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The Role of Discrete Emotions in Predicting Counterproductive Work Behavior

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The Role of Discrete Emotions in Predicting Counterproductive Work Behavior

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
Masters of Arts
Department of Psychology
College of Arts & Sciences
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anger, anxiety, shame, envy, jealousy, boredom

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Dedication

I dedicate this thesis to my family and girlfriend who have supported me throughout my education. Their endless patience and sacrifice have allowed me the freedom to focus on my work. I could not have done it without them.

I would also like to thank Dr. Spector, Dr. Bosson, and Dr. Johnson for helping me to conduct this research project. Their knowledge and advice was essential in crafting this manuscript. Similarly, their mentorship has helped to mold me as a professional.

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Abstract

The current study investigates how discrete negative emotions are related to specific facets of counterproductive work behaviors (CWB). The sample consisted of 241 employees who reported their frequency of experiencing negative emotions and their frequency of committing CWBs in the workplace. For 103 employees, supervisor reports of employee CWB were also obtained. The findings provide evidence that a wide range of negative emotions are related to most of the sub facets of CWB. There was also some evidence that supervisor reports differ systematically from employee reports of CWB. The theoretical, methodological, and organizational implications are discussed.

Chapter One: Introduction

Researchers have been interested in the organizational role of affect, otherwise referred to as emotions, for at least the past 80 years (for an early example see Hersey, 1932) and the subject has become increasingly popular since the 1990s (Ashkanasy & Ashton-James, 2005). Affect is also popular in the stress literature (e.g. Lazarus, 1999; Lee & Allen, 2002; Spector & Fox, 2002). Previous research has demonstrated the ability of affect to influence workplace behaviors and attitudes (e.g. Judge, Scott, & Ilies, 2006; Kaplan et al., 2009) as well as employee well being and physical health (Lazarus & Folkman, 1984). One growing area of interest is the role of affect as a predictor of counterproductive workplace behaviors (CWB). CWBs are volitional acts that harm an organization or the organization's stake holders (Spector & Fox, 2005). CWB is considered a facet of job performance (Sackett, 2002) which can have a devastating effect on the functioning of an organization (Hollinger & Clark, 1983). Unfortunately there are several methodological and conceptual issues that limit the generalizability of this research. For instance, there is a dearth of studies that maintain a high level of specificity. Affect can be conceptualized as several discrete emotions (e.g. anger, sadness, envy, shame, anxiety, boredom, and jealousy) and CWB is comprised of several facets (i.e. abuse, productions deviance, theft, sabotage, withdrawal, horseplay, and social undermining). However, researchers rarely investigate the inter-relationships between these more specific facets of each construct. The present paper contends that much information can be gained from examining discrete emotions and facets of CWB

as unique variables, rather than using a general measure or a composite score. By maintaining this level of specificity, it is possible to determine if discrete negative emotions relate differently to the facets of CWB. In line with the fidelity-bandwidth notion (i.e., Hogan & Roberts, 1996), the current study examines the relationship between discrete negative emotions and specific dimensions of CWB.

In the next section, I formally define CWB and discuss several of the facets that are expected to be related to discrete emotions. After this discussion several sections are dedicated to addressing the research related to organizational affect, focusing on several conceptual and methodological issues. The stressor-emotion-CWB process is reviewed and each discrete emotion is linked to subsequent facets of CWB while accounting for the measurement issues. More specifically, I include a wide range of negative emotions that encompass several different bodies of literature and develop hypotheses that link them to CWB. Finally, I formally test the hypotheses with an empirical study.

Counterproductive Work Behavior

Differences between CWB and other related terms (e.g. aggression, deviant behaviors, organizational retaliatory behavior, incivility, and bullying) have been discussed at length (Spector & Fox, 2005). See Figure 1A for an illustration of how the constructs overlap (Raver, 2005). Examples of CWB include gossip, theft, verbal/physical abuse, and withdrawal. Previous measures of CWB have different categorizations of the construct (e.g. Hollinger & Clark, 1983; Robinson & Bennett, 1995; Spector et al., 2006). Hollinger and Clark (1983) divided CWB into production deviance (deviant behavior in regards to how and when to work) and property deviance

(breaking organizational assets). Robinson and Bennett (1995) divided CWB based on the target (organizational vs. interpersonal) and the severity. Spector et al. (2006) developed a CWB checklist that categorized CWBs into five different categories that consist of abuse against others, production deviance, theft, withdrawal, and sabotage. Abuse is a set of aggressive behaviors that are direct and focused towards someone else in the organization. Although these abusive behaviors are often verbal, physical abuse is also included in this facet of CWB. Threats, nasty comments, pushing, and mean pranks are all examples of abusive behavior. There are also some abusive behaviors that are considered more covert. For instance, gossiping, ignoring a coworker, or blaming someone else for your mistakes are abusive behaviors but an employee is less likely to be caught or reprimanded. Although Spector et al. (2006) did not make the distinction between covert and overt abuse, it is an important distinction to make for the current study. Theft is considered stealing from the organization. Examples of theft are taking resources home without permission from the employer and lying about the amount of time an employee has spent working. Withdrawal can be defined as working less time than the organization expects you to work. Examples of withdrawal are absence, tardiness, and taking longer breaks than the organization allows. Production deviance is the purposeful failure to complete tasks correctly. Examples consist of not following directions and working slower than expected. Similarly, sabotage is destroying physical property that belongs to the employer. Spector et al.'s (2006) five facet scale is the most specific overall CWB scale that has been published.

Since the goal of the current study is to investigate how discrete emotions predict specific types of CWB, I will adopt Spector et al.'s (2006) five facet conceptualization of

CWB. However, this framework does not include some CWBs that are relevant to the current study. For instance, some employees could sabotage the progress of their coworkers by giving them misleading information or hindering the coworker's progress in the organization. This behavior is considered an example of social undermining. Social undermining consists of behaviors that are intended to harm the reputation, success, and interpersonal relationships of the target employee (Duffy, Ganster, & Pagnos, 2002). Social undermining does not fit exclusively into one of the five facets of Spector et al.'s (2006) framework. Sabotage is damaging the employer's properties so the current examples would not formally be considered sabotage because they are focused at harming the progress of a coworker. The abuse against others facet contains some similar behaviors (i.e. made someone look bad in the organization, blamed someone for your mistake) but they are lumped together with other behaviors that should remain distinct for the current study (i.e. physical aggression, threats, and insults). They also do not adequately represent the range of social undermining behaviors that are possible.

Another CWB that Spector et al. (2006) did not include is horseplay. Horseplay is defined as a non-malicious behavior intended to make the work environment livelier or more entertaining (Bruursema, 2007). Some examples of horseplay are using the internet at work for non-work related purposes, engaging in non-malicious gossiping or joking for the purposes of entertainment, and wasting company resources solely for the purpose of entertainment. Although horseplay and production deviance overlap conceptually, there is a distinction between the constructs. It is possible for employees to complete all their work tasks correctly (i.e. not considered production deviance) and still

participate in gossiping or practical jokes (i.e. horseplay). Horseplay is a relatively new facet of CWB but Bruursema (2006) has demonstrated that it is an important CWB to include when investigating certain emotions (i.e. Boredom).

Affect in the Organization

Three conceptual issues must be addressed before discrete emotions can be defined and linked to CWB. For instance, several terms are used to reflect the stability of a feeling. Affect can be conceptualized at the state, trait, or mood level. Affect at the state level is a transient emotion that is typically dependent on a particular event. Measuring state affect tends to assess how the participant is feeling at the exact time of the study. Mood is conceptualized as an affective state that lasts for a longer period of time than state affect. Trait affect is considered a dispositional tendency to be in a particular emotional state (Ashkanasy & Ashton-James, 2005; Watson 2000). The trait level can be thought of as a temperament or a personality characteristic (Brief & Weiss, 2002; Watson, 2000). Finally, affect can also be measured in particular contexts such as the workplace. Thus, it is important to address what level of stability you are investigating. Another conceptual issue is that affect spans several levels of specificity. Measurement of emotions at the general level combines several specific emotions into a broader category. Affect is often operationalized as a participant's score on positive affectivity (PA) and negative affectivity (NA) scales. At the trait level individuals high in NA have a tendency to experience global negative emotional states (e.g. anxiety, depression, and hostility; Brief & Weiss, 2002; Watson & Clark, 1984) and individuals high in PA have a tendency to experience global positive emotional states (e.g. pride and

happiness; Watson, Clark, & Tellegen, 1988). Affect measured at a more specific level of emotion maintains the distinction among individual emotions (e.g., anger and anxiety). Thus, it is also important to address what level of specificity you are investigating.

Based on the previous discussion, there are two dimensions (i.e. stability and specificity) that must be considered when conceptualizing affect. However, Briner and Kieffer (2005) reviewed the workplace affect literature and found that more than 60% of affect-focused empirical articles fail to offer a clear and accurate definition of affect. Therefore, stability and specificity will be used to provide a clear definition of discrete emotions and mood. Discrete emotions can be described as a temporary (state level) affective reaction to some specific event (internal or external) that is typically more intense than general affective terms such as mood (Gooty 2007; Lee & Allen, 2002). This definition identifies discrete emotions as being specific and occurring at the state level. Moods, however, are conceptualized as an affective state that does not require a specific event and lasts for a longer period of time than a discrete emotion. So, moods are more stable and less specific than discrete emotions.

A final conceptual issue related to organizational affect is the difference between negative and positive discrete emotions. The current study focuses on negative emotions for several reasons. In general, the evidence seems to suggest that negative emotions are more highly related to aggressive and counterproductive behaviors than positive emotions (e.g. Bruursema, 2007, Judge, Scott, & Ilies, 2006, Lee & Allen, 2002, Spector & Fox, 2005). In addition, Hersey (1932) reported that negative emotional states lead to a decrease in productivity but positive emotional states did not lead to an increase in

productivity. Supporting previous research, Lee and Allen (2002) failed to find evidence that positive emotions predicted any workplace behaviors, including organizational citizenship behavior (OCB). They also mention Watson and Clark's (1991, 1992) conclusion that positive emotions are less distinguishable than negative emotions. If positive emotions are less distinguishable than negative emotions, they should be less helpful in differentially predicting specific types of CWBs because emotions that greatly overlap each other should have similar or identical relationships with other variables. Thus, positive discrete emotions may not be an appropriate set of emotions to differentiate between specific types of CWB. Also, research has provided some evidence that negative events can lead to stronger physiological and subjective affective reactions than positive events (Taylor, 1991). Hence, it is expected that negative emotions are more intense and have more serious implications for the organization.

In addition to conceptual issues, there are also methodological issues that must be addressed before investigating the relationship between discrete emotions and CWB. For instance, the majority of research on organizational affect has not focused on discrete emotions (Brief & Weiss, 2002). Instead, a disproportionate amount of research has focused on more global aspects of affect (i.e. negative and positive affect). Even studies claiming to measure emotions often do not clearly make the distinction. The research on NA and PA has demonstrated its utility (Bolger & Zuckerman, 1995), but it would be hard to argue that aggregating negative emotional states does not lead to a subsequent loss of information. For instance, sadness and anger do not predict the same behaviors (Chen & Spector, 1992; Lee & Allen, 2002). Thus, combining emotional states may not always be appropriate when there is evidence to suggest that they are

conceptually distinct in regards to predicting the outcome of interest. Specifically, patterns of appraisal and behavioral reactions have been found to differ among discrete reactions (e.g., Lee & Allen, 2002; Perrewé & Zellars, 1999; Weiner, 1985). Despite the importance of discrete emotions in predicting organizational outcomes (Lee & Allen, 2002; Vecchio, 2000), Briner and Kieffer (2005) found that fewer than half of studies investigating emotions did not measure emotions at this level of specificity. This lack of attention to discrete emotions is especially disconcerting because research in this area has generally found that these discrete emotions are significant predictors of several organizational outcomes (e.g. Chen & Spector, 1992; Cohen-Charash & Mueller, 2007; Judge, Scott, & Ilies, 2006; Lee & Allen, 2002). This line of logic parallels the fidelity-bandwidth issue in the personality literature (i.e., Hogan & Roberts, 1996). Global measure of personality were found to be better predictors of outcomes that were measured at a global level, whereas, specific measures of personality are better predictors of more specific organizational outcomes than global measures (Ashton, 1998). Applying this concept to emotions, more global measures (e.g. mood) should better predict global measures of organizational outcomes (i.e. counterproductive work behaviors; CWB) while specific measures (i.e. discrete emotions) should better predict specific organizational outcomes (e.g., sabotage, theft, gossip, and lateness).

Another methodological issue, specific to research on affect, is the lack of studies that compare and contrast the effect of more than a few negative discrete emotions. Although at least 9 discrete negative emotions have been identified (Bruursema, 2007; Lazarus, 1999), there have been few studies besides Lee and Allen (2002) that have included more than one or two discrete emotions. Often, researchers

only include a specific family of negative emotions. For instance, aggression studies tend to include emotions that are believed to be intense and outward focused (i.e. anger & frustration; Chen & Spector, 1992). It is appropriate to measure frustration and anger in aggression studies because, theoretically, both emotions are elicited when the employee blames the environment for the emotion-eliciting event. The external attribution of blame can then lead to outward focused behaviors such as aggression (Allred, 1995). Aggression towards the target is expected because it can serve as a deterrent for future aggravating events or because failures in self-regulation can allow intense emotions (i.e. frustration and anger) to elicit strong behavioral reactions (i.e. aggression).

Similarly, studies dealing with self-conscious emotions often focus exclusively on guilt, shame, jealousy or envy (see Tangney, 1999). These emotions are popular in the social psychology literature but they have been largely ignored in organizational research. Guilt is the dysphoric feeling associated with the recognition that one has violated a personally relevant moral or social standard (Kugler & Jones, 1992). Shame can be considered a negative affective reaction that creates a negative global evaluation of the self (Hareli, Shomrat, & Biger, 2005). Guilt and shame are often studied together because they are both inward focused emotions that share some conceptual overlap. These two emotions are often combined or confused for one another but the literature has established their independence (Tangney, 1999). Envy can be conceptualized as a negative emotion felt when a person lacks another's superior quality, achievement, or possession and either desires it or wishes that the other lacked it (Parrot & Smith, 1993). Jealousy is a negative emotion that is experienced when a person is worried about losing

an important relationship to a rival. Jealousy and envy are often studied together because both share a preoccupation with the resources available to another person. These emotions are also often confused but they are theoretically distinct (Parrott & Smith, 1993). Indeed, it appears that emotions tend to be studied together when there is some degree of overlap between the emotions (i.e. frustration & aggression, guilt & shame, jealousy and envy). However, I will later argue that there is enough evidence to include a wide range of discrete emotions in predicting certain organizational behaviors (i.e. CWB).

As mentioned previously research tends to either focus on frustration or anger (e.g. Chen & Spector, 1992) or on self-conscious emotions (e.g. Tangney & Fisher, 1995). However, there is some evidence that each group of emotions has similar relationships with the same outcome variables (i.e. shame, anger, frustration, boredom, and envy have all been related to aggression). In this case, it is not possible to determine which emotion is more important in predicting that particular behavior because each group of emotions was measured separately. It is also impossible to investigate how these emotions work in tandem to predict behavior in the organization. Because individuals are thought to be able to experience several emotions simultaneously (Lazarus & Cohen-Charash, 2001), and because employees experience a wide range of emotions within the organization (Ashkanasy & Ashton-James, 2005), it is important to investigate how all of these discrete emotions operate together within organization.

Finally, there are some studies that do measure several negative emotions but combine them into a single measure for analyses (e.g. Spector et al., 2006). For instance, the Job Affective Well Being Scale measures several discrete emotions but it is then

combined to form several different factors (i.e. positive versus negative, by high versus low arousal; Van Katwyk, Fox, Spector, & Kelloway, 2000). Although this approach is increasing the bandwidth of the measure it is also losing fidelity. That is, aggregation allows a single score to incorporate several factors (i.e. emotions), but it loses predictive validity when trying to predict specific outcomes. Therefore, there is still a need for discrete negative emotion research that includes a wide array of emotions.

Theoretical Lens: The Link Between Emotions and CWB

Several streams of research imply that affect is related to CWB. One theoretical rationale is that pain motivates an individual to aggress against others (Berkowitz, 1998). In this case, Berkowitz (1998) suggests that stressors (e.g. distressing conditions) elicit an intense negative affect that results in aggressive reactions. Since many CWBs are considered aggressive, negative affect and CWBs should be related. However, this research tends to focus on feelings of anger or frustration and aggressive acts. More recent research has extended the focus to include several types of emotions and CWB. Spector and Fox (2005) proposed a stressor-emotion model that illustrates how negative emotions can lead to CWB (See Figure 2A). In this model, environmental stressors lead to perceived stressors. The perception of stressors then leads to a negative emotion which, in turn, leads to CWB (i.e. strain). The rationale in this model is that employees are motivated to cease negative feelings. To do so, they may engage in destructive behaviors intended to make them feel better. Spector and Fox (2002) conceptualize this as a form of emotion-focused coping because it only makes the employee feel better temporarily, but usually does not solve the problem within the organization. The

research mentioned up to this point has addressed the stressor-emotion-CWB process at a global level. The next couple sections will include a more detailed review of the stressor-emotion-behavior process.

The transactional model of stress (Lazarus & Folkman, 1984) and research on attributions (e.g. Perrewé & Zellars, 1999; Weiner, 1985) can be applied to the stressor-emotion model in order to better understand how perceived stressors lead to a specific negative emotion. Lazarus and Folkman (1984) proposed a transactional theory of stress that illustrates how information from the environment leads to emotional reactions and behavior. They suggest a primary appraisal determines if the event is beneficial, neutral, or threatening to the individual. If the primary appraisal determines that the event is threatening, a more detailed secondary appraisal occurs to determine the available coping resources, to ascribe blame for the stressor, and to calculate future expectations. According to Lazarus and Cohen-Charash (2001), these appraisals are combined into core-relational themes that elicit a specific negative emotion. To prevent experiencing these negative emotions, individuals then can engage in coping strategies (i.e., problem or emotion focused coping) and behavioral reactions. The theory of attribution can further elaborate on this process. Attribution theory assumes that individuals develop causal explanations of events in order to understand the world. Research has demonstrated that these attributions can predict aggressive behaviors, helping behaviors, and psychological adjustment to illness (i.e. Betancourt & Blair, 1992; Rudolph, Roesch, & Greitemeyer, Weiner, 2004). The most common attributions generated in an attributional search are those of causality and controllability (Wong & Weiner, 1981). The causal attribution determines if the stressful event is due to external (environmental)

or internal factors (Weiner, 1985). For instance, a student failing a course may blame themselves for not studying correctly or they might blame the teacher for making the course too difficult. The control attribution determines if the cause of the stressor was controllable (Weiner, 1985). Following the above example, a student who attributes class failure to internal causes may attribute the failure to a lack of ability (not controllable) or to a lack of effort (controllable). Both Weiner (1985) and Perrewé and Zellars (1999) have linked attribution theory to the transactional model of stress. Perrewé and Zellars (1999) suggest that attributions of causality and controllability initiate specific negative emotions which, in turn, affect the secondary appraisal and subsequent behaviors. See Figure 3A for an illustration of this process. It is important to understand that these attributions can elicit some specific emotions (i.e. shame, guilt, and anger) but they are not antecedents to all of the discrete emotions. Feelings of anxiety and sadness can be generated by the primary appraisal before causal and controllable attributions have been considered (Perrewé & Zellars, 1999; Weiner, 1985). It is also important to realize that emotions do not directly lead to a specific behavioral reaction. Emotions can only energize (i.e. motivate) subsequent behaviors. The next section will illustrate how many other factors can elicit or inhibit a behavioral reaction to discrete emotions.

In addition to emotions, there are many other mechanisms that can influence behavior. External factors could prevent an emotion based behavioral reaction. For instance, an employee would be unable to display physical aggression against a coworker if they work exclusively from home. Similarly, internal processes can regulate behavior. Emotion regulation may occur when the emotional reaction would be

counterproductive to other motivations (i.e. goals and plans). For instance, displaying aggression in the workplace may lead to termination so an alternate reaction may be chosen. Research on anger has found that employees commit less apparent forms of retaliatory behavior when they think about the potential consequences these behaviors may have on their reputation (Allred, 1995). Affective reactions do not have to be behavioral. Folkman and Lazarus (1984) also found that re-appraisal and coping processes can attenuate the relationship between emotion and behavior. If a person is unable to be overtly aggressive, he or she may reinterpret the event as less severe or engage in emotion based coping instead of risking termination. Although there are several factors influencing the relationship behavior, evidence still suggests that there is a relationship between emotions and behavior.

This study will investigate the relationships of seven discrete negative emotions (i.e. anger, sadness, shame, anxiety, envy, jealousy, and boredom) with CWB. Specifically, predictions will be made regarding which emotions will be related to different types of CWB (i.e. sabotage, theft, abuse, withdrawal, production deviance, horseplay, and social undermining). Research has found these emotions to be important when predicting organizational behavior. Also, these emotions were determined by a literature review to be the most commonly measured discrete negative emotions. Guilt was not included in the current study because it is not expected to be related to CWB. The majority of the literature relates it to reparative actions such as OCB (Hareli, Shomrat, & Biger, 2005). Similarly, frustration was not included because it is often defined as a lesser form of anger so including it would be redundant. The attribution literature will be used to guide the predictions regarding the relationship between two of

the discrete emotions and CWB (i.e. anger and shame). The locus of the stressor and perceived controllability will be the two main attributions used to generate these predictions. However, attribution theory is unable to make predictions for some emotions (i.e. boredom, anxiety, sadness, envy, and jealousy). In these cases, I will include relevant theory to generate expected relationships.

Emotions associated with attributions.

Workplace anger. Anger is a negative emotion that occurs when a threat is appraised as a “demeaning offense to me and mine” (p. 96; Lazarus, 1999). It is considered a basic emotion (Carver & Harmon-Jones, 2009) that can vary from feelings of irritation to rage (Glomb, 2002; Spielberger & Sydeman, 1994). Previous research has demonstrated that it is related to a higher level of distress (psychological and physical) and lasts for a longer period of time than other emotions (Cooper & Faragher, 1993). Anger has also been more related to approach than avoidant behaviors (Carver & Harmon-Jones, 2009). According to Perrewé and Zellars (1999), anger is elicited when a stressor is due to an external source that is perceived as having control over the stressor. Organizational examples of external sources consist of coworkers, supervisors, and the organization as a whole. Unreasonable task demands, task difficulty, and procedural injustice are some organizational examples of stressors that may be perceived as controllable. For instance, an organization that delegates promotions based on organizational tenure instead of job performance may elicit anger in some of their employees. An employee who fails to receive a promotion may appraise the encounter

as stressful. This appraisal is then followed by an attributional search for causality. If the employee was performing better than other coworkers he or she is unlikely to blame themselves for the failure. Instead, he or she may blame the organization for the failure because the organization uses tenure as the basis for decisions regarding promotions instead of productivity. The employee then conducts another attributional search to determine controllability. In this example, the employee may perceive the organization as in control of their promotion policies. Thus, the employee is expected to experience anger because the promotion failure was preventable (i.e. controllable) and caused by the organization (i.e. external).

Similar to most discrete emotions, anger is thought to energize behavioral reactions that are intended to reduce the amount of experienced negative emotions. To prevent further exposure to the stressor, and subsequent feelings of anger, employee's can engage in CWBs. For instance, an employee experiencing anger caused by the organization could display withdrawal behaviors. The employee avoids exposure to the anger eliciting stressor by removing himself or herself from the cause of the stressor (i.e. the organization). More active CWBs (i.e. abuse, theft, production deviance, social undermining, and sabotage) also function to cease negative feelings. These active CWBs can also restore a sense of equity (Skarlicki & Folger, 1997). Theft, for example, may occur if employees are experiencing anger due to perceived injustice related to pay. Similarly, these active CWBs can be focused towards the perceived cause of the stressor to serve as a deterrent against future exposure to the anger provoking event. For instance, if a coworker is the perceived cause of an employee's angry feelings, the employee might display abusive behaviors towards the coworker in order to deter the

coworker from making the employee angry again. In this example, the logic of deterring future exposure by targeting the perceived source is dependent on the attribution of controllability. It would not make sense to aggress against coworker if they could not have prevented the anger provoking event. Finally, these active CWBs can also lead to a decrease in negative feelings even if they are not directed at the cause of the stressor. In organizational settings, it is often risky to become aggressive or counterproductive. An employee can experience even more negative feelings when they are unable to react towards the cause of the stressor. In this case, employees may displace their behavioral reactions (i.e. active CWBs) and focus them on an innocent colleague. The literature on displaced aggression investigates the mechanisms of this phenomenon but there is no consensus on how behavioral displacement works. However, one explanation is that directing these behavioral reactions towards an innocent is the result of rumination (Marcus-Newall, Pedersen, Carlson, & Miller, 2000). When individuals are unable to resolve negative feelings they will often ruminate and focus on the negative emotions that are currently being experienced. Therefore, when the individual encounters the innocent, they are more likely to associate the innocent with the negative feelings. Thus, displaced aggression may be the result of an individual erroneously associating or labeling the innocent as the cause of the stressor. Although more research must be done before conclusions can be established, it is apparent that CWBs are one way in which employees react to feelings of anger within the organization. Specifically, I expect that feelings of anger will be related to withdrawal behaviors as well as more active CWBs

Research is generally congruent with these expectations. Anger is considered the most important emotion in predicting negative workplace behaviors such as aggression

(e.g. Chen & Spector, 1992; Fitness 2000; Lazarus & Cohen-Charash, 2001). Barclay, Skarlicki, and Pugh (2005) reported that anger and hostility (the disposition to be angry at a specific target) were significantly related to retaliation after a layoff. Similarly, Douglas and Martinko (2001) reported that trait anger is related to workplace aggression and attitudes towards revenge. Several other studies have also found anger to be related to CWB and similar behaviors such as legal claiming, workplace deviance, and aggression (i.e. Fox & Spector, 1999; Fox, Spector, & Miles, 2001; Goldman, 2003; Lee & Allen, 2002). Therefore, based on the theoretical and empirical implications of previous research:

Hyp1: Workplace anger will positively relate to withdrawal behaviors, theft, production deviance, abuse, sabotage, and social undermining.

Workplace shame. Lazarus' core-relational theme for shame is a threat that indicates the individual is "failing to live up to an ego ideal" (p.96; Lazarus, 1991). Performance failures and morally incongruent behaviors are examples of events that can elicit feelings of shame within the organization. Unlike guilt, feelings of shame often contain a fundamental threat to the self which can be strongly aversive (Tangney & Fischer, 1995; Tangney, Miller, Flicker, & Barlow, 1996). Indeed, shame is often considered a much more intense emotion than guilt because of the ego threat (Tangney & Fischer, 1995). This threat to the self often stems from the failure to live up to an ego ideal (Cohen-Charash & Lazarus, 2001).

According to Perrewé and Zellars (1999) and Weiner (1985), shame is elicited by a stressor that is perceived as having an internal cause (i.e. the self) that is

uncontrollable. An organizational example of uncontrollable would be a lack of ability. This lack of controllability is expected to be particularly stressful for employees. Not only are they failing to perform at a sufficient level, but they do not have the ability to change the situation. Thus employees experiencing shame are placed into a tough situation that leaves them with few avenues to prevent further exposure to the shaming event. Therefore, employees experiencing feeling of shame are expected to perceive withdrawal behaviors as the only way to escape the negative emotions. This is congruent with Perrewé and Zellar's (1999) assertion that shame leads to emotion-focused coping such as withdrawal or cognitive reappraisal. Similarly, Liu and Perrewé (2005) postulated that a lot of the shaming events in the organization (e.g. demotion) are often public knowledge and withdrawal is again the only response that may attenuate the feelings of shame. Also, some research has related shame to aggression (e.g. Tangney & Fisher, 1995), but the results have not always been consistent (e.g. Stuewig & Tangney, 2007). This relation is often attributed to shame displacement or cognitive reappraisals. Shame displacement is synonymous with ascribing feelings of shame as due to an external source. Stated simply, the experience of shame is so intense that it causes individuals to reappraise the situation and place blame on someone else. The person experiencing the feelings of shame will then lash out aggressively at the person that they now perceive as causing the shaming event. Based on the literature, it is not clear if this external source is perceived as having control over the situation. I argue that this shift of blame is a coping mechanism used to protect the individual from the debilitating effects of shame. The need for such a mechanism is highlighted by the fact that shame has been related to anxiety, depression, post-traumatic stress disorder, low self-esteem, and eating

disorders (Stuewig & Tangney, 2007). However, the externalization of blame may now fit an attributional pattern that is similar to anger (i.e. the threat is caused externally). Therefore, shame displacement, through cognitive reappraisal, may shift the type of emotion that the individual experiences. Instead of experiencing feelings of shame that are related to ego threats, an individual can switch the blame to an external source and experience anger instead. Although anger can also lead to negative consequences, it does not place a focus on the inadequacies of the individual. Regardless of the underlying mechanisms, it is expected that:

Hyp2: Shame will positively relate to withdrawal behaviors and aggressive behaviors (i.e. abuse, social undermining, and sabotage).

Emotions not related to attributions.

Workplace envy. Lazarus' core-relational theme for envy is "wanting what someone else has" (p. 96; Lazarus, 1999). As the quality, achievement, or possession becomes more important to the self-concept of the envious, the reaction to the stressor becomes stronger and more intense (Cohen-Charash & Mueller, 2007). It is a common emotion in the workplace that can elicit counterproductive behaviors (Miner, 1990). In support of this assumption, organizational envy has been related to lower levels of organizational based self-esteem and higher intentions to quit (Vecchio, 2000). Within the workplace, job performance, compensation, and benefits can be sources of envy.

To the envious, it is the discrepancy between the envied and their own job level that is causing the feelings of envy. In reality, this discrepancy could be caused by

organizational policies, union negotiations, high performance by the envied employee, or low performance by the envious employee. However, feelings of envy are associated with harming behaviors directed towards the envied (Cohen-Charash & Mueller, 2007). One explanation for this association is that feelings of envy may focus attention at the interpersonal level (Cohen-Charash & Mueller, 2007). Similarly, it is assumed that these harming behaviors are an attempt to attenuate the disparity between the envied and envious' job level. Harming behaviors directed towards the envied employee may serve to attenuate the disparity because it can negatively impact the reputation of the envied employee. Thus, I expect that envy will predict aggressive workplace behaviors (i.e. Smith et al., 1994).

Research on envy has found some empirical support for my expectations. Cohen-Charash & Mueller, (2007) reported dispositional and episodic envy to be related to harming behaviors (i.e. personal aggression and political deviance). Similarly, Boone (2005) reported a positive relationship between envy and reactions that are destructive to the employee and the workplace. Also, envy has been related to *schadenfreude*, the enjoyment of misfortune of the envied person (Feather & Sherman, 2002; Smith & Kim, 2007). Since envy and *schadenfreude* are not socially desirable (Smith & Kim, 2007) and because employees take into account their reputation before committing some aggressive behaviors (Allred, 1995), envy should elicit aggressive behaviors that are more covert in nature as opposed to more overtly aggressive behaviors. Covert CWBs are considered CWBs that are not likely to be detected by the organization. Some examples are sabotage, gossip, and theft. Although I expect envy to be related to active CWBs, envy has also been related to some withdrawal behaviors such as social loafing

and propensity to quit (Duffy & Shaw, 2000; Vecchio, 2005). This may be due to the general tendency for employees to avoid negative emotions and may not be a unique function of envious feelings.

Hyp 3: Envy will positively relate to theft, social undermining, and withdrawal behaviors.

Workplace jealousy. Jealousy is different from envy in that it requires a social relationship and it often is more intense than feelings of envy (Boone, 2005). Another difference between the two emotions is that feelings of jealousy are based on the possibility of losing a relationship, whereas envy is based on potentially gaining something. Lazarus' core-relational theme for jealousy is "resenting a third party for a loss or threat to another's affection or favor" (p.96; Lazarus, 1999). Unfortunately, few studies have been done on jealousy in the organization (Vecchio, 2000) and romantic jealousy is often the focus of research (e.g. Mathes, Adams, & Davies, 1985 Tangney, 1999). An organizational example of jealousy would be employees who fear that their relationship with the supervisor will suffer because of another employee-supervisor relationship.

The theoretical link between feelings of jealousy and CWB is similar to that of envy. Jealous employees are expected to be motivated to decrease their feelings of jealousy. One way to do that would be to damage the threatening rival-target relationship. To destroy this relationship, jealous employees can engage in harming behaviors directed toward the rival. By sabotaging, abusing, or undermining the rival, the jealous employee is attempting to make the rival a less desirable employee.

Conversely, the jealous employee is unlikely to engage in harming behavior directed toward the target (i.e. supervisor) because that would be counterproductive to their own relationship.

Unfortunately, there has not been much organizational research conducted on feelings of jealousy. Most of the research either combines jealousy and envy or focuses exclusively on envy. This may be due to the relative abundance of feelings of envy when compared with feelings of jealousy (Boone, 2005). In my literature review, I was only able to find jealousy to be related to withdrawal behaviors (Vecchio, 2000). This relationship is not surprising because withdrawing from the organization is one way to prevent negative feelings that are experienced within the organization. However, some social psychologists (e.g. DeSteno, Valdesolo, & Bartlett, 2006) have tested a link between jealousy and aggression. They created a jealousy manipulation that paralleled an organizational setting. A participant established a working relationship with a confederate while completing some tasks. After some time, another confederate enters the room and also formed a relationship with the first confederate. The first confederate then stopped paying attention to the participant. After the manipulation, the experimenters administered a hot sauce task, a popular laboratory measure of aggression, where the participant had to decide how much hot sauce the experimenter should consume. Participants in the jealous condition allocated more hot sauce than participants in the control condition. Thus, this study appears to support the link between feelings of jealousy and aggression that might generalize to the workplace.

Hyp 4: Workplace jealousy will positively relate to social undermining, abuse, and withdrawal behaviors.

Workplace anxiety. Anxiety is a negative emotion that can be described as apprehension, concern, or worry (Lazarus & Lazarus, 1994). Similar to anger, it is also considered a basic emotion but it is related to more avoidant than approach related behaviors (Carver & Harmon-Jones, 2009). This emotion is marked by a level of uncertainty in anticipating danger (Ohman, 1992). Organizational examples of anxiety producing conditions are role ambiguity and role conflict. Both conditions serve to make goal obtainment more difficult. Thus, they can introduce doubt and worry (i.e. anxiety) related to the employee's task performance. It is important to note that feelings of anxiety due to organization stressors are likely to be experienced after exposure to the stressor but before the subsequent negative outcome. An employee in an ambiguous role (i.e. stressor) may fear that he or she are not doing their job correctly (i.e. feelings of anxiety) because poor performance can lead to termination (i.e. threat). If the employee is then terminated, no feelings of anxiety, in regards to the potential termination, are expected because the outcome is already known. It is possible, however, for the employee to experience feelings of anxiety related to the possible consequences of being unemployed (i.e. capital restriction). Thus, feelings of anxiety tend to occur before the attribution-secondary appraisal process has occurred. However, anxiety is still expected to be associated with CWB. Feelings of anxiety are related to the avoidance motivational system (Carver & Harmon-Jones, 2009). This system is analogous to the flight part of the fight-flight response to threatening events. If anxiety is an indicator of the avoidance motivational system, I would expect behavioral reactions to manifest as withdrawal behaviors.

Although some studies have assessed the relationship between trait level anxiety and overall CWB (i.e. Fox & Spector, 1999; Fox, Spector, & Miles 2001), there have been few studies to specifically investigate the relationship between anxiety at work and withdrawal behaviors. Unfortunately, the few studies that have assessed state anxiety and withdrawal have produced inconsistent results. Liu, Spector, and Jex (2005) reported a positive relationship between workplace anxiety and turnover intentions. However, Lee and Allen (2002) failed to find a relationship between workplace anxiety with workplace deviance when using the PANAS-X (Watson & Clark, 1994). This is a puzzling finding because the workplace deviance scale includes withdrawal behaviors. Lee and Allen's (2002) results may be attributed to the use of coworker ratings of CWB. Research has demonstrated that self-report ratings of CWB may be more accurate than coworker or supervisor reports (Fox, Spector, Goh, & Bruursema, 2007). Thus, there is some evidence that anxiety is related to overall CWB and at least one study that links anxiety to withdrawal intentions.

Hyp 5: Anxiety will positively relate to withdrawal behaviors

Workplace sadness. Sadness can be conceptualized as an inactive state in which a person has determined that there is no way to prevent the loss of something important to the self (Lazarus & Lazarus, 1994; Stearns, 1993). Indeed, Lazarus' (1999) core-relational theme of sadness is "having experienced an irrevocable loss" (p.96). Feelings of sadness often accompany a sense of hopelessness and resignation. Studies measuring sadness often use the term depression (i.e. Park, Wilson, & Lee, 2004). These feelings are not equivalent to feelings associated with depressive disorders (Stearns, 1993) but

they are synonymous with general depressive feelings experienced by a normal healthy population. Therefore, being in a depressed mood is the same as being in a sad mood but being clinically depressed is not the same as being sad. In the current discussion, I will not be discussing research related to clinical depression. I will focus, instead, on general feelings of sadness and depression.

Similar to anxiety, sadness is another emotion that can occur before the attribution-secondary appraisal process (Weiner, 1985). An employee can experience feelings of sadness without determining blame or controllability. However, the sad employee is still motivated to decrease these feelings of sadness. Avoidance is one way to attenuate feelings of sadness. For instance, employees can become sad during a company downsizing. These employees may respond by avoiding the issue and shifting their attention to more pleasant aspects of their life. Such refocusing of attention can manifest as withdrawal behaviors.

Unfortunately, there is a dearth of research that looks at the relationship between sadness and CWB within the organization. In fact, Lee and Allen (2002) was the only organizational study that I found that investigated this relationship. Their results suggest that there is no relationship between sadness and CWB. However, these results may also be attributable to the use of coworker ratings. Despite the lack of relevant research on sadness and CWB, two studies have provided indirect evidence for a link between sadness and withdrawal behaviors. Specifically, Smith, Cronin, and Kessler (2008) found that group levels of employee sadness are negatively related to organizational loyalty. They conceptualized organizational loyalty as the inverse of withdrawal intentions. Indeed, organizational commitment has been related to turnover (Cohen,

1993). Thus, sadness may affect organizational attitudes related to withdrawal behaviors. Another study, found that a mental health intervention in the organization significantly decreased the number of absences reported (Cooper, Sadri, Allison, & Reynolds, 1995). However, the therapy addressed issues of anxiety and depression so I am unable to conclude that the effect is solely due to depression. Similarly, the authors did not indicate if the employees had been diagnosed with a depressive disorder or if the symptoms were less intense. Finally, sadness has been related to detachment from the provoking event (Parrott, 2001) which may also elicit withdrawal behaviors within the organization.

Hyp6: Sadness will positively relate to withdrawal behaviors.

Workplace boredom. Boredom is an “unpleasant affective state in which the individual feels a pervasive lack of interest in and difficulty concentrating on the current activity” (p. 386; Fisher, 1993). Boredom in the workplace has been associated with decreased job satisfaction (MacDonald & MacIntyre, 1997), increased depressive thoughts, and higher levels of anxiety (i.e. Caplan et al., 1975; Kornhauser, 1965). Research using self-report measures has also demonstrated a link between boredom and low levels of arousal (Russell, 1980; Warr, 1987, 1990). I expect that boredom is related to CWB because employees are motivated to decrease feelings of boredom. If they are upset by the level of monotony in their job, then employees are expected to engage in non-job related behaviors to make the organization livelier. For instance, gossiping and horseplay may increase a bored employee’s level of arousal and attenuate feelings of boredom. Thus, bored employees may commit CWBs for instrumental purposes. Some

clinical researchers have also linked boredom to feelings of anger (i.e., Lantz, 1988; McHolland, 1988). Simply put, they argue that boredom is a less intense form of anger. In support of this notion, boredom has been associated with aggressive behaviors (Dahlen, Martin, Ragan, & Kuhlman, 2004; Rupp & Vodanovich, 1997). Regardless of the underlying mechanism, boredom is expected to be related to all facets of CWB.

Research related to boredom in the workplace is hard to interpret. As mentioned previously, boredom is a negative emotion in response to a lack of interest or focus related to the current task. This definition is difficult to operationalize because it is easy to confound with perceptions of environmental conditions. For instance, Lee's (1986) job boredom scale asks several questions concerning repetitiveness of jobs. These items appear to be assessing perceived monotony instead of feelings of boredom. Methodologically, confounding perceived monotony and feelings of boredom is problematic because the scale may be tapping job conditions as well as boredom. Therefore, it is not clear if relationships with other variables (i.e. CWB) are due to feelings of boredom or monotonous conditions. In order to circumvent this issue, items should focus solely on feelings of boredom. Despite this limitation, previous studies have generally supported a link between boredom and CWB. Research on the job-affective well-being scale (JAWS) reported a relationship between boredom and withdrawal behaviors (Spector et al., 2006). Dahlen, Martin, Ragan, and Kuhlman (2004) and Rupp and Vodanovich (1997) reported that boredom proneness (i.e. dispositional boredom) was related to aggressive behaviors. Similarly, Bruursema (2007) reported that both trait boredom and job boredom are related to overall CWB.

Finally, some instances of sabotage in the organization have been attributed to feelings of boredom in the workplace (Ambrose, Seabright, & Schminke, 2002).

Hyp7: Boredom will positively relate to withdrawal behaviors, theft, production deviance, abuse, sabotage, social undermining and horseplay.

Research question. All of these emotions can be experienced within the organization and they can often be experienced at the same time (Lazarus, 1999). Although there is not a lot of theory about how they may interact to predict CWB, it is a question that can be addressed by the current design of the study. Specifically, I will focus on two 2-way interactions that may be important. The first interaction that I will investigate is the combination of high levels of boredom and anger. Individuals experiencing high levels of boredom may also be more prone to ruminate because they are not experiencing a high level of stimulation. Rumination may then exacerbate feelings of anger and elicit a greater amount of CWBs when compared to individuals that are not ruminating. Thus,

RQ1: Boredom and anger will interact, such that, the relationship between anger and withdrawal, theft, production deviance, abuse, sabotage, and social undermining will be stronger when there are high levels of boredom than when there are low levels of boredom.

The second interaction that I will investigate is between feelings of shame and anger. Shame is an inward focused emotions and anger is an outward focused emotions (Perrewé & Zellars, 1999). If participants experience inward and outward focused negative emotions simultaneously, they may experience higher levels of distress than

individuals experiencing high levels of only outward or inward focused negative emotions (i.e. just anger or shame). Negative emotions in both facets (i.e. inward vs. outward) may be overwhelming because being upset with yourself and coworkers leaves little room for positive emotions and satisfaction. If an employee is only experiencing outward focused negative emotions they may still be able to experience feelings of pride related to the self. In this case, one facet (i.e. inward focus) is compensating for the distress in the other facet (i.e. outward focus). However, experiencing negative emotions in both facets may deplete resources related to coping, cognition, and attention. Without resources to regulate behavior, higher levels of CWB can be expected (e.g., Allred, 1995). Thus,

RQ2: Shame and anger will interact, such that the relationship between anger and withdrawal, theft, production deviance, abuse, sabotage, and social undermining will be stronger when there is a high level of shame than when there is a low level of shame.

Chapter 2: Method

Participants

The sample consists of 241 employed participants who were recruited from classes at a large public university in the southeastern U.S. For 103 of the participants, supervisor data were also collected. The mean age of the sample was 23 (SD = 6.6, range 18-59). The majority (70%) of the participants was female. The employees worked an average of 26 hours per week (SD = 10.7) and had an average organizational tenure of 2.3 years (SD = 2.6). Participants were recruited from classes in the psychology and business departments. Extra-credit was provided when possible to compensate the employees for their participation.

Procedure

The study consists of an employee survey and a supervisor survey. The employee survey required about 15 minutes to complete while the supervisor survey required less than five minutes to complete. The employee survey includes all of the discrete emotion measures as well as the CWB measures. CWB items were presented first. The supervisor survey includes only the CWB measures. Both surveys were made accessible electronically on a survey hosting website (i.e. surveymonkey.com).

The data were collected in two different ways. First, participants made an appointment to come to a laboratory through an electronic research management website (i.e. SONA). Once in the laboratory, the employees generated an identification code that

was later used to match the supervisor and employee data while maintaining anonymity. The participants then completed the employee survey electronically in the lab (See Appendix B). Once the participant had finished the survey, the first author sent their supervisor an invitation to also participate in the study. This email included the identification code and a link to the supervisor survey. The supervisor's were then free to complete the supervisor survey whenever they were available.

The second method of data collection was to recruit participants in the classroom. The first author went to classes in the business and psychology departments and gave a short explanation of the study's purpose, requirements, and instructions for participation. After the presentation, instructional handouts were distributed to interested employees. The handouts consisted of instructions for both the employee and the supervisor (See Figure 10B). The participants were instructed to complete the electronic survey, write their unique identification code on the supervisor instructor page, and then to hand the supervisor instruction page to their supervisor. The supervisor instruction page included a brief explanation of the study, a link to the supervisor survey, and a unique identification code generated by the employee.

Measures

Many of the emotional measures were not designed for the workplace. Thus, slight changes to the directions of these scales were made to reflect the job context. All of the emotion scales have an agree vs. disagree response format. The response options of these scales were altered to reflect a 5 point frequency response choice. Participants were instructed to report how often they have experienced each feeling at work within

the past month (See Figures 1B through 6B for a list of all scale items). This time frame was selected because it may be difficult for participants to remember emotional states longer than a month ago. This is congruent with other research related to discrete emotions (e.g., Spector, Dwyer, & Jex, 1988).

Anger, anxiety, and sadness. The 10 item state anger, the 10 item state anxiety, and the 10 item state depression subscales of the State-Trait Personality Inventory (STPI; Spielberger, 1979) were selected to assess workplace anger, anxiety, and sadness. Similar to other studies using the STPI (e.g. Spector, Dwyer, & Jex, 1988), the directions were tailored to reflect the current operationalization of discrete anger, anxiety, and sadness. In the current study, the coefficient alphas were .92, .75, .80, respectively.

Shame. Andrews, Qian, and Valentine's Experience of Shame Scale (2002) was used for the current study. This measure is comprised of 25 items that assess shame related to personal habits, manner with others, the sort of person you are, personal ability, doing something wrong, saying something stupid, failure in performance, and body image issues. However, not all of these items are appropriate for the current study. For instance, it is not clear if saying something stupid is really a shame inducing event. Saying something stupid may be more related to feelings of guilt if self-monitoring is believed to be malleable. Similarly, failures in performance could be due to a lack of ability (i.e. shame) or a lack of effort (i.e. guilt). Therefore, only subscales that are clearly assessing shame (i.e. personal habits, manner with others, sort of person you are,

personal ability, and body image issues) were included in the study. It could also be argued that body image issues should be considered separately because of the clinical connotations associated with body image. However, it is likely that employees can experience shame related to their body image in the workplace. Thus, shame related to body image was also assessed. The coefficient alpha for the present study was .85.

Envy and jealousy. Vecchio (2000) used the only available, organizationally based, envy and jealousy scales. However, these scales would not be appropriate for the current study because some items contain other emotions besides envy and jealousy. For instance, the item “I feel depressed when my supervisor speaks favorably about another employee,” assesses sadness. Thus, other scales were chosen to ensure that the measures only focused on one particular emotion. A nine item variation of Cohen-Charash’s (2005) Episodic Envy Scale was chosen to assess envy. This scale was altered because the current study is only interested in the frequency of emotions in the workplace. However, the original items focused on a specific target of the emotions (e.g. I want to have what X has). The coefficient alpha of altered scale was .87. To assess jealousy, a six item jealousy scale was created specifically for this study. The items were based on the definition of jealousy and the coefficient alpha was .84.

Boredom. Unfortunately most of the current job boredom measures confound emotions and perceptions of the organization. Thus, 4 items were constructed to assess boredom in the workplace. The coefficient alpha for the 4 items was .90.

Adjective list. Finally, two item adjective measures (e.g. bored, disinterested) were included for each emotion to determine if the results would be similar with relatively smaller scales.

CWB. Three scales were used to measure CWB. For the employee survey, the response choices and the directions for the scales were altered to assess how often they have committed the behaviors within the last month. The supervisor survey, the response choices, and the directions for the scales were altered to assess how often they have observed the target employee commit the behaviors within the last month.

First the 45-item CWB-checklist was used to assess the five factor dimensionality discussed in Spector et al., 2006. The three item sabotage scale (employee $\alpha = .46$; supervisor $\alpha = .34$), the three item production deviance scale (employee $\alpha = .50$; supervisor $\alpha = .22$), the four item withdrawal scale (employee $\alpha = .69$; supervisor $\alpha = .55$), and the five item theft scale (employee $\alpha = .54$; supervisor $\alpha = .74$) all had low levels of reliability. Conversely, the 16 item abuse scale (employee $\alpha = .88$; supervisor $\alpha = .92$) was reliable. Spector et al. (2006) reported similar reliabilities for these five facets of CWB.

The second CWB scale was Bruursema's (2007) five item horseplay scale. It had coefficient alphas of .77 for the employee data and .79 for the supervisor data. Finally, eight items of the Duffy, Ganster, and Pagon's (2002) 13 items scale were used to assess social undermining. Five items had to be removed because they were redundant with items from the CWB-checklist. The coefficient alphas for social undermining were .79

for the employee data and .75 for the supervisor data. See Figures 7B through 9B for a list of CWB, horseplay, and social undermining items.

Chapter 3: Results

A summary of my hypotheses and expectations can be found in Figure 4A and Figure 5A. Descriptive statistics and coefficient alphas of all variables are reported in Table 1. This table includes the mean, standard deviation, observed range, and estimates of internal consistency reliability (i.e. coefficient alpha) for all the emotional scales (i.e. full scales and short adjective scales), as well as, the CWB scales completed by the employee and the supervisor.

Power Analysis

Although all of the hypotheses are correlational, I wanted to have enough power to conduct multiple regressions. Thus, a power analysis was conducted to ensure there was enough power to detect the effects of interest. With an alpha level of .05, 7 possible independent variables, and a medium effect size (i.e., .15-.20), 103 cases are needed in order to have power above .80 (Cohen, 1988). Thus, the current study has enough power to conduct regressions.

Correlational Analyses

Correlational Analyses were conducted to investigate the relationships among the study variables. According to the results reported in Table 2, all seven of the emotion scales were significantly correlated with each other among the employee data. The relationships varied greatly in magnitude.

Table 1. Descriptive Statistics (Means, Standard Deviations, Ranges, and Internal Consistencies)

Variable	Mean	SD	Observed Range	Coefficient Alpha
Anger	18.5	8.7	6-45	0.92
Anxiety	21.9	7	9-50	0.75
Sadness	20.7	7.8	8-50	0.8
Envy	13.2	5.7	6-36	0.87
Jealousy	8.4	3.9	3-28	0.84
Boredom	11.8	5.1	4-20	0.9
Shame	18.9	7	12-48	0.85
Anger-Adjectives	4.7	2.4	1-10	0.8
Anxiety-Adjectives	4.4	2.3	2-10	0.76
Sadness-Adjectives	3.5	2.1	1-10	0.82
Envy-Adjectives	3.1	1.7	1-10	0.76
Jealousy-Adjectives	2.7	1.4	2-10	0.64
Boredom-Adjectives	6.1	2.7	1-10	0.78
Shame-Adjectives	2.6	1.3	1-10	0.67
Sabotage	1.2	0.36	1-3	0.46
Abuse	22.9	7.3	17-67	0.88
Withdrawal	6.5	2.8	4-20	0.69
Theft	5.8	1.6	4-14	0.54
Production Deviance	3.8	1.5	2-10	0.5
Social Undermining	11.5	4.4	8-40	0.79
Horseplay	10.2	4.1	5-25	0.77
Sabotage- Supervisor	3.3	0.75	2-7	0.34
Abuse- Supervisor	20.6	6.2	17-66	0.92
Withdrawal- Supervisor	5.1	1.7	4-12	0.55
Theft- Supervisor	5.1	0.86	4-11	0.74
Production Deviance- Supervisor	3.4	1	2-8	0.22
Social Undermining- Supervisor	9.7	2.8	7-24	0.75
Horseplay- Supervisor	7.7	3.3	5-20	0.79

For instance, the correlation coefficient for the relationship between jealousy and boredom was .23 while the correlation coefficient for the relationship between shame and envy was .65. In general, the emotion scales were highly interrelated. The seven correlational hypotheses were supported by the employee data (Table 2). However, almost all of the relationships between the seven emotions and the seven facets of CWB were significant. The only exception was the relationship between jealousy and sabotage ($r = .11$, $p = n.s.$). Some of the relationships that were not hypothesized were large. For instance, the correlation coefficient between envy and abuse was .52.

Regarding the supervisor data, the first four hypotheses were only partially supported while hypotheses 5 and 6 were not supported (Tables 3 & 4). Hypothesis 7 was also only partially supported. Anger was significantly related to all the proposed relationships (i.e. sabotage, abuse, theft, withdrawal, production deviance, & social undermining) except withdrawal ($r = .19$, $p = n.s.$). Shame was related to abuse and social undermining but it was not related to withdrawal or sabotage. Envy was only significantly related to social undermining but was not related to withdrawal or theft. Jealousy was significantly related to abuse and social undermining but it was not related to withdrawal. Neither anxiety nor sadness was significantly related to withdrawal. Boredom was significantly related to all seven facets of CWB except theft and production deviance.

To compare the correlations yielded between the employee and supervisor data, t tests for dependent correlations were conducted for all relationships (Tables 5-11).

Table 2. Correlation Matrix of Emotion and CWB Measures with Employee Data

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
1. Anger	-																					
2. Anxiety	.55*	-																				
3. Sadness	.61*	.64*	-																			
4. Boredom	.60*	.31*	.49*	-																		
5. Envy	.63*	.51*	.56*	.46*	-																	
6. Jealousy	.31*	.25*	.24*	.23*	.51*	-																
7. Shame	.41*	.42*	.37*	.33*	.65*	.51*	-															
8. Anger-Adjectives	.80*	.45*	.55*	.55*	.62*	.30*	.37*	-														
9. Anxiety-Adjectives	.47*	.58*	.43*	.37*	.48*	.23*	.47*	.53*	-													
10. Sadness-Adjectives	.55*	.48*	.67*	.41*	.62*	.39*	.57*	.59*	.55*	-												
11. Envy-Adjectives	.40*	.36*	.36*	.32*	.61*	.55*	.63*	.43*	.43*	.51*	-											
12. Jealousy-Adjectives	.35*	.34*	.28*	.18*	.59*	.65*	.57*	.33*	.32*	.53*	.79*	-										
13. Boredom-Adjectives	.52*	.17*	.38*	.74*	.39*	0.11	.22*	.55*	.27*	.37*	.23*	.17*	-									
14. Shame-Adjectives	.37*	.35*	.28*	.19*	.50*	.43*	.63*	.40*	.37*	.60*	.61*	.67*	.13*	-								
15. Sabotage	.23*	.21*	.16*	.23*	.20*	0.11	.24*	.16*	.13*	.18*	0.13	0.08	.14*	.18*	-							
16. Abuse	.53*	.34*	.37*	.42*	.52*	.32*	.44*	.45*	.29*	.36*	.32*	.27*	.33*	.26*	.39*	-						
17. Withdrawal	.26*	.22*	.21*	.30*	.30*	.16*	.36*	.16*	0.12	.23*	.19*	.21*	.23*	.18*	.30*	.46*	-					
18. Theft	.40*	.26*	.26*	.27*	.32*	.16*	.32*	.16*	.20*	.27*	.20*	.14*	.18*	0.1	.47*	.49*	.56*	-				
19. Production Deviance	.25*	.18*	.21*	.30*	.23*	.13*	.19*	.23*	.20*	.16*	0.21*	.17*	.22*	.21*	.31*	.39*	.40*	.56*	-			
20. Social Undermining	.55*	.34*	.39*	.43*	.59*	.39*	.51*	.50*	.27*	.47*	.39*	.41*	.38*	.43*	.23*	.67*	.42*	.38*	.35*	-		
21. Horseplay	.50*	.35*	.40*	.58*	.48*	.29*	.35*	.43*	.30*	.35*	.28*	.26*	.51*	.25*	.34*	.40*	.38*	.35*	.24*	.52*	-	

Note: N = 241; Bolded values are hypothesized relationships; *p < .05

In order to perform this analysis, the sample sizes were made equivalent by excluding cases that did not have supervisor data available. Thus the sample size for both the employee and supervisor data was 103. Except for 12 cases (See Tables 5, 8, 9, 10, and 11), the correlations computed with supervisor data were not significantly different from the correlations computed with only the employee data. The majority of the differences were found when comparing the relationships between boredom, envy, and shame with the facets of CWB. These differences were largely due to higher correlations among the employee data than the supervisor data.

To compare the two sets of emotion scales (i.e. full scales vs. two item adjectives scales), t tests for dependent correlations were conducted for all relationships between the seven emotions and the seven sub facets of CWB (Tables 12-18). There were no significantly different correlations between the two forms of anxiety, sadness, and jealousy scales. However, the anger scales differed for abuse, withdrawal, theft, and horseplay. The boredom scales differed for sabotage, abuse, and theft. The envy scales differed for abuse, withdrawal, theft, social undermining, and horseplay. Finally, the shame scales differed for abuse, withdrawal, and theft. For all cases that have differences among the scales, the full scales yielded stronger correlations than the short adjective scales.

Since the majority of the facets of CWB were significantly correlated with the emotions, multiple regressions were conducted to determine which emotions were the best predictors of CWB (See Tables 19-31). Each facet of CWB was regressed onto all seven emotions. The emotions were entered into the first step of the regression.

Table 3. Correlation Matrix of Supervisor Reported CWB.

	1	2	3	4	5	6	7
1. Sabotage	-						
2. Abuse	.58*	-					
3. Withdrawal	.50*	.32*	-				
4. Theft	.62*	.43*	.34*	-			
5. Production Deviance	.46*	.44*	.29*	.21*	-		
6. Social Undermining	.64*	.75*	.36*	.42*	.51*	-	
7. Horseplay	.46*	.59*	.61*	.51*	.24*	.46*	-

Note: Bolded values are hypothesized relationships; N = 103; * P < .05

Table 4. Supervisor Reported CWB Correlated with All Employee Reported Variables.

Emp Variables	Sup Sabotage	Sup Abuse	Sup Withdrawal	Sup Theft	Sup Prod. Dev.	Sup Soc. Und.	Sup Horse.
Anger	.38*	.46*	.19	.35*	.21*	.47*	.25*
Anxiety	.14	.35*	-.02	.22*	.23*	.33*	.22*
Sadness	.22*	.36*	.12	.19	.22*	.36*	.31*
Boredom	.24*	.27*	.22*	.14	.12	.32*	.27*
Envy	.15	.36*	.05	.11	.09	.35*	.24*
Jealousy	.13	.21*	.03	.04	.03	.27*	.1
Shame	-.02	.21*	.11	.01	.03	.23*	.21*
Anger-Adjectives	.27*	.33*	.18	.21*	.13	.37*	.29*
Anxiety-Adjectives	-.04	.20*	.02	.09	.04	.18	.24*
Sadness-Adjectives	.18	.26*	.15	.06	.09	.29*	.27*
Envy-Adjectives	.11	.16	.05	.01	.06	.29*	.13
Jealousy-Adjectives	.16	.15	.03	.03	.04	.27*	.06
Boredom-Adjectives	.15	.24*	.2	.09	.02	.21*	.29*
Shame-Adjectives	.1	.05	.08	-.01	.02	.20*	.06
Emp Sabotage	.24*	.10	.34*	.10	.05	.17	.26*
Emp Abuse	.25*	.67*	.23*	.09	.21*	.47*	.44*
Emp Withdrawal	.05	.17	.15	.06	.00	.13	.05
Emp Theft	.17	.36*	.04	.08	.16	.27*	.17
Emp Prod. Dev.	.15	.05	.10	.19	.01	.14	.05
Emp Soc. Und.	.25*	.46*	.20*	.18	.14	.50*	.33*
Emp Horse.	.14	.21*	.10	.05	-.07	.13	.34*

Note. Rows N = 241; Columns N = 102; Bolded values are hypothesized relationships; *p < .05

For the employee data, all of the regressions were statistically significant. See Tables 19-25 for overall model statistics (i.e. F values and R^2 values). Shame was a significant predictor of sabotage ($\beta = .18, p < .05$), abuse ($\beta = .16, p < .05$), withdrawal behaviors ($\beta = .29, p < .05$), theft ($\beta = .19, p < .05$), and social undermining ($\beta = .20, p < .05$). Anger was a significant predictor of abuse ($\beta = .30, p < .05$), theft ($\beta = .33, p < .05$), and social undermining ($\beta = .27, p < .05$). Envy was a significant predictor of abuse ($\beta = .17, p < .05$), horseplay ($\beta = .18, p < .05$), and social undermining ($\beta = .26, p < .05$). Boredom was a significant predictor of production deviance ($\beta = .1, p < .05$), withdrawal behaviors ($\beta = .1, p < .05$), and horseplay ($\beta = .4, p < .05$). Sadness was only a significant predictor of production deviance ($\beta = -.2, P < .05$) but the beta weight was not in the expected direction. Anxiety and jealousy did not predict any facet of CWB over and above the other emotions.

Although a wide range of emotions predicted CWBs when using the employee reported CWB, the findings were not consistent with the results from the regression based on supervisor reported CWB. See Tables 26-32 for overall model statistics. When investigating the supervisor data, emotions were not significant predictors of production deviance, withdrawal behaviors, or horseplay. However, anger was a significant predictor of sabotage ($\beta = .40, p < .05$), abuse ($\beta = .35, p < .05$), theft ($\beta = .44, p < .05$), and social undermining ($\beta = .34, p < .05$). Similarly, shame was also a significant predictor of sabotage ($\beta = -.27, P < .05$) but the beta weight was not in the expected direction. Thus, anger and shame were the only significant predictor of the supervisor reported CWB.

To investigate the first research question, a moderated regression was conducted with the values for anger and boredom centered and then entered into the first step.

Table 5. Comparison of the Anger and CWB Correlations Between Sources

	Employee Correlations	Supervisor Correlations	Comparison of Correlations
Sabotage	.12	.38*	t-observed = 2.3*
Abuse	.53*	.46*	t-observed = 1.0
Withdrawal	.28*	.19	t-observed = .72
Theft	.39*	.35*	t-observed = .33
Production Deviance	.14	.21*	t-observed = -.51
Social Undermining	.53*	.47*	t-observed = .72
Horseplay	.45*	.25*	t-observed = 1.9
Note: n.s. = nonsignificant; Employee N = 102, Supervisor N = 102			

Table 6. Comparison of the Anxiety and CWB Correlations Between Sources

	Employee Correlations	Supervisor Correlations	Comparison of Correlations
Sabotage	.10	.14	t-observed = -.33
Abuse	.33*	.35*	t-observed = -.26
Withdrawal	.18	-.02	t-observed = 1.6
Theft	.26*	.22*	t-observed = .31
Production Deviance	.08	.23	t-observed = -1.1
Social Undermining	.30*	.33*	t-observed = -.32
Horseplay	.25*	.22	t-observed = .27
Note: * = $p < .05$; Employee N = 102, Supervisor N = 102			

Table 7. Comparison of the Sadness and CWB Correlations Between Sources

	Employee Correlations	Supervisor Correlations	Comparison of Correlations
Sabotage	.14	.22*	t-observed = -.66
Abuse	.44*	.36*	t-observed = 1.1
Withdrawal	.20*	.11	t-observed = .70
Theft	.31*	.19	t-observed = .93
Production Deviance	.08	.22*	t-observed = -1.0
Social Undermining	.44*	.36*	t-observed = .89
Horseplay	.41*	.31*	t-observed = .96
Note: * = $p < .05$; Employee N = 102, Supervisor N = 102			

Table 8. Comparison of the Boredom and CWB Correlations Between Sources

	Employee Correlations	Supervisor Correlations	Comparison of Correlations
Sabotage	.22*	.24*	t-observed = -.17
Abuse	.47*	.27*	t-observed = 2.8*
Withdrawal	.39*	.22*	t-observed = 1.4
Theft	.24*	.14	t-observed = .76
Production Deviance	.27*	.12	t-observed = 1.1
Social Undermining	.52*	.32*	t-observed = 2.3*
Horseplay	.63*	.27*	t-observed = 3.9*
Note: * = $p < .05$; Employee N = 102, Supervisor N = 102			

Table 9. Comparison of the Envy and CWB Correlations Between Sources

	Employee Correlations	Supervisor Correlations	Comparison of Correlations
Sabotage	.03	.15	t-observed = -.98
Abuse	.51*	.36*	t-observed = 2.1*
Withdrawal	.39*	.05	t-observed = 2.8*
Theft	.38*	.11	t-observed = 2.1
Production Deviance	.21*	.09	t-observed = .87
Social Undermining	.59*	.35*	t-observed = 2.9*
Horseplay	.41*	.24*	t-observed = 1.6
Note: * = $p < .05$; Employee N = 102, Supervisor N = 102			

Table 10. Comparison of the Jealousy and CWB Correlations Between Sources

	Employee Correlations	Supervisor Correlations	Comparison of Correlations
Sabotage	.09	.13	t-observed = -.33
Abuse	.28*	.21*	t-observed = .89
Withdrawal	.13	.03	t-observed = .77
Theft	.30*	.04	t-observed = 2.0*
Production Deviance	.03	.03	t-observed = 0
Social Undermining	.32*	.27*	t-observed = .53
Horseplay	.17	.10	t-observed = .61
Note: * = $p < .05$; Employee N = 102, Supervisor N = 102			

Table 11. Comparison of the Shame and CWB Correlations Between Sources

	Employee Correlations	Supervisor Correlations	Comparison of Correlations
Sabotage	.13	-.02	t-observed = 1.2
Abuse	.38*	.21*	t-observed = 2.3*
Withdrawal	.40*	.11	t-observed = 2.4*
Theft	.33*	.01	t-observed = 2.5*
Production Deviance	.08	.03	t-observed = .35
Social Undermining	.48*	.23*	t-observed = 2.8*
Horseplay	.33*	.21*	t-observed = 1.1
Note: * = $p < .05$; Employee N = 102, Supervisor N = 102			

Table 12. Comparison of Anger Scale Correlations with CWB

CWB	Anger Correlations	Anger Adjective Correlations	Correlation Comparison
Sabotage	.23*	.16*	t-observed = 1.8
Abuse	.53*	.45*	t-observed = 2.3*
Withdrawal	.26*	.16*	t-observed = 2.5*
Theft	.40*	.16*	t-observed = 6.7*
Production Deviance	.25*	.23*	t-observed = .50
Social Undermining	.55*	.50*	t-observed = 1.5
Horesplay	.50*	.43*	t-observed = 2.0*
Note: * = $p < .05$; N = 241			

Table 13. Comparison of Anxiety Scale Correlations with CWB

CWB	Anxiety Correlations	Anxiety Adjective Correlations	Correlation Comparison
Sabotage	.21*	.13*	t-observed = 1.4
Abuse	.34*	.29*	t-observed = .90
Withdrawal	.22*	.12	t-observed = 1.7
Theft	.26*	.20*	t-observed = 1.0
Production Deviance	.18*	.20*	t-observed = -.34
Social Undermining	.34*	.27*	t-observed = 1.3
Horesplay	.35*	.30*	t-observed = .90
Note: * = $p < .05$; N = 241			

Table 14. Comparison of Sadness Scale Correlations with CWB

CWB	Sadness Correlations	Sadness Adjective Correlations	Correlation Comparison
Sabotage	.16*	.18*	t-observed = -.39
Abuse	.37*	.36*	t-observed = .21
Withdrawal	.21*	.23*	t-observed = -.39
Theft	.26*	.27*	t-observed = -.20
Production Deviance	.21*	.16*	t-observed = .97
Social Undermining	.39*	.47*	t-observed = -1.7
Horesplay	.40*	.35*	t-observed = 1.0
Note: * = $p < .05$; N = 241			

Table 15. Comparison of Boredom Scale Correlations with CWB

CWB	Boredom Correlations	Boredom Adjective Correlations	Correlation Comparison
Sabotage	.23*	.14*	t-observed = 2.0*
Abuse	.42*	.33*	t-observed = 2.1*
Withdrawal	.30*	.23*	t-observed = 1.6
Theft	.27*	.18*	t-observed = 2.0*
Production Deviance	.30*	.22*	t-observed = 1.8
Social Undermining	.43*	.38*	t-observed = 1.2
Horesplay	.58*	.51*	t-observed = 1.9
Note: * = $p < .05$; N = 241			

Table 16. Comparison of Envy Scale Correlations with CWB

CWB	Envy Correlations	Envy Adjective Correlations	Correlation Comparison
Sabotage	.20*	.13	t-observed = 1.2
Abuse	.52*	.32*	t-observed = 4.1*
Withdrawal	.30*	.19*	t-observed = 2.0*
Theft	.32*	.20*	t-observed = 2.2*
Production Deviance	.23*	.21*	t-observed = .36
Social Undermining	.59*	.39*	t-observed = 4.3*
Horesplay	.48*	.28*	t-observed = 4.0*
Note: * = $p < .05$; N = 241			

Table 17. Comparison of Jealousy Scale Correlations with CWB

CWB	Jealousy Correlations	Jealousy Adjective Correlations	Correlation Comparison
Sabotage	.11	.08	t-observed = .56
Abuse	.32*	.27*	t-observed = .98
Withdrawal	.16*	.21*	t-observed = -.94
Theft	.16*	.14*	t-observed = .37
Production Deviance	.13*	.17*	t-observed = -.75
Social Undermining	.39*	.41*	t-observed = -.41
Horsplay	.29*	.26*	t-observed = .58
Note: * = $p < .05$; N = 241			

Table 18. Comparison of Shame Scale Correlations with CWB

CWB	Shame Correlations	Shame Adjective Correlations	Correlation Comparison
Sabotage	.24*	.18*	t-observed = 1.1
Abuse	.44*	.26*	t-observed = 3.6*
Withdrawal	.36*	.18	t-observed = 3.5*
Theft	.32*	.10	t-observed = 4.2*
Production Deviance	.19*	.21*	t-observed = -.37
Social Undermining	.51*	.43*	t-observed = 1.7
Horseplay	.35*	.25*	t-observed = 1.9
Note: * = $p < .05$; N = 241			

The interaction term was then entered into the second step. Each of the facets of CWB was entered individually as the dependent variable. See Tables 33-41 for the model statistics of the significant moderated regressions. For the employee data, the interaction term was only significant for theft ($\beta = .15, p < .05$). However, boredom and anger interacted to predict sabotage ($\beta = .29, p < .05$), abuse ($\beta = .20, p < .05$), production deviance ($\beta = .29, p < .05$), and social undermining ($\beta = .27, p < .05$) when investigating the supervisor reported CWB. For all instances, employees experiencing high levels of boredom are associated with a higher frequency of CWBs as feelings of anger increase (See Figures 1-5).

To investigate the second research question, a moderated regression was conducted with the values for anger and shame centered and then entered into the first step. The interaction term was then entered into the second step. Each of the facets of CWB was entered individually as the dependent variable. See Tables 33-41 for the model statistics of the significant moderated regressions. For the employee data, anger and shame interacted to predict abuse ($\beta = .15, p < .05$), withdrawal ($\beta = .15, p < .05$), and social undermining ($\beta = .12, p < .05$). However, the interaction term was only a significant predictor of theft ($\beta = .39, p < .05$) when investigating supervisor reported CWB. Based on the employee data, employees experiencing high levels of shame reported higher amounts of CWBs as feelings of anger increased (See Figures 6-8). The interaction was in the opposite direction among the supervisor data. Employees experiencing high levels of shame were associated with lower amounts of theft as feelings of anger increased (See Figure 9).

Table 19. Employee Reported Sabotage Regressed Onto Discrete Emotions

Variable	B	SE B	b
Anxiety	0.07	0.05	0.13
Anger	0.03	0.04	0.07
Depression	-0.04	0.04	-0.09
Jealousy	-0.03	0.04	-0.05
Envy	-0.01	0.5	-0.02
Shame	0.12*	0.06	.18*
Boredom	0.04	.02	0.16
Model F	3.7*		
Model R ²	0.1		

Note: N = 241; * p < .05

Table 20. Employee Reported Abuse Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	-.01	0.04	-.02
Anger	0.12*	0.03	.30*
Depression	-0.01	0.04	-.02
Jealousy	0.02	0.04	0.03
Envy	.10*	0.05	.17*
Shame	0.12*	0.06	.16*
Boredom	0.04	0.02	0.11
Model F	18.8*		
R ² Total	0.36		

Note: N = 241; *p < .05

Table 21. Employee Reported Production Deviance Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	0.09	0.06	0.12
Anger	0.04	0.05	0.09
Depression	-.12*	0.06	-0.2*
Jealousy	0	0.06	0
Envy	0.05	0.07	0.07
Shame	0.04	0.08	0.04
Boredom	0.1*	0.03	.26*
Model F	4.6*		
Model R ²	0.12		

Note: N = 241; * p < .05

Table 22. Employee Reported Withdrawal Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	0.06	0.09	0.05
Anger	0.02	0.07	0.03
Depression	-0.04	0.08	-0.05
Jealousy	-0.07	0.08	-0.07
Envy	0.04	0.1	0.04
Shame	0.38*	0.1	.29*
Boredom	0.1*	0.04	.19*
Model F	6.7*		
Model R ²	0.17		

Note: N = 241; * p < .05

Table 23. Employee Reported Theft Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	0	0.04	0
Anger	.11*	0.03	.33*
Depression	0	0.04	-0.01
Jealousy	0.01	0.04	0.02
Envy	-0.02	0.04	-0.04
Shame	.12*	0.05	.19*
Boredom	0.01	0.02	0.02
Model F	8.0*		
Model R ²	0.19		

Note: N = 241; * p < .05

Table 24. Employee Reported Horseplay Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	-0.05	0.08	-0.04
Anger	0.1	0.07	0.11
Depression	0.04	0.08	0.04
Jealousy	0.07	0.08	0.06
Envy	.21*	0.1	.18*
Shame	0.03	0.11	0.02
Boredom	.26*	0.04	0.4*
Model F	22.3*		
Model R ²	0.4		

Note: N = 241; * p < .05

Table 25. Employee Reported Social Undermining Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	-0.06	0.05	-0.07
Anger	0.15*	0.04	0.27*
Depression	0.0	0.05	-0.01
Jealousy	0.05	0.51	0.06
Envy	.20*	0.06	.26*
Shame	0.21*	0.7	0.20*
Boredom	.04*	0.03	0.09
Model F	26.2*		
Model R ²	0.44		

Note: N = 241; * p < .05

Table 26. Supervisor Reported Sabotage Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	-0.03	0.05	-0.08
Anger	.10*	0.04	0.40*
Depression	.02	0.43	.08
Jealousy	0.04	0.04	0.12
Envy	-.01	0.05	-.03
Shame	-.11*	0.05	-.27*
Boredom	0.02	0.03	0.10
Model F	3.3*		
Model R ²	0.20		

Note: N = 103; * p < .05

Table 27. Supervisor Reported Abuse Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	.04	0.06	0.09
Anger	.12*	0.05	0.35*
Depression	.03	0.06	.07
Jealousy	0.01	0.07	0.01
Envy	.07*	0.07	.15
Shame	-.04	0.07	-.07
Boredom	-.02	0.03	-.07
Model F	4.2*		
Model R ²	0.24		

Note: N = 103; * p < .05

Table 28. Supervisor Reported Production Deviance Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	.07	0.07	0.15
Anger	.05	0.05	0.15
Depression	.04	0.06	.10
Jealousy	-.01	0.06	-.02
Envy	-.03	0.07	-.06
Shame	-.05	0.08	-.08
Boredom	-.00	0.04	-.01
Model F	1.1		
Model R ²	0.08		

Note: N = 103; * p < .05

Table 29. Supervisor Reported Withdrawal Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	-.14	0.09	-.24
Anger	.09	0.07	0.21
Depression	.06	0.08	.11
Jealousy	-.01	0.08	-.02
Envy	-.11	0.09	-.18
Shame	.09	0.10	.12
Boredom	.06	0.05	.17
Model F	1.5		
Model R ²	0.1		

Note: N = 103; * p < .05

Table 30. Supervisor Reported Theft Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	.03	0.03	0.11
Anger	.07*	0.02	0.44*
Depression	-.01	0.03	-.05
Jealousy	-.01	0.03	-.05
Envy	-.01	0.03	-.05
Shame	-.04	0.04	-.13
Boredom	-.01	0.02	-.05
Model F	2.4*		
Model R ²	0.15		

Note: N = 103; * p < .05

Table 31. Supervisor Reported Horseplay Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	-.03	0.13	-.03
Anger	.03	0.10	0.5
Depression	.17	0.12	.22
Jealousy	-.03	0.11	-.03
Envy	.02	0.13	.03
Shame	.09	0.15	.08
Boredom	.04	0.07	.08
Model F	.18		
Model R ²	0.12		

Note: N = 103; * p < .05

Table 32. Supervisor Reported Social Undermining Regressed onto the Discrete Emotions

Variable	B	SE B	b
Anxiety	.02	0.07	0.05
Anger	.12*	0.05	0.34*
Depression	.03	0.06	.08
Jealousy	0.06	0.06	0.11
Envy	.03	0.07	.06
Shame	-.04	0.08	-.06
Boredom	.01	0.04	.02
Model F	4.2*		
Model R ²	0.24		

Note: N = 103; * p < .05

Table 33. Boredom as a Moderator of the Anger-Theft Relationship Using Employee Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.12*	.02	.38*	.10*	.03	.30*
Boredom	.01	.02	.04	.02	.02	.08
Anger X Boredom				.04*	.02	.15*
ΔR^2			.17			.02
Model R^2			.17			.18
Model F			23.4*			5.0*

Note: * $p < .05$.

Table 34. Boredom as a Moderator of the Anger-Sabotage Relationship Using Supervisor Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.09*	.03	.37*	.05	.03	.18
Boredom	0	.02	.02	.02	.02	.13
Anger X Boredom				.05*	.02	.29*
ΔR^2			.14			.06
Model R^2			.14			.21
Model F			8.3*			8.5*

Note: * $p < .05$.

Table 35. Boredom as a Moderator of the Anger-Abuse Relationships Using Supervisor Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.17*	.04	.47*	.12*	.05	.34*
Boredom	-.01	.03	-.02	.01	.03	.05
Anger X Boredom				.05*	.03	.20*
ΔR^2			.21			.03
Model R^2			.21			.24
Model F			13.2*			10.4*

Note: * $p < .05$.

Table 36. Boredom as a Moderator of the Anger-Production Deviance Relationship Using Supervisor Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.08	.04	.22	.01	.05	.03
Boredom	0	.03	-.01	.02	.03	.09
Anger X Boredom				.08*	.03	.29*
ΔR^2			.05			.06
Model R^2			.05			.11
Model F			2.3			3.9*

Note: * $p < .05$.

Table 37. Boredom as a Moderator of the Anger-Social Undermining Relationship Using Supervisor Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.16*	.04	.45*	.10*	.05	.27*
Boredom	.01	.03	.04	.04	.03	.14
Anger X Boredom				.07*	.03	.27*
ΔR^2			.23			.06
Model R^2			.23			.28
Model F			14.3*			12.7*

Note: * $p < .05$.

Table 38. Shame as a Moderator of the Anger-Abuse Relationships Using Employee Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.17*	.02	.42*	.16*	.02	.40*
Shame	.20*	.04	.26	.17*	.05	.22*
Anger X Shame				.07*	.04	.12*
ΔR^2			.34			3.9
Model R^2			.34			.35
Model F			60.6*			42.2*

Note: * $p < .05$.

Table 39. Shame as a Moderator of the Anger-Withdrawal Relationship Using Employee Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.10*	.05	.14*	.08	.05	.11
Shame	.40*	.09	.30*	.33*	.09	.25*
Anger X Shame				.16*	.07	.15*
ΔR^2			.14			.02
Model R^2			.14			.16
Model F			20.0*			15.1*

Note: * $p < .05$.

Table 40. Shame as a Moderator of the Anger-Social Undermining Relationship Using Employee Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.23*	.03	.41*	.22*	.03	.38*
Shame	.36*	.06	.35*	.31*	.06	.31*
Anger X Shame				.10*	.5	.12*
ΔR^2			.40			.01
Model R^2			.40			.41
Model F			79.0*			54.7*

Note: * $p < .05$.

Table 41. Shame as a Moderator of the Anger-Theft Relationship Using Supervisor Data.

Independent Variables	Step 1			Step 2		
	B	SE B	β	B	SE B	β
Anger	.07*	.02	.42*	.09*	.02	.53*
Shame	-.05	.03	-.17	-.01	.03	-.04
Anger X Shame				-.08*	.02	-.39*
ΔR^2			.14			.11
Model R^2			.14			.25
Model F			8.2*			10.9*

Note: * $p < .05$.

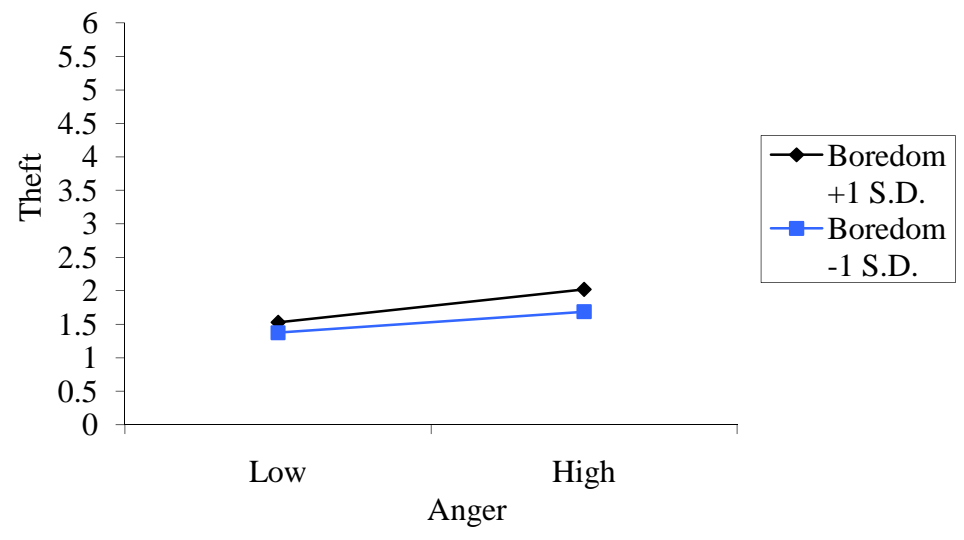


Figure 1. Anger and Boredom Interacting to Predict Theft Using Employee Data.

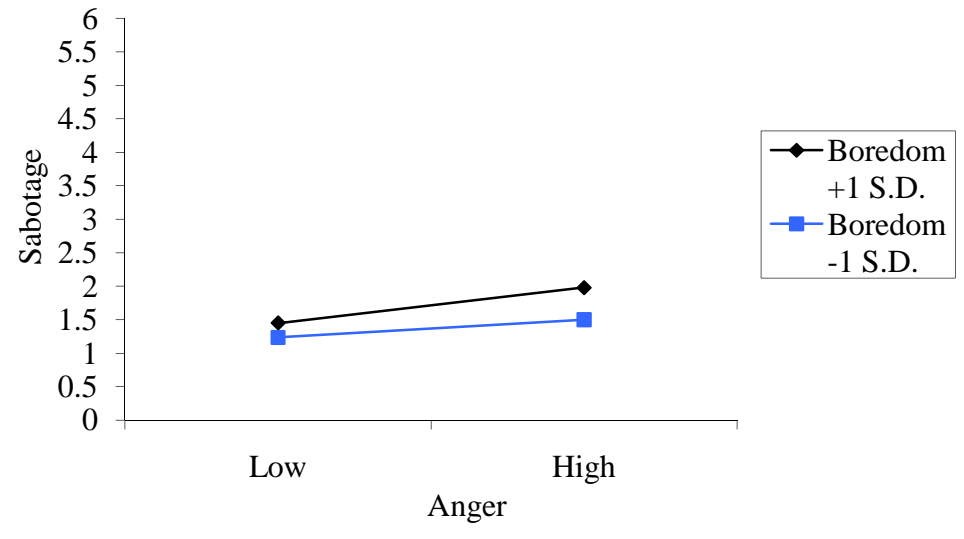


Figure 2. Anger and Boredom Interacting to Predict Sabotage Using Supervisor Data.

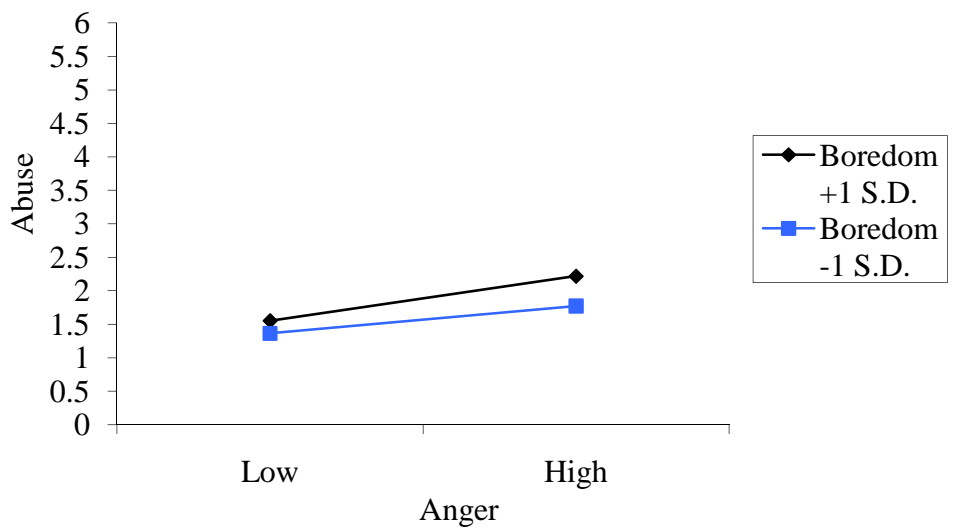


Figure 3. Anger and Boredom Interacting to Predict Abuse Using Supervisor Data.

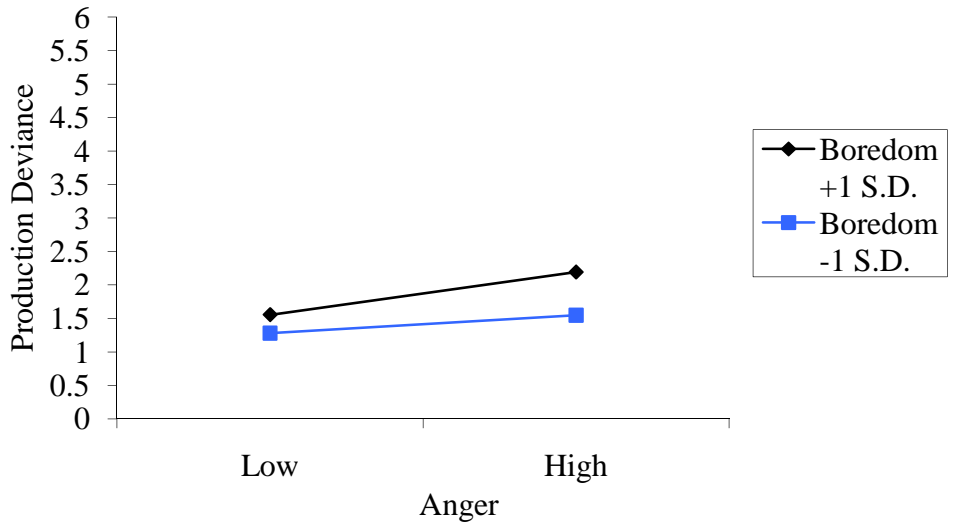


Figure 4. Anger and Boredom Interacting to Predict Production Deviance Using Supervisor Data.

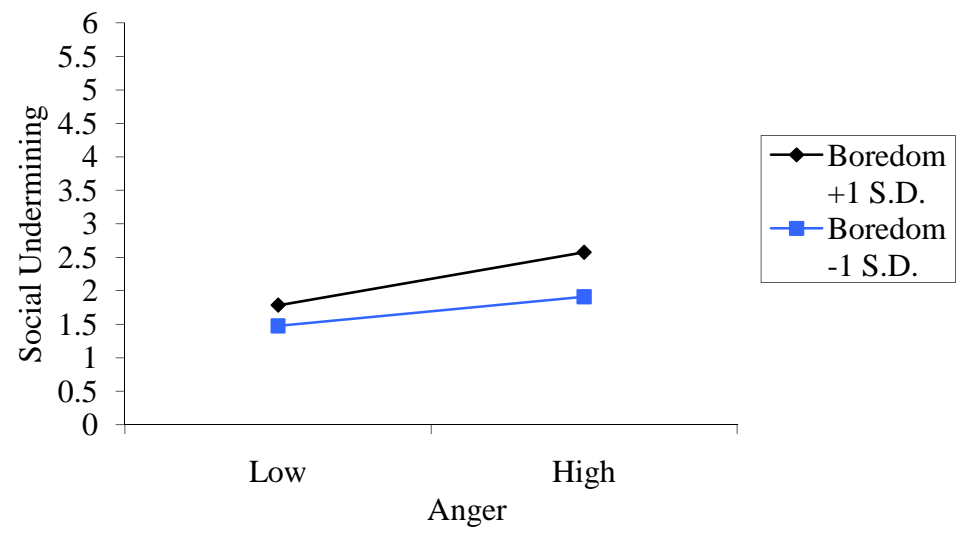


Figure 5. Anger and Boredom Interacting to Predict Social Undermining Using Supervisor Data.

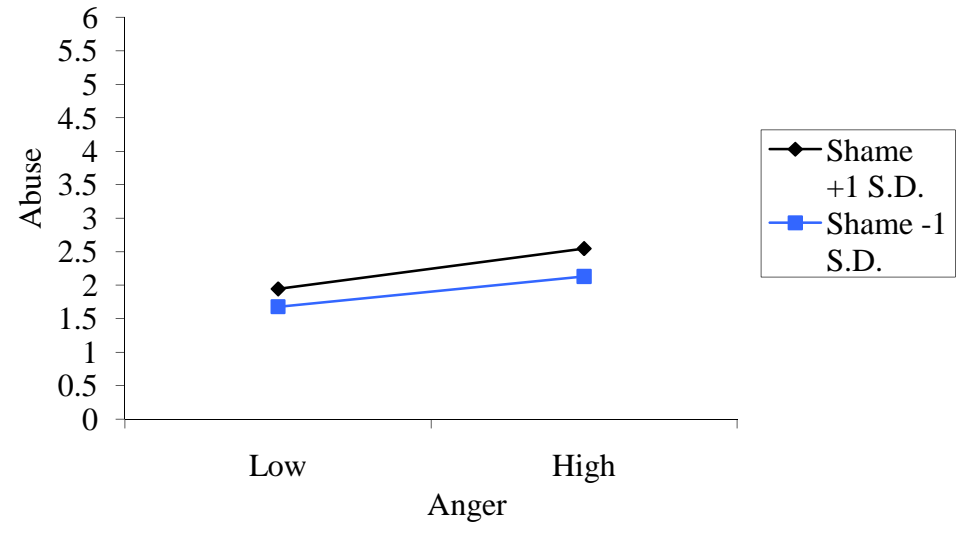


Figure 6. Anger and Shame Interacting to Predict Abuse Using Employee Data.

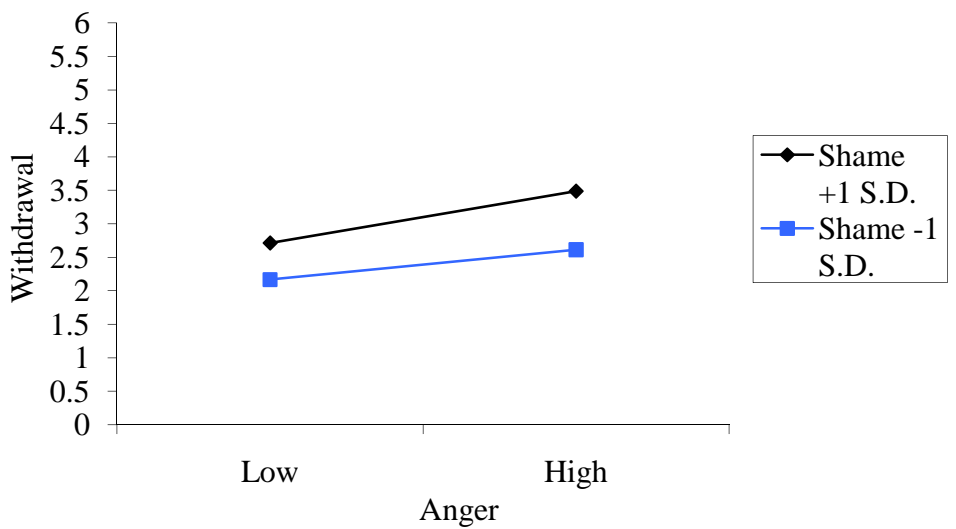


Figure 7. Anger and Shame Interacting to Predict Withdrawal Behaviors Using Employee Data.

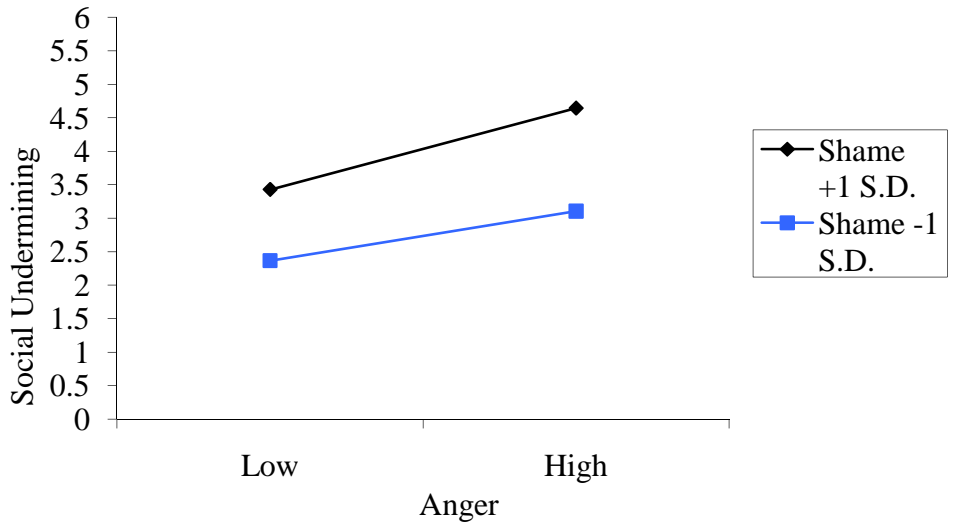


Figure 8. Anger and Shame Interacting to Predict Social Undermining Using Employee Data.

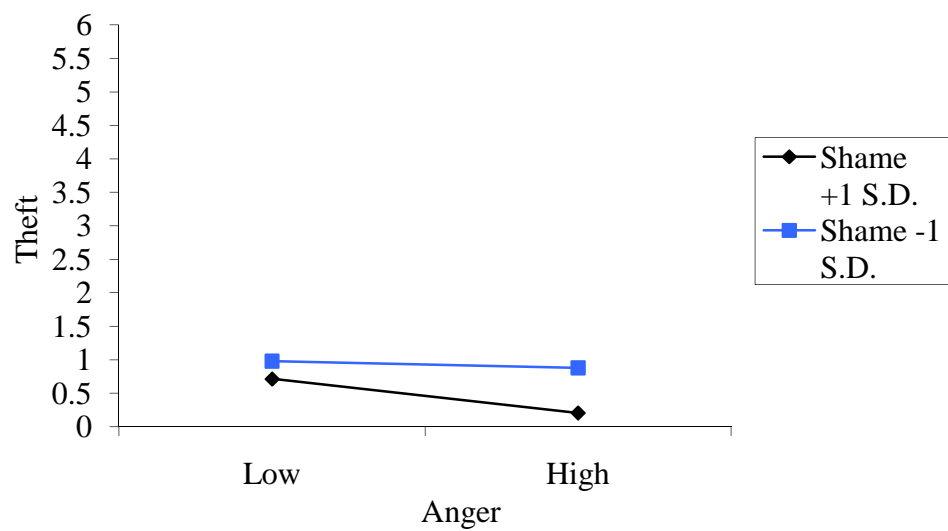


Figure 9. Anger and Shame Interacting to Predict Theft Using Supervisor Data.

Chapter 4: Discussion

The results among the employee data supported all of the hypotheses. However, these results do not confirm my general expectations. More specifically, I expected the attributions of causality and controllability to differentiate between the types of CWBs that the negative emotions predict. This was not the case. Almost all of the emotions were significantly related to all of the sub facets of CWB. In many cases, the unexpected relationships were as large, if not, larger than the expected relationships. Thus, all of the negative emotions appear to be relevant to most of the facets of CWB. This does not support the expectations I generated using the attribution and appraisal theories, but it does support the overall stressor-emotion model (Spector & Fox, 2002).

Even though my original logic was not supported, there may be post-hoc explanations for the current trends in the data. First, the high correlations among the study variables could be due to negative affectivity. Employees with high levels of negative affectivity may have a tendency to report high levels of distress and negative emotions (Watson et al., 1987). Having a general negative disposition when participating in the current study could, therefore, lead to over reporting of the frequency of negative emotions and negative workplace behaviors. Over reporting would artificially inflate the correlation between the variables in this study. The current study did not control for negative affectivity because it is not clear that negative affectivity had a biasing effect on the data. It is, therefore, possible that negative affectivity could be affecting the relationships. However, partialling negative affectivity out of the analyses is inappropriate due to the possible removal of substantive effects (Spector, Zapf, Chen, &

Frese, 2000). Thus, negative affectivity may influence the results but the current study is unable to investigate the issue.

Job attitudes might also help to explain the results. According to the affective events theory (Weiss and Cropanzano, 1996), affective reactions can influence work attitudes. These attitudes can then influence judgment driven behaviors in the workplace. Specific to the current study, negative emotions could energize CWBs regardless of the type of negative emotions due to their effect on job related attitudes. Job satisfaction is typically defined as an employee's level of positive affect toward his or her job situation (Locke, 1976). It is, therefore, unlikely that an employee experiencing negative emotions in the workplace will have a positive emotional reaction to the job situation. Chen and Spector (1992) found negative relationships between trait anger and job satisfaction. Similarly, both job satisfaction and trait anger were related to a host of CWBs (i.e. theft, interpersonal aggression, and sabotage) as well as turnover intentions. Thus, an employee experiencing any type of negative emotions may become dissatisfied with the organization and more likely to withdrawal and aggress against the organization. Future research should investigate the role of job attitudes as a mediator between negative emotions and CWBs.

Comparing the Negative Emotions

Since all emotions were found to be related to most of the facets of CWB, all seven of the negative emotions were entered into multiple regressions. These regressions enabled the comparison of the emotions to determine how important each emotion was in relation to the other emotions. The analysis of the employee data better differentiated

among the emotions and provided some support for my original expectations. The analyses revealed that anger, shame, envy, and boredom were the best predictors of the CWB facets. In line with the original hypotheses, shame predicted sabotage, abuse, theft, social undermining, and withdrawal behaviors. Although shame is traditionally thought to be related to withdrawal, these findings suggest that shame can also predict aggressive behaviors. This can be interpreted as indirect evidence of the shame displacement argument. Similarly, envy was a significant predictor of abuse, social undermining, and horseplay. These findings support the claim that feelings of envy can be used to predict aggressive behaviors. Envy does appear to be related to covert aggression but feelings of envy are also important for predicting overtly aggressive behaviors (i.e. abuse). In regards to anger, the results also partially supported my original expectations. Although, anger was related to every sub facet of CWB, it was only a significant predictor of abuse, theft, and social undermining. Congruent with the literature, anger was a predictor of approach related behaviors (Carver & Harmon-Jones, 2007). Although all the negative emotions are important, some of the emotions are more important than others in predicting facets of CWB. When using the employee data, comparing the emotions revealed trends in the data that were more congruent with my expectations than the correlation matrix.

In some cases, comparing the emotions supported my expectations. However, the findings regarding boredom, sadness, anxiety, and jealousy were not anticipated. Boredom was expected to be related to aggressive behaviors but the results are not as impressive when compared to the other relevant emotions (i.e. anger, shame, and envy). Feelings of boredom were highly correlated with aggressive behaviors (i.e. abuse and

social undermining) but these feelings were not able to significantly predict aggressive behaviors when combined with the other six emotions. Despite these surprising results, boredom was a significant predictor of production deviance, withdrawal behaviors, and horseplay. Thus, boredom may not be the most important negative emotion when predicting aggressive behaviors, but it is important in predicting the less aggressive CWBs. There were also unexpected findings related to sadness. Contrary to expectations, sadness was not a significant predictor of withdrawal behaviors. Boredom and shame appear to be the more important emotions in regards to withdrawal behaviors. However, sadness was a significant predictor of production deviance. Unfortunately, the beta weight was not in the expected direction. Since the beta weight is negative but the correlation is positive ($r = .21, p < .05$), there is evidence to suggest the existence of a suppressor effect. Thus, sadness did not appear to be that important for any facet of CWB when compared with the other six emotions.

Finally, jealousy and anxiety also did not predict any facet of CWB. One potential explanation could be that the other emotions were more important than jealousy or anxiety in predicting the sub facets of CWB. For instance, feelings of shame may be more important than feelings of anxiety when predicting withdrawal behaviors. For anxiety, this rationale is plausible. Feelings of shame have direct implications for the ego (Tangney & Fischer, 1995) that may not be present in feelings of anxiety. Thus, feelings of shame may be perceived as more aversive in the workplace. However, this explanation is not adequate in regards to jealousy. Feelings of jealousy are often more intense than feelings of envy (Boone, 2005). Since jealousy and envy were expected to both related to some of the same behaviors (i.e. social undermining and withdrawal

behaviors), feelings of jealousy would be expected to be a better predictor than feelings of envy. It is not clear why jealousy did not predict any facets of CWB.

Comparison of Employee and Supervisor Data

Despite the employee data supporting the hypotheses, analysis of the supervisor reported CWB did not yield similar results. There were several significant differences between the employee and supervisor data when comparing the correlations between emotions and CWB. Hypotheses 1 through 4 and 7 were only partially supported while hypotheses 5 and 6 received no support. In regards to the multiple regressions, negative emotions were unable to predict three of the CWB facets (i.e. production deviance, withdrawal behaviors, and horseplay). When negative emotions could be used to predict the CWB facets, anger was the most important emotion. Shame was also a significant predictor of sabotage but the beta weight was negative so this is again evidence of suppression. A final difference between the employee and the supervisor results was the moderated regressions. Shame and anger interacted to predict a few facets of CWB (i.e. abuse, production deviance, and social undermining) among the employee data, while boredom and anger interacted to predict sabotage, abuse, production deviance, and social undermining, when using the supervisor data. Boredom and anger did interact to predict theft when using the employee data, but these results were not duplicated in the analyses of the supervisor data. An explanation for these results is not apparent. There are definitely differences between the supervisor and employee reported CWB but it is puzzling that the second research question was supported by the employee data while the first research question was supported by the supervisor data.

There are several potential explanations for the discrepancies between the employee and supervisor reported CWB. The first issue could be the sample size. The employee data had 241 cases while the supervisor data only had 103 cases. This could explain why fewer correlations were significant when using the supervisor data. However, the t-tests for dependent samples were conducted with equivalent sample sizes ($N = 103$). With equal sample sizes, the correlations derived from the employee data and from the supervisor data still yielded significantly different results in 12 out of 49 cases. Therefore, it is likely that there is some systematic explanation for the discrepancies. Since the employee data were obtained from a self-report survey, common method variance could explain the higher correlations among the employee data. If common method variance was the culprit, higher correlations would be expected for all of the relationships between emotions and the facets of CWB. However, there are instances where the correlations derived from the supervisor data were significantly larger than the correlations derived from the employee data. For instance, the correlation coefficient between anger and sabotage was .38 while the employee correlations coefficient was .12 with a sample of 102. Thus, the role of common method variance cannot be determined in the current study but there is some evidence to suggest that it may not be responsible for all of the differences between the employee and supervisor reported data.

To best account for the differences between the employee and supervisor reported data, it is useful to discuss the differences between the two sources in regards to CWB. An employee is at risk of being punished if their supervisor is aware that they commit CWBs. Thus, it is usually in the best interest of the employee to hide such behaviors from the supervisor. Some types of CWB are harder to hide than others. For instance, taking an

extra long break is less likely to be noticed than acts of physical abuse. Out of all the hypothesized relationships that did not reach significance with the supervisor data (N = 10), six of the correlations were between the negative emotions and withdrawal behaviors. This may be due to the supervisor's inability to accurately monitor withdrawal behaviors. Supervisors, therefore, may not have an accurate impression of the frequency of CWB because they are unable to observe all of the CWBs committed by the employee. Similarly, a supervisor is often responsible for more than one employee and it could become difficult to accurately remember the frequency of each subordinate's CWBs. In contrast, an employee may have a more accurate account of their own behaviors than other people within the organization (Fox, Spector, Goh, & Bruursema, 2007). The different correlations derived from employee and supervisor data may be due to inaccuracies in the supervisor reports of CWB.

Comparing the Two Sets of Emotion Measures

Two sets of scales were included in the current study to measure each negative emotion. The first set of scales was the full version that was comprised of several items. The second set of scales was comprised of two items that referenced two adjectives related to the negative emotion of interest. The differences in the correlations of the two versions with the CWB facets were not significantly different for sadness, anxiety, and jealousy. However, there were significant differences among the anger, boredom, envy and shame scales. The full version of the scale yielded larger correlations in all instances where the correlations were significantly different. Researchers should be careful about which versions of the scales they choose to use when investigating CWB. The shorter

adjective versions may be adequate when measuring sadness, anxiety, and jealousy.

However, the full version scales should be used when measuring anger, boredom, envy, and shame.

Limitations

The current study has several limitations. First, the organizational tenure of the employees was rather low (Mean = 2.3 years). The frequency and type of CWB may change as the age and tenure of the employee increases. More experienced employees may experience less negative emotions because they are more satisfied and committed to the organization. It is also possible that more experienced employees encounter the same frequency of negative emotions but they are better able to handle the emotions. For instance, an experienced employee might choose alternative behaviors to CWB. Similarly, an experienced employee could be better at avoiding detection when they commit CWB. The current study is unable to explore these possibilities so future research should seek a more generalizable sample.

A second limitation of the current study is that it was cross sectional. Since all of the study variables were measured at one time, it is not possible to determine the causality of the relationships. Although negative emotions were found to predict certain CWBs, committing CWB is likely to lead to negative feelings (i.e. guilt and shame). Therefore, future research should include experimental or longitudinal designs to investigate situations that might influence the causality of these relationships.

Some of the CWB facets had low reliabilities but this is not a limitation. If a measure is thought to be influenced by its associated construct, than it should have a high

level of reliability because the items that comprise the measure are thought to reflect the same underlying construct. However, if the measure is believed to form or define the associated construct, then the measure may have a low level of reliability because the individual items are no longer assumed to be influenced by the same underlying construct (Edwards & Bagozzi, 2000). Behavioral checklists, such as the CWB-C scale, are comprised of individual behaviors that are assumed to define the construct of interest but are not expected to be interchangeable. (Edwards & Bagozzi, 2000; Spector et al, 2006). For instance, physical assault and purposefully ignoring someone are both examples of abuse but they are not equivalent behaviors. Thus, the low reliabilities among the CWB-C facets are not a cause for concern.

Conclusion

The current study was one of the first to investigate the relationship between multiple negative emotions and several facets of CWB. In general, the results provide some evidence to suggest that discrete emotions are legitimate predictors of organizational behaviors. Similarly, the results also support the stressor emotion-model (Spector & Fox, 2002). Although I am unable to discuss causality, a wide range of negative emotions appear to be differentially related to CWBs. Similarly, analysis of the employee data revealed that some negative emotions are more important in predicting facets of CWB than anger (i.e. envy, shame, boredom, sadness, and anger). This is an interesting finding because anger has been traditionally considered the most important emotion in predicting CWB. The inconsistency in results between the employee and supervisor data is also important. The results of the current study may provide indirect

evidence of a systematic discrepancy between sources in reporting CWB. Finally, this is one of the first studies to demonstrate that emotions can interact to predict workplace behaviors. Employees are able to experience several emotions at the same time and the results suggest that certain combinations are associated with incrementally higher amounts of CWB. Therefore, organizations should be concerned about most types of negative emotions and they should strive to create policies and cultures that are oriented towards attenuating such feelings.

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Appendix A:
Extra Information

Appendix A

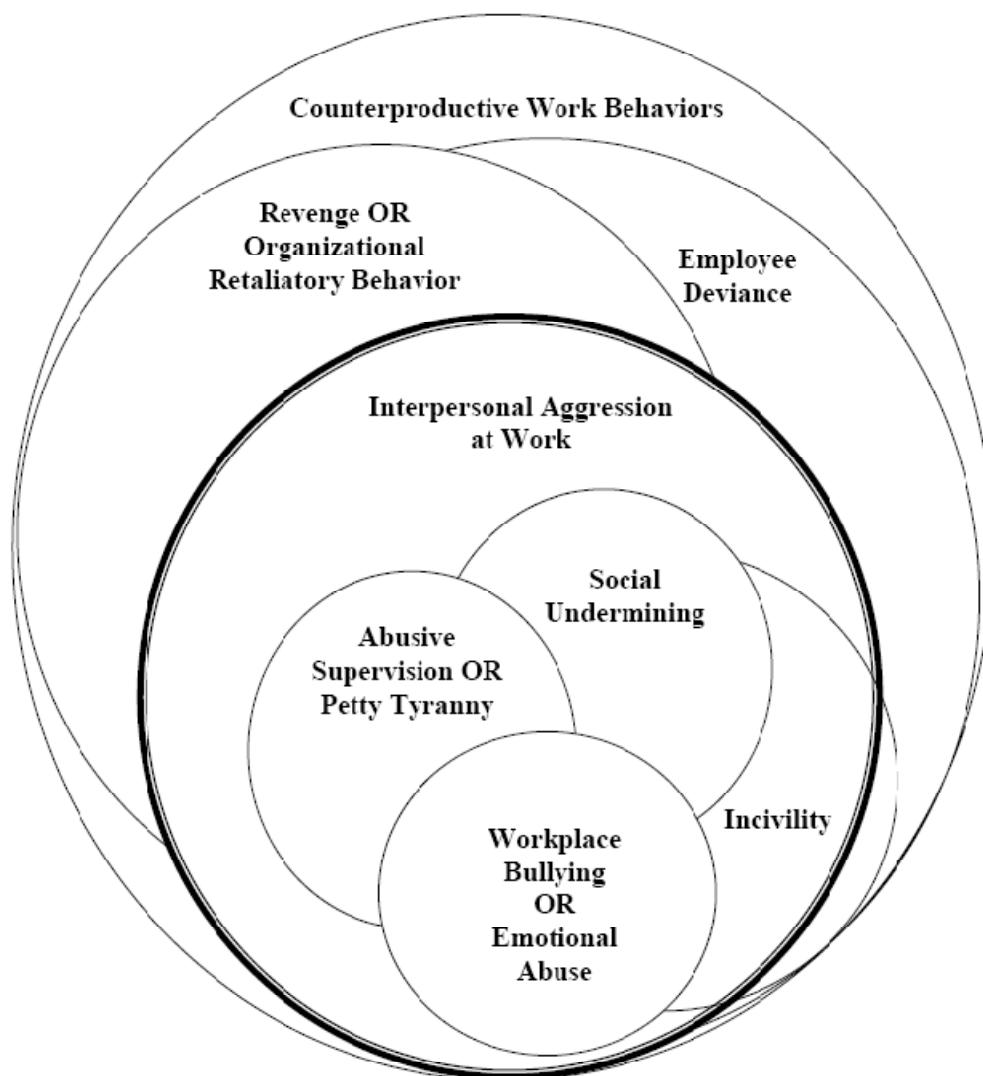


Figure 1A. Illustration of how the CWB and related constructs overlap (Raver, 2005).

Appendix A (Continued)

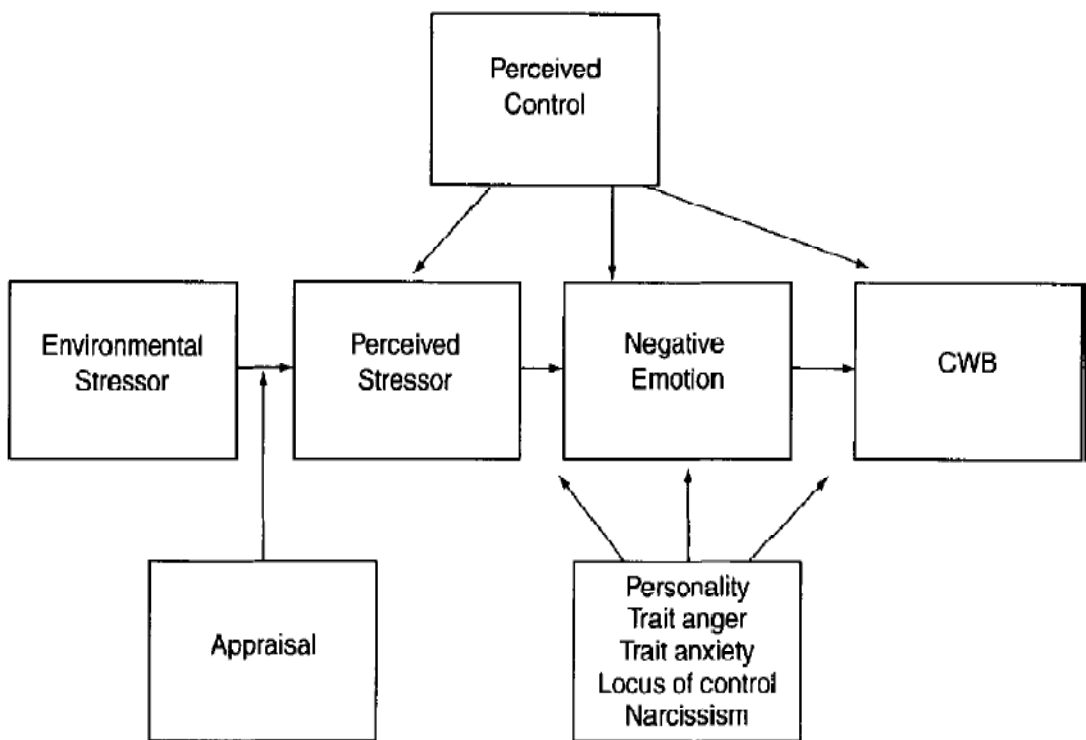


Figure 7.1. Stressor-emotion model of counterproductive work behavior.

Figure 2A. Reproduced stressor-emotion model from Spector & Fox (2005).

Appendix A (Continued)

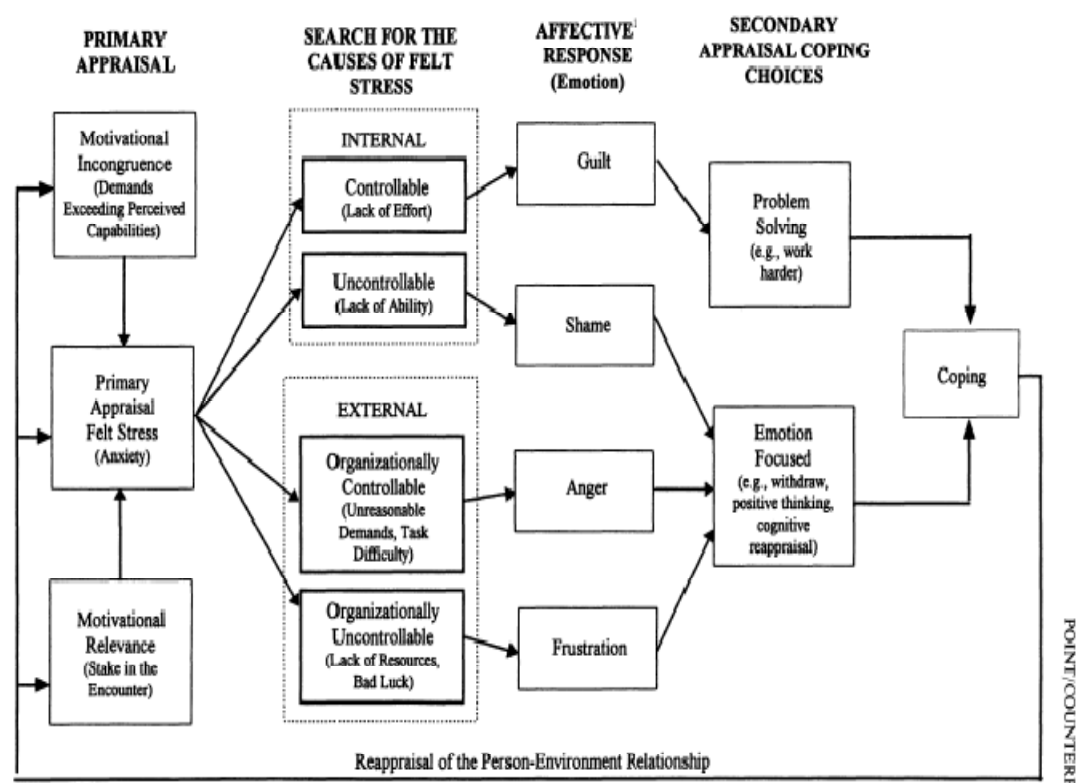


Figure 1. Transactional attributional model of the organizational stress process (Examples of probable emotions due in large part to the attributional sequence.)

POINT/COUNTERPOINT
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Figure 3A. A reproduction of Perrewé & Zellar's (1999) appraisal-attribution model.

Appendix A (Continued)

#	Hypothesis	Analyses
1	Workplace anger will positively relate to withdrawal behaviors, theft, production deviance, abuse, sabotage, and social undermining.	Correlation Multiple Regression
2	Shame will positively relate to withdrawal behaviors and aggressive behaviors (i.e. abuse, social undermining, and sabotage).	Correlation
3	Envy will positively relate to theft, social undermining, and withdrawal behaviors.	Correlation Multiple Regression
4	Workplace jealousy will positively relate to social undermining, abuse, and withdrawal behaviors.	Correlation Multiple Regression
5	Anxiety will positively relate to withdrawal behavior	Correlation Multiple Regression
6	Sadness will positively relate to withdrawal behaviors.	Correlation Multiple Regression
7	Boredom will positively relate to withdrawal behaviors, theft, production deviance, abuse, sabotage, social undermining and horseplay.	Correlation Multiple Regression
R.Q.	How do these emotions interact to predict CWB? Anger X Boredom Anger X Shame	Moderated Regression

Figure 4A. Summary of Hypotheses and Proposed Analyses

Appendix A (Continued)

	Abuse	Theft	Sabotage	Production Deviance	Withdrawal	Social Undermining	Horseplay
Anger	✓	✓	✓	✓	✓	✓	
Shame	✓		✓		✓	✓	
Envy		✓			✓	✓	
Jealousy	✓				✓	✓	
Anxiety					✓		
Sadness					✓		
Boredom	✓	✓	✓	✓	✓	✓	✓

Figure 5A. Expected Relationships Among Study Variables

Appendix B:
Survey Materials

Appendix B

The questions that follow all deal with your feelings within the organization. Please answer them while thinking about your **current job**.

Instructions. Please use the following scale to indicate how often you experience each of the following statements in the **past month**.

<p>How often have you experienced each of the statements below in the last month at your present job?</p> <p>In the past month I have experiences the following at work</p>	<p>0 times Once 2-3 times 4-5 times 6 or more</p>
1. Became distressed by how slowly the day passes by.	1 2 3 4 5
2. Suffered from a lack of mental stimulation.	1 2 3 4 5
3. Became sluggish	1 2 3 4 5
4. Felt uninterested	1 2 3 4 5

Figure 1B. Workplace Boredom Scale

Appendix B (Continued)

How often have you experienced each of the statements below in the last month at your present job ?	0 times	Once	2-3 times	4-5 times	6 or more
1. Felt Calm.	1	2	3	4	5
2. Felt Furious.	1	2	3	4	5
3. Felt Strong.	1	2	3	4	5
4. Felt Tense.	1	2	3	4	5
5. Felt like banging on the table.	1	2	3	4	5
6. Felt at ease.	1	2	3	4	5
7. Felt angry.	1	2	3	4	5
9. Felt worried over possible misfortunes.	1	2	3	4	5
10. Felt like kicking somebody.	1	2	3	4	5
11. Felt nervous.	1	2	3	4	5
12. Felt like breaking things.	1	2	3	4	5
13. Felt jittery.	1	2	3	4	5
14. Felt mad.	1	2	3	4	5
15. Felt relaxed.	1	2	3	4	5
16. Felt irritated.	1	2	3	4	5
17. Felt worried.	1	2	3	4	5
18. Felt like hitting someone.	1	2	3	4	5
19. Felt steady.	1	2	3	4	5
20. Felt annoyed.	1	2	3	4	5
21. Felt frightened.	1	2	3	4	5

Figure 2B. STPI Anger & Anxiety

Appendix B (Continued)

How often have you experienced each of the statements below in the last month at your present job ?	0 times	Once	2-3 times	4-5 times	6 or more
1. Felt blue.	1	2	3	4	5
2. Felt miserable.	1	2	3	4	5
3. Felt downhearted.	1	2	3	4	5
4. Felt alive.	1	2	3	4	5
5. Felt sad.	1	2	3	4	5
6. Felt safe.	1	2	3	4	5
7. Felt gloomy.	1	2	3	4	5
8. Felt burned up.	1	2	3	4	5
9. Felt healthy.	1	2	3	4	5
10. Felt hopeful about the future.	1	2	3	4	5

Figure 3B. State-Trait Depression Subscale (Speilberger, 1979)

Appendix B (Continued)

How often have you experienced each of the statements or displayed each of the behaviors below in the last month at your present job ?	0 times	Once	2-3 times	4-5 times	6 or more	Once or twice per week
1. Felt ashamed of any of your personal habits?	1	2	3	4	5	
2. Tried to cover up or conceal your personal habits?	1	2	3	4	5	
3. Felt ashamed of your manner with others?	1	2	3	4	5	
4. Avoided people because of your manner?	1	2	3	4	5	
5. Felt ashamed of the sort of person you are?	1	2	3	4	5	
6. Tried to conceal from others the sort of person you are?	1	2	3	4	5	
7. Felt ashamed of your ability to do things?	1	2	3	4	5	
8. Avoided people because of your inability to do things?	1	2	3	4	5	
9. Felt ashamed because you did something wrong?	1	2	3	4	5	
10. Tried to cover up or conceal things you felt ashamed of having done?	1	2	3	4	5	
11. Felt ashamed of your body or any part of it?	1	2	3	4	5	
12. Avoided looking at yourself in the mirror?	1	2	3	4	5	
13. Wanted to hide or conceal your body or any part of it?	1	2	3	4	5	

Figure 4B. Experience of Shame Scale (Andrews, Qian, and Valentine, 2002)

Appendix B (Continued)

How often have you experienced each of the statements below in the last month at your present job ?	0 times	Once	2-3 times	4-5 times	6 or more
1. Felt that you lacked what others tend to have	1	2	3	4	5
2. Felt bitter	1	2	3	4	5
3. Felt envious	1	2	3	4	5
4. Felt resentment or bitterness against others	1	2	3	4	5
5. Yearned over what others have	1	2	3	4	5
6. Felt others have things going better than you do	1	2	3	4	5
7. Felt irritated or annoyed	1	2	3	4	5
8. Felt hatred towards others	1	2	3	4	5
9. Felt resentment or ill will toward others	1	2	3	4	5
10. Felt that a third party has threatened an important relationship of mine.	1	2	3	4	5
11. Felt that a third party has troubled an important relationship of mine.	1	2	3	4	5
12. Felt jealous of someone.	1	2	3	4	5
13. Felt concerned that someone is becoming too close to someone who you think is important.	1	2	3	4	5
14. Felt that another person was going to replace you in an important relationship.	1	2	3	4	5
15. Felt jealous of someone else's relationship.	1	2	3	4	5

Figure 5B. Envy and Jealousy Items

Appendix B (Continued)

How often have you experienced each of the following emotions at work in the past month ?	0 times	Once	2-3 times	4-5 times	6 or more
1. Anxious	1	2	3	4	5
2. Angry	1	2	3	4	5
3. Envious of someone	1	2	3	4	5
4. Worried	1	2	3	4	5
5. Jealous of someone	1	2	3	4	5
6. Sad	1	2	3	4	5
7. Bored	1	2	3	4	5
8. Ashamed	1	2	3	4	5
9. Depressed	1	2	3	4	5
10. Irritated	1	2	3	4	5
11. Desirous of something someone has	1	2	3	4	5
12. Disinterested	1	2	3	4	5
13. Threatened that someone would take a relationship away	1	2	3	4	5
14. Disgraced	1	2	3	4	5

Figure 6B. Emotional Adjective List.

Appendix B (Continued)

How often have you done each of the following things on your present job in the last month ?	0 times	Once	2-3 times	4-5 times	6 or more
1. Purposely wasted your employer's materials/supplies	1	2	3	4	5
2. Daydreamed rather than did your work	1	2	3	4	5
3. Complained about insignificant things at work	1	2	3	4	5
4. Told people outside the job what a lousy place you work for	1	2	3	4	5
5. Purposely did your work incorrectly	1	2	3	4	5
6. Came to work late without permission	1	2	3	4	5
7. Stayed home from work and said you were sick when you weren't	1	2	3	4	5
8. Purposely damaged a piece of equipment or property	1	2	3	4	5
9. Purposely dirtied or littered your place of work	1	2	3	4	5
10. Stolen something belonging to your employer	1	2	3	4	5
11. Started or continued a damaging or harmful rumor at work	1	2	3	4	5
12. Been nasty or rude to a client or customer	1	2	3	4	5
13. Purposely worked slowly when things needed to get done	1	2	3	4	5
14. Refused to take on an assignment when asked	1	2	3	4	5
15. Purposely came late to an appointment or meeting	1	2	3	4	5
16. Failed to report a problem so it would get worse	1	2	3	4	5
17. Taken a longer break than you were allowed to take	1	2	3	4	5
18. Purposely failed to follow instructions	1	2	3	4	5

19. Left work earlier than you were allowed to	1	2	3	4	5
20. Insulted someone about their job performance	1	2	3	4	5
21. Made fun of someone's personal life	1	2	3	4	5
22. Took supplies or tools home without permission	1	2	3	4	5
23. Tried to look busy while doing nothing	1	2	3	4	5
24. Put in to be paid for more hours than you worked	1	2	3	4	5
25. Took money from your employer without permission	1	2	3	4	5
26. Ignored someone at work	1	2	3	4	5
27. Refused to help someone at work	1	2	3	4	5
28. Withheld needed information from someone at work	1	2	3	4	5
29. Purposely interfered with someone at work doing his/her job	1	2	3	4	5
30. Blamed someone at work for error you made	1	2	3	4	5
31. Started an argument with someone at work	1	2	3	4	5
32. Stole something belonging to someone at work	1	2	3	4	5
33. Verbally abused someone at work	1	2	3	4	5
34. Made an obscene gesture (the finger) to someone at work	1	2	3	4	5
35. Threatened someone at work with violence	1	2	3	4	5
36. Threatened someone at work, but not physically	1	2	3	4	5
37. Said something obscene to someone at work to make them feel bad	1	2	3	4	5
38. Hid something so someone at work couldn't find it	1	2	3	4	5
39. Did something to make someone at work look bad	1	2	3	4	5
40. Played a mean prank to embarrass someone at work	1	2	3	4	5
41. Destroyed property belonging to someone at work	1	2	3	4	5
42. Looked at someone at work's private mail/property without permission	1	2	3	4	5
43. Hit or pushed someone at work	1	2	3	4	5
44. Insulted or made fun of someone at work	1	2	3	4	5
45. Avoided returning a phone call to someone you should at work	1	2	3	4	5

Figure 7B. Counterproductive Work Behavior Checklist (CWB-C) (45-item)

Appendix B (Continued)

How often have you done each of the following things on your present job in the last month ?	0 times	Once	2-3 times	4-5 times	6 or more	Once or twice
1. Created or engaged in a non work-related game or activity to entertain myself and/or others during a meeting, seminar, or training session	1	2	3	4	5	
2. Used the internet to browse, blog, email, or otherwise amuse myself for non work-related purposes	1	2	3	4	5	
3. Engaged in amusing activities such as gossiping or joking with co-workers that distract me and others from work	1	2	3	4	5	
4. Played practical jokes on co-workers or customers to entertain myself and/or co-workers during work time	1	2	3	4	5	
5. Wasted company resources or supplies to create something for my own purposes or to amuse myself or others.	1	2	3	4	5	

Figure 8B. Bruursema (2007) Horseplay items

Appendix B (Continued)

How often has the target subordinate done each of the following things on your present job in the last month ?	0 times	Once	2-3 times	4-5 times	6 or more	Once or twice per week
1. Spread rumors about someone?	1	2	3	4	5	
2. Delayed work to slow someone down or make someone look bad?	1	2	3	4	5	
3. Talked bad about someone behind their back?	1	2	3	4	5	
4. Criticized the way someone handle things on the job in a way that was not helpful?	1	2	3	4	5	
5. Did not give as much help as they promised?	1	2	3	4	5	
6. Competed with someone for status or recognition?	1	2	3	4	5	
7. Let you know that he or she did not like someone?	1	2	3	4	5	
8. Did not defend someone even though he or she knew others had spoken poorly of him/her?	1	2	3	4	5	

Appendix B (Continued)

Employee Copy

How often has the target subordinate done each of the following things on your present job in the last month ?	0 times	Once	2-3 times	4-5 times	6 or more	Once or twice per week
1. Spread rumors about someone?	1	2	3	4	5	
2. Delayed work to slow someone down or make someone look bad?	1	2	3	4	5	
3. Talked bad about someone behind their back?	1	2	3	4	5	
4. Criticized the way someone handle things on the job in a way that was not helpful?	1	2	3	4	5	
5. Did not give as much help as you promised?	1	2	3	4	5	
6. Competed with someone for status or recognition?	1	2	3	4	5	
7. Let someone know that you did not like another person?	1	2	3	4	5	
8. Did not defend someone even though you knew others had spoken poorly of him/her?	1	2	3	4	5	

Figure 9B. Social Undermining 112(Duffy, 2002)

Appendix B (Continued)

Employee Instructions

(15 minutes to complete)

1. Go to the link below. This is the employee part of the survey
www.surveymonkey.com/s/employeejeremythesis
2. Generate a code (instructions are provided on the survey).
3. **Write down the code on the “supervisor instructions” page** (right hand corner of attached sheet).
4. Complete the survey as truthfully as possible
5. Give your supervisor the attached supervisor sheet.

Thank you for your participation. Please contact me if you have any questions.

Jeremy A. Bauer, Doctoral Student
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Department of Psychology
University of South Florida

Supervisor Instructions

(5-10 minutes to complete)

Secret Code _____

One of your employees has agreed to participate in a study focused on workplace behaviors. We are asking the employee and his/her supervisor to complete a brief survey. Please follow the directions below to complete the survey. Additional information about the study will be presented once you access the survey.

1. Go to the link below.
www.surveymonkey.com/s/supervisorjeremythesis
2. Enter the secret code (see top right of page).
3. Complete the survey in regards to the employee who handed you these instructions.
4. Do not discuss your answers with the employee until after you have finished.

Thank you for your participation. Please contact me if you have any questions.

Jeremy A. Bauer, Doctoral Student
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Figure 10B. Instruction Booklet