EFFECTS OF COMPARISON CONTRAST ON JUDGMENTS AND STRESS IN SERVICE ENCOUNTERS

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ABSTRACT

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The current study was conducted in order to determine whether a comparison contrast effect exists in customer judgment and stress in the service industry. In order to test this effect, a customer service simulation experiment was created. Participants, playing the role of a service employee, were exposed to easy and difficult customers. The first customer could be either an easy or difficult customer, so there were a total of four combinations: easy primed, easy unprimed, difficult primed, and difficult unprimed, with prime condition being the independent variable. Judged friendliness, hostility, and perceived stress were tested as dependent variables. Independent t-tests were used to examine the difference between the easy conditions and the difficult conditions for each of the dependent variables. The results support that a comparison contrast effect does, in fact, exist for judgments of friendliness and hostility, as well as for ratings of stress following customers. Implications of these findings, as well as future research ideas, are discussed.

Dedication

To the future Mrs. Sliter…

None of this would be possible without you.

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CHAPTER 1. INTRODUCTION

Working in the service industry is stressful (Hochschild, 1983; Pugh 2001; Weatherly & Tansik, 1993; Grandey, 2003; Brotheridge & Grandey, 2002). For instance, service industry workers have been shown to suffer from emotional exhaustion and decreased job satisfaction (Lewig & Dollard, 2003), cardiovascular disease (Beehr & Newman, 1978), and have generally lower life satisfaction (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000) as a result of this daily stress. The number of people working in the service industry has increased dramatically in the last 40 years (Hochschild, 1983; Hecker, 2005), so the amount of employees exposed to daily stress in this context has increased as well.

Quite often, negative outcomes associated with the workplace are thought to be caused by emotional events (Grandey, 2000; Weiss & Cropanzano, 1996). These emotional events can be anything from a personal work event like a difficult customer (Grandey, Dickter, & Sin, 2004; Goldberg & Grandey, 2007; Von Dierendrock & Mevisson, 2002), to a work event affecting the entire organization such as a mass layoff (Clair & Dufresne, 2004). Such events are usually thought of as the proximal cause of emotions in the workplace (Beal, Weiss, Barros, & MacDermid, 2005). In addition, some types of emotional events are especially draining in service work because an employee not only experiences a negative event (such as a hostile customer), but also is required to maintain a professional, friendly demeanor. This emotional regulation at work is the heart of the term “emotional labor,” which is the management of emotions for a wage (Hoschschild, 1983). Emotional events pay a key role in this literature (Grandey, 2000).

The Affective Events Theory (Weiss & Cropanzano, 1996) and, later, a conceptual model of emotional labor by Grandey (2000) both provide a framework through which emotional events at work can be better understood. However, the process by which these events are judged as positive or negative by an employee is still unclear and in need of further research. That is, in the literature on emotions in the workplace, an event is typically assumed to be negative or positive based solely on the characteristics of that event. I argue that these events do not stand alone, innately positive or negative, but rather *context* is important in the interpretation of these events.

As such, the purpose of the current study is to investigate how people judge and respond to emotional events, specifically in the context of service work. In doing so, I seek to examine a specific component of Grandey's (2000) model, in which "emotional events" are considered to be antecedents to emotional labor and other outcomes. More specifically, I seek to examine the immediate impact of these events on employee emotional responses, especially as this immediate impact has largely been ignored in lieu of cross-sectional studies (Brief & Weiss, 2002). First, I discuss the Affective Events Theory and Grandey's (2000) theory on emotional labor in order to place the concept of emotional events in perspective. Then, I examine social judgment literature on an effect called "comparison contrast" to see how context might affect judgments and employee affective outcomes.

Next, I provide a method in which to test this, in which an experiment was designed to test whether a comparison contrast effect exists in this interpretation of and reaction to events in the workplace. More specifically, a simulation was deigned in which exposure to positive and negative events was manipulated, and the presence or

absence of a comparison contrast anchor was manipulated. Finally, I discuss the results of this study and their implications on theory.

Affective Effects Theory

Until only two decades ago, research on emotions in the workplace was limited (Brief & Weiss, 2002). Partially in order to resolve this oversight, Weiss and Cropanzano (1996) created the Affective Events Theory (AET). AET examines the structure, causes, and consequences of affective experiences at work. Traditional theories, up until the conception of AET, had primarily focused on the features of the environment rather than emotional events as the proximal cause of emotions in the workplace (see Discrepancy Theory by Lawler, 1976 for an example of a traditional theory). The authors of AET, instead, decided to focus on affection reactions to events in the workplace and the immediate and long-term outcomes of these events, including attitudes and performance.

AET was originally created to resolve some ambiguity on the construct of job satisfaction, with Weiss and Cropanzano (1996) arguing that job satisfaction is not an affective reaction itself, but rather it is an outcome of affective reactions to emotional events in the workplace. Though a better understanding of job satisfaction was the original purpose of AET, it has since been shown to be applicable to a variety of work-related personal and organizational outcomes, such as physical health (Wegge, Dick, West, & Dawson, 2006), team climate and team performance (Pirola-Merio, Hartel, Mann, & Hirst, 2002), employee motivation (Seo, Barrett, & Bartunek, 2004), stress, burnout, and trust (Shaw, 2004).

Here, I will discuss in more detail the major focuses of Weiss & Cropanzano's AET, beginning with the structure and consequences of affective experiences at work, and finishing with a more detailed discussion on the cause of emotions. First, AET examines the structure of emotions. In AET, emotion is roughly defined using Frijda's (1993) theory of emotion, which consists of four parts. First, there is an experiential aspect of emotion, an event or occurrence that gives rise to a particular feeling. Secondly, there is a within person experience of a general feeling of pleasantness and unpleasantness without actual detection or recognition of the emotion. Third, accompanying this feeling of (un)pleasantness is a general sort of physiological arousal (such as increased heart rate or respiration). Finally, the experience of an emotion has an action-readiness response built in, often called the Fight-Flight response. This definition of emotions for AET, adopted from Fridja's (1993) framework, relies on the assumption that an emotion is essentially the response to an experience in the environment, or an event.

AET recognizes that the structure of emotions is just as important as the structure of the work environment. Emotional responses can occur in many different forms (anger, sadness, happiness, etc.), and each experienced emotion can have a different impact on a person's workplace behavior. Though this does not seem like a surprising assertion about emotions from today's perspective, AET was progressive and the first to look at this emotional structure in the workplace.

Weiss and Cropanzano (1996) examined the literature on basic emotions for details on how emotional structure might impact work behaviors. They drew from three major concepts in emotion research. First, emotions can be organized into families, such

as the often-cited six basic emotions: happiness, anger, disgust, joy, fear, and sadness. Second, emotions states do exist, and tend to occur in response to something in the environment: an event. Finally, some emotions are specific while others are rather general, such as anger (general) versus rage (specific). Weiss and Cropanzano (1996) argue that specific emotions are more useful than general emotions in predicting behavior at work. An angry person could perform any variety of behaviors, while a rage-filled person would be expected to be counterproductive and aggressive.

Secondly, AET examines the consequences of affective experiences at work, focusing on mainly job satisfaction and performance. As mentioned above, traditional theories (e.g. Lawler, 1976) focus on workplace characteristics as the major "cause" of job satisfaction. AET, on the other hand, examines events in the workplace as the cause of emotional responses, which in turn "cause" judgments of satisfaction. From the perspective of AET, emotional experiences in the workplace, positive or negative, will eventually lead to judgments about the job as a whole. Events in work seem to compound into an average feeling of pleasantness or unpleasantness, which in turn affects the evaluation of the work experience. In terms of the relationship between emotional experiences and performance, AET is does not make definitive, causal assertions. However, Weiss and Cropanzano (1996) theorize that positive emotional states would likely result in higher performance, while negative emotional states would result in depreciated performance.

Finally, arguably the most important component of AET is the concept of emotional events. Weiss and Cropanzano (1996) provide a simple dictionary definition of the term "events," offering that events are "a happening, especially an important

happening" and "something that occurs in a certain place during a particular time." The definition of events is intentionally vague and could entail any happening in the work environment. However, Weiss and Cropanzano (1996) make the point that both of these definitions entail a change, such as a change in circumstances or a change in what someone is currently experiencing. Their concept of "change" should imply that context should be taken into consideration. By context, I am referring other events surrounding the event in question, as well as other characteristics of the job, such as interactional expectations (Grandey, 2000). One would imagine that, in order to detect change, context must be considered and appraised by a person experiencing an event. If an event causes a change in context, then an event would considered emotional.

Despite the possible importance of context in making a judgment of an event, Weiss and Cropanzano (1996) do not explicitly discuss how it might impact the initial judgment and subsequent emotional reactions to events in the workplace. Instead, they provide a cognitive appraisal perspective for interpreting events. In this cognitive process, an event is first evaluated as being positive or negative based on that event's impact on a person's well-being. This initial judgment also includes an evaluation of the importance of this event, such that more important events lead to more intense emotional reactions. Following the judgment of event importance, a less general appraisal occurs in which the specific event is evaluated on its consequences and attributions. Weiss and Cropanzano (1996) believe that the outcome of this cognitive appraisal is an emotional reaction, which in turn leads to behaviors. Though they do go into detail only with the cognitive appraisal theory, Weiss and Cropanzano (1996) recognize that this theory may

not tell the whole story, and they invite researchers to examine other constructs that might impact the event-emotional relationship.

Weiss and Cropanzano (1996) do, however, hint that being exposed to different types of emotional events might have an impact on a person's affective stability over time. These events are referred to as "shocks." A "shock" is an event that differs from a person's regularly experienced event, and affects their regular affective pattern. For instance, for a person who is used to experiencing positive events, a negative event would be a "shock"—disrupting this person's pattern of positive emotions. On the same token, a person experiencing mostly negative events would have a "shock" from a positive event. A "shock" could cause a large fluctuation in a person's affective state, moving that state into the opposite pole of affectivity. A person with a dominatingly positive affective state might be pushed far in the negative from a shock. In addition, these "shocks' might create "after shocks" in which the change in the emotional state would carry over to future events.

The concept of "shocks" can possibly be interpreted as being reliant on context. A "shock" can only occur if there is a baseline or an anchor for which to judge an event as a "shock." An event, if differing from the norm of events, might 1) cause a change in an emotional state, and 2) provide context for future events. This idea of "shocks" opens the door for further research on context as an important consideration for the judgment of positive and negative events.

Though AET seems to provide a framework for how emotional events might be interpreted (using a cognitive appraisal and by recognizing "shocks"), it still does not tell the whole story. More recent theories have also examined how events may be the

proximal causes of emotion in the workplace, and how this might impact the well-being and performance of an employee. Next, we turn to Grandey's (2000) conceptual framework of emotional labor to examine where else emotional events might be considered important, and yet might still not be fully understood.

Grandey's (2000) Conceptual Model of Emotional Labor

In the workplace, especially in the service sector, employees are constantly exposed to emotional events. These events give rise to emotional labor, or the management of emotion for a wage (Hochschild, 1983). The most common emotional events in service work would be experiences with customers. Employees encounter customers, which can result in positive events, such as customers who are friendly, complimentary, and generally polite. In addition, employees can encounter customers that might be evaluated as a negative event, such as customers who are hostile (Grandey, Dickter, & Sin, 2004; Goldberg & Grandey, 2007), uncivil (Von Dierendrock & Mevisson, 2002; Sliter, Jex, Wolford, & McInnerney, 2009), impatient (Zhao & Alfa, 2004), or demanding (Rafaeli & Sutton, 1990). As emotional events with customers are so frequent (Grandey, 2000), the current study focuses on customer encounters as positive and negative emotional events.

Per AET, employees evaluate emotional events while at work, such as these customer encounters. However, an employee is less able to act upon these judgments due to the nature of a customer service job. That is, most customer service employees are required to adhere to display rules, defined as acting in accordance with formally set display expectations in the workplace (Diefendorff, Richard, & Croyle, 2006). Hence, the "service with a smile" display rule, where employees are expected to display and

maintain primarily positive emotions whether being exposed to positive or negative work events (Barger & Grandey, 2006; Grandey 2003).

Emotional labor is the process that underlies the concepts of display rules and "service with a smile." Emotional labor can be defined as a form of emotional regulation that occurs in the workplace in which workers regulate their emotions as a part of their job (Grandey, 2000). Emotion regulation, in short, is a person's ability to control the emotions that they feel, as well as a person's ability to express those emotions (Gross, 1998). This can involve the *expression* of positive emotions (Rafaeli & Sutton, 1990; Grandey, Fisk, Mattila, Jansen, & Sideman, 2005) as well as the *suppression* of negative emotions (Richards & Gross, 2000; Hagemann, Levenson, & Gross, 2006). Emotional labor has been shown to lead to reduced task performance (Rafaeli & Sutton, 1990), anxiety (Feldner, Zvolensky, Eifert, & Spira, 2002), hypertension and coronary heart disease (Gross & Levenson, 1997; Mauss, Cook, & Gross, 2007), drain of cognitive resources (Richards & Gross, 1999), lower work satisfaction (Pugliesi, 1999) and emotional exhaustion and burnout (Grandey, 2000).

Grandey (2000) proposed a conceptual framework for better understanding of the emerging construct of emotional labor. Basically, situational cues, such as interactional expectations (e.g. display rules) and emotional events act as precursors to emotional labor. These antecedents, in turn, initiate the actual process of emotion regulation (Grandey, 2000). Grandey's (2000) model theorizes that the process of emotional labor will, in turn, affect personal outcomes such as stress, burnout, and job satisfaction, and organizational outcomes, such as performance and withdrawal. This model is summarized in Figure 1.

This conception of emotional labor, much like AET, is reliant on the concept of emotional events. Grandey (2000) talks briefly about events, positing that positive and negative emotional events are the cause of emotions, and subsequent emotional regulation. Grandey (2000), though mentioning positive emotional events in the model, does not describe these events. As such, though I give positive workplace events some attention, the focus of the current study will be on negative emotional events. In addition, ample research suggests that there is an asymmetry between the judgment and response to positive and negative events (Taylor, 1991; Cacioppo & Berntson, 1994). That is, people judge negative events and react to negative events much more strongly than they do to positive events (called a negativity bias). Negative workplace events are also more of a concern in service work as they raise negative emotions that may interfere with a person's ability to comply with display rules (Grandey, 2000).

Grandey (2000) briefly discusses negative workplace events, focusing mainly on negative customer interactions as negative work events. Higher frequency of these negative events is thought to lead to higher incidences of emotional regulation, which in turn leads to higher feelings of stress within a person. Grandey (2000) also mentions that other things can occur that could be considered to be negative workplace events, such as equipment breaking at work. Using the AET definition of negative events, this could fit in with the literature on daily hassles, which are often seen as a minor, but additive cause of long-term stress (Kanner, Coyne, Schaefer, & Lazarus, 1981).

Though these examples of negative events are given, Grandey (2000) provides no additional information beyond AET on how these events might be judged by an employee to be negative. Grandey (2000) used Weiss & Cropanzano's (1996)

explanation of cognitive appraisal of events, where an event is categorized as positive or negative based the appraisal process mentioned earlier. Again, though mentioning that customer "events" occur with frequency in service, Grandey (2000) offers no explanation of how consistency with which events take might impact the judgment and outcomes of emotional customer events. Intuitively, one would expect that customer events would immediately inform the judgment and outcomes of other events. Despite not examining the immediate impact of these customer events, Grandey (2000) does invite researchers to further explore this events component of the model.

To answer that invitation, I seek to examine the concept of positive and negative emotional events, as little empirical evidence provides insight on the topic. More specifically, research does not explicitly examine the judgment mechanism behind evaluating events. I argue that context surrounding events may impact judgment, and subsequent emotional and behavioral reactions to the emotional event. Typical events (positive or negative) will act as comparison standards in the event of "shocks," or events deviating from the norm. By manipulating event type and order, I can better determine how context might affect the judgment and outcome of events. First, however, I seek to explain one mechanism that can explain how context might impact the judgment of and outcome of emotional events. To do this, I turn to social judgment literature. More specifically, I examine and discuss the comparison contrast effect.

Comparison Contrast Effects

One often studied phenomenon in the judgment literature is that of contrast. A person tends to use context while making an evaluation, or judgment, regarding something in the environment. Judgments are constantly made in everyday life, regarding everything from

the advertising of a product (Stapel, Koomen, & Velthuijsen, 1998) to evaluating a personal event (Stapel & Koomen, 1997). *Contrast effects* can occur in any judgment context where one object seems disparate from another due to its apparent features. For instance, at a grocery store, there are several different brands of cereal to choose from. These cereal products can be directly compared by any of their most apparent attributes, from nutrition facts to the color of the box (Stapel et al., 1998).

In a context like a grocery store, products can be directly and immediately contrasted with one another because of their physical adjacency. In other contexts, though, contrast effects can occur where the target (the object being judged) must be compared with something not in the immediate context. This is a process known as a *comparison contrast* (Stapel & Winkielman, 1998). For example, if you were to judge an average-looking person some time after looking at a beautiful model, you would be more likely to rate this target as less attractive than if you were to view the target some time after observing an unattractive person (Kenrick & Guierres, 1980). In this example, the attractiveness of the two people is not directly compared simultaneously as in the previous example involving cereal. Rather, a comparison contrast is always a sequential judgment, with some amount of time separating the comparisons. The first object is considered to be an anchor, and the second object is the target.

The comparison contrast effect has been examined in multiple contexts. This effect is typically achieved through priming, or activating particular categorizations in the mind in the participants before exposing them to an ambiguous stimulus. Herr (1986) primed participants by providing a description of a hostile person (the anchor), followed by having them judge the hostility of an ambiguously hostile person (the target). Herr

found that priming of hostility—a personality trait—can cause a contrast effect where the second person is judged in light of the first, or rather comparatively contrasted with the first. As a second example of the range of the comparison contrast effect, Bodenhausen, Schwarz, Bless, and Wanke (1995) determined that racist beliefs and reactions can be diminished through priming. In this study, presentation of economically and socially successful minorities as anchors before rating resulted in lower levels of discrimination.

Many of the previous research examples of comparative contrasts—whether for hostility (Herr, 1986), beliefs (Bodenhausen et al., 1995), or stereotypes (Dijksterhuis, Spears, & Lepinasse, 2002)—have used written *descriptions* of people. Other studies have examined how context can engender comparison contrast effects in performance appraisal set-ups using video cameras (e.g. Kravitz & Balzer, 1992; Sanchez & De la Torre, 1996; Becker & Villanova, 1995). As an example, Becker and Villanova (1995) recruited a student sample to observe two videotapes of candidates for a promotion: an interview with a poor candidate and an interview with an average candidate. The order in which these interview events were presented was manipulated. Results showed that there was a comparison contrast effect in that the average candidate (the target) was judged as more qualified for the job when he was rated after the poor candidate (the anchor). This comparison contrast effect was lessened when there was a time delay between rating the first candidate and the second candidate, indicating that comparison contrast effects may be exaggerated in laboratory studies of performance appraisal.

Emotional Events Judgment Hypotheses

What does the comparison contrast effect have to do with events? Interactions with people tend to be judged, and a person's actions and behaviors coalesce into an

event, using the loose definition of events provided by AET (Weiss & Cropanzano, 1996). Events are appraised, and social judgment literature would suggest that context is always used in this appraisal of events (Herr, 1983). These customer events might be contrasted with one another, using previous customer event as context, or as an anchor for judging the current customer event.

The current study seeks to examine if a comparison contrast effect is present in relation to the judgment of positive and negative emotional events. That is, does experiencing one event make the details of the next event more salient in terms of judgment and more powerful in terms of emotional impact? In order to study this phenomenon, I created an experimental customer service simulation in which events (positive and negative) were manipulated, and in which the comparison contrast effect was manipulated by presenting these events with or without an anchor, or comparison standard. The current study examined judgment criteria that are relevant to a service encounter events—namely, friendliness and hostility. Hostile customer events are considered by Grandey (2000) to be negative events, and friendly customers might be considered to be positive events. These events could then be judged as friendly encounters or hostile encounters. I propose the following hypotheses:

> *Hypothesis 1a*: A positive event will be judged as less hostile when preceded by a negative comparison anchor than when the positive event is judged without an anchor.
>
> *Hypothesis 1b:* A positive event will be judged as more friendly when preceded by a negative comparison anchor than when the positive event is judged without an anchor.

Hypothesis 2a: A negative event will be judged as more hostile when preceded by a positive comparison anchor than when the negative event is judged without an anchor.

Hypothesis 2b: A negative event will be judged as less friendly when preceded by a positive comparison anchor than when the negative event is judged without an anchor.

Both negative and positive events are used as anchors and targets. In order to ensure that these emotional events would be used as comparison standards, certain characteristics of the event were considered that would increase the likelihood that a comparison contrast judgment would occur. Typical anchor and target qualities include context-similarity, distinctness, dimensional relevance, extremity, and appropriateness (Stapel & Winkielman, 1998). Most important to the current study is extremity. Extremity refers to the strength of the anchor. A more extreme anchor is much more likely to elicit a contrast comparison than a moderate or neutral anchor. Extremity resulting in contrast is a well-documented effect (Herr, 1986; Hogarth & Einhorn, 1992; Manis, Nelson, & Shelder, 1988; Stapel et al., 1998; Srull & Wyer, 1979), an effect that is especially relevant to the service context. In a service encounter, an employee can be confronted with positive events interspersed by negative events, or "shocks." When confronted with an extremely negative or positive event, the employee is likely to judge the event as extreme and use this event as an anchoring point for comparing subsequent interactions with other customers. As such, positive and negative events in this study were intentionally altered to be more extreme, as a comparison contrast is more likely to occur with extreme anchors.

Emotional Events and Emotional Outcomes Hypotheses

I have so far proposed that the judgment of emotional events relies on context, and I have provided one mechanism for how context might affect these appraisals: the comparison contrast. However, I also propose that the effects of context on emotional events do not just end at the judgment of these events, but extends to the outcomes caused by the judgment of these events. Namely, stress is the outcome which I am examining. That is, if an event is judged as extremely hostile, I would expect stress to covary with the judgment of hostility and be affected by context.

A thoughtful examination of the following study illustrates the logic of this proposition. Goldberg and Grandey (2007) conducted a study examining emotional labor, display autonomy, and emotional exhaustion. This study used an experimental simulation in which participants worked as "employees" in a call center. Each participant was confronted with three customers, each with a transaction of varying difficulty. This included an easy transaction (a positive or neutral event), a difficult, hostile transaction (a negative event), and a final easy transaction. One of the primary findings of this study was that customer hostility predicted emotional exhaustion. That is, when participants were confronted with a hostile customer, they were more likely to become emotionally exhausted than when confronted with only polite customers.

However, I propose that that relationship between hostility and emotional exhaustion would not have been as strongly present if there was not the context, or comparison anchor, afforded by the positive event. According to comparative contrast research, context is of primary importance when judgments are rendered (Herr, 1986; Stapel et al., 1998). In the Goldberg and Grandey (2007) simulation, the findings

potentially illustrate that the comparison contrast occurred by surrounding the negative event with positive or neutral events. Judgment was not explicitly measured, while emotional exhaustion was, possibly extending the idea that the emotional outcomes of events are influenced by comparing events to anchors. However, the design of this particular study was not such that comparison contrast effects on emotional exhaustion could be determined from customer to customer.

AET and Grandey's (2000) theory are well-suited to examining these immediate impacts based on both judgment appraisal and on emotional outcomes. The current study seeks to support assertion that there are immediate context effects on stress, in addition to judgment. This would act as an integration of social judgment and emotional labor research by explaining how emotional events are judged, and how they affect emotional responses. To this end, the following hypotheses were proposed:

Hypothesis 3: A positive event will be judged as less stressful when preceded by a negative anchor than when judged without an anchor.

Hypothesis 4: A negative event will be judged as more stressful when preceded by a positive anchor than when judged without an anchor.

As mentioned earlier, the current study used an experimental design to test the aforementioned hypotheses on comparison contrast effects in a service encounter. Participants "worked" in a customer service simulation which was designed to replicate a service environment. Participants were confronted with positive and negative events, and these events were experienced with either an extreme anchor to determine if there is a comparison contrast effect on the event judgment criteria (i.e. hostility, friendly) and on stress.

CHAPTER 2. METHOD

The current study used a customer service simulation in order to provide a method in which customer events could be manipulated as well to have increased fidelity to an actual service encounter. In this simulation, participants performed in the role of a bank teller. This job was chosen because it is prototypical of service roles in the service industry due to the fact that bank tellers perform all the essential functions of a service provider: completing transactions, answering the phone, and working with technology (Sliter et al., 2009). This position also had the added benefit of being one in which face-to-face customer positive and negative events occur. Face-to-face encounters involve more emotional regulation (regulation of both *emotional displays* and verbal intonation) than over-the-phone transactions commonly used in other studies (Goldberg & Grandey, 2002; Grandey et al., 2004), and this outward regulation is more difficult to maintain (Hochschild, 1983).

Participants and Design

Undergraduate students were recruited, through an online university recruiting tool, to participate in this study in return for credit in psychology 101 courses. The sample consisted of 91 total students, with more being female (50.5%), white (57.1%), first year students (71.4%) with a mean age of 19.35 (*SD* = 1.79). Most students of the were not currently employed (51.6%) or were working part time (45.1%). Most participants (74.2%) had some past customer service experience. Students received course credit for their participation.

The design of the study was a 2 (negative or positive event) X 2 (anchor or no anchor) within-subjects design. Event type was manipulated so that two events were

present: a negative event (hostile "customer") and a positive event (a friendly "customer"). Secondly, presence or absence of a comparison anchor was manipulated by counterbalancing the order of presentation of the events. When an event was experienced first, it was necessarily presented without an anchor. When an event was experienced second, the first event acted as an anchor. Note that as each participant was exposed to both types of events, the design cannot be considered fully-crossed.

Three dependent variables were measured: judged hostility, judged friendliness, and stress. Each of these dependent measures was measured following each event.

Measures

State Anxiety and Stress

To measure stress, the State-Trait Anxiety Inventory (STAI) was administered. This anxiety measure can also be used as a measure of stress (Spielberger, 1989). Other measures of stress (i.e. Stress in General (Stanton, Balzer, Smith, Parra, & Ironson, 2001); Beck Anxiety Inventory (Beck & Steer, 1994)) were less appropriate, as the current study examined a change over time in state stress as opposed to a stable, trait measure of stress. The measure consists of two sections: state anxiety, or a person's current anxiety level (i.e. how are you feeling right now?), and trait anxiety, or a person's overall emotional climate for anxiety (i.e. How do you feel generally?).

Only the state anxiety section was administered in the current study. The measure consisted of twenty items, each assessing the participant's current emotional state (e.g. "I feel calm; I feel worried). Each item is rated along a four-point Likert scale assessing if each emotional currently describes what the participant is feeling, with a "1" being "Not at all," and a "4" being "Very much so." Scores on the measure range from 20 – 80.

The state anxiety section of the STAI has been shown to have adequate reliability (.83-.92), and this reliability was duplicated in the current study, ranging from .852 - .936, differing only slightly across administrations. The state section was administered three total times: once upon participant arrival and twice following "customers" during the service simulation.

Judgment Measures

Each customer event was judged on two different criteria: hostility and friendliness. Per Herr (1986), each of these judgment criteria was rated using a single item measure, rating either hostility or friendliness on a 7-point scale, ranging from "not at all hostile/friendly" to "extremely hostile/friendly." The participant was given these instructions: "Think about your experience with the last customer. Based on this experience, how would you rate the customer on …" Single item measures have been used effectively in multiple classic judgment studies (i.e. Herr, 1986; Kenrick & Gutierress, 1980; Srull & Wyer, 1979), indicating that a single item judgment criterion was appropriate in this case.

Manipulations

Events

Type of event was manipulated in order to create a positive and a negative customer event. In the positive customer event, the customer brought in several checks to deposit and a withdrawal. Throughout the encounter, the customer was pleasant and complimentary, making small talk with the participants. The customer politely refused to talk while the participant was inputting information into the computer and indicated that he was doing this in order to make the participant's job easier.

In the negative customer event, the customer brought in a lot of cash and a few checks, angry that he had overdrawn his account. He deposited the checks and the cash into a checking account, and made a withdrawal from a second savings account. During the entire encounter, he acted hostile toward the participant, calling him/her slow, lazy, and a bad employee—using specific phrases from the script. Note that hostility was chosen as the trait of the negative customer event. Hostility has frequently been examined in the emotional labor literature (i.e. Goldberg & Grandey, 2007) as well as the contrast judgment literature (Herr, 1986) and occurs with frequency in service encounters, so it was chosen as the prominent trait of the negative customer event.

Anchor Comparison

In order to manipulate the presence of a comparison contrast anchor, the presentation of the first type of customer was randomly selected through the flip of a coin. Hence, some participants were in the "Positive/Negative" condition, while others were in the "Negative/Positive" condition. When an event was presented first, that event was presented without a comparison anchor. When an event was presented second, it was presented with a comparison anchor.

Manipulation Check

In order to ensure that participants were complying with the display rule as instructed, a service quality measure was constructed as a manipulation check. The service quality measure was filled out by the customer confederates following the simulated transactions (out of sight of the participant). The measure (see Appendix A) asked the confederates to rate the participants on three aspects of the service encounter: friendliness, professional demeanor, and whether it seemed that the participant was

taking the experiment seriously. Customer confederates were trained on rating these aspects of the service encounter, which will be detailed below in the training section. As each item of the measure was tapping a different construct, internal consistency was not appropriate to measure.

Participants who fell below the midpoint on at least two of these aspects of service quality were not to receive the incentive. All participants did receive the incentive, however, indicating that the experiment was, in all cases, taken seriously.

Apparatus and Training

Teller Station and Program.

A bank teller station was constructed for the purposes of this study and this experimental station was modeled after an actual bank teller station. A computer program was designed using the program Microsoft Excel in order to mimic a program used by bank tellers. The program had the capability to transact deposits, withdrawal, official checks, money orders, savings bonds, and balance the teller drawer. As they are the simplest transactions and take a relatively short training time, only deposits and withdrawals were used for this study. The other transactions (although they had working programming) were listed on the screen for the purposes of fidelity but not utilized.

On the deposit and withdrawal screen, cells were labeled for each piece of information necessary to complete the transaction, such as account number, check amounts, and cash back. Upon entering the account number, the customer information became available along a sidebar on the left side of the monitor. After all required information was entered and the “complete” button was pressed, a receipt was

automatically printed from the teller station printer. This receipt was given to the customer confederate in order to assess accuracy of transactions.

Forms, Checks, and Cash.

Deposit and withdrawal forms were obtained from a local bank and scanned to a computer. Digital imaging software was used to modify the bank name, routing number, and imperfections that stemmed from scanning. The forms were printed on a heavy stock paper, similar to that of an actual deposit slip. The deposit slips were filled out by hand, with different handwriting for each customer confederate in order to simulate realism.

Actual checks were also scanned into the computer. Digital imaging software was used to alter the name on the check, the routing number, the check number, and the account number. After being printed on a paper similar to the deposit and withdrawal slips, the checks were filed out by hand in a manner similar to that used for the transaction slips.

Actual cash was not used in this study due to the ethical and liability issues associated with using real currency. The most realistic, commercially available play money was obtained and used for this study. A working cash drawer was also obtained and kept in the teller station in order to further simulate a realistic bank teller situation.

Experimenter and Confederate Training.

A total of eight research assistants were trained in order to run participants: seven advanced undergraduate students (four females) and the author of this manuscript. The training took place across a three week period. Initially, a detailed protocol and script were developed for the experimenter, for the friendly customer, and for the angry customer. The protocol included step-by-step information related to setting up the

experiment, experimenter script, training the participant, inputting data, closing down the simulation, and awarding credit to participants. This protocol was adapted throughout training by suggestions from the research assistants and insight from the primary researcher. The customer scripts (Appendix B) contained a description of the customers' personalities and an overview the situation in order to assist the customer confederates to better "get into character" and understand the role. Because the customer role required the research assistant to respond based on the participants actions, the script was semi-structured in that several phrases and actions were to be used with each participant.

As for the training itself, the research assistants were given the protocol and scripts and told to familiarize themselves with each document prior to a first group meeting. At the first meeting, the purpose of the study was discussed, each step of the protocol was discussed, and alterations/clarifications were suggested for the protocol and scripts. After alterations and changes were made, the research assistants watched a mock version of the experiment in person, which followed each step. From there, the research assistants were placed into groups and asked to practice on their own, twice in each role (as each research assistant had to be able to fill the role of experimenter, friendly customer, and angry customer if necessary). As a final test, the research assistants ran test subjects (graduate students not familiar with the present study), who were afterward interviewed to determine how well the participants did. After the interviews, as well as observations by the primary investigator, the research assistants were deemed ready to run live participants.

Participant Training.

Upon arriving at the experimental session, the participant was greeted by the experimenter. The experimenter read the script to the participant where applicable. Before the training began, the participant was given a demographics form and the first state anxiety form and asked to complete both. The participants were then told that they were going to play the part of a customer service provider—namely, a bank teller. They were instructed that they would be expected to maintain a certain demeanor: professionalism tempered with politeness. When confronted with customers, they were expected to express a warm greeting and "serve the customer with a smile." This performance task was given in order to simulate a real-life service context in which emotions must be maintained while helping customers (Goldberg & Grandey, 2007). As a manipulation check, the customer confederates rated the participant on their smile, professionalism, and apparent seriousness with which they took the task.

Participants were then given instructions by the experimenter on utilizing the bank teller program. First, the experimenter introduced the different functions of program. The experimenter then went over example deposit and withdrawal transactions. Next, the experimenter went to the customer side of the teller station and made a "training" deposit and withdrawal which the participant was required the complete. The participant could repeat these transactions as many times as he or she wanted, until he or she felt comfortable enough with the program to take on actual customers.

Each participant was told the following statement in order to hold constant the idea that they would be evaluated and monitored (similar to Goldberg & Grandey, 2007): "You will be evaluated in two ways, just as in a real bank teller situation. You will be evaluated on both your performance and friendliness by both the customers coming to

your window and by a supervisor monitoring your performance. The customers will review the transaction with me, your supervisor, after leaving the window." Also, per Goldberg and Grandey (2007), in order to ensure commitment to the display rules and performance expectations, participants were told: "If you do not meet these expectations, then you will be taken off the teller line and you will repeat training. However, if you meet these expectations, you will receive a special bonus for your job performance." The incentive for good performance was $5 in cash. The participant was then told that they would immediately be taking several customers (with the actual number of transactions unknown). After answering any last minute questions, the experimenter left the room.

Procedure

The first customer entered the room a few moments after the experimenter left the room. The first customer was either "difficult" or "easy," depending on the order predetermined by the flip of a coin immediately preceding the arrival of the participant. The participant completed the two transactions for the first customer. The customer provided the participant with the state anxiety measure and judgment measure and then left the room to allow him/her to complete the measures. Approximately two minutes later, the second customer entered and completed his transactions. The participants filled out a second state anxiety and judgment measure in the same manner as the first time. After a few minutes, the experimenter re-entered the room and collected the measures. The participant then balanced the drawer under the supervision of the experimenter, was debriefed as to the purpose of the study, given their incentive (if deserved), and was free to leave.

CHAPTER 3. RESULTS

Manipulation and Random Assignment Check

In order to determine whether the different customers (i.e. easy and difficult) did differ in their ratings of friendliness and hostility, as well as the amount of anxiety that they induced (which would be consistent with the assumptions from previous research by Goldberg & Grandey, 2007), a manipulation check was conducted. This manipulation was checked using a within-subjects t-test, not taking into account the priming condition. It was found that the friendly-angry customer manipulation was successful when examining all dependent variables, with mean differences being significant for ratings of friendliness ($t(88) = 24.87$, $p < .001$), ratings of hostility ($t(88) = -18.41$, $p < .001$), and feelings of stress ($t(86) = -12.10$, $p < .001$), such that difficult customers consistently elicited more stress, higher ratings of hostility, and lower ratings of friendliness than easy customers.

In addition, to ensure that assignment to customer priming in the study was truly random, and to make sure that there were no systematic differences between participants in either condition, random assignment was investigated. Aside from demographic characteristics (which were relatively equally distributed between conditions), participant state anxiety upon arrival to the study was measured, as systematic differences in "arrival anxiety" could have potentially affected the results of the study. No mean differences ($t(88) = .532$, $p = .596$) were found between the difficult-easy and easy-difficult customer order participant groups, so it can be reasonably assumed that random assignment to groups was unbiased.

Hypothesis Testing

Independent sample t-tests were used to test the hypotheses proposed for the present study. That is, judgments and levels of stress were compared across (between) experimental conditions such that they were made either in the presence or absence of an anchor. For example, for hypothesis 1a, positive events were judged in either the presence or absence of a comparison anchor for hostility. Results, including effect sizes, are summarized in Table 1.

Each hypothesis was tested separately and significance was determined using the standard $p < .05$ level. In addition, Levene's Test for Equality of Variance will be reported and taken into consideration. A significant Levene *F* statistic would indicate heteroscedascity (inequality) in the distribution of variances between the two independent groups. A violation of the equality of variance assumption results in reduced degrees of freedom, and, hence, a more stringent test of the hypothesis.

In both hypotheses 1a and 1b, the assumption of equality of variances was violated ($F(87) = 5.82$, $p = .02$ and $F(86) = 5.04$, $p = .03$, respectively), indicating that adjusted degrees of freedom should be used. The assumption for equality of variance was violated for both hypotheses 2a and 2b ($F(87) = 6.89$, $p = .01$ and $F(87) = 7.44$, $p = .008$, respectively, also resulting in the use of reduced degrees of freedom. In hypothesis 3, the assumption for equality of variances was met ($F(86) = .09$, $p = .76$), resulting in the typically degrees of freedom associated with an independent t-test. Finally, the assumption for the equality of variances was met ($F(87) = .44$, $p = .51$) for hypothesis 4, resulting in use of unadjusted degrees of freedom.

Hypothesis 1, that a positive event would be rated as a.) less hostile and b.) more friendly when preceded by a negative anchor than when experienced without an anchor,

was partially supported. For hypothesis 1a, the mean ratings of hostility were not significantly different between conditions ($t(72.91) = 1.34$, $p = .19$, $d = .28$), such that the positive event was rated similarly hostile in the presence ($M = 1.23$, $SD = .95$) and in the absence ($M = 1.61$, $SD = 1.63$) of an extreme anchor. Hence, hypothesis 1a was not supported. For hypothesis 1b, the mean ratings of friendliness were significantly different between conditions ($t(83.34) = -3.56$, $p = .001$, $d = .75$), such that the positive event was rated as more friendly in the presence ($M = 6.70$, $SD = 1.01$) versus in the absence ($M = 5.80$, $SD = 1.34$) of an anchor, providing support for hypothesis 1b (see figures 2 and 3).

Hypothesis 2, that a negative event would be rated as a.) more hostile and b.) less friendly when preceded by a negative comparison anchor than when the positive event is experienced without an anchor, was partially supported as well. For hypothesis 2a, the mean ratings of hostility were not significantly different between conditions $t(75.79) = 4.99$, $p < .001$, $d = 1.05$), such that the negative event was rated as significantly more hostile in the presence ($M = 6.39$, $SD = 1.14$) than in the absence ($M = 4.93$, $SD = 1.59$) of a positive anchor. Hence, hypothesis 2a was supported. However, for hypothesis 2b, the mean ratings of friendliness were not significantly different between conditions ($t(57.57) = -1.45$, $p = .15$, $d = .3$), such that the negative event was rated as similarly friendly in the presence ($M = 1.67$, $SD = 1.27$) or in the absence ($M = 1.37$, $SD = .57$) of a positive anchor. Therefore, hypothesis 2b was not supported (see figures 2 and 3).

Hypothesis 3, that the positive event would be rated as less stressful when preceded by a negative anchor than when experienced without an anchor, was fully supported. The mean ratings of stress following the positive event was significantly

different between conditions ($t(86) = 2.83$, $p = .006$, $d = 0.61$), such that the positive event resulted in lower levels of stress when having a negative anchor ($M = 29.76$, $SD = 10.20$) than when having no anchor ($M = 35.96$, $SD = 10.29$), providing support for Hypothesis 3 (see figure 4).

Finally, Hypothesis 4, that the negative event will be judged as more stressful when preceded by a positive anchor than when experienced with out an anchor, was also supported. The mean ratings of participant stress following the negative event was significantly different between conditions (t (87) = 2.55, $p = .012$, $d = .54$), such that the negative event resulted in higher levels of stress when having a positive anchor ($M = 50.98$, $SD = 13.42$) than when experienced without an anchor ($M = 44.18$, $SD = 11.72$). Therefore, hypothesis 4 was supported (see figure 4).

Post-Hoc Analyses

In addition to testing the hypotheses mentioned above, I sought to take advantage of the manipulation check data to test some more basic questions that are often assumed to be true in work emotional regulation literature.

First, I wanted to examine the following hypothesis: Participants will be less able to meet the display expectations when confronted with a negative event as opposed to an positive event. The results supported this assertion, with negative events yielding a significantly ($t(90) = 3.32$, $p = .001$; $d = .40$) lower level of participant display rule compliance ($M = 5.19$, $SD = .69$) than positive events ($M = 5.46$, $SD = .66$).

Next, I wanted to examine this hypothesis: Participants will be less professional when confronted with a negative event as opposed to a positive event. This assertion was also supported, with negative events resulting in significantly ($t(90) = 2.24$, $p = .027$; d

= .13) lower participant professionalism ratings (M = 5.13, SD = .87) than positive events (M = 5.34, SD = .79).

Finally, I tested this final hypothesis: Participants will have more difficulty during a positive event at a) being professional, and b) maintaining the display rule if that positive event had a negative anchor than when that event was experienced without an anchor. This hypothesis was supported for neither the display rule (No; $t(89) = .245$, $p = .807$) nor ratings of professionalism (No $t(89) = .615$, $p = .540$).

CHAPTER 4. DISCUSSION

As so many people are working in the service industry, understanding different causes of workplace stress has more recently become a focus in the research community. Emotional events in the workplace have become a widely cited (e.g. Weiss & Cropanzano, 1996; Grandey, 2000) cause of negative emotional outcomes and stress-related outcomes. However, little research has actually examined mechanisms for understanding what makes a workplace event "positive" or "negative." The major goal of the current study, therefore, was to provide one potential way that an event might be considered emotionally positive or negative, and how that might affect emotional outcomes such as stress. More specifically, I investigate the comparison contrast effect in service situations, where customers acted as separate emotional events.

I sought to determine whether employees would use previous customer events as anchors for judging and reacting to later customer events. The current study was the first to examine the immediate effect of negative and positive events on customer judgment and stress, as well as the first judgment study to use a face-to-face situation and to use as a service context. In addition, the present study sought to simulate a real life service situation in which the employees have to regulate their emotions in order to provide good customer service. With all employees given the same emotional requirements, the stress resulting from the customers could be examined more thoroughly without the reaction of the participant being considered as a confounding variable.

First, I will discuss the judgment hypotheses. The comparison contrast effect for event judgments was partially supported. These results do support that a comparison contrast can occur with disparate negative and positive events in some workplace

contexts. More specifically, negative events were rated as more hostile when a positive event operated as an anchor than when the negative event was experience without an anchor, and positive events were rated as more friendly when preceded by a negative anchor than when experienced alone. As predicted from examining the literature, the fact that these judgment hypotheses were significant is logical. Stapel and colleagues (1998) found that people tend to make judgments based on the target's *most apparent characteristics*. For instance, cereal may be judged by the color of its box or the flavor of the cereal itself. In the case of the current study, the most apparent characteristic of the positive event was a friendly customer, and the most apparent characteristic of the negative event was a hostile customer. Hence, the negative event in such a scenario will always be rated as "hostile" and the positive will always be rated as "friendly," though the degree of "hostility" or "friendliness" would depend on the *context* of the interaction—the comparison contrast effect.

These same reasons may explain why my assertions that 1) a positive event would be rated as less hostile when preceded by a negative comparison anchor than when the positive event is experienced without an anchor, and that 2) a negative event would be rated as less friendly when preceded by a positive comparison anchor than when the negative event is experience without an anchor were not supported. If a target does *not* exhibit an attribute, or only exhibits a negligible amount, (such as "smell" of a cereal box), then that attribute will not be judged as important. As such, each event will only be rated on their most salient attribute. The positive customer event exhibits little or no "hostility," just as the negative customer event presents with little or no "friendliness." That is, the positive event will not be rated as "hostile," no matter what the context and

no matter if it is preceded by a negative anchor or alone. On that same token, a negative event will not be rated as "friendly," no matter what the context.

All of the hypotheses related to the comparison contrast effect of stress were supported. That is, when a participant was exposed to a positive event followed by a negative event, he/she experienced more stress from the negative event than when he/she dealt with a negative event without an anchor comparison. In addition, when an employee was exposed to a negative event followed by a positive event, he/she experienced much less stress from the positive event than when dealing with a positive event with an anchor. Essentially, the *context* surrounding an event has to be taken into consideration—customer-employee transactions do not occur in a vacuum. These results imply that a person might anchor him/herself based on previous experiences with customers. That is, an employee who experiences all negative customers (e.g. a customer complaint rep or a tax collector) might set an anchor—or calibrate to—a constant amount of stress (Fuller et al., 2003). Their expectations are for difficult, rude, or hostile customers, so they are not surprised and do not experience any amount of undue stress when presented with what was expected. Hence, a negative event, in this context, may not be judged as negative by that person and may not cause undue stress. However, dealing with customers that may present with varying demands (such as a bank teller or customer service representative) can actually be more stressful, as they might cause a comparison contrast effect. The same type of customer, who might cause little stress to a tax collector, might be considered difficult to a bank teller, and might cause high levels of stress. The current results imply that employees might set an anchor based on context—and anything disparate from that anchor (a "shock") could cause an immediate increase in

judgment or experienced emotional outcomes. Future research studies could examine this assertion more fully.

This explanation was best summed up by an email that I received from an interested participant following her participation in the study (I received several emails from participants, who took advantage of my offer—in the debriefing form—to answer questions and follow-up with the results. This participant was among the most insightful, and, at my request, told me more about how she felt during the experiment). She said:

> *"I figured that after that first asshole customer, that they were all going to be that way. So I braced myself and got ready for more mean customers. When a super friendly girl came next, I was like soooo relieved!"*

Coarse language aside, this participant essentially summed up the comparison contrast effect found in this study. She experienced a high level of stress from the initial negative event, but was ready to maintain that level throughout the study ("braced myself"). However, she experienced such relief from being next confronted with a positive event (a "shock") that she had a large drop in stress. The data consistently followed this pattern across participants. Results indicated that the typical drop in stress from a negative to positive event (as with this participant) fell significantly below that of the stress experienced from a positive event alone. The data also supported comparison contrast effect in the opposite event ordering, that a person's stress level had a dramatic increased from a positive event to a negative event.

It would seem that the judgment of hostility may be related to the feelings of stress. Both terms tended to co-vary, indicating that higher ratings of hostility resulted in higher levels of stress. As such, this is consistent with the assertion of AET that negative

events lead to evaluations of that event, which in turn lead to emotional and behavioral responses. In addition, the comparison contrast hypotheses for stress and judgment of hostility were supported, indicating that negative events were rated as both more hostile and as causing more stress following a positive event than when experience without that positive anchor. These results support the assertion that stress and judgment are linked variables, and that judgment should not be overlooked as a variable in future studies involving customer service. Judgments, though subjective perceptions, can have negative consequences that organizations should not ignore.

Theoretical Implications

The current study has theoretical implications in three areas of research: social judgment, occupational health psychology, and emotional labor. First, the current study expands existing knowledge of the comparison contrast effect, an effect primarily studied in social judgment literature. Stapel and Winkielman, (1998) established that a comparison contrast effect exists, such that priming by a previous stimulus will affect the judgment of a more present stimulus. For instance, a picture of an average-looking person would be rated as less attractive after viewing a beautiful person. However, the majority of the studies that established a comparison contrast effect were very far removed from a practical setting, with participants only rating differences in descriptions of people (e.g. Herr, 1986) or video footage (e.g. Kravitz & Balzer, 1992). The present study sought to extend this research and demonstrated that this effect occurs in a more realistic, work-related setting—that of a face-to-face service encounter.

Occupational health psychology is a specialty area of Industrial/Organizational psychology in which the psychology is applied in order to improve the quality of work

life, and to protect and promote the safety, health, and well-being of workers (NIOSH, 2008). Typically, workplace stressors are identified, and solutions to these stressors are investigated. In this literature, stress is important as both a predictor (e.g. Ming, Adler, Kessler, Fogg, Matthews, Herd, & Rose, 2004) and an outcome variable (e.g. Burke, Greenglass, & Schwarzer, 1996). As such, any study that results in additional knowledge of stress is considered to be important in this literature. The current study established that customer service employees might set an anchor in tolerance for stress, an anchor that can be dramatically impacted by more than just the immediate situation. Rather, the order and consistency in which events occur in a service context might cause negative fluctuations in stress. These fluctuations, from customer to customer, might cause longer term effects on the physical or mental health of an employee than in a context where all customers present with the same relative demands. As such, future research in occupational health psychology might seek to discover further outcomes of this comparison contrast effect.

Finally, these results have implications in regards to the study of emotional labor, the process by which employees manage emotions while at work. AET provided a framework with which to understand how events impact emotional and behavioral outcomes at work. This effort brought focus away from features of the work environment and towards workplace events. However, little research actually existed on how events are judged to be positive or negative by an employee and the outcomes of these judgments. Grandey (2000) also proposed a theory of emotional labor which was contingent on emotional events in the workplace, though events were still not completely understood in the literature.

However, the current study sought to examine these events in a very detailed manner, looking at a very specific (but common) situation is which employees encountered positive and negative events in a service situation. I was able to determine, through this method, that events are not simply judged "positive" or "negative," but rather are compared to the context surrounding them. People in service work set "event anchors" to be compared to current events, and these anchors affect the judgment and emotional reaction to the current event. The current results support the assumptions that it is actually the contrast between the negative and positive events that make emotional labor the most difficult. The knowledge that a comparison contrast exists between negative and positive events (e.g. friendly and hostile customers) can maximize the negative effects of emotional labor will inform future laboratory-based emotional labor studies.

The current study also held constant Grandey's (2000) interactional expectations by requiring "service with a smile" so that the judgments and emotional reactions to events could be examined without the confound of display autonomy (Goldberg & Grandey, 2007). Post-hoc analyses indicated that maintaining this display rule and acting professional when confronted by a negative event became significantly more difficult. This is consistent and replicates previous basic research in which negative emotions have to be suppressed, which results in physiological arousal interpreted as stress (Gross, 1997).

Strengths and Limitations

One of the particular strengths of the current study is that it was the first of its kind in several ways. First of all, this is the first (that I was able to locate) customer

service simulation study that used a face-to-face encounter as opposed to a phone protocol, which seems to be the norm (e.g. Goldberg & Grandey, 2007). The protocol for this study could potentially be adapted to answer other questions along the same line of research, or even going in a separate direction.

Secondly, although a student sample was used, every step was taken to ensure fidelity to a real bank teller situation. The program was designed to replicate, visually and functionally, a true bank teller program. The teller station itself was designed after a true teller station. In addition, students "bought in" to the study with an incentive outcome, similar to many banks, in which incentive is given for good customer service.

A third strength of this study is that it was the first of its kind to examine the concept of emotional events, and to do so in an immediate, within-subjects fashion. Most research of this sort examines reactions to emotional events (usually negative events) using a cross-sectional design (Brief & Weiss, 2002), limiting the conclusions that can be drawn about the immediate reaction to events. The current study determined that negative events are not only immediately perceived as stressors alone, but that the context in which these events are experienced should also be taken into consideration. Organizational constraints and interpersonal aggression and incivility could fluctuate on a minute-to-minute and day-to-day basis, and this fluctuation could potentially have an impact on overall employee mental health.

However, the current study, as with any study, was not without shortcomings. First, a student sample was used. It is often assumed that a student sample lacks real world generalizability, even though researchers rarely give reasons for *why* this is the case. This could be the case with the present study, although some researchers there is

little evidence that type of sample has a real effect on generalizability (e.g. Highhouse & Gillespie, 2009). In addition, as mentioned above, steps were taken to increase the student participants' motivation and commitment to the study (i.e. monetary incentive and classroom credit).

A second limitation of the study is that, although every effort was made toward the realism of the study apparatus, the simulation was still fabricated and in an experimental setting. Experimental designs tend to have better internal validity than external validity, and that could be said about the present study. However, experiments are often first steps towards informing future researcher studies, both applied and experimental. As such, though considered a limitation by some, this experimental design can be considered a first step.

A third limitation of the current study could be the judgment criteria used. As with many classic judgment studies (e.g. Herr, 1986; Kenrick & Guierres, 1980), a single item judgment criteria was used for each of the judgments (friendliness and hostility) made by the participants. Any single-item measure could have issues with reduced reliability and validity. In the current study, these measures tended to result in skewed data distribution, either as a characteristic of the measure itself, or as a side effect of the judgments being made. That is, the negative event was always rated as highly hostile, and the positive event was always rated as highly friendly, with both measures having little variability on the opposite ends of the pole. This likely would have occurred even if a multiple-item judgment measure was available and used for this study. However, the concern over a single item measure is a valid one, and something to be considered in future research.

Future Directions in Research

As this study was a general first step, the implications for future research are numerous. Future study opportunities are available in both experimental and field settings. I will begin by describing potential questions that could be answered through further experimentation, and will finish by discussing potential field studies.

Experimental studies can continue to shed light on some of the basic principles behind this comparison contrast effect. First, although the current study did find a contrast in *self-reported* stress, future experimental designs could employ physiological measures in order to determine changes in arousal across customers. Physiological research is popular in assessing physical stress responses, and multiple methods exist for doing so. For example, Gross and Levenson (1997) exposed participants to emotionally-laden video stimuli and measured the changes in their physiology using a 12-channel polygraph, with measures 12 distinct physiological responses. Although a method such as the polygraph (as it is susceptible to movement) would not be useable using the current experimental design, other physiological measures such as blood pressure could be used without adapting the current experimental design. Or, if a researcher would prefer an apparatus that would restrict movement (and increase accuracy), a new experimental protocol could be developed—such as a phone service encounter—to test the same contrast effects.

Recent research has tested depletion versus adaptation effects in emotional regulation (Converse & DeShon, 2009). To quickly summarize, depletion is the idea that, over time, it becomes more and more stressful to maintain emotional regulation, and it begins to drain a person's resources as long as the regulation is occurring (Muraven &

Baumeister, 2000). Adaptation, on the other hand, is when a person, while regulating emotions, begins to adapt to this loss of resources, and hence the level of stress begins to even out. Converse & DeShon (2009) argue that current experimental paradigms (use of two tasks performed at one given time) give rise to finding that the depletion effect is always occurring. They argue, however, that a shift to a three-or-more task paradigm might (and they find) an adaptation effect. Though the purpose of the current study was to determine the basic principle of context as a judgment and reaction mechanism, the area of depletion and adaptation in emotional regulation is ripe for further research. It may be that surrounding events are only taken into consideration initially, and a person's stress begins to level out despite the shift in judgment of events. Or, it may be that, as long as an anchor is extreme (very hostile or very pleasant customer), the comparison contrast effect will always occur. As such, further experimental research could examine the comparison contrast effect in a paradigm involving multiple events across time.

Several different options are available for extending the previous research findings on the contrast effect using field design studies. As the current study could lack effect generalizability, future researchers could design a study around the idea of discovering if actual service employees (e.g. bank tellers) experience a contrast effect in both their stress and judgment of customers. This, of course, would be a more difficult study to design as fewer controls would be available. A researcher would have to consider the complexity of the transactions being completed, whether or not the issue the customer is having is a result of the employee or of personality, the sex of the customer, and the relationship between the employee and customer (i.e. is this a repeat customer?),

are just a few possible concerns. However, a careful design and a large sample size could reduce the impact of many of these issues.

In addition, instead of using a self report measure in the field, the possibility exists to use a physiological measure of stress. The options for field study measures of stress are somewhat limited to non-invasive, less sensitive measures, but some are available. For instance, Van Egeren (1992) was able to use ambulatory blood pressure cuffs to detect differences in stress between high and low strain jobs. Cuffs such as these can be left on all day and get measure of blood pressure for the employee per each customer. Again, as with any study, many extraneous variables would have to be taken into consideration, such as base blood pressure, caffeine or nicotine intake, and any physical labor that is occurring during transactions (e.g. such as a customer requiring help carrying something), as well as the other possible variables that were mentioned in the previous section. However, detection of a physiological contrast effect in the field would greatly strengthen the findings in the current study.

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APPENDIX A: MEASURES

Participant #:
_____ 1 2 3

Directions: Read each statement below and circle the number that describes how you feel right now, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
I feel calm	1	2	3	4
I feel secure	1	2	3	4
I am tense	1	2	3	4
I feel strained	1	2	3	4
I feel at ease	1	2	3	4
I feel upset	1	2	3	4
I am presently worrying over possible misfortunes	1	2	3	4
I feel satisfied	1	2	3	4
I feel frightened	1	2	3	4
I feel comfortable	1	2	3	4
I feel self-confident	1	2	3	4
I feel nervous	1	2	3	4
I am jittery	1	2	3	4
I feel indecisive	1	2	3	4
I am relaxed	1	2	3	4
I feel content	1	2	3	4
I am worried	1	2	3	4
I feel confused	1	2	3	4
I feel steady	1	2	3	4
I feel pleasant	1	2	3	4

Directions: Now, thinking about the customer that you just took care of, how would you rate them on:

	Not at all Friendly			Neither friendly nor unfriendly			Extremely Friendly
Friendliness	1	2	3	4	5	6	7
	Not at all Hostile			Neither hostile nor un-hostile			Extremely Hostile
Hostility	1	2	3	4	5	6	7

Participant # _____

Teller Evaluation Form

How well did the participant maintain the “service with a smile” display rule?

Not well at all			Average		Very Well
1	2	3	4	5	6

How well did the participant maintain a professional demeanor?

Not well at all			Average		Very Well
1	2	3	4	5	6

How seriously did the participant appear to take their task?

Poorly			Average		Very Seriously
1	2	3	4	5	6

APPENDIX B: EXPERIMENTER PROCEDURES AND SCRIPTS

Experimenter Protocol

1. Always arrive 15-20 minutes early.

2. Be sure that the teller station is set up, computer is on, and printer is on and functioning, and that there is paper in the printer.

3. Open Bank.xls (Found in the "Bank" folder on the desktop).

4. Flip a coin to assign the order of the customers.
   Tails: Angry-Friendly
   Heads: Friendly-Angry

5. Record participant number and order of customers in logbook. Also, record the experimenter name and the name of the customers.

6. Write participant number on:
- 3 State Anxiety/Judgment forms
- 2 Teller Evaluation Forms
- 1 Demographics form.

Mark down, after the participant number, "A" for the angry customer, and "B" for the friendly customer (e.g. #029A, #029B) Inform the "customers" the order in which they will be doing their transactions. The "customers" should take:
- the appropriate transaction checks, cash, and forms (from the "angry" or "friendly" files)
- 1 state anxiety judgment.
- 1 teller evaluation form.

Customers can wait in the main lobby until their turn. You should make sure that the *training transactions* are ready.

7. Count the cash drawer to make sure that there is $2,500. Refer to the cash distribution list on the bottom of the cash drawer. If any cash is missing, spare cash is kept in the coconut pirate and monkey on the file cabinet.

7. Greet the participant and introduce yourself upon arrival (remember to maintain a professionally polite demeanor).

Hi, I'm (your name). Thank you for volunteering for this study. It will take approximately ½ an hour, and you will receive 1 full Experimetrix credit. Before we begin, do you have any questions? (Do your best to answer)

8. Read the following statement to them:

You are about to participate in a customer service simulation experiment. I am going to ask you to become familiar with a bank teller program and actually take a few customers after you are trained in the program. We are examining the effects of various aspects of the service encounter on feelings of the employee (which will be you) during a service encounter. Please review the following document, which is a standard informed consent, and let me know if you have any questions. Basically, the informed consent document is saying that you understand the risks involved in the study, that participation is voluntary, and that you are free to withdraw at any time.

9. Hand the participant the informed consent document and allow them to review it. Allow them to sign it, and be sure to sign it yourself as the witness. Now, give them the first ***State anxiety Form*** and the ***Demographics Form***. Say:

First, we are interested in a little bit about yourself and how you are feeling right now. Please fill out the following forms honestly, remembering that this information cannot be linked back to you. After each customer, you will be asked to fill out this form as well again make judgments about the customers, which you can see at the bottom of the page. Please take a minute and fill out this form, and please let me know if anything is unclear. When you are done, please let me know.

10. Take the State Anxiety form, and say:

After you fill out the Feeling Forms, you can place them here (put your form in the inbox on the filing cabinet). *Remember, you will get one after each customer.*

Now I am going to show you the bank teller program that you will be working with. First, you are going to be working as a bank teller at Bowling Green Credit Union. You can consider me to be your supervisor. First, when working in customer service, you are expected to appear to be friendly. Sometimes, you even have to act friendly when your customers aren't that way. Many companies operate under the principle that the customer is always right, and that we should give service with a smile. Our company attends very closely to that motto, so we expect you to greet your customers with a smile and remain friendly throughout the transactions. If take your job seriously and if you do a good job, I will give you a small monetary bonus after the customers. Do you have any questions?

(Answer any questions to the best of your ability).

Here is the bank teller program. As you can see, you can make deposits, withdrawals, money orders, official checks, and sell savings bonds. Today, we are only going to be using the deposit and withdrawal functions. Any customers that you take care of will only have those types of requests, so don't worry about the other functions.

11. Show them how to click on the different types of transactions, and explain how the customer information will appear on the left-margin. Explain both the deposit and the withdrawal screens (put the account number here, checks here, etc.)

12. Go through the demo transactions: a deposit and a withdrawal. Walk them through this time.

- For the deposit, you will deposit a $20, a $50, and a $200 check with $20 cash back.
- For the withdrawal, you will be withdrawing $50 in cash.
- Explain giving the receipt to the customer.
- *Explain how you should count out the cash to the customer, just like in a real bank.*

13. Show the participant where the "daily work" goes (in the organizer stand)

14. Now, retrieve the original transactions (the cash and the checks). Go to the other side of the counter and act as if you are a customer. Allow the participant to go through the transactions again with no help. If they cannot do it, walk them through it and allow them to try again with no help. Repeat this procedure until the participant feels comfortable enough to run actual customers.

Retrieve Cash and Checks from original transaction.

15. Say:

During this simulation, you will be evaluated in two ways, just as in a real bank teller situation. You will be evaluated on both your performance and friendliness by both the customers coming to your window and by a supervisor monitoring your performance, who will be me. I will review your performance with the customers after their transactions. If you do not meet expectations, you will be taken off the teller line and you will repeat training. However, if you meet or exceed these expectations, you will receive a special cash bonus for your performance. Remember, the best way to meet these expectations is to maintain the "Service with a Smile" standard. Do you have any questions?

(Answer any questions)

16. Say:

Now you will be taking several customers. After completing the transactions, each customer will give you the feelings form and customer judgment measure to fill out regarding the transaction. You will have time, in between the customers, to fill this form out. Please be honest while filling it out. Do you have any last minute questions?

17. Leave the room and send in the first customer based on the coin toss.

18. After the first customer returns, wait 1-1.5 minutes before sending in the next customer.

19. After the second customer is done, give him/her the Teller Evaluation form, wait another 1-1.5 minutes, and re-enter the room and congratulate the participant for finishing their customers. Walk them through the balancing process. The balance sheet will go in their file. Write the participant number on the file.

20. Thank the participant for taking part in the study, and give them the debriefing form. Let them review it and ask if they have any questions. If not, give them their $5 incentive if they minimally performed and have them ***SIGN THE CASH RECEIPT FORM***. If there is any candy in the tiki coconut, offer that as well.

21. Let the customers know that the experiment is done. Data will be input by each person who collected it. You and the customers will the data into either the Angry Friendly file or the Friendly Angry file, depending on the condition. This can be found in the Data Input folder on the desktop, though you may have to open SPSS first.

- Experimenter – Demographics & Prestress
- Customer 1 – T1Stress (time 1) & T1Eval (Time 1 Teller Eval)
- Customer 2 – T2 Stress & T2 Eval

****BE SURE TO GET THE DATA FILE AND CUSTOMER ORDER CORRECT!

21. Close Bank.xls and do not save. Email Rose to let her know whether to assign credit via Experimetrix. File away ALL FORMS:

- Informed Consent
- Demographics
- 3 Anxiety/Judgment Forms
- 2 Customer Evaluation Forms
- 4 Receipts
- 1 Balance Sheet

All forms go in the participant file found in the second drawer of the middle file cabinet.

22. Return training transactions to the correct folder, and make sure that the customers return their transactions, as well. The teller cash drawer should be left with $2500.

Report any issues in the participant log. Lock up.

Angry Customer Personality and Script

Pat Jones

You are playing the part of the typical angry, frustrating, impatient customer. You are angry at today because your checking account is overdrawn, and you are going to take it out on the bank teller, though, of course, the teller had nothing to do with the account being overdrawn. Personality-wise, you are a generally pessimistic, impatient, and hostile person. You see the worst in people, and criticize their flaws (not physical, but personality-wise).

You are coming into the bank with two transactions: a deposit (to bring your account to the positive), and a withdraw from you dwindling savings account.

You will be depositing the following:

1 check for $270
2 checks for $25
$40 in cash (20 singles, 4 fives)

$360 total

You will then withdraw from your savings account $200 in cash, but you want the cash to be in $10s and $5s. You will, of course, not tell the teller that you want your cash like that until that person counts out the money so that they have to re-count it.

Things to Include in your Script

When the teller greets you, say “no small talk, just do your job.”

Complain about how the bank should have told you that you were going to overdraw your account. Complain that the bank should have put money in your checking from your savings.

When the teller is working, rush them, saying “come on, hurry up already. I don’t have all day.” Rush them throughout the transaction.

Tell the teller that “You are honestly the worst teller I’ve ever had. Seriously, a two-year old could do your job better.”

Tell them to hurry while they count your cash.

Upon completion of the second transaction, slap down the measure form and walk away without saying anything.

Fill out the very brief Teller Evaluation Form.

Friendly Customer Personality and Script

Alex Smith

You are a somewhat atypical bank customer, being extremely friendly and nice. You are coming to the bank in your typical good mood, having nothing bad to say about anything or anyone. You are very agreeable and talkative, but you also know when to be quiet. Simply put, you are socially adept.

You are coming in to the bank today to make two transactions: a deposit and a withdrawal. You will be depositing the following to your checking account:

$500 check
$200 check
$1000 check
$150 cash back, for a total of $1,550 to be deposited

Second, you will be withdrawing money from your huge savings, another $400 in cash. Ask for it in $50s and $100s ahead of time.

Things to include in your Script

Ask how the teller is doing today. Share how you are doing.

Comment on the weather.

Try to make general small talk; tell them about your day (doesn't have to be real).

When the teller is typing and completing the transaction, be respectful and say "I'll let you finish this transaction."

At the end of the transaction, thank the teller for their help, and be sure to leave the anxiety form at the window.

Finally, fill out the brief Teller Evaluation Form

Table 1. Summary of Results

Hypothesis	Supported	df	*t*	*p*	d
H1a	No	72.9	1.34	.186	0.28
H1b	Yes	83.3	-3.56	.001	0.75
H2a	Yes	75.8	4.99	.001	1.05
H2b	No	83.3	-1.45	.154	0.3
H3	Yes	86	2.83	.006	0.61
H4	Yes	87	2.55	.012	0.54

Figure 1. Grandey's Conceptual Framework of Emotional Labor

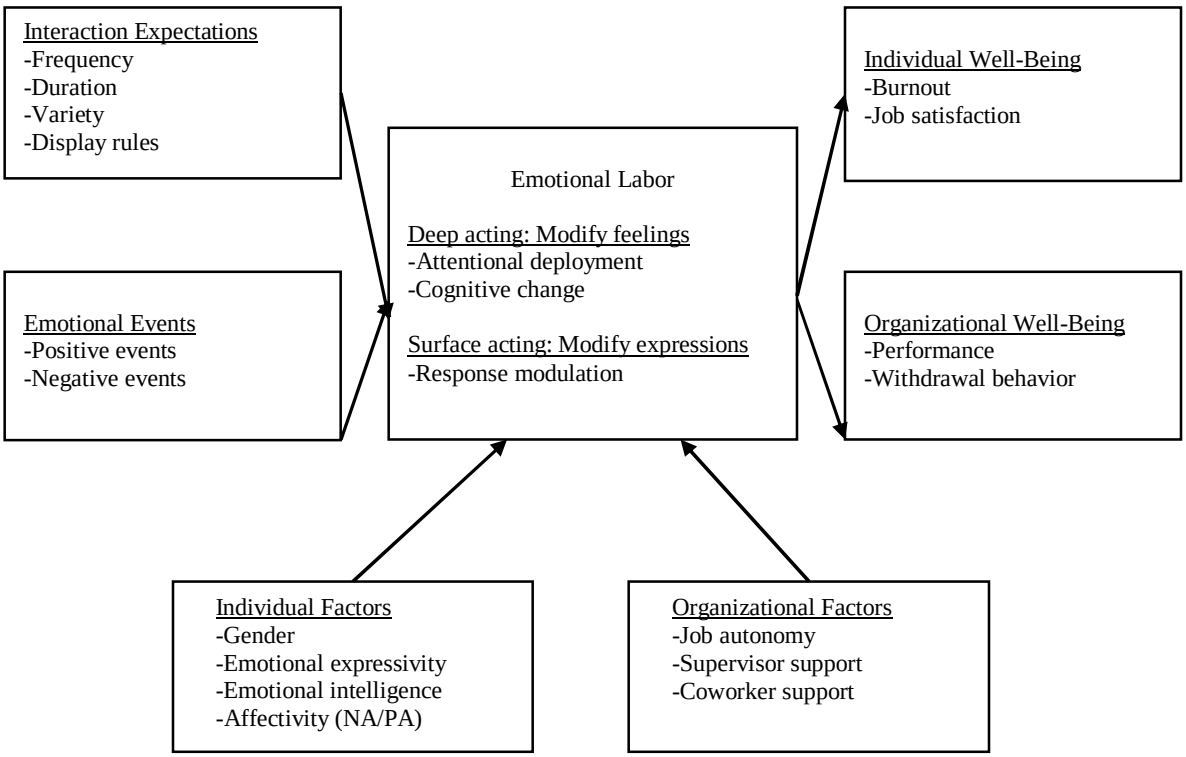

Figure 2. Hypothesis 1a and 2a.

Hostility Judgments across Positive and Negative Events in Anchored and Not Anchored Conditions

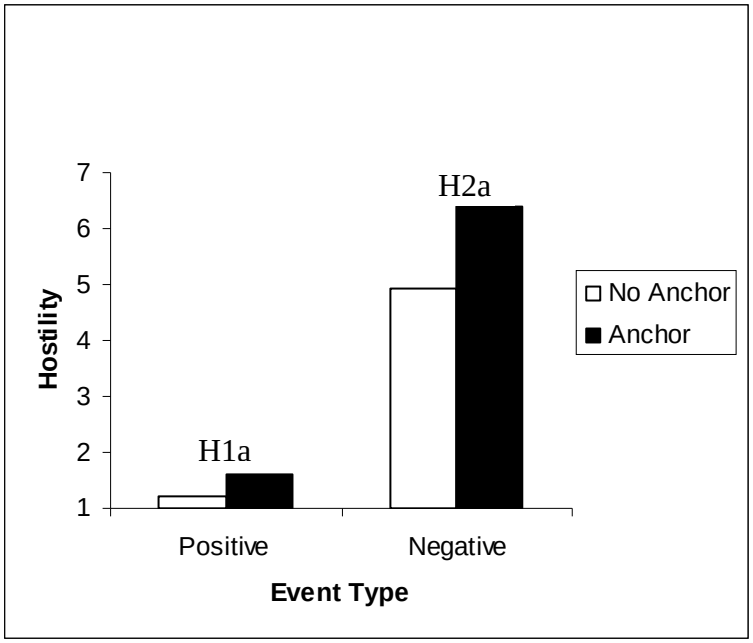

Figure 3. Hypothesis 1b and 2b.

Friendliness Judgments across Positive and Negative Events in Anchored and Not Anchored Conditions

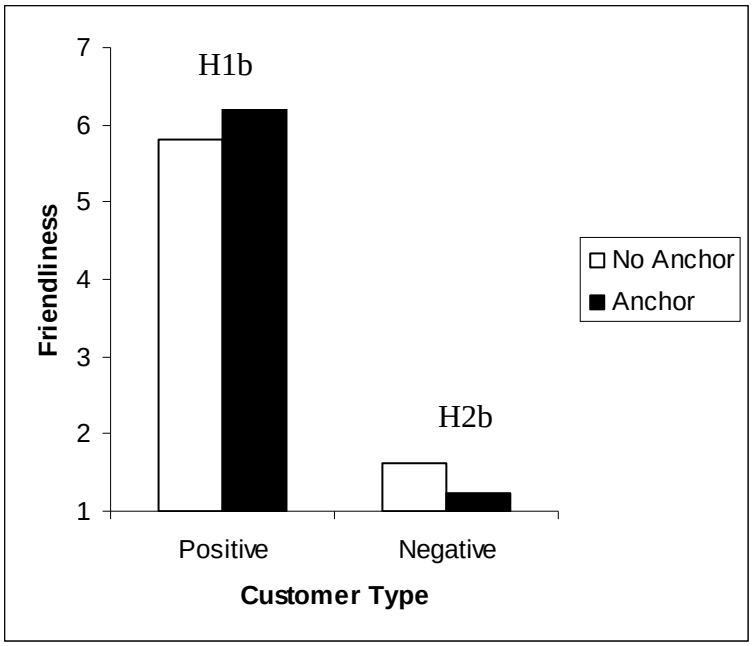

Figure 4. Hypothesis 3 and 4.

Participant Stress between Positive and Negative Events in Anchored and Not Anchored Conditions