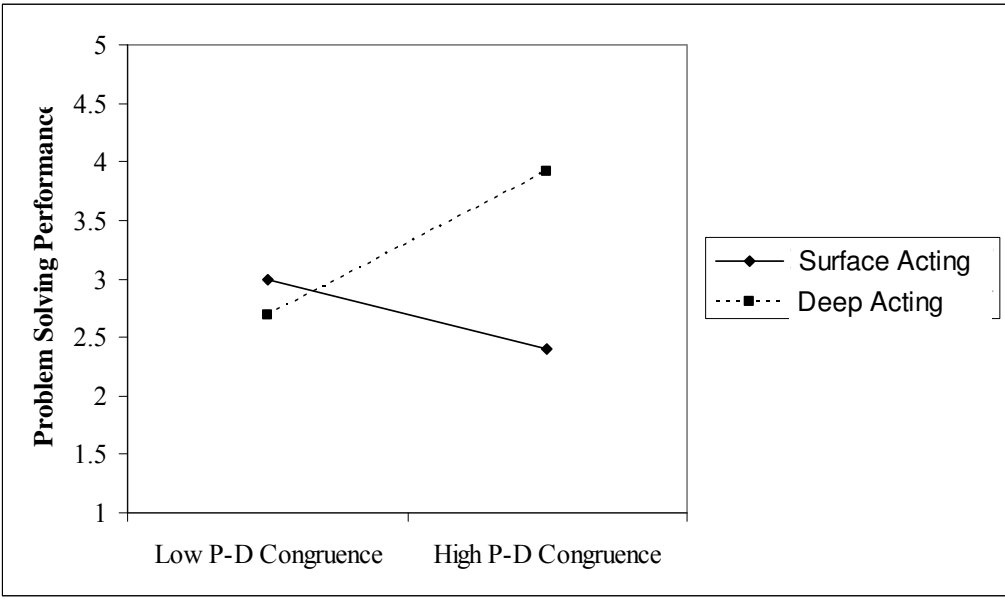
Self reported emotional labor was regressed on participant gender, emotion regulation training, P-D congruence, and the interaction term. The overall model was significant with a total adjusted  $R^2 = .119$ . Results showed support for H4. Individuals trained to deep act reported lower levels of emotional labor than those trained to surface act ( $\beta = -.54, p = .007$ ). In addition, a significant interaction ( $\beta = -.44, p = .028$ ) showed a similar pattern with the benefits of deep acting training being greatest for individuals more congruent with display rules. In addition, individuals more congruent seemed to benefit in emotional labor. Interestingly, individuals higher in P-D congruence reported increased levels of emotional labor while those low in P-D congruence did not seem affected by the training in terms of emotional labor.



### **Figure 9 Interaction of Training Condition and P-D Congruence on Emotional Labor (ERD)**

#### Emotional Regulation Training and Cognitive Task Performance

My final hypothesis (H8) predicted a moderated mediation, namely that emotional labor would mediate the effect of emotion regulation training and its interaction with P-D congruence on cognitive task performance. The Baron and Kenny approach (1986) was used to test for moderated mediation. Previous analyses already established that emotion regulation training and the interaction term predicted the mediator of emotional labor and that the mediator was significantly related to cognitive task performance thus satisfying 2 of the 4 conditions for mediation. Cognitive performance was then regressed on gender, customer service experience, emotion regulation training, P-D congruence, and the interaction term. Emotion regulation training was not significant ( $\beta = .30, p = .131$ ), but the interaction term did explain unique variance in cognitive task performance ( $\beta = .46, p = .023$ ). Thus the interaction term satisfied the third requirement for mediation. Finally, I entered emotional labor into the model to test whether it significantly reduced the effect of the interaction term. In the full model, the interaction term remained significant and emotional labor failed to reach significance, hence mediation and hypothesis 8 was not supported.



**Figure 10 Interaction of Training Condition and P-D Congruence SQRT on Problem Solving Performance**



**Table 5 Summary of Regression Analyses Predicting Emotional Labor and Problem Solving Performance**

Dependent Variable	Model	Independent Variable	B	SE	$\beta$	Adjusted R <sup>2</sup>
Self Report Emotional Labor (EL)	1	Gender	-.30	.19	-.19	.12**
		Emotion Regulation Training	.41	.15	.54**	
		P-D Congruence SQRT	.30	.23	.16	
		Interaction	-.49	.22	-.44*	
Problem Solving Performance	1	Gender	1.06	.57	.22	.16*
		Customer Service Experience	1.36	.55	-.28*	
		Self Report Emotional Labor	-.65	.37	-.20†	
	2	Gender	1.71	.56	.35	.22**
		Customer Service Experience	1.53	.54	-.32**	
		Emotion Regulation Training	.72	.47	.30	
		P-D Congruence SQRT	.95	.70	.16	
	3	Interaction	1.56	.67	.46*	.22**
		Gender	1.58	.57	.32**	
		Customer Service Experience	1.57	.54	-.33**	
		Emotion Regulation Training	.46	.52	.19	
		P-D Congruence SQRT	1.03	.70	.17	
Interaction	1.25	.72	.37†			
Self Report Emotional Labor	-.47	.39	-.15			

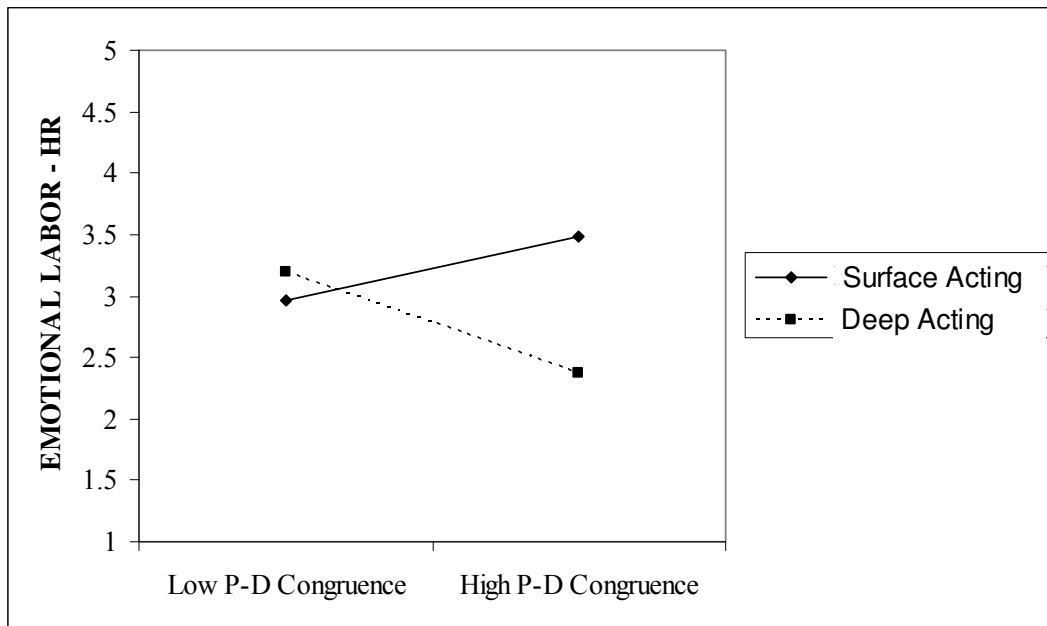
Note . For Gender; 1 = female, 2 = male. Interaction = interaction term of emotion regulation training X P-D congruence. † $p < .05$ , one-tailed. \* $p < .05$ . \*\* $p < .01$  two-tailed.

### Supplemental Analyses

I also explored the role of physiological correlates of emotional labor, namely heart rate (HR). Previous studies have shown that physiological reactivity is sensitive to workload. Also, previous studies have shown the use of surface and deep acting is associated with

differential physiological outcomes (Egloff et al., 2006). Hence, heart rate was also collected to explore physiological signs of emotional labor. HR was indexed as average beats per minute and was collected using a HR wrist monitor. The wrist monitor was easy to operate, fairly unobtrusive, and has been shown to be significantly related to behavioral outcomes in the simulation (i.e. aggressive behavior) (Feldman et al., 2008).

Exploratory analyses were performed using this physiological measure of emotional labor for each of the hypotheses in which emotional labor was involved. First, heart rate was not a unique predictor of problem solving performance. Next, a model predicting heart rate was tested using baseline heart rate as a covariate and emotion regulation training, P-D congruence SQRT, and the interaction term as predictors. The overall model was statistically significant, explaining 50.3% of variance in heart rate. Emotion regulation training did not predict unique variance in HR ( $\beta = -.22, p = .168$ ), although the beta weight was in the predicted direction. However, a significant interaction effect was found ( $\beta = -.34, p = .034$ ). This interaction can be seen plotted in figure 11. As shown in this figure, HR was positively associated with P-D congruence for those in the surface acting condition and negatively associated with P-D congruence for those in the deep acting condition. This pattern of results is nearly identical to the interaction found when self-reported emotional labor was used.



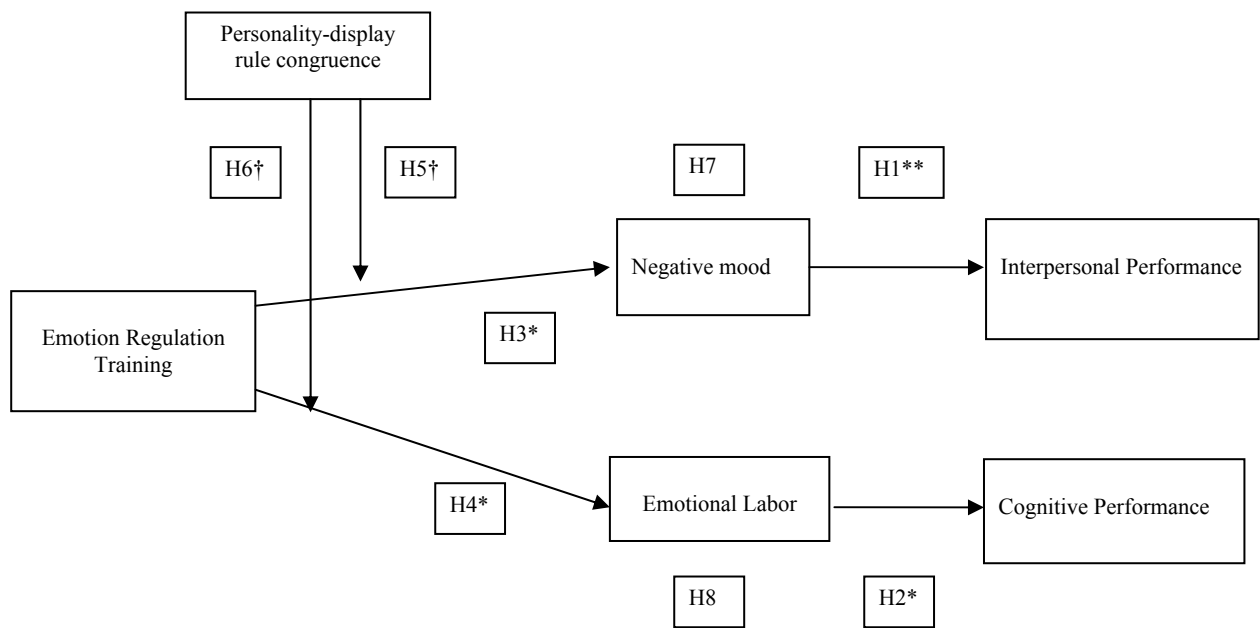
**Figure 11 Interaction of Training Condition and P-D Congruence on heart rate**

### Summary of Results

A summary of results from tests of study hypotheses is presented in table 6 and a revised model is shown in figure 12. Results provided support for several hypotheses. Positive mood, but not negative mood, was positively related with interpersonal performance. Emotional labor was found to hinder cognitive task performance, thus showing full support for hypothesis 2. Results showed that deep acting training led to lower negative mood and greater positive mood, thus supporting Hypothesis 3. In support of hypothesis 4, surface acting resulted in higher emotional labor for participants than deep acting. Hypotheses 5 and 6 predicted that P-D congruence would moderate the effects of emotion regulation training. Although an interaction was found, it was in the opposite direction from my prediction. Specifically, trainees higher in P-D congruence demonstrated stronger training-related effects. Finally, deep acting did improve cognitive task performance for individuals high in P-D congruence. However, this interaction was not mediated by my emotional labor measure.

**Table 6 Summary Table of Hypothesis Tests**

	<b>Hypotheses</b>	<b>Findings</b>
<b>H1</b>	Negative mood will be negatively related to interpersonal performance.	Not supported. Positive mood positively related.
<b>H2</b>	Emotional Labor will be negatively related to cognitive task performance.	Supported
<b>H3</b>	Emotion regulation training will be negatively related to negative mood so that individuals receiving deep acting training will experience less negative mood than individuals receiving surface acting training.	Supported for negative and positive mood.
<b>H4</b>	Emotion regulation training will be negatively related to emotional labor so that individuals receiving deep acting training will experience less emotional labor than individuals receiving surface acting training.	Supported.
<b>H5</b>	Personality-display rule congruence will moderate the effect of emotion regulation training on negative affect so that this effect will be attenuated when personality-display rule congruence is higher. Specifically, individuals will benefit less from deep acting training compared to surface acting training when personality is more congruent with display rules.	Not supported. Interaction found but not in predicted direction.
<b>H6</b>	Personality-display rule congruence will moderate the effect of emotion regulation training on emotional labor so that this effect will be attenuated when personality-display rule congruence is higher. Specifically, individuals will benefit less from deep acting training on emotional labor when personality is more congruent with display rules.	Not supported. Interaction found but not in predicted direction.
<b>H7</b>	Negative affect will mediate the effect of emotion regulation training on interpersonal task performance.	Not supported.
<b>H8</b>	Emotional labor will mediate the effect of emotion regulation training on cognitive task performance.	Not supported. Interaction significantly predicted cognitive task performance



**Figure 12 Revised Model.**

Note: \* = Hypothesis supported. \*\* = Supported for positive mood. † = Interaction found but not in intended direction.

## CHAPTER FIVE: DISCUSSION

A theoretical model proposing cognitive and affective consequences of emotional regulation has been tested using an applied simulation task. This model explicated relations between emotion regulation training, mood, emotional labor, and performance outcomes. Results supported previous research linking mood to work behaviors (H1), though these effects were only found for positive mood. Emotional labor was shown to be detrimental to cognitive task performance as predicted (H2). Emotion regulation training impacted cognitive, physiological, affective, and behavioral outcomes. Specifically, deep acting training resulted in lower negative mood and more positive mood, thus supporting Hypothesis 3. In addition, deep acting training was associated with lower levels of emotional labor (H4). Interestingly, individuals high in P-D congruence who were trained to surface act reported experiencing higher amounts of emotional labor than individuals told to surface act even if they were lower in P-D congruence. This pattern was repeated for the effects of training on emotional labor and cognitive task performance. These interactions will be discussed in detail below. Surface acting resulted in higher emotional labor for participants than deep acting. Hypotheses 5 and 6 predicted that P-D congruence would moderate the effects of emotion regulation training. Although an interaction was found, it was not in the predicted direction therefore not supporting these two interaction hypotheses. No support was found for hypothesis 7. Finally, deep acting did improve cognitive task performance for individuals high in P-D congruence. However, these effects were not mediated by emotional labor.

This study showed that simulated task paradigms offer a viable approach to study the effects of emotion regulation during an applied and complex task that offers the ability to make stronger causal inferences than that afforded by quasi-experimental designs and

increased generalizability compared to more basic tasks. This study extended previous research by investigating the effect of emotion regulation training that targeted specific surface and deep acting strategies during an applied and complex customer service task. While one previous study was found that manipulated the use of emotion regulation in an applied experimental task (Goldberg & Grandey, 2007), it was limited in that it only manipulated whether individuals were required to adhere to display rules or not. The immersive simulation task provided a context rich environment that presented participants with both verbal and visual psychosocial cues. The computer based simulation task used in this study offered a unique platform in which participants interacted with video characters in the context of a 40 minute ongoing workplace storyline. This immersed participants in their job role and demanded that they respond quickly and efficiently to characters within the simulation. A customer service task in which participants interacted in a face to face format provided them with both auditory and visual psychosocial cues, while the previous study only involved verbal cues. For example, aggressive characters were more likely to induce a negative mood because participants were exposed to emotionally charged facial expressions and gestures. Furthermore, participants had to immediately respond to characters, thus simulating how one would respond in real situations.

### Emotion and Cognition in Complex Tasks

In support of Affective Events Theory (AET), I found that positive mood improved interpersonal performance even after accounting for individual differences prior to the task. This highlights the importance of variations in state mood on subsequent behavior. An interesting finding was that only positive, and not negative, mood was shown to predict interpersonal performance. Experiencing more negative mood did not hinder interpersonal performance as predicted. Instead, individuals with more positive mood performed better on

interpersonal performance. The predominant amount research has focused on the effects of negative rather than positive mood on outcomes with the idea that negative mood would have more deleterious effects on organizational behaviors. In line with my results, more recent evidence shows that positive moods may have more influence on subsequent organizational behaviors and outcomes (George, 1990).

These findings can be explained by previous research that related higher levels of positive mood to the behavioral activation system (BAS) (Carver & White, 1994, Gable, Reis, & Elliot, 2000). The BAS is a neurological activation sequence that leads individuals towards approach oriented behaviors. In contrast, negative mood is associated with the behavioral inhibition system (BIS) that leads individuals towards avoid oriented behaviors. The customer service job role used in this study would have suffered in the presence of negative approach oriented tendencies (e.g. scolding someone), but would benefit from the presence of positive approach tendencies (.e.g. politely greeting a patient). This is in line with other research showing that positive mood had a larger effect on increasing the amount of prosocial behaviors displayed during a group task (George, 1990). This pattern can be partly explained by findings that support the notion of biases people have towards positive thoughts and information to be congruent with their positive moods (Bower, 1981; Wright & Mischel, 1982). This may have explained why positive and not negative mood was related to interpersonal performance.

The negative relationship found between emotional labor and problem solving performance provided evidence for a cognitive component of emotional labor. Furthermore, the problem solving task was complex, realistic, and linked to important task related outcomes. This shows support for important cognitive consequences of emotion regulation processes (Eder, Hommel, & Houwer, 2007; Richards & Gross, 2006). In other words, effort allocated towards regulating one's emotions requires cognitive resources which in turn



deplete attentional resources available for other cognitive tasks, in line with the cognitive resource depletion framework. Here, I showed that emotional labor is one way in which cognition and mood are linked, namely, through the effort expended on regulation of emotions.

### Does Emotion Regulation Training Work?

In response to previous calls (Egloff et al., 2006), initial evidence supporting the effectiveness of emotion regulation training on improving individual and performance outcomes while performing a complex applied task was demonstrated. As expected, deep acting training was associated with more beneficial outcomes than surface acting training. Also, surface acting training was shown to hinder problem solving performance, increase negative mood, and decrease positive mood especially for those individuals more congruent with display rules to begin with.

Although deep acting training did improve performance on the problem solving task, training did not impact interpersonal performance. These findings are in line with other studies failing to show a difference in emotional expressions between people using deep or surface acting, but finding differential effects on physiological reactivity and cognitive deficits for people who used surface acting (Egloff et al., 2006; Gross, 1998; Martinez-Inigo et al., 2007). The customer service nature of this task required participants to focus on how they responded and appeared to others. Given the emphasis put on customer and coworker interactions, participants in both conditions were likely to allocate their attention first on how they interacted with customers. This should come at a cost for other cognitive tasks required by the job role such as the problem solving tasks.

Surface and deep acting training led to differential outcomes even though the amount of training content and practice focusing on emotion regulation was fairly limited. The

training was strong enough to impact cognitive task related outcomes 40 minutes after the training was given. The cognitive problem solving was not likely to require high levels of emotional labor or emotion regulation because it was less interactive than the computer based simulation. The deficits seen in cognitive task performance were more likely to be a function of decrements in cognitive processes occurring during the CBS rather than during the actual problem solving task. Overall, this lends additional support to the notion that self regulatory activities detract from available cognitive resources as stipulated by Beal's model of affective influence on performance. This also, supports that the available cognitive resource store is depleted across tasks that occur within the same performance episode until an individual can replenish that resource store. In fact, another study that investigated spontaneous emotion regulation speaking tasks found similar results (Egloff et al., 2006).

This dissertation contributed by demonstrating the role of individual differences in emotion regulation theory. Surprisingly, individuals higher in P-D congruence showed the greatest benefits from deep acting training in term of both their mood and their emotional labor. Specifically, individuals with personalities more congruent with the display rule seemed to benefit more from training to deep act in terms of their emotional labor, but they also suffered more than those with incongruent personalities when told to surface act. Person-environment fit theory distinguishes differential effects of actual fit versus perceived fit (Edwards et al., 2006). Individuals, higher in P-D congruence may have perceived that they were a better fit for the job role. They would have been pleased with the deep acting training since these would have been their natural behavior while the surfacing acting training may have caused conflict with how well they perceived they fit with the job role. In other words, individuals high in P-D congruence when told to surface act may have forced themselves to control their expressions differently than they would naturally. This would explain the decrements in emotional labor and performance. This explanation was also supported by the

increased physiological arousal seen by individuals high in P-D congruence that received surface acting training.

### Practical Implications

My results have implications for how organizations select and train for customer service job roles. Organizations often fail to provide adequate training on how to adaptively regulate affect especially for jobs high in emotional labor (e.g. customer service). This study shows that surface acting training seems to be most detrimental to those individuals most congruent with organization display rules. The most individual and performance benefits are realized by those individuals high in P-D congruence who receive deep acting training. Hence, organizations should select individuals who are more congruent with organizational display rules and train them to use deep acting strategies to realize the optimal benefits. Also, this study showed that training could impact physiological reactivity, mood, and behavior during a 40 minute customer service simulation. Training effects may not be strong enough to transfer across longer periods of time. This is in line with other research investigating self-regulatory training (Keith & Frese, 2005). Organizations should consider offering multiple opportunities for remedial training. For example, a short list of strategies to use with specific situations may help remind employees to use deep acting strategies more consistently.

Another interesting finding was that individuals who had customer service experience tended to engage in less deep acting strategies. In addition, customer service experience was associated with more assertive responses during the simulation and decrements in problem solving. This pattern of results indicates that individuals with more experience with dealing with display rules are more skilled in adhering to display rules based on the criterion for which they are usually assessed (e.g. interpersonal performance). Hence, the strategies they've used on the job may have been sufficient to reach acceptable levels of performance,

but the negative relationship between customer service experience and cognitive task performance shows this may have come at a cognitive cost. Organizations may fail to capture decrements in task performance even when interpersonal performance is at acceptable levels if they do not include these criteria when evaluating employees. This study showed that training individuals to use deep acting strategies would benefit individual employee well being (i.e. positive mood), and increase task performance. In turn, this would lead to lower turnover, absenteeism and increased effectiveness for the organization (Brief, Butcher, & Roberson, 1995; Connolly & Viswesvaran, 2000). These factors help to reduce costs for healthcare and training for new hires.

Also, organizations should consider individual differences and the degree to which employee personalities match the display rules of the job role. For instance, my results suggest that organizations should only use deep acting training for individuals with more congruent personalities. If individuals with more congruent personalities were selected then there should be a larger benefit of deep acting training for the individual and organization. On the other hand, there appears to be no benefit from training individuals low in P-D congruence. This means that organizations may actually be hurting performance if they currently train individuals with high P-D congruence to surface act. Future research, should further investigate the role of P-D congruence with other types of organizational display rules.

#### Limitations and Future Directions

As with all research, this study had various limitations. Participants were only rated on how assertive their responses sounded. Although two raters were sufficiently trained to rate responses and reached sufficient reliability, my measure of interpersonal performance could not account for whether participants actually adhered to the facial expressions they

were told to emulate. This study demonstrated at least a short term impact of emotion regulation training. More research is needed to test the generalizability of these effects to different types of tasks. Future studies should test how robust emotion regulation training is across different training characteristics and over time.

This study used a task based on the job role of a customer service representative working in the emergency room of the hospital and used assertive display rules. The simulation proved to be a viable platform for studying emotion regulation processes in more complex tasks, yet the study was still simulated and not real, hence limiting generalizability to the real world. For example participants may not have taken the training as serious since this was not a real job. Also, the scripted events occurring in the simulation task may not have been as salient to participants as if they were occurring in the real world. This is supported by the null finding of negative mood in that the simulation may not have been believable enough to induce a strong negative mood in participants. The effects found here may not generalize to other types of tasks that differ in their job characteristics. Other tasks may have different types of display rules such as to always express extremely positive emotions (e.g. amusement park customer service). These types of positions require both different types of expressions and involve much less stressful situations compared to what occurs in an emergency room.

The surface and deep acting training conditions each provided participants with three strategies that mapped onto surface and deep acting respectively, but the specific strategies participants used were not measured. For instance, using perspective taking for the deep acting group may be more effective than using positive refocus. Also certain strategies within deep and surface acting groups may have interacted with each other. For example, someone trying to use positive refocus may have difficulty also engaging in a task focus strategy where they would ignore emotional information. These processes may cause a conflict for the

individual, thus reducing the effects of deep acting. Future research should account for the unique contribution of specific deep acting strategies to identify which are most effective and trainable.

This study tested a model linking mood to interpersonal performance and emotional labor to cognitive task performance. Research has also shown that mood is directly associated with cognitive processes such as memory. Studies investigating state dependent memory have shown that individuals tend to better remember negative events or stimuli when in a negative mood and positive events when in a positive mood (e.g. Forgas, Laham, Simon, & Vargas, 2005)). Future research can investigate how these mechanisms directly influence cognitive processes linked to task performance.

Finally, a cognitively based operationalization of emotional labor was used in this study in line with previous definitions (Morris & Feldman, 1996; Rupp & Spencer, 2006). More distinction in the literature is needed on which component of emotional labor is measured so as to make results more comparable across studies. Emotion regulation training did not predict unique variance in state surface or deep acting, although it did significantly impact mood, emotional labor and problem solving performance even after accounting for trait influences. One explanation for these conflicting results is that the state measure was collected too late in the study. The task was complex with multiple components and it may have been increasingly difficult to activate the trained strategies as the study moved on. Hence, the effects of training would have been stronger at the beginning of the task and the state measure (collected at the end of the task) may have been more of a reflection of emotion regulation used at the end of the task.

## Conclusion

This dissertation was conducted to further explore the performance consequences and mediating mechanisms of emotion regulation processes. A computer based simulation and immersive environment were used to accomplish causal inference and increased generalizability. I successfully showed that emotion regulation training impacted affective, cognitive, and physiological outcomes. Findings found in more basic tasks were extended, through my findings that surface acting was most detrimental to individuals with neutral and positive effects of deep acting training. This study integrated person environment theory and showed the P-D fit is an important factor when specifying effects of emotion regulation training.

Implications for both researchers and organizations were discussed. This study supports the notion for future work to incorporate more comprehensive models that include cognitive consequences and individual differences. More comprehensive models will help gain a more thorough understanding of how emotion regulation impacts organizational life. Better theory in combination with increasing use of emotion regulation training and collecting cognitive performance criteria especially in customer service jobs will benefit both the organization and its employees.

## APPENDIX A: IRB APPROVAL FORMS





University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901, 407-882-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Notice of Expedited Initial Review and Approval

From : **UCF Institutional Review Board**  
**FWA00000351, Exp. 5/07/10, IRB00001138**

To : **Moshe Feldman**

Date : **July 11, 2007**

IRB Number: **SBE-07-05082**

Study Title: **"Simulated Environments for Customer Service Training"**

Dear Researcher:

Your research protocol noted above was approved by **expedited** review by the UCF IRB Chair on 7/11/2008. **The expiration date is 7/10/2008.** Your study was determined to be minimal risk for human subjects and expeditable per federal regulations, 45 CFR 46.110. The category for which this study qualifies as expeditable research is as follows:

6. Collection of data from voice, video, digital, or image recordings made for research purposes.
7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The IRB has approved a **consent procedure which requires participants to sign consent forms.** Use of the approved, stamped consent document(s) is required. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

All data, which may include signed consent form documents, must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Advise the IRB if you receive a subpoena for the release of this information, or if a breach of confidentiality occurs. Also report any unanticipated problems or serious adverse events (within 5 working days). Do not make changes to the protocol methodology or consent form before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <http://iris.research.ucf.edu>.

**Failure to provide a continuing review report could lead to study suspension, a loss of funding and/or publication possibilities, or reporting of noncompliance to sponsors or funding agencies.** The IRB maintains the authority under 45 CFR 46.110(e) to observe or have a third party observe the consent process and the research.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Janice Turchin on 07/11/2007 03:27:18 PM EDT

APPENDIX B: INFORMED CONSENT FORM

## **INFORMED VOLUNTARY CONSENT TO PARTICIPATE**

**Please read this consent document carefully before you decide to participate in this study.**

1. You are being asked to voluntarily participate in a research study titled “Simulations for Customer Service Training.” You will be asked to complete a number of questionnaires both at the beginning and end of the study. In addition you will be asked to complete an interactive simulation based training session followed by a performance session. You will be video recorded throughout the simulation. Your oral and written responses will be saved in voice files. The video and digital voice files will be used for behavioral coding and will not be published or displayed. They will be destroyed following transcription and will not be attached to your name.

You do not have to answer any questions that you do not wish to answer on any of the questionnaires, and have the right to examine the questionnaires before signing this informed consent form.

2. The purpose of this research study is to test the effectiveness of a computer based simulation.
3. The investigator believes that there are no risks or discomforts associated with participation.
4. You understand that you will receive no direct benefit other than:
  - An opportunity to improve communication skills with customers, coworkers and superiors
  - A copy of any publications resulting from the current study if requested
5. My identity will be kept confidential. My confidentiality during the study will be ensured with a use of a coded identification number that will be used to label the transcripts that are created from my video and voice file. The list connecting my name to this number will be kept in a locked file. My name will not be directly associated with any data. The confidentiality of the information related to my participation in this research will be ensured by maintaining records only coded by identification numbers. When the study is completed and the data have been analyzed, the list will be destroyed. The video and voice files will only be viewed by members of the research team.
6. If I have any questions about this study I should contact the following individual:

**Principal Investigator: Moshe Feldman: 407-808-5624**

**E-mail: mofeld@yahoo.com**

7. My participation in this study is completely voluntary and will not affect my grade or status in any program or class.
8. My participation in this study may be stopped by the investigator at any time without my consent if it is believed the decision is in my best interest. There will be no penalty or loss of benefits to which I am otherwise entitled at the time my participation is stopped.
9. No out of pocket costs to me may result from my voluntary participation.
10. If I decide to withdraw from further participation in this study, there will be no penalties. To ensure my safely and orderly withdrawal from the study, I will inform the Principal Investigator, Moshe Feldman.
11. Official government agencies may have a need to inspect the research records from this study, including mine, in order to fulfill their responsibilities.
12. I have been informed that my consent form will be stored under lock and key.
13. If I have any questions about my rights in the study, I may contact:

Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246, or by campus mail 32816-0150. The hours of operation are 8:00 am until 5:00 pm, Monday through Friday except on University of Central Florida official holidays. The telephone numbers are (407) 882-2276 and (407) 823-2901.

14. I have been given an opportunity to ask questions about this study and its related procedures and risks, as well as any of the other information contained in this consent form. I have been given the opportunity to review the questionnaire items that I will be asked to fill out. All my questions have been answered to my satisfaction. I understand what has been explained in this consent form about my participation in this study. I do not need any further information to make a decision whether or not to volunteer as a participant in this study. By my signature below, I give my voluntary informed consent to participate in the research as it has been explained to me, and I acknowledge receipt of a copy of this form for my own personal records.

\_\_\_\_\_  
Volunteer Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date

I was present during the explanation referred to above, as well as during the volunteer's opportunity to ask questions, and hereby witness the signature.

---

Investigator Signature

---

Print Name

Date

APPENDIX C: PARENT ASSENT FORM



## ***Informed Consent from a Parent for a Child in a Non-medical Research Study***

Researchers at the University of Central Florida (UCF) study many topics. To do this we need the help of people who agree to take part in a research study. You are being asked to allow your child to take part in a research study which will include about 80 people. You can ask questions about the research. You can read this form and agree right now for your child to take part, or take the form home with you to study before you decide. You will be told if any new information is learned which may affect your willingness to allow your child to continue taking part in this study. Your child is being invited to take part in this research study because he or she is a student at UCF. You must be an emancipated minor according to the laws of the State of Florida or an adult 18 years of age or older to be able to give this permission and sign this form for your child to take part in this research study. The person doing this research is Dr. Kimberly Smith-Jentsch of the Psychology department at UCF. UCF students learning about research are helping to do this study as part of the research team. Their names are: Moshe Feldman.

**Study title: “Simulated Environments for Customer Service Training”**

**Purpose of the research study:** The purpose of this study is to understand how simulations could be used for customer service training.

**What your child will be asked to do in the study:** Complete a customer service simulation by interacting with characters on a screen. Complete a questionnaire.

**Voluntary participation:** You should allow your child to take part in this study only because you want to. There is no penalty for you or your child for not taking part, and neither you nor your child will lose any benefits. You have the right to stop your child from taking part at any time. Just tell the researcher or a member of the research team that you want your child to stop. You will be told if any new information is learned which may affect your willingness to allow your child to continue taking part in this study.

**Location:** UCF Psychology Department.

**Time required:** This study is one session lasting approximately 2 hours.

**Audio or video taping:** Your child will be audio taped during this study. If you do not want your child to be audio taped, he or she may not be able to be in the study. Discuss this with the researcher or a research team member. If your child is audio taped, the tape will be kept in a locked, safe place until what your child says has been written down. Once it is written down, the tape will be erased or destroyed. Your child will be video taped during this

study. If you do not want your child to be video taped, you may not be able to be in the study. Discuss this with the researcher or a research team member. If your child is video taped, the tape will be kept in a locked, safe place until the research is done. When the research is done, the tape will be erased or destroyed.

**Funding for this study:** This research study is being paid for by the Office of Naval Research.

**Risks:** There are no expected risks for taking part in this study. Your child does not have to answer every question or complete every task. Neither you nor your child will lose any benefits if your child skips questions or tasks. Your child does not have to answer any questions that make him or her feel uncomfortable.

**Benefits:** Your child will not benefit directly for taking part in this research, besides learning more about how research is conducted.

**Compensation or payment:** There is no direct compensation for your child taking part in this study. It is possible, however, that extra credit may be offered for his or her participation, but this benefit is at the discretion of your child's instructor. If your child chooses not to participate, you or your child may notify his or her instructor and ask for an alternative assignment of equal effort for equal credit. There will be no penalty.

**Confidentiality:** Your child's identity will be kept confidential. The researcher will make every effort to prevent anyone who is not on the research team from knowing that your child gave us information, or what that information is. For example, your child's name will be kept separate from the information he or she gives, and these two things will be stored in different places.

Your child's information will be assigned a code number. The list connecting your child's name to this number will be kept in a locked file cabinet or in a password protected computer. When the study is done and the data have been analyzed, the list will be destroyed. Your child's information will be combined with information from other children who took part in this study. When the researcher writes about this study to share what was learned with other researchers, he will write about this combined information. Your child's name will not be used in any report, so people will not know how he or she answered or what he or she did.

There are times when the researcher may have to show your child's information to other people. The researcher may have to show your child's identity to people who check to be sure the research was done right. These may be people from the University of Central Florida or state, federal or local agencies or others who pay to have the research done.

**Study contact for questions about the study or to report a problem:** Moshe Feldman, Graduate Student, Industrial and Organization Psychology program, Department of Psychology, (407) 921-3558 or Dr. Smith-Jentsch, Faculty Supervisor, Department of Psychology at (407) 247-1254 or by email at [mofeld@yahoo.com](mailto:mofeld@yahoo.com)

**IRB contact about you and your child's rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). For information about the



rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

**How to return this consent form to the researcher:** By signing this letter, you give me permission to report your responses anonymously in the final manuscript to be submitted to my faculty supervisor as part of my course work.

- I have read the procedure described above
  
- I voluntarily agree for my child to take part in the research
  
- I am at least 18 years of age
  
- I am an emancipated minor per Florida state law
  
- I agree to have my child audio taped
  
- I agree to have my child video taped
  
- I do not agree to have my child audio or video taped

---

Signature of parent

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Printed name of parent

---

Date

---

Signature of parent

---

Printed name of parent

---

Date

---

Printed name of child

---

Principal Investigator

---

Date

## APPENDIX D: STORYLINE SCRIPT

For this study, we would like you to imagine that you have applied for a job as a customer service representative in the emergency room of a local hospital. You will be playing the role of a customer service representative working their first day at the emergency room desk.

Your performance today will be assessed to determine whether you are right for the job. Specifically, you will be evaluated on your ability to be assertive. This will be accomplished by videotaping your facial expressions with the cameras located on your desk and around the room. Your voice responses will also be recorded and later reviewed.”

It is important that you pretend that you are actually working in this position and that you are interacting with real people and dealing with real events that are actually occurring in real time. Hence you should behave and react as you normally would if working this job role in real life. Do you have any questions?”

*Answer any question now*

From now until the end of the study consider yourself as in character. You should interact with all video and live characters in your role as a customer service representative until you are notified that the study has ended”

## APPENDIX E: PROBLEM SOLVING FORM

Scenario Options

Perpetrator                      Accomplices                      Target                      Motives                      Rank Order

Perpetrator                      Accomplices                      Target                      Motives                      Rank Order

Perpetrator                      Accomplices                      Target                      Motives                      Rank Order

Perpetrator                      Accomplices                      Target                      Motives                      Rank Order

Perpetrator                      Accomplices                      Target                      Motives                      Rank Order

Perpetrator                      Accomplices                      Target                      Motives                      Rank Order

Perpetrator                      Accomplices                      Target                      Motives                      Rank Order

## APPENDEIX F: PROBLEM SOLVING EXPERIMENTER SCRIPT

“As you were finishing your shift, there was a hospital emergency alarm activated. All we know is that there is some unknown disturbance occurring in the ER. The police are currently en route to handle the situation and need all hospital employees working in the emergency room to complete the emergency information protocol immediately. The emergency information protocol is meant to provide police with important information about today’s events that may help them better anticipate what is happening and choose an appropriate action.

You were in the hospital ER lobby all day and need to complete some protocols to help the officer figure out which individuals could potentially be involved in the disturbance. First, you will be given some electronic pictures of individuals obtained from the security cameras today. You have to sort the pictures into piles in any way that helps you group individuals together in a way that will help you put together today’s events”

“We’re trying to get some information about what’s going on with the disturbance in the hospital. Here are some pictures from the surveillance camera (*give them laminated option generation sheet*). We’ve limited it to a number of people who we think could potentially be involved. What I want you to do is from your own recollection tell me any possible scenarios that you think may explain the disturbance. For example, who do you suspect may be involved? , What is the motive? and what do you think may have happened. Just as many ideas about what it could be about are what I want.”



## APPENDIX G: SURFACE ACTING TRAINING SLIDES

## Using the Simulation

Here's how it works:


- ▶ Like a role-play with live and video characters.
- ▶ 40-minute long story unfolds in first person (i.e., visually it appears as if characters are talking directly to you).
- ▶ You respond verbally into a microphone and at times in writing (i.e., to emails).
- ▶ The computer can tell when you start and stop speaking. A couple of seconds after you finish an answer the scene moves on. While you are speaking, the characters appear to be listening to you answer.
- ▶ All of your responses are audio taped and videotaped. Make eye contact with the characters as if they were real.

## Simulation Hints

- ▶ Speak clearly into the microphone.
- ▶ Repeat your response louder if scene does not move on.
- ▶ Be patient. Scene may take a few seconds to move one after response.
- ▶ Take a moment before responding to prevent your response from being cut off.



## Training Instructions

- ▶ Please read all the information on the slides about starting your first day at SUMMIT HOSPITAL as you listen to the narration.
- ▶ Use the right arrow key  to move to the next slide.
- ▶ The information provided is important for helping you successfully perform your job.

## Welcome to SUMMIT Hospital

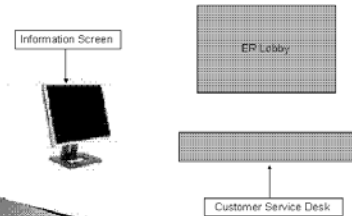
- ▶ New hire paperwork
- ▶ Heart rate and blood pressure for insurance purposes
- ▶ Customer service training
- ▶ Your employment is dependant on a trial period
- ▶ You will be video recorded
- ▶ Managing your expressions is key towards being an effective customer service representative

## New Hire Paperwork

Please fill out your new hire paperwork at this time. Make sure to complete all items and check both sides of each sheet. Incomplete paperwork will delay you being able to start your shift. Please press the right arrow key when you are finished.

## JOB DUTIES & HOSPITAL REGULATIONS

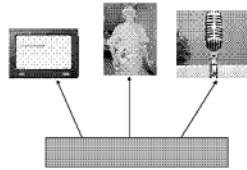
## Your Workstation



## Customer Service Desk

### Duties & Responsibilities

- Greet patients
- Interact with coworkers
- Respond to voicemails
- Respond to emails
- Make public announcements over the intercom as needed



## Information Screen

### Duties & Responsibilities

- Follow rules & procedures.
- Monitor for critical time sensitive updates from dispatch.



## Customer Policies

Please be sure to abide by the following policies when interacting with customers.

1. Patients in the ER are not seen by a doctor on a first-come/first-serve basis. The triage nurse determines their order on the basis of need.
2. Doctors have the right to deny access to a patient if it is in the best interest of the patient's medical condition.
3. Patient information is confidential. Each patient has the right to decide:
  - Who may see him or her
  - Who may have info about their condition
  - Who may know whether he/she is registered as a patient in the hospital

## Coworker and Supervisor Policies

Please be sure to abide by the following rules when interacting with co-workers and supervisors:

1. You will be fired if you lie.
2. No tolerance for racial or sexual harassment.
3. One customer service representative must be at the desk at all times.

## Co-workers and Supervisors for Shift

Louis (Head Nurse / Head Supervisor)      Rick (Customer Service Rep)



Tanya  
(Supervisor)

Kelly  
(Customer Service Rep)

Lynn  
(Supervisor)



## HOSPITAL DISPLAY RULES

## Greeting Patients

- ▶ Greet all patients before they reach the customer service desk.
  - Smile
  - Say "Hi, can I help you?"

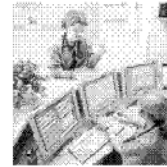


Hi, can I help you ?

- ▶ You will be assessed on whether you've greeted all patients as they approach the customer service desk.
- ▶ Don't need to formally greet coworkers.

## Customer Service

- ▶ Assertive
- ▶ Professional
- ▶ Courteous
- ▶ Positive image for yourself and hospital



## Acting Assertively



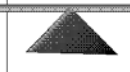
Passive



Assertive

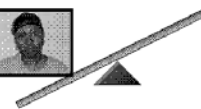


Aggressive



## Passiveness

- ▶ Unclear or uncertain
- ▶ "Beating around the bush"
- ▶ Avoiding responsibility
- ▶ Backing down easily when confronted
- ▶ Stating your concerns in the form of a question



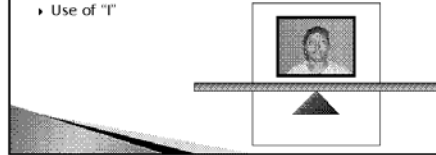
## Aggressiveness

- › Disrespectful
- › Threatening
- › Insulting
- › Lack of concern for others



## Assertiveness

- › Clear
- › Direct
- › Polite
- › Calm
- › Respectful of others
- › Use of "I"



## EMOTION REGULATION STRATEGIES

### Emotion Regulation in the ER

- › Busy, stressful environment
- › Critical and emotional situations
- › Must suppress inappropriate emotions!
- › It is important that you appear polite, and professional to others!



## Strategies

- › We will now offer some emotion regulation strategies to help you respond assertively
- › Must use given strategies to suppress inappropriate emotions
- › Using given strategies will increase performance evaluation



## Muscle & Voice Control

- › Facial Muscles
  - Relax tension in mouth
  - Lift eyelids & cheeks slightly
- › Vocal Characteristics
  - Avoid raising voice too loud or lowering voice too soft
  - Keep even tone of voice
- › Posture
  - Sit up straight
  - Don't move forward or slouch



### Using Emotion Regulation Strategies

**Passive**

- Frowning
- Slouching posture
- Low voice
- Long gaps in speech

**Assertive**

- Lift cheeks
- Confident posture
- Open eyelids
- Even tone of voice

**Aggressive**

- Tense mouth
- Attacking posture
- Furrowing eyebrow
- Loud voice

## Emotion Regulation Practice

### Scenario

A teammate suggests something that is directly opposite of what the supervisor told you in the last meeting.

"Hello? Did you sleep through the meeting last week?" Everybody knows that the supervisor clearly said not to do that."

"Do you think the supervisor will mind if we do that?"

"I remember hearing the supervisor say not to do that last week at the meeting."

### Passive

"Do you think the supervisor will mind if we do that?"

- Frowning
- Slouching posture
- Low voice
- Long gaps in speech

### Aggressive

"Hello? Did you sleep through the meeting last week?" Everybody knows that the supervisor clearly said not to do that."

- Tense mouth
- Attacking posture
- Furrowing eyebrow
- Loud voice

### Assertive

"I remember hearing the supervisor say not to do that last week at the meeting."

- Lift cheeks
- Confident posture
- Open eyelids
- Even tone of voice

## Active Feedback

Please wait for the training facilitator to enter the room for your active feedback session.

## Practice

## Review of Customer & Coworker Policies

**Rule 1:** Patients in the ER are not seen by a doctor on a first-come/first serve basis: The triage nurse determines their order on the basis of need.

**Rule 2:** Patient information is confidential. Each patient has the right to decide:

- Who may see him or her
- Who may have information about their condition
- Whether you may reveal that they are even registered as a patient in the hospital

**Rule 3:** Doctors have the right to deny access to a patient if it is in the best interest of the patient's medical condition.

**Rule 4:** You will be fired if you lie verbally or in writing.

**Rule 5:** No racial or sexual harassing comments.

Make sure to greet all patients by smiling and saying "Hi, can I help you?" before they reach the customer service desk.

## End of Training

- › You have now completed the training for your position as a Customer Service Representative
- › You will now begin your shift as the Customer Service Representative. You have two voicemail messages waiting for you.



APPENDIX H: DEEP ACTING TRAINING SLIDES



## Using the Simulation

Here's how it works:


- ▶ Like a role-play with live and video characters.
- ▶ 40-minute long story unfolds in first person (i.e., visually it appears as if characters are talking directly to you).
- ▶ You respond verbally into a microphone and at times in writing (i.e., to emails).
- ▶ The computer can tell when you start and stop speaking. A couple of seconds after you finish an answer the scene moves on. While you are speaking, the characters appear to be listening to you answer.
- ▶ All of your responses are audio taped and videotaped. Make eye contact with the characters as if they were real.

## Simulation Hints

- ▶ Speak clearly into the microphone.
- ▶ Repeat your response louder if scene does not move on.
- ▶ Be patient. Scene may take a few seconds to move one after response.
- ▶ Take a moment before responding to prevent your response from being cut off.



## Training Instructions

- ▶ Please read all the information on the slides about starting your first day at SUMMIT HOSPITAL as you listen to the narration.
- ▶ Use the right arrow key  to move to the next slide.
- ▶ The information provided is important for helping you successfully perform your job.

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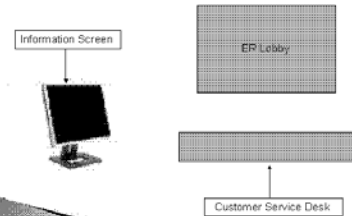
- ▶ New hire paperwork
- ▶ Heart rate and blood pressure for insurance purposes
- ▶ Customer service training
- ▶ Your employment is dependant on a trial period
- ▶ You will be video recorded
- ▶ Managing your expressions is key towards being an effective customer service representative

## New Hire Paperwork

Please fill out your new hire paperwork at this time. Make sure to complete all items and check both sides of each sheet. Incomplete paperwork will delay you being able to start your shift. Please press the right arrow key when you are finished.

## JOB DUTIES & HOSPITAL REGULATIONS

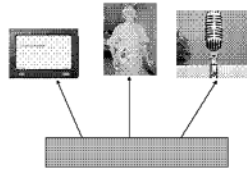
## Your Workstation



## Customer Service Desk

### Duties & Responsibilities

- Greet patients
- Interact with coworkers
- Respond to voicemails
- Respond to emails
- Make public announcements over the intercom as needed



## Information Screen

### Duties & Responsibilities

- Follow rules & procedures.
- Monitor for critical time sensitive updates from dispatch.



## Customer Policies

Please be sure to abide by the following policies when interacting with customers.

1. Patients in the ER are not seen by a doctor on a first-come/first-serve basis. The triage nurse determines their order on the basis of need.
2. Doctors have the right to deny access to a patient if it is in the best interest of the patient's medical condition.
3. Patient information is confidential. Each patient has the right to decide:
  - Who may see him or her
  - Who may have info about their condition
  - Who may know whether he/she is registered as a patient in the hospital

## Coworker and Supervisor Policies

Please be sure to abide by the following rules when interacting with co-workers and supervisors:

1. You will be fired if you lie.
2. No tolerance for racial or sexual harassment.
3. One customer service representative must be at the desk at all times.

### Co-workers and Supervisors for Shift

Louis (Head Nurse / Head Supervisor)      Rick (Customer Service Rep)




Tanya (Supervisor)      Kelly (Customer Service Rep)      Lynn (Supervisor)






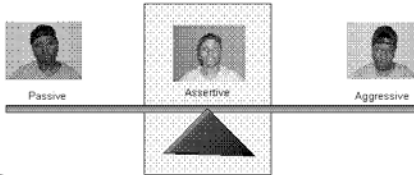
## HOSPITAL DISPLAY RULES

### Customer Service

- ▶ Assertive
- ▶ Professional
- ▶ Courteous
- ▶ Positive image for yourself and hospital

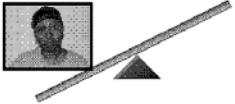


### Acting Assertively



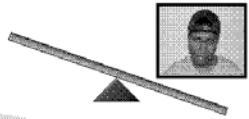
### Passiveness

- ▶ Unclear or uncertain
- ▶ "Beating around the bush"
- ▶ Avoiding responsibility
- ▶ Backing down easily when confronted
- ▶ Stating your concerns in the form of a question




### Aggressiveness

- ▶ Disrespectful
- ▶ Threatening
- ▶ Insulting
- ▶ Lack of concern for others



### Assertiveness


- ▶ Clear
- ▶ Direct
- ▶ Polite
- ▶ Calm
- ▶ Respectful of others
- ▶ Use of "I"



## EMOTION REGULATION STRATEGIES


### Emotion Regulation in the ER

- ▶ Busy, stressful environment
- ▶ Critical and emotional situations
- ▶ Must regulate inappropriate emotions!
- ▶ It is important that you appear polite, and professional to others!



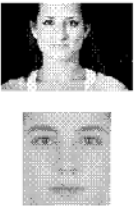
### Strategies

- ▶ We will now offer some emotion regulation strategies to help you respond assertively
- ▶ Must use given strategies to regulate inappropriate emotions
- ▶ Using given strategies will increase performance evaluation






### Cognitive Reappraisal

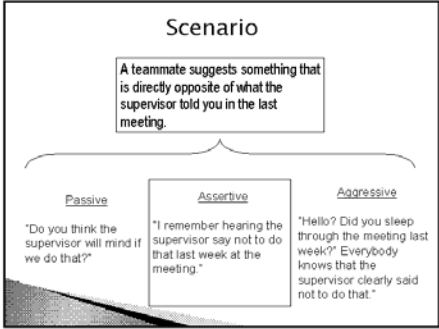
- ▶ Positive Refocus
  - Achievement opportunity
  - Focus on helping patients
- ▶ Perspective Taking
  - What are they feeling?
  - What are they thinking?
- ▶ Attentional Allocation
  - Focus on task
  - Disregard emotional content



### Using Emotion Regulation Strategies

		
Passive	Assertive	Aggressive
<ul style="list-style-type: none"> <li>• Negative focus</li> <li>• Intimidated &amp; avoidant</li> </ul>	<ul style="list-style-type: none"> <li>• Positive focus</li> <li>• Calm &amp; confident</li> </ul>	<ul style="list-style-type: none"> <li>• Negative focus</li> <li>• Threatened &amp; confrontational</li> </ul>

# Emotion Regulation Practice



### Positive Refocus

A teammate suggests something that is directly opposite of what the supervisor told you in the last meeting.

### Perspective Taking

A teammate suggests something that is directly opposite of what the supervisor told you in the last meeting.

### Attentional Deployment

A teammate suggests something that is directly opposite of what the supervisor told you in the last meeting.

### Active Feedback

Please wait for the training facilitator to enter the room for your active feedback session.

## Practice



## Review of Customer & Coworker Policies

**Rule 1:** Patients in the ER are not seen by a doctor on a first-come/first serve basis. The triage nurse determines their order on the basis of need.

**Rule 2:** Patient information is confidential. Each patient has the right to decide:

- Who may see him or her
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- Whether you may reveal that they are even registered as a patient in the hospital

**Rule 3:** Doctors have the right to deny access to a patient if it is in the best interest of the patient's medical condition.

**Rule 4:** You will be fired if you lie verbally or in writing.

**Rule 5:** No racial or sexual harassing comments.

## End of Training

- › You have now completed the training for your position as a Customer Service Representative
- › You will now begin your shift as the Customer Service Representative. You have two voicemail messages waiting for you.



APPENDIX I: DEMOGRAPHICS:

Date:

Participant ID:

**Demographic Info**

1) Gender:

2) Age:

3) Race: other:

Please select all that apply:

Asian

Caucasian

Black

Hispanic

4) Highest level of education (including your current class level, if applicable – e.g., freshman, sophomore, junior, senior, graduate student):

5) Do you have any customer service experience?

Yes

No

If yes, please give the following for each customer service job you have held:

Job title:

Employer:

Years Experience:

Job title:

Employer:

Years Experience:

Job title:

Employer:

Years Experience:

6) Are you bilingual?

If yes, what languages are you fluent in?



APPENDIX J: TRAIT EMOTION REGULATION QUESTIONNAIRE (ERQ-T)



APPENDIX K: STATE EMOTION REGULATION QUESTIONNAIRE (ERQ-S)



APPENDIX L: POSITIVE AND NEGATIVE AFFECT SCHEDULE (PANAS)

## PANAS-S

This scale consists of a number of words 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, that is, at the present moment. Use the following scale to record your answers.

1	2	3	4	5
Not at all extremely	a little	moderately	quite a bit	

\_\_\_\_\_ interested

\_\_\_\_\_ irritable

\_\_\_\_\_ distressed

\_\_\_\_\_ alert

\_\_\_\_\_ excited

\_\_\_\_\_ ashamed

\_\_\_\_\_ upset

\_\_\_\_\_ inspired

\_\_\_\_\_ strong

\_\_\_\_\_ nervous

\_\_\_\_\_ guilty

\_\_\_\_\_ determined

\_\_\_\_\_ scared

\_\_\_\_\_ attentive

\_\_\_\_\_ hostile

\_\_\_\_\_ jittery

\_\_\_\_\_ enthusiastic

\_\_\_\_\_ active

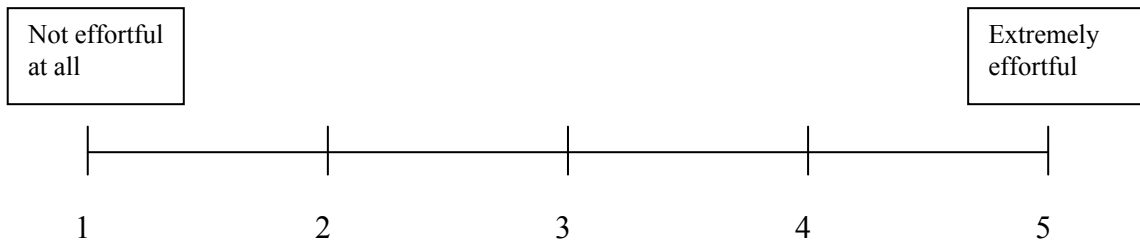
\_\_\_\_\_ proud

\_\_\_\_\_ afraid

APPENDIX M: EMOTIONAL LABOR QUESTIONNAIRE

ERD

**Please rate how much effort each item required during the simulation. Use a scale of 1 to 5 where a 1 indicates it was not effortful at all and a 5 indicates it was extremely effortful.**



1. \_\_\_\_\_ Interacting appropriately with patients.
2. \_\_\_\_\_ Interacting appropriately with coworkers.
3. \_\_\_\_\_ Interacting appropriately with supervisors.
4. \_\_\_\_\_ Adhering to hospital rules and regulations.
5. \_\_\_\_\_ Using the strategies I was given during my pre-hire training.
6. \_\_\_\_\_ Sorting pictures of the characters I interacted with.
7. \_\_\_\_\_ Determining the relatedness of characters I interacted with (rating scale).
8. \_\_\_\_\_ Responding to the interview questions posed of me regarding possible disturbance scenarios.



## APPENDIX N: CHARACTER PICTURES

A)



B)



C)



G)



H)



I)



M)



N)



O)



S)



T)



U)



D)



E)



F)



J)



K)



L)



P)



Q)



R)



V)



W)



X)



## APPENDIX O: DEBRIEFING FORM

## DEBRIEFING FORM

### Simulations for Customer Service Training

We realize you have several opportunities to aid in research, and your generosity and willingness to participate in this study and are greatly appreciative. The purpose of this research is to investigate the effectiveness of customer service training on interpersonal performance and decision making in customer service work using a computer-based simulation. Your input will help contribute to the advancement of the field of simulation and feedback research.

Sometimes people find the talking interactively with a computer, being recorded, or having physical symptoms monitored (heart rate and blood pressure) a bit disturbing. If involvement in any of these activities led you to feel distressed and you would like to speak to someone about your thoughts, please let us know before leaving the lab. Your satisfaction with the study and well being are of our utmost concern. In regards to your heart rate and blood pressure readings, an information sheet from the Health Center has been attached that also contains your first readings to let you know whether or not your levels are elevated and whom to contact if so.

We would ask you to maintain confidentiality about the purpose of the experiment since any pre-knowledge of the purpose will bias the data for other persons (i.e. your partner or other students) and thus cannot be used.

If you have concerns or complaints about this research, please contact any of the following people: Moshe Feldman (407-808-5624). We would also like for you to take the Psychology Research Experience Evaluation form with you so that your feedback can aid in future research participation. This form is attached and all directions needed are on the form.

Thank you very much for participating!

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