Counterproductive Work Behaviors, Justice, and Affect: A Meta-Analysis

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COUNTERPRODUCTIVE WORK BEHAVIORS, JUSTICE, AND AFFECT: A META-ANALYSIS

by

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B.S. Florida State University, 2012

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in the Department of Psychology in the College of Sciences at the University of Central Florida Orlando, Florida

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ABSTRACT

Counterproductive work behaviors (CWBs) are an expensive phenomenon for organizations, costing billions of dollars collectively each year. Recent research has focused on justice perceptions as predictors of CWBs, but little research has been conducted on the specific types of counterproductive work behaviors (i.e., sabotage, withdrawal, production deviance, abuse, and theft) that result from specific organizational justice perceptions (i.e., distributive, procedural, interpersonal, and informational) and the mediating effect of state affect. The current paper meta-analyzed the relationships between justice, CWB, and state affect and found that justice was negatively related to dimensions of CWB and state positive/negative affect were negatively/positively related to CWB dimensions, respectively. However, mediation of the relationship between justice and CWB by state affect was inconsistent across justice types and CWB dimensions. These findings suggest that, while managers should maintain an awareness of justice and state affect as individual predictors of CWBs, the current study does not necessarily support the claim that state affect explains the relationship between justice and counterproductive work behavior dimensions.
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CHAPTER 1

Introduction

Counterproductive work behaviors (CWBs) are an expensive phenomenon for an organization, costing over four billion dollars in addition to human-related costs such as low morale and turnover (Frost, 2007; Greenberg, 1998). Even inoffensive, low-intensity CWBs can have an effect on targets, including decreased job satisfaction, job withdrawal, and increased psychological distress (Cortina, Magley, Williams, Langhout, 2001). Both situational and individual differences can prelude counterproductive work behaviors, depending on the cognitive processing of the offender (Martinko, Gundlach, & Douglas, 2002). This meta-analysis evaluates justice as a situational antecedent of CWB, and affect as an individual difference that mediates the relationship between justice and counterproductive work behaviors.

Research examining affect and counterproductive work behaviors has been produced continuously throughout past decades, but there has been a particularly large volume of studies published since 2012 (Shockley, Ispas, Rossi, & Levine, 2012; Sakurai & Jex, 2012; Lemay, Overall, & Clark, 2012; Balducci, Cecchin, Fraccaroli, & Schaufeli 2012; Cohen, Panter, & Turan, 2012; Holtom, Burton, & Crossley, 2012). Primary studies have tended to focus on the correlations between positive affect and organizational citizenship behaviors, as well as negative affect and CWBs (Richards & Schat, 2011). Meanwhile, meta-analytic studies in this area have concentrated on predictors of job performance (Borman, Penner, Allen, & Motowidlo, 2001; Dalal, 2005; Kaplan, Bradley, Luchman, & Haynes, 2009; Lyubomirsky, King, & Diener, 2005; Organ & Ryan, 1995), but it was not until the work of Shockley et al., (2012) that a meta-
analysis had been conducted on emotions and counter-productive work behaviors. More recently, Colquitt et al., (2013) meta-analyzed the relationship between justice dimensions, counterproductive work behaviors (organizational and interpersonal) and state affect. However, to date, there has not been meta-analytic research examining state affect, justice in the workplace, and counterproductive work behaviors of samples containing only employed individuals (i.e., Colquitt et al., 2013 included samples of unemployed participants); and there has been no meta-analytic research of this type that has focused on the five subdimensions of counterproductive work behavior (i.e., sabotage, abuse, production deviance, withdrawal, theft; Spector et al., 2006). In the current paper, I meta-analyze the relationship between justice perceptions and counterproductive work behaviors, while also evaluating the mediating effects of state affect while including only primary studies that involved employed individuals in real work settings.

In my review, I combine research highlighting discrete emotions, state affect, various types of justice in the workplace, and counterproductive work behaviors, to include organization-targeted versus person-targeted CWB as well as the five subdimensions of CWB (i.e., sabotage, withdrawal, production deviance, abuse, and theft). I then focus on how positive affect and negative affect mediate the relationship between organizational justice perceptions and CWBs. Prior work has assessed predictors of counterproductive work behaviors including emotional exhaustion (Banks, Whelpley, Oh, & Shin, 2012), self control (Marcus & Schuler, 2004; Restubog, Garcia, Wang, & Cheng, 2010), tenure (Yang & Diefendorff, 2009), and Big Five personality traits (Berry, Ones, & Sackett, 2007) and this meta-analysis adds to this literature by contributing to the prediction of CWBs in real-world settings.
**Counterproductive Work Behaviors**

Counterproductive work behavior, also known as workplace deviance, is a component of job performance that has been defined by Fox and Spector (2005) as the spectrum of actions that harm employees or organizations. This is not to be confused with workplace incivility, or actions that diverge from any organizational norm (Bunk & Magley, 2013); it is instead a voluntary action that the employee performs with the objective of harming the organization (Conlon, Meyer, & Nowakowski, 2005; Fox & Spector, 1999; Robinson & Bennett, 1995). The voluntary nature of CWBs comes from employees lacking the motivation to conform to normative expectations of the organizations, and/or becoming motivated to violate these expectations (Kaplan, 1975). Fox and Spector (2005) note that this spectrum of deviant actions can range from severe, deliberate aggression to the ambiguous occurrences of intentional carelessness. Another way to organize counterproductive work behaviors is active (e.g., theft, aggression, sabotage, etc.) versus passive (e.g., withdrawal) as described by Buss (1961) and Conlon et al. (2005). The targets of these actions vary as well; the actions may be organization-targeted (CWB-O) or interpersonal (CWB-I) where the behavior is targeted toward others in the organization including supervisors and/or peers (Hershcovis, Turner, Barling, Inness, LeBlanc, Arnold, Dupre, & Sivanathan, 2007). A test performed by Bennett and Robinson (2000) supported this separation of dimensions into CWB-I and CWB-O and a meta-analysis conducted by Dalal et al. (2005) showed that CWB-I and CWB-O are related, \( \rho = .70 \).

While the CWB-I and CWB-O distinction is useful in describing the separate targets of counterproductive work behaviors, a more fine-grained distinction may allow us to gain a better understanding of why specific counterproductive behaviors are committed.
Specifically, Spector et al. (2006) proposed five primary categories of counterproductive work behaviors: sabotage (i.e., wasting materials/supplies, damaging equipment/property, destroying the atmosphere of the office); withdrawal (i.e., absenteeism, tardiness, leaving work early, taking excessive or long breaks); production deviance (i.e., doing work incorrectly or slowly, failing to follow instructions); abuse (i.e., making offensive comments, starting arguments or making rude gestures, threatening or harming others, disrespecting privacy); and theft (i.e., taking items from office or employees, incorrectly reporting hours worked). While some researchers have broken down the CWB categories to more than five dimensions, other taxonomies of CWB can be collapsed into Spector et al.’s (2006) five CWB dimensions. For example, the eleven-factor model proposed by Gruys and Sackett (2003) includes theft and related behavior, which match the theft category of the five-factor model; destruction of property, misuse of information, and misuse of time and resources, which are analogous to sabotage behaviors; unsafe behavior and poor quality work falling under production deviance; poor attendance, alcohol use, and drug use relating to withdrawal behaviors; and lastly inappropriate verbal actions and inappropriate physical actions comprising the fifth category of abuse. Therefore, in the current paper, I use Spector et al.’s (2006) five CWB dimensions.

This meta-analysis evaluates justice as a predictor of the dimensions related to CWB targets (i.e., CWB-I and CWB-O) as well as the five dimensions of CWBs and overall counterproductive work behaviors (to accommodate the research that continues to combine all CWBs despite the support for dimensionalizing; Douglas & Martinko, 2001; Hepworth & Towler, 2004). I do not include turnover intentions in this meta-analysis because, although it was included in Colquitt et al.’s study (2013) as a withdrawal behavior, turnover intentions are
conceptually closer to attitudes and do not reflect specific behavior, even though they may predict specific behaviors (Dong-Hwan Cho & Jung-Min Son, 2012).

Despite prior research on counterproductive work behaviors, meta-analytic work has ignored the five dimensional structure of CWBs and has tended to focus on broad CWB or the relationship between CWB-I and CWB-O. In this study, I examine the extent to which justice perceptions predict overall CWB, CWB-I, CWB-O, and, the five dimensions of CWB. This contributes to the literature in the following ways: First, by evaluating the five dimensions of CWB, CWB-I and CWB-O, as well as overall CWB, I offer a comparative assessment of how justice types, state affect, and various CWB dimensions are related. Second, by conservatively meta-analyzing only primary studies involving employed individuals in real work settings, the findings can be more confidently generalized to organizational contexts. Third, because the five types of CWB have not been meta-analyzed in the past, I am conducting the first evaluation of how justice types and state affect relate to these dimensions of CWB. I am also conducting the first meta-analysis of the relationships among the five CWBs. Fourth, I am determining whether these relationships between justice perceptions and counterproductive work behaviors are mediated by state affect.

Justice

Organizational justice is the overarching term for an employee’s perception of whether an organization’s actions are fair. Research suggests that perceptions of injustice are the most common cause of counterproductive work behaviors (Ambrose, Seabright, & Schminke, 2002; Felson & Steadman, 1983). Skarlicki et al. (1999) found that negative affect moderates the
relationship between perceived injustice and organizational retaliatory behavior. Further, justice perceptions have been shown to correlate with emotions (Cropanzano & Baron, 1991) and this relationship appears to be reciprocal; injustice perceptions may lead to negative emotional responses and conversely, negative affect may lead to higher likelihood of judging an event as unjust (Barsky & Kaplan, 2007; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003). Barsky and Kaplan (2007) also found that both state and trait negative affect increase injustice perceptions on all dimensions of the three types of justice: distributive, procedural, and interactional injustice.

Distributive injustice is perceived when there is not an equal distribution of outcomes and resources (Adams, 1965). For example, if a company is giving holiday bonuses, entry-level employees may perceive distributive injustice if the majority of bonus money is given to senior executives. Another angle of this example may show how justice perceptions are unique to the individual. One employee may assume that bonuses are calculated by a percentage of salary, thus allocating a larger amount for higher-paid executives; this employee would not likely perceive injustice. However, another individual in the same position may attribute the difference to greed and inequality. When distributive injustice is perceived, the individual may react by counterproductively reducing inputs, or by acting aggressively toward the person who appears to be the cause of the injustice (Cohen-Charash & Spector, 2001).

Procedural justice is perceived when there is fairness of the processes used to determine outcomes (Thibaut & Walker, 1975). This is often an issue when promotions are available in an organization. If two employees are competing for the promotion, a hard-working employee who consistently volunteers for projects and strives to communicate with fellow employees for team
effectiveness may perceive procedural injustice if his colleague, who is known for causing arguments and frequently running late on assignments, gets the offer. Procedural justice is related to implementation at the organizational level (Aquino, Lewis, & Bradfield, 1999) and therefore more likely to be related to counterproductive work behaviors that are directed toward the organization (Skarlicki & Folger, 1997).

The third dimension of organizational justice, interactional justice, is the perceived compatibility between the employee and another organization member (Boulding, 1963). There are two subcomponents of interactional justice (Greenberg, 1993). The first is interpersonal justice, which is perceived when organizational members treat the employee with respect and consideration (Greenberg, 1993). Interpersonal justice is arguably the most robust antecedent of CWB out of the four types of injustice (Aquino et al., 1999; Bies & Moag, 1986; Judge, Scott, & Illies, 2006; Miller, 2001; Robinson & Greenberg, 1998; Tripp, Bies, & Aquino, 2007). The second component of interactional justice is informational justice, which is determined by the amount and quality of information and disclosure entrusted to the employee (Greenberg, 1993). One common instance in which overall interactional injustice is likely to be perceived is when an organization is laying off employees. If management does not use discretion when dismissing employees, and if they do not provide explanation of the events underway, employees, even retained members, may perceive both interpersonal and informational injustice. Because this type of injustice is the result of two employees interacting, the subsequently elicited CWB is more commonly interpersonal in nature (Hershcovis, et al. 2007).

It is important to note that justice is not rigidly defined based on the actions of an organization. It is dependent on the perceptions of the individual witnessing these actions. Thus,
justice perceptions vary from one individual to the next. These perceptions are then used to determine behavior such as turnover, job seeking behaviors, and importantly, counterproductive work behaviors (Skarlicki & Folger, 1997; Folger, 1993; Greenberg, 1993; Jermier, Knights, & Nord, 1994). When an employee feels that there have been unfair decisions, regardless of whether there is actually bias or deliberate inequality, the employee is more likely to intentionally take actions that harm or go against the organization. The group value model of justice (Lind & Tyler, 1988) states that individuals find justice important because it portrays how the group views the person. When an individual feels they have been treated with fairness, they are more likely to feel respected and positive about the organization (Bies & Moag, 1986; Tyler, DeGoey, & Smith, 1996). However, if they feel unjustly treated, they are more likely to experience negative feelings of inferiority and worthlessness (Lind & Tyler, 1988).

**Counterproductive Work Behaviors and Justice**

The fairness heuristic theory states that individuals use cognitive shortcuts to ensure justice perception are easily available when making decisions about engaging in a cooperative fashion in organizational and social settings (Lind, 2001). This theory suggests that employees do not typically require a recent episode of injustice to partake in uncooperative actions such as counterproductive work behaviors. Instead, they store information about just and unjust events to create globalized justice perceptions (Priesemuth, Arnaud, & Schminke, 2013), which will be used at a later date, such as when the employee is contemplating whether to commit counterproductive work behaviors.
In addition, the social learning theory (Bandura, 1977) and the social information processing theory (Salancik & Pfeffer, 1978) state that an employee learns unjust behaviors and their cues, then he/she recalls and reacts to these cues at a future time by eliciting the corresponding behavior (Priesemuth et al., 2013). This would result in counterproductive work behaviors if the original action leading to perceived injustice were itself a counterproductive work behavior (e.g., aggressive actions). The employee would learn this behavior and its cues (e.g., a disagreement with clients) and may exhibit aggression in the future when prompted by interpersonal disagreements.

Also, the group value and group engagement models (Tyler, 1989; Tyler & Blader, 2000, 2001) suggest that when an employee is in a group that is treated fairly, the individual experiences feelings of pride and positivity; these high spirits lead to identification with the group and positive group-oriented behavior. Conversely, when the individual is part of a group that has been treated unfairly, there is less engagement with the group and the perceptions of injustice foster more self-serving behaviors, decreasing cohesion and attachment and leading to deviant behaviors such as withdrawal (Priesemuth et al., 2013).

The esteem threat framework (Baumeister, Smart, & Boden, 1996) is one of the dominant social psychological models that illustrate why one would engage in deviant behavior after experiencing an unjust situation (Ferris, Spence, Brown, & Heller, 2012). In cases where a person is subjected to a state of decreased self-esteem, CWBs are partly driven by the desire to validate one’s sense of self (Aquino & Douglas, 2003; Bobocel & Zdaniuk, 2010; Fein & Spencer, 1997). As an explanation of one of the leading causes of CWBs (Baumeister, 1997), the esteem threat framework posits that the momentary drop in self-esteem (triggered by threats such
as organizational injustice) causes an individual to be more likely to engage in deviant behaviors. As explained by the group value model, when there is injustice, the individual feels that they are viewed negatively, and self esteem consequently decreases (Ferris et al, 2012). Counterproductive work behaviors are then elicited for two reasons; one, the employee is motivated to retaliate or seek revenge and two, self-esteem threats reduce self-regulatory abilities (Smart Richman, & Leary, 2009). The current study examines whether meta-analytic evidence supports the relationship between CWB and justice that is implied by the esteem threat framework.

Prior meta-analytic results support the expected relationship between justice and CWB; Colquitt et al., 2013 found a corrected correlation of -.28 between procedural justice and CWB, -.26 between distributive justice and CWB, -.24 between interpersonal justice and CWB, and -.29 between informational justice and CWB.

_Hypothesis 1a: Perceptions of organizational justice are negatively related to counterproductive work behaviors._

**Affect**

Affect is an overarching term for feelings, which encompass emotions, moods, and dispositions (Barsade & Gibson, 2007). The hierarchical taxonomic scheme, as proposed by Watson and Tellegen (1985), describes two broad, higher order dimensions of affect: the higher of the two defined by the _valence_ of descriptors and the lower described by _content_. Within the first dimension of _valence_, there is negative affect consisting of distress, displeasure, and dissatisfaction; and also positive affect consisting of pleasurable engagements with the
environment (Finch, Baranik, Liu, & West, 2012). While some research describes positive and negative affect on a continuum, some research suggests the two are separate, unipolar entities that operate through different mechanisms (Watson, 2000). This is perhaps why research has shown that positive and negative affect do not have simple, opposite relationships with measures of job performance (Kaplan et al., 2009). The second group of affective subdimensions is characterized by content or distinctive qualities, and includes state affect which is the momentary fluctuation in mood and emotions; and also trait affect, the stable individual differences in affective level (Cohen, Doyle, Skoner, Fireman, Gwaltney, & Newsome, 1995; Skarlicki et al., 1999). Simply put, state affect is one’s feeling at a specific point in time; trait affect is the person’s predisposition to experience certain feelings across situations (Watson & Pennebaker, 1989).

One type of affect, emotions, are defined by Frijda (1993) as intense feelings directed at someone or something. Elliot (2008, p. 345) assesses the physical and mental properties scientifically associated with emotions and combines all previous descriptions, into the following definition: “syndromes of thoughts and feelings qualities; neural, chemical, and other physical responses in the brain and body; facial, vocal, postural, and related signals of state; action tendencies or readiness; and emotional motivations.” Emotions are not to be confused with moods, which are less intense feelings than emotions that are, and often (though not always) lacking a contextual stimulus (Weiss & Cropanzano, 1996).

Emotions are one representation of the momentary fluctuations an individual experiences (state affect), but are typically dependent on dispositional (trait) affect, which determines the type of emotions that an individual is prone to experiencing. Considering trait affect, it is
important to recognize that individuals can have specific mood dispositions or enduring characteristics similar to personality. Further, an individual may have high trait anger or high trait anxiety, meaning that they are more prone to this specific emotion. These traits closely parallel general negative trait affect, because they are relatively stable tendencies to perceive threatening or stressful situations negatively (Spector, Fox, & Katwyk, 1999); however trait anxiety is defined as the experience of arousal, tension, apprehension, nervousness, and worry (Spielberger & Sydeman, 1994). Likewise, trait anger is the tendency to perceive various situations as anger provoking (Spector, Fox, & Katwyk, 1999). LeRoy, Bastounis, & Poussard (2012) note that anger is associated with active CWBs because it motivates individuals to rectify a situation, achieve a desired goal, or punish someone else for an aversive situation (Shaver, Schwartz, Kirson, & O’Connor, 1987). Fear, on the other hand, has been shown to increase the likelihood of workplace deviance when the systems of punishment are seen as unfair (de Lara, 2006). Research shows that fear is associated with passive CWBs (Le Roy et al., 2012) because fear is an anticipation of aversive situations and results in an avoidance, or passive response (Lethem, Slade, Troup, & Bentley, 1983; Philips, 1987; Vlaeyen & Linton, 2000; Waddell, Newton, Henderson, Somerville, & Main, 1993).

Considering scientific theories on the construct of emotion, there is still much ambiguity and disagreement about the number and definitions of discrete emotions. The overlying definition of emotion is equally varied. As research is conducted on differing construct definitions of emotion, there is concern when analyzing results (Briner & Kiefer, 2005). Additionally, a seemingly endless number of emotions can be isolated. De Rivera (1977), for example, proposed 48 discrete emotions. Elliot (2008), looking at all previous literature on the
topic, suggested a list of 17 emotions: surprise, hope, fear, joy, relief, sadness, distress, frustration, disgust, love, dislike, anger, contempt, pride, regret, guilt, and shame. Because previous research has a reluctance to formally address a taxonomy of discrete emotions in the workplace (Muchinsky, 2000), there is a lack of articles that cover each of these discrete emotions and their relationships with types of counterproductive work behaviors (Brief & Weiss, 2002; Diefendorff & Mehta, 2007; Grandey, 2008; Spector & Fox, 2002).

There is a realm of research that disputes the dimensionalizing of emotions, claiming that they are unique, integrated entities with individual physiological foundations and behavioral and motivational consequences (Lazarus, 1991); however, much of the traditional focus in organizational research has been on positive and negative affect (Briner & Kiefer, 2005; Brief & Weiss, 2002) with the exceptions of some closely related emotions such as anger and anxiety (Ilie, Penney, Ispas & Iliescu, 2012; Mughal, Walsh & Wilding, 1996) and with this, there is more focus on trait affect than state affect. Positive and negative state and trait both influence counterproductive work behaviors through emotional reactions to justice perceptions (Judge & Ilies, 2004; Weiss & Cropanzano, 1996; Dalal, 2005). Although I evaluate specific types of affect, I maintain a focus on positive and negative state affect due to the lack of adequate primary studies for other types of affect. For example, some discrete emotions have been correlated to CWBs to including boredom, envy, and fear among others (Spector et al., 2006; Cohen-Charash & Mueller, 2007; de Lara, 2006) but there are not enough primary studies to assess via meta-analysis. While past research has not paid enough attention to discrete emotions (Brief & Weiss, 2002), these specific emotions do play a unique roll in the relationship between justice and counterproductive work behaviors and offer promising research opportunities. For example, one
discrete emotion that may be examined further is envy. Envy increases the likelihood of counterproductive work behaviors after an experience of injustice because the individual will seek to reduce the gap between the envious and the envied (Heider, 1958). Future research would benefit from focusing on discrete emotions such as this because emotions can later be aggregated into dimensions, but dimensions cannot be later divided into discrete emotions (Grandey, 2008, pg. 237).

The Relationship Between Affect, Justice, and Counterproductive Work Behaviors

The central theory that relates justice and CWB is the social exchange theory (Cropanzano & Mitchell, 2005; Homans, 1961), which explains that the employee expects to be rewarded in accordance with their inputs, and when they are not compensated accordingly, they adjust their behavior to minimize the discrepancy or unfairness. The cognitive-motivational-relational (CMR) theory of emotions (Lazarus, 1991; Lazarus, 2001; Smith & Lazarus, 1990) states that in an effort to make meaning of and adapt to events that occur in our lives, two intricately connected types of responses occur: cognitive response in the form of cognitive appraisal and an affective response in the form of discrete emotions. The affective event theory (AET) proposed by Weiss and Cropanzano (1996) states that affective reactions to work events are related to different types of work-related outcomes. When an event is experienced (e.g., organizational injustice), the employee makes an initial appraisal of the relevance and importance of the event and makes subsequent appraisals of associated consequences (Lam & Chen, 2012). These appraisals are influenced by the dispositional traits of the individual and ultimately result in the experience of discrete emotions such as anger or happiness (Weiss &
These theories combined suggest that when a stressful event occurs (such as a perceived act of injustice at work) our behavioral outcomes rely on the cognitive and emotional evaluations of the event. Thus when an individual high on negative affect perceives injustice, they are more likely to experience negative emotions. Lazarus (1982) explains that positive and negative emotions are experienced dependent on whether the situation at hand enhances well-being or threatens it and these emotions then motivate an individual to engage in behaviors (Bies, Tripp, & Kramer, 1997). Lazarus (1995) explains that resultant behaviors are elicited with the intention to reduce negative state affect and enhance positive state affect.

The CMR theory explains how the cognitive appraisals of perceived injustice in the organization gives rise to the employee’s negative state affect. Consequently, the employee will elicit actions to reduce negative affect, leading to counterproductive work behaviors. In this meta-analysis, I assess three models relating the subdimensions of justice to the subdimensions of CWB. (Unfortunately, there were not enough primary studies to assess a fourth model in which positive affect mediated the relationship between justice types and the five CWB dimensions.)

Prior meta-analytic results support the expected relationship between affect and CWB; Shockley et al. (2012) found a corrected correlation of .44 between negative state affect and CWB, and -.25 between positive state affect and CWB. Colquitt et al. (2013) found a corrected correlation of .55 between negative state affect and CWB, and -.14 between positive state affect and CWB. Colquitt et al.‘s (2013) meta-analytic results support the expected mediation of state affect on the relationship between justice and CWB, with significant indirect effects for procedural justice (-.11), distributive justice (-.15), and interpersonal justice (-.08).
Hypothesis 2a: Negative state affect mediates the relationship between organizational justice and the five counterproductive work behaviors (sabotage, withdrawal, production deviance, abuse, and theft).

Hypothesis 2b: Negative state affect mediates the relationship between organizational justice and CWB-I/CWB-O.

Hypothesis 2c: Positive state affect mediates the relationship between organizational justice and CWB-I/CWB-O.

Figure 1- Mediation by Negative State Affect on Justice Dimensions and Five Dimensions of CWB
Figure 2- Mediation by Negative State Affect on Justice Dimensions and CWB-I/CWB-O

Figure 3- Mediation by Positive State Affect on Justice Dimensions and CWB-I/CWB-O
CHAPTER 2

Method

In order to estimate the meta-analytic relationships among justice (procedural, distributive, interpersonal, informational), positive and negative state affect, and counterproductive work behaviors, a keyword search was conducted in PsycInfo, Google Scholar, Dissertations Abstracts International (1861-2014), and OneSearch, an Ebsco host site that runs a search of a wide range of databases including full-text journal databases such as the American Psychological Association’s PsycArticles (1894-2014) and PsycInfo (1887-2014), full-text ebooks, and university digital collections. Keywords used included emotions, state affect, organizational justice, and counterproductive work behaviors, as well as several variations and specific dimensions of these key terms. The search was not restricted to any date range. The references lists of related articles, such as those focusing on justice, affect, and CWBs together, were used to identify additional studies. For example, studies used in the meta-analysis conducted by Shockley et al. (2012) and Colquitt et al. (2013) were obtained from their reference lists.

The keyword search identified over 300 primary articles, which were narrowed down using the following inclusion criteria: (a) the study participants had to be currently employed; and (b) the study reported enough information to calculate correlations between some combination of justice perception, affect (as it relates to either justice episodes or CWB events), and/or counterproductive work behavior variables. These inclusion criteria yielded a total sample size of 28,328 from 101 independent samples.
Studies matching the inclusion criteria were coded for the effect size between the variables of interest, as well as other data such as sample size, reliability of measures, and participant characteristics. I only coded data that were specifically defined in relation to my variables of interest, and did not code measures of justice, CWB, or affect unless they were explicitly labeled as such in the primary study. For example, *turnover intentions* were not coded as *withdrawal* behaviors because they were not defined as such. In order to use independent sample effects, I used only one effect size for each article, averaging across non-independent correlations as necessary for articles using multiple, facet-level effect sizes. Correlations were corrected for attenuation in the predictor and criterion using the Hunter and Schmidt (2004) approach in which I corrected individual studies before calculating a weighted mean across studies.

In order to test the relationships between justice perceptions, affect, and counterproductive work behaviors, I followed the recommendations of Viswesvaran and Ones (1995) by constructing a meta-analytic correlation matrix of procedural justice, distributive justice, informational justice, informational justice, negative affect, positive affect, CWB-I, CWB-O, sabotage, abuse, production deviance, withdrawal, and theft. Meta-analytic intercorrelations among justice types were taken from Colquitt et al., (2013) and the meta-analytic intercorrelation between CWB-I and CWB-O were taken from Dalal et al. (2005). Original meta-analyses of the intercorrelations among the five dimensions of CWB were also estimated by searching all citations of Spector et al. (2006). In order to test the mediational models presented in Figures 1, 2, and 3 (note: positive affect could not be examined as a mediator of the relationship between justice and the 5 dimensions of CWB due to a lack of
primary studies investigating positive affect and the 5 dimensions of CWB), the model was estimated (with correlated errors among the CWB dimensions) and the significance of the indirect effect was determined by examining the 95% Monte Carlo confidence interval (Preacher & Selig, 2012). The sample size used to estimate all three models was the harmonic mean of the variables included in the model (Figure 1: $N = 706$; Figure 2: $N = 3,055$; Figure 3: $N = 1,879$).
CHAPTER 3

Results

Table 1 represents the meta-analytic relationships among justice (procedural, distributive, interpersonal, informational), positive and negative state affect, and counterproductive work behaviors (CWB, CWB-I, CWB-O). The effect sizes represented are described by the standards set by Cohen, Cohen, West, and Aiken’s (2003), in which a .10 is weak, .30 is moderate, and .50 is strong. The relationships presented in Table 1 are moderate, with an average $\hat{p}$ of .265. In the following paragraphs, I will summarize general findings of this meta-analysis.

Justice and Counterproductive Work Behaviors

Hypothesis 1a predicted that perceptions of justice would be negatively related to counterproductive work behaviors. Table 1 presents the results for these relationships. This table includes results for each type of justice perception and target orientation of CWBs, including an aggregate level of CWB.

The results for CWB were as follows: procedural justice ($\hat{p} = -.231, N= 9,823, k= 29$), distributive justice ($\hat{p} = -.165, N= 10,679, k= 32$), interpersonal justice ($\hat{p} = -.302, N= 2,804, k= 12$), and informational justice ($\hat{p} = -.254, N= 1,926, k= 7$). The CWB effect sizes were statistically significant on all justice measures (i.e., the confidence intervals excluded zero), supporting hypothesis 1a. In comparison, Colquitt et al. (2013) also found significant relationships between all justice types and CWB: procedural justice ($\hat{p} = -.28, N=6,455, k=30$), distributive justice ($\hat{p} = -
The results for CWB-I were as follows: procedural justice ($\hat{\rho} = -.215, N=6,547, k=21$), distributive justice ($\hat{\rho} = -.127, N=5,007, k=17$), interpersonal justice ($\hat{\rho} = -.309, N=1,983, k=7$), and informational justice ($\hat{\rho} = -.305, N=911, k=3$). The CWB-I effect sizes were statistically significant for relationships with all justice types with the exception of informational justice (95% CI = - .564 to .059). Colquitt et al. (2013) found significant effect sizes for procedural justice ($\hat{\rho} = -.20, N=1,703, k=6$), and informational justice ($\hat{\rho} = -.29, N=531, k=2$). In contrast, Colquitt et al. (2013) did not find a significant effect size for CWB-I and distributive justice ($\hat{\rho} = -.15, N=788, k=5$) or interpersonal justice ($\hat{\rho} = -.14, N=231, k=1$).

The results for CWB-O were as follows: procedural justice ($\hat{\rho} = -.247, N=5,217, k=16$), distributive justice ($\hat{\rho} = -.109, N=3,969, k=13$), interpersonal justice ($\hat{\rho} = -.272, N=4,218, k=17$), and informational justice ($\hat{\rho} = -.192, N=765, k=2$). Similar to the results for CWB-I, the CWB-O effect sizes were statistically significant for relationships with all justice measures with the exception of informational justice (95% CI = -.382 to .062). Colquitt et al. (2013) found significant effect sizes for CWB-I for all justice types: procedural justice ($\hat{\rho} = -.28, N=6,455, k=30$), distributive justice ($\hat{\rho} = -.26, N=5,112, k=24$), interpersonal justice ($\hat{\rho} = -.24, N=2,043, k=10$), and informational justice ($\hat{\rho} = -.29, N=1,974, k=9$).

There was a negative relationship between justice and each of the five types of CWB (i.e., sabotage, withdrawal, production deviance, abuse, theft), though there were not enough studies to meta-analyze five of these relationships (i.e., the remaining five relationships had only been investigated in one primary study). Table 2 presents the results for these relationships. The
effect sizes were statistically significant for eight of the 25 pairs, which are reported as follows:
procedural justice and sabotage ($\hat{\rho} = -0.319, N=1,295, k=5$), distributive justice and sabotage ($\hat{\rho} = -0.177, N=3,566, k=10$), distributive justice and withdrawal ($\hat{\rho} = -0.113, N=3,274, k=9$), interpersonal justice and sabotage ($\hat{\rho} = -0.247, N=1,766, k=6$), informational justice and sabotage ($\hat{\rho} = -0.219, N=1,927, k=7$), informational justice and withdrawal ($\hat{\rho} = -0.165, N=1,635, k=6$).

**Affect, Justice, and CWB**

The results for negative affect and justice were as follows: procedural justice ($\hat{\rho} = -0.328, N=8,229, k=26$), distributive justice ($\hat{\rho} = -0.346, N=7,111, k=18$), interpersonal justice ($\hat{\rho} = -0.382, N=2,651, k=9$), and informational justice ($\hat{\rho} = -0.378, N=674, k=3$). The negative affect effect sizes were statistically significant on all justice measures with the exception of informational justice (95% CI= -0.738 to 0.055). Colquitt et al. (2013) found significant relationships between all justice measures and negative affect: procedural justice ($\hat{\rho} = -0.35, N=7,318, k=35$) distributive justice ($\hat{\rho} = -0.37, N=5,447, k=21$), interpersonal justice ($\hat{\rho} = -0.30, N=2,622, k=8$), and informational justice ($\hat{\rho} = -0.27, N=1,734, k=5$).

The results for positive affect and justice were as follows: procedural justice ($\hat{\rho} = 0.430, N=1,709, k=7$), distributive justice ($\hat{\rho} = 0.444, N=1,493, k=6$), interpersonal justice ($\hat{\rho} = 0.335, N=441, k=2$), and informational justice ($\hat{\rho} = 0.328, N=465, k=2$). The positive affect effect sizes were not statistically significant for interpersonal and informational justice with 95% CIs [-0.133 to 0.764] and [-0.158 to 0.768]. In comparison, Colquitt et al. (2013) found significant relationships between all justice measures and positive affect: procedural justice ($\hat{\rho} = 0.45, N=2,943, k=15$),
distributive justice ($\hat{\rho} = .39, N = 2,678, k = 11$), interpersonal justice ($\hat{\rho} = .32, N = 472, k = 2$), and informational justice ($\hat{\rho} = .36, N = 472, k = 2$).

The results for negative affect and CWB measures were as follows: CWB ($\hat{\rho} = .300, N = 11,818, k = 52$), CWB-I ($\hat{\rho} = .316, N = 7,917, k = 32$), CWB-O ($\hat{\rho} = .197, N = 7,572, k = 33$). The relationship between negative affect and each of these dimensions was significant. The results for positive affect and CWB measures were as follows: CWB ($\hat{\rho} = -.191, N = 3,590, k = 15$), CWB-I ($\hat{\rho} = -.120, N = 3,577, k = 12$), CWB-O ($\hat{\rho} = -.234, N = 1,903, k = 9$). The relationship between positive affect and the CWB-O dimension was not significant (95% CI = -.414 to .001).

In order to test mediation models, the meta-analytic relationships among the five CWB dimensions had to be estimated. The results of this assessment are shown in Table 6. The results of mediation tests are shown in Table 3, 4, and 5 (fit statistics for the models are not presented because all models were saturated and therefore, exhibited perfect fit). Hypothesis 2a-c predicted that the relationship between justice dimensions and counterproductive work behavior dimensions would be mediated by state affect. The results do not support hypothesis 2 consistently.

Figure 4 shows the relationships among justice types, negative affect, and five CWB dimensions. As can be seen in Table 3, the effects of justice dimensions on the five CWBs were varied, and indirect effects were mostly weak. Procedural, interpersonal, and informational justices had no indirect effects on CWBs. The only significant relationship was distributive justice, which had a weak indirect effect on production deviance (-.034).

Figure 5 shows the relationships among justice types, negative affect, and CWB-I/CWB-O. As can be seen in Table 4, there were significant, but weak, indirect effects between all
relationships except procedural justice and CWB-I. The significant relationships are listed as follows: procedural justice and CWB-O (-.002), distributive justice and CWB-I (-.044), distributive justice and CWB-O (-.023), interpersonal justice and CWB-I (-.048), interpersonal justice and CWB-O (-.025), informational justice and CWB-I (-.028), and informational justice and CWB-O (-.014).

Figure 6 shows the relationships among justice types, positive affect, and CWB-I/CWB-O. As can be seen in Table 5, there were significant, but weak, indirect effects between all relationships except procedural justice and CWB-I. The significant relationships are listed as follows: procedural justice and CWB-O (-.037), distributive justice and CWB-I (-.006), distributive justice and CWB-O (-.049), interpersonal justice and CWB-I (-.003), interpersonal justice and CWB-O (-.022), informational justice and CWB-I (.001), and informational justice and CWB-O (.122).
### Table 1: Justice, State Affect, and Counterproductive Work Behaviors

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<th>% variance</th>
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Note. $k$ = number of studies; $N$ = cumulative sample size; $r$ = uncorrected population correlation; $\beta$ = corrected population correlation; CI = confidence interval around uncorrected population correlation; CV = credibility interval around weighted corrected mean correlation; % variance = percent variance accounted for by sampling error.
Table 2- Justice Dimensions and Negative State Affect with Five CWB Dimensions

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<td>-.731</td>
<td>-.731</td>
</tr>
<tr>
<td>% variance</td>
<td>7.3</td>
<td>16.5</td>
<td>12.9</td>
<td>4.7</td>
<td>4.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative Affect</th>
<th>Sabotage</th>
<th>Withdrawal</th>
<th>Production Deviance</th>
<th>Abuse</th>
<th>Theft</th>
</tr>
</thead>
<tbody>
<tr>
<td>k</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>N</td>
<td>994</td>
<td>2396</td>
<td>1298</td>
<td>818</td>
<td>1018</td>
</tr>
<tr>
<td>r</td>
<td>.125</td>
<td>.162</td>
<td>.227</td>
<td>.240</td>
<td>.111</td>
</tr>
<tr>
<td>SD</td>
<td>.167</td>
<td>.215</td>
<td>.295</td>
<td>.309</td>
<td>.144</td>
</tr>
<tr>
<td>ρ</td>
<td>.147</td>
<td>.233</td>
<td>.332</td>
<td>-.230</td>
<td>.149</td>
</tr>
<tr>
<td>95% CI</td>
<td>.008</td>
<td>.040</td>
<td>.014</td>
<td>-.005</td>
<td>-.005</td>
</tr>
<tr>
<td>80% CV</td>
<td>.243</td>
<td>.285</td>
<td>.441</td>
<td>.226</td>
<td>.226</td>
</tr>
<tr>
<td>% variance</td>
<td>.021</td>
<td>.083</td>
<td>.129</td>
<td>.046</td>
<td>.334</td>
</tr>
<tr>
<td>% variance</td>
<td>27.3</td>
<td>10.2</td>
<td>5.9</td>
<td>27.6</td>
<td>27.6</td>
</tr>
</tbody>
</table>

Note. Dashes indicate cells where the number of relevant studies is 1. k = number of studies; N = cumulative sample size; r = uncorrected population correlation; ρ = corrected population correlation; CI = confidence interval around uncorrected population correlation; CV = credibility interval around weighted corrected mean correlation; % variance = percent variance accounted for by sampling error.
### Table 3 - Tests for Mediation by Negative State Affect

<table>
<thead>
<tr>
<th>Justice Dimensions</th>
<th>Sabotage</th>
<th>Withdrawal</th>
<th>Production Deviance</th>
<th>Abuse</th>
<th>Theft</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Effect</td>
<td>Indirect Effect</td>
<td>Direct Effect</td>
<td>Total Effect</td>
<td>Indirect Effect</td>
</tr>
<tr>
<td>Procedural</td>
<td>-.252</td>
<td>-.002</td>
<td>-.250</td>
<td>-.136</td>
<td>-.006</td>
</tr>
<tr>
<td>Distributive</td>
<td>.010</td>
<td>-.010</td>
<td>.020</td>
<td>.003*</td>
<td>-.027</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>-.01</td>
<td>-.011</td>
<td>.100</td>
<td>.001*</td>
<td>-.029</td>
</tr>
<tr>
<td>Informational</td>
<td>.013</td>
<td>-.007</td>
<td>.020</td>
<td>-.079*</td>
<td>-.019</td>
</tr>
</tbody>
</table>

*Note. N=1,879. *p<.05.*

### Table 4 - Tests for Mediation by Negative State Affect

<table>
<thead>
<tr>
<th>Justice Dimensions</th>
<th>CWB-I</th>
<th>CWB-O</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Effect</td>
<td>Indirect Effect</td>
</tr>
<tr>
<td>Procedural</td>
<td>-.025</td>
<td>-.005</td>
</tr>
<tr>
<td>Distributive</td>
<td>.066*</td>
<td>-.044</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>-.188*</td>
<td>-.048*</td>
</tr>
<tr>
<td>Informational</td>
<td>-.188*</td>
<td>-.028*</td>
</tr>
</tbody>
</table>

*Note. N=706. *p<.05.*

### Table 5 - Tests for Mediation by Positive State Affect

<table>
<thead>
<tr>
<th>Justice Dimensions</th>
<th>CWB-I</th>
<th>CWB-O</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Effect</td>
<td>Indirect Effect</td>
</tr>
<tr>
<td>Procedural</td>
<td>-.024</td>
<td>-.004</td>
</tr>
<tr>
<td>Distributive</td>
<td>-.076</td>
<td>-.006*</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>-.183</td>
<td>-.003*</td>
</tr>
<tr>
<td>Informational</td>
<td>-.189</td>
<td>.001*</td>
</tr>
</tbody>
</table>

*Note. N=3,055. *p<.05.*
### Table 6- Meta-Analytic Relationships Among Five CWB Dimensions

<table>
<thead>
<tr>
<th></th>
<th>$k$</th>
<th>$N$</th>
<th>$r$</th>
<th>$\hat{\rho}$</th>
<th>SD $\hat{\rho}$</th>
<th>95% CI</th>
<th>80% CV</th>
<th>% variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabotage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal</td>
<td>7</td>
<td>2916</td>
<td>.502</td>
<td>.750</td>
<td>.760</td>
<td>.101</td>
<td>.903</td>
<td>-.223</td>
</tr>
<tr>
<td>Production Deviance</td>
<td>7</td>
<td>2916</td>
<td>.601</td>
<td>.938</td>
<td>.915</td>
<td>.143</td>
<td>1.059</td>
<td>-.233</td>
</tr>
<tr>
<td>Abuse</td>
<td>5</td>
<td>2356</td>
<td>.584</td>
<td>.877</td>
<td>.824</td>
<td>.062</td>
<td>1.106</td>
<td>-.177</td>
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<tr>
<td>Theft</td>
<td>6</td>
<td>2554</td>
<td>.569</td>
<td>.917</td>
<td>.839</td>
<td>.104</td>
<td>1.034</td>
<td>-.157</td>
</tr>
<tr>
<td>Withdrawal</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production Deviance</td>
<td>10</td>
<td>4076</td>
<td>.543</td>
<td>.761</td>
<td>.794</td>
<td>.194</td>
<td>.892</td>
<td>-.256</td>
</tr>
<tr>
<td>Abuse</td>
<td>7</td>
<td>3221</td>
<td>.548</td>
<td>.682</td>
<td>.707</td>
<td>.127</td>
<td>.970</td>
<td>-.222</td>
</tr>
<tr>
<td>Theft</td>
<td>7</td>
<td>2911</td>
<td>.545</td>
<td>.723</td>
<td>.711</td>
<td>.133</td>
<td>.956</td>
<td>-.187</td>
</tr>
<tr>
<td>Production Deviance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abuse</td>
<td>7</td>
<td>3221</td>
<td>.610</td>
<td>.723</td>
<td>.811</td>
<td>.144</td>
<td>1.075</td>
<td>-.256</td>
</tr>
<tr>
<td>Theft</td>
<td>7</td>
<td>2911</td>
<td>.600</td>
<td>.829</td>
<td>.853</td>
<td>.140</td>
<td>1.061</td>
<td>-.263</td>
</tr>
<tr>
<td>Abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theft</td>
<td>6</td>
<td>2713</td>
<td>.534</td>
<td>.664</td>
<td>.692</td>
<td>.089</td>
<td>.978</td>
<td>-.221</td>
</tr>
</tbody>
</table>

*Note. k= number of studies; $N =$ cumulative sample size; $r$ = uncorrected population correlation; $\hat{\rho}$ = corrected population correlation; CI = confidence interval around uncorrected population correlation; CV = credibility interval around weighted corrected mean correlation; % variance = percent variance accounted for by sampling error.*
Figure 4 - Results: Negative State Affect as a Mediator of the Relationship Between Justice and Five CWB Dimensions

*Note. N = 1,879. Path estimates are standardized. Errors were allowed to correlate between the five dimensions of CWB. *p < .05
Figure 5 - Results: Negative State Affect as a Mediator of the Relationship Between Justice and CWB-I/CWB-O

Note. $N = 706$. Path estimates are standardized. Errors were allowed to correlate between CWB-I and CWB-O. *$p < .05$
Figure 6- Results: Positive State Affect as a Mediator of the Relationship Between Justice and CWB-I/CWB-O

*Note. N = 3,055. Path estimates are standardized. Errors were allowed to correlate between CWB-I and CWB-O. *p < .05
CHAPTER 4

Discussion

The purpose of this study was to evaluate the relationship among dimensions of justice and counterproductive work behavior dimensions, as mediated by state affect. Meta-analyses assessing these variables have been conducted in recent years (Shockley et al., 2012; Colquitt et al., 2013); however these meta-analyses included samples that were not exclusive to currently employed individuals and did not assess the specific relationships presented here. In this meta-analysis, I excluded samples of undergraduate students when they did not specify current employment status or contained unemployed individuals. I also excluded simulations of employment settings, and only meta-analyzed studies that assessed employed individuals’ reactions to real-world work settings. Further, this meta-analysis included an examination of the five specific types of CWB (i.e., sabotage, withdrawal, production deviance, abuse, theft) as they relate to justice dimensions and state affect; this had not been meta-analyzed in previous research.

Findings

This meta-analysis showed a general negative relationship between justice dimensions and specific dimensions of counterproductive work behaviors, which offers partial support of the esteem threat framework (Baumeister, Smart, & Boden, 1996). This framework describes one’s motivation to retaliate and seek revenge, and also one’s reduction in self-regulatory abilities, following an unjust event (Smart, Richman, & Leary, 2009; Ferris et al., 2012). These results
also partially supported the group value model (Tyler, 1989; Tyler & Blader, 2000, 2001), which proposes that employees elicit self-serving behaviors when there is an event decreasing group cohesion, such as unfair actions (Priesemuth et al., 2013).

Further, results are consistent with Bennett and Robinson’s (2000) support for dimensionalizing counterproductive work behaviors. Considering CWB-I and CWB-O, each showed significant relationship with the majority of justice dimensions, however, procedural justice consistently failed to have significant effects on affect or CWB. The five factors of CWB proposed by Spector et al. (2006) each showed a negative relationship with at least one of the justice dimensions as well, but maintained unique relationships, supporting the separation of CWB into these subdimensions.

In all of meta-analytic correlations estimated as part of the current paper, credibility intervals contained zero, meaning that moderators may exist (Whitener, 1990). This is to be expected, considering the vast amount of previous research assessing a variety of factors that relate to consequences of justice, antecedents of CWB, and other similar relationships (Borman et al., 2001; Dalal, 2005; Kaplan et al, 2009; Lyubomirsky et al, 2005; Organ & Ryan, 1995). Because credibility intervals frequently included zero, the weak zero-order correlations and mediation effects found in this study may be explained by the extent of existing moderators, and should be looked into in future research.

This study evaluated state affect as a mediator of the relationship between justice dimensions and CWB dimensions. The mediation by affect would the support social exchange theory (Cropanzano & Mitchell, 2005; Homans, 1961); however, this mediation was not significant in most of the models and was generally weak. Additionally, because state affect did
not have significant direct relationships with both justice and CWB, it cannot be concluded that perceptions of injustice reliably predict increased negative affect (and decreased positive affect), or in turn lead to the employee eliciting CWBs to reduce negative feelings.

**Limitations and Directions for Future Research**

As with all meta-analyses, the results of this research assume the strength and validity of the primary studies, and the results maintain limitations of primary studies. Each study uses unique methods and constructs to arrive at estimates of each relationship. However a benefit of conducting meta-analysis is the averaging out of random errors. One consideration that was not accounted for in a majority of primary studies is the time of measures in reference to events of injustice, affect, or counterproductive work behaviors. Failing to control for time as a potential moderator of these illustrated relationships may impact results, particularly because emotions may be forgotten or recalled inaccurately (Wessel & Wright, 2004). Future research might consider evaluating such elements because measures of immediate cognitions and feelings may be substantially different from measures assessing memories or heuristics of such events.

This study aimed to assess the various relationships among justice, CWB and state affect. Although the variables such as general CWB and negative affect were heavily studied, giving us a large number of related samples to meta-analyze, there are other variables that have gone largely unstudied, particularly the five types of CWB. These missing evaluations may contain further details regarding the ways in which unjust settings and events may result in various cognitions, attitudes, and behaviors of employees and may have affected the results of this study. One specific area that should be considered in future research is positive affect in relation to
justice and CWBs. In this meta-analysis, all of the pairings pertaining to positive affect contain very small sample sizes. Past research has shown that positive affect is not a simply an equal and opposite construct to negative affect (Watson, 2000) and should be considered as an individual variable.

There is also a lack of research for discrete emotions as they relate to justice and CWB. For those studies that do assess discrete emotions, there is a larger focus on specific negative emotions such as anger and anxiety than positive discrete emotions (Luthans, 2002; Myers, 2000). The assessment of any discrete emotions and their influence on the relationship between justice and CWB has received little attention (Shockley et al., 2012). There is a tendency to dimensionalize emotions despite research against doing so (Douglas & Martinko, 2001; Hepworth & Towler, 2004), and it will take quite some time working against this trend to generate a sufficient amount of studies to be used in evaluating the role of discrete emotions in the workplace. Making this transition away from general dimensions will provide insight into the unique role of each emotion when predicting employee behaviors and this should be considered in future research.

Finally, this meta-analysis has, in some areas, smaller samples and effect sizes than the study done by Colquitt et al. (2013); this is to be expected because of the exclusion of articles assessing unemployed individuals or simulated scenarios. As a result of such exclusion, this meta-analysis better highlights the predictive value of these relationships in real-world settings. As future research expands to encompass the five-subgroups of CWB and discrete emotions, the sample sizes for these relationships may increase and provide the opportunity for strong relationships with more stable data (Hunter & Schmidt, 1990; Spector & Levine, 1987).
Implications

The direct relationships presented in this article were mostly significant, and thus can translate into business strategies such as interventions to improve justice perceptions, training programs to support positive coping mechanisms, and identification of potential counterproductive actions.

The occurrence of negative affect and CWBs, as shown by the CMR theory and the group value model, may begin with the initial perception of injustice, and organizations should make an effort to ensure that consistent, accurate, ethical, and unbiased processes, outcomes, and interactions exist (Leventhal, Karuza, & Fry, 1980). Ownership and voice contribute largely to justice perceptions such that, when employees are given the opportunity to contribute to decisions and strategies, the overall opinion of fairness is enhanced (Greenberg & Folger, 1983; Brockner et al., 2001). In fact, giving employees the opportunity to contribute can be sufficient for improved justice perceptions, even if their ideas and opinions are not ultimately used in final decisions (LaTour, 1978; Lind, Walker, Kurtz, Musante, & Thibaut, 1980). An open communication between management and employees can be achieved by ensuring focus groups and surveys are used in company decisions, clear explanations for inevitable changes such as layoffs are provided, selection or promotion measures are developed with both content and face validity, and general climate of cohesiveness are supported. Further, the managers and supervisors in a company must ensure that their interactions with employees are more about transformational leadership than transactional leadership (Dai, Dai, Chen, & Wu, 2013). By selecting and training supervisors with conscientiousness, compassion, and empathy as well as
the ability to influence and motivate, a company facilitates perceptions of justice regarding organizational leaders and their actions (Bass & Riggio, 2008; Rupp & Aquino, 2009).

In select circumstances, preventative measures do not circumvent all negative events. During times of unexpected or inevitable injustice perceptions, it is important that employees are equipped with the ability to positively cope with resulting feelings. Stress and emotion regulation strategies training should be considered for organizations with a high potential for negative affect, such as layoff scenarios or high-stress industries; especially because negative affect alone can contribute to counterproductive work behaviors (as shown in this study), organizations should consider emotion regulation techniques not only in relation to organizational justice, but in general (Thory, 2013). Other incentives that have been shown to promote positive emotions and general well-being should be implemented in the workplace culture (Barsade & Gibson, 2010). This may include work-life balance and flexible schedules, exercise and nutrition programs that encourage healthy habits, constructive feedback and performance appraisal methods, and industry-specific intrinsic and extrinsic rewards (Sparks, Faragher, Cooper, 2001). Lastly, companies should assess whether emotional exhaustion is a factor for employees, especially in customer service settings because this exhaustion may lead to a reduced ability to regulate future negative emotion episodes (Ensey, 2013).

There are a vast number of antecedents to counterproductive work behaviors (Marcus and Schuler, 2004) and, therefore, there should be an active awareness of the activities and attitudes that are present in organizations. This can be accomplished through periodic engagement surveys assessing CWB intentions, regular performance appraisals that allow for supervisors to report specific actions, and a focus on training to encourage and assist supervisors in identifying
counterproductive work behaviors and their contexts, and then utilize such information in strategic interventions (Marcus and Schuler, 2004).

**Conclusion**

In summary, the results of the current study partially support the social exchange theory, the cognitive-motivational-relational model, and the group value model by considering the relationship between justice perceptions and counterproductive work behaviors, as well as mediation by state affect. This study goes further than previous meta-analytical research of this kind by providing an evaluation of these relationships gathered solely from employed individuals. It also considers the five-factor model of CWBs and the targets of CWBs (person and organization) to assess the relationships between each of these and the subdimensions of organizational justice, and also contributes the meta-analytic assessment of the relationships among the five CWBs. Because CWBs are a damaging phenomenon, it is important to understand the individual factors that may predict future occurrences. This study identified such relationships and suggested appropriate actions that can be taken to minimize injustice perceptions, manage negative emotion (and increase positive emotion), and strategically overcome resultant deviant actions.
REFERENCES


