An empirical examination of the causal reasoning perspective of counterproductive work behavior

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AN EMPIRICAL EXAMINATION OF

THE CAUSAL REASONING PERSPECTIVE OF

COUNTERPRODUCTIVE WORK BEHAVIOR

by

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Abstract

This study used the causal reasoning perspective of counterproductive work behaviors (CWB) developed by Martinko, Gundlach and Douglas (2002) to evaluate the role of narcissism and low self-esteem in relation to interpersonal injustice. Narcissism and low self-esteem were proposed to relate to distinct attributional and emotional reactions following interpersonal injustice, stemming from different approach-avoidance motivational tendencies. These different tendencies, in turn, were proposed to relate to certain forms of CWB, as categorized within an approach-avoidance framework. Path analyses revealed that neither narcissism nor low self-esteem significantly related to CWB and that CWB could not be reliably categorized within an approach-avoidance framework. Potential explanations for these results, as well as their implications, are discussed.

Keywords: counterproductive work behaviors, narcissism, interpersonal justice, self-esteem
An Empirical Examination of the Causal Reasoning Perspective of Counterproductive Work Behavior

Counterproductive work behaviors (CWB) are defined as acts that are intended to harm an organization, whether directly or through its employees and customers (Spector & Fox, 2005). Such acts can include, but are not limited to, theft, withdrawal, drug abuse, production deviance, and conflicts with coworkers and/or supervisors (Gruys & Sackett, 2003; Spector, Fox, Penney, Bruursema, Goh & Kessler, 2005). The financial costs associated with the outcomes of CWB are significant, with an estimated $50 billion associated annually with employee theft (Coffin, 2003), and an estimated $30 billion associated annually with absenteeism (Steers & Rhodes, 1984). Furthermore, CWB can have negative effects on an organization’s productivity, reputation, customer relations and employee well-being (Bowling & Beehr, 2006; Bowling & Gruys, 2010).

Due to the substantial tangible and intangible costs associated with CWB, much research attention has been directed to understanding how and why such acts arise. A sizeable body of research suggests that narcissism is an important trait-based predictor of CWB, with one meta-analysis finding a correlation of \( r = .35 \) between narcissism and CWB (O’Boyle, Forsyth, Banks & McDaniel, 2012). Narcissism is defined as an inflated sense of self-esteem that must be continually guarded against threats, and narcissistic individuals have been found to exhibit aggressive responses to perceived esteem threats (Morf & Rhodewalt, 2001). The workplace is rife with situations that could threaten one’s self-esteem. One commonly studied esteem threat is the lack of interpersonal justice. Interpersonal justice is defined as the extent to which one is treated with dignity and respect (Colquitt, 2001). Interpersonal injustice, within an esteem threat framework, has been found to predict instances of CWB (Ferris, Spence, Brown & Heller, 2012).
While both narcissism and interpersonal injustice have been thoroughly studied in conjunction with CWB, the two have not been examined together, despite recent calls for research integrating the two (Grijalva & Harms, 2013). Drawing from trait activation theory (Tett & Guterman, 2000), which posits that situational cues trigger the manifestation of relevant traits, the first purpose of this study is to examine whether interpersonal injustice triggers the emergence of CWB from narcissistic individuals in comparison with others. Along with calling for research integrating narcissism with organizational justice, Grijalva and Harms (2013) also called for attention to be focused on why narcissism leads to CWB, especially when compared to other esteem-based variables, such as high versus low self-esteem. Self-esteem is characterized by feelings of self-worth, with mixed findings regarding its relation to both narcissism and aggression (Baumeister, Smart & Boden, 1996). Low self-esteem (LSE) in particular has been linked to increased externalizing behaviors in response to social threats, although there have been mixed findings regarding its relationship to aggression, especially in comparison to narcissistic individuals (Donnellan, Trzesniewski & Robbins, 2005). A comparison of the distinct attributional styles, emotional tendencies, and motivational systems between LSE individuals and narcissists may shed light on differential reactions to esteem threats.

The causal reasoning perspective of CWB put forth by Martinko, Gundlach and Douglas (2002) integrates all three of these components into one sequential model, which serves as the guiding framework for this study. It places an emphasis on the often overlooked role of immediate causal attributions in predicting different types of discrete emotions as well as different types of CWB (see Figure 1 for an overview of the model, as adapted to fit within the esteem threat framework of this current study). Importantly, this model examines how traits, such as narcissism and LSE, may be linked to different forms of CWB based on underlying
attributional and emotional differences. Thus, a test of this model requires a comparison between two traits that are proposed to vary in this regard.

Causal attributions are defined as cognitive explanations regarding how and why certain events occur and are usually centered on the role of either individuals or situational factors (Kelley & Michela, 1980). Research has indicated that narcissists tend to engage in self-serving attribution styles, wherein responsibility for positive events is attributed to the self, while responsibility for negative events is attributed to outside forces, which effectively protects self-esteem (Hartouni, 1992). While narcissistic individuals tend to positively bias their attributions, LSE individuals are more likely to engage in pessimistic attribution styles, wherein responsibility for positive events is attributed to outside forces, while responsibility for negative events is attributed to the self (Sweeney, Shaeffer & Golin, 1982).

As for differences related to emotional tendencies, research has indicated that narcissism is closely linked to trait anger, as well as to state anger following esteem threats, which result in CWB (Meier & Semmer, 2013; Penney & Spector, 2002). On the other hand, research has found that LSE individuals tend to react to esteem threats with shame (Dickerson, Gruenewald & Kemeny, 2004). Few researchers have examined how the cognitive styles related to narcissism and LSE relate to these different emotional responses, although Martinko et al. (2002) did highlight this potential effect in the causal reasoning perspective of CWB. Thus, the second purpose of this study is to examine the cognitive and affective mechanisms related to narcissism and LSE, as well as how they affect CWB. Namely, the present research will examine the role of causal attributions and the emotional reactions associated with either self-blame (shame) or other-blame (anger) for failure and unfair interpersonal treatment.
The distinct emotional responses of shame and anger are linked to very different action tendencies, with anger prompting approach-oriented behaviors and shame prompting avoidance-oriented behaviors (Carver & Harmon-Jones, 2009; Yelsma, Brown & Elison, 2002). Currently, CWB encompasses a wide range of behaviors, ranging from absenteeism to workplace violence. There has been very little research attention directed towards whether such a wide range of behaviors should be grouped together to form a single unidimensional construct. The only categorization that is currently considered by researchers is based on Robinson and Bennett’s (1995) distinction regarding the target of the behavior, either the organization (CWBO) or individuals (CWBI). Since CWB is often examined in a stressor-strain framework, wherein CWB is a strain response to an organizational stressor, it may be more useful to examine dimensions related to stress responses, as was done in the causal reasoning perspective, wherein CWB was grouped into self-destructive, avoidant CWB versus retaliatory, or approach CWB (Martinko et al., 2002). Individual differences have been found to relate to whether individuals tend to react to stressors by dealing with them head on, or by trying to avoid them (Carver & Scheier, 1989). Thus, the third purpose of this study is to explore a potential approach versus avoidance dimension along which the behaviors that comprise CWB can be studied, as well as whether narcissistic and LSE individuals differ along this proposed dimension.

Narcissism, Interpersonal Justice and Counterproductive Work Behaviors

Justice is often studied in conjunction with CWBs, as it has the potential to evoke strong emotional reactions (e.g., Ambrose, Seabright & Schminke, 2002; Weiss, Suckow, Cropanzano, 1999). Interpersonal injustice in particular has the potential to lead to a number of aggressive behaviors that comprise CWB, due to its prevalence in the workplace and its visibility (Bies & Moag, 1986; Judge, Scott & Ilies, 2006; Robinson & Greenberg, 1998). Interpersonal justice,
one of the more recent organizational justice dimensions as defined by Colquitt (2001), is defined as whether one is treated with politeness, dignity and respect. Within an esteem-based, relational framework, interpersonal justice overtly signals one’s standing within the social group (Ferris et al., 2012). Previous research has found that perceived devaluation of the self as a result of interpersonal injustice is inherently stressful and unpleasant, prompting individuals to restore feelings of self-worth (Baumeister, 1998). In fact, in a multidisciplinary review of the aggression literature, Baumeister and colleagues (1996) found that most aggressive and violent behaviors tend to be the result of threats to positive views of the self. Thus, it is not surprising that instances of interpersonal injustice, which indicate a lack of respect for one’s social standing, have been linked to CWB such as employee theft (Greenberg, 1993), aggression (Inness, Barling & Turner, 2005) and cyberloafing (De Lara, 2006).

Research suggests that not everyone has the same level of motivation to protect their sense of self-esteem – some may value it more than others. Narcissism is defined as the propensity to indulge in self-aggrandizing beliefs and is believed to necessitate an entire motivational system centered on maintaining unjustified, grandiose self-views (Morf & Rhodewalt, 2001). Due to this, narcissistic individuals are believed to frequently monitor their interpersonal environments for any threats to their fragile sense of self-regard (Rhodewalt & Morf, 1995). Along these lines, organizational research has found that narcissists are more sensitive to negative interpersonal treatment and tend to overreact to perceived slights with anger and aggression (e.g., Penney & Spector, 2002). Narcissists have been found to react to both abusive supervision and workplace incivility with high levels of anger, which in turn prompts CWB (Meurs, Fox, Kessler & Spector, 2013). Surprisingly, no research has examined how narcissists react to interpersonal injustice, in particular. However, since demonstrating a lack of
respect in other related constructs has been found to prompt narcissists to commit CWB, the following hypothesis is proposed:

*Hypothesis 1:* The effects of interpersonal justice and narcissism interact to predict CWB, such that high levels of narcissism will amplify the effects of interpersonal injustice on CWB.

**Role of Causal Attributions and Emotional Reactions in the Narcissism and Low Self-Esteem – CWB Relationship**

Not all individuals react to reduced feelings of self-worth by retaliating against the perceived transgressor. Bobocel and Zdaniuk (2010) indicated in their self-esteem maintenance model of reactions to injustice that methods to restore perceived self-worth following interpersonal threats differ based on pre-existing self-concepts and self-esteem. Individual differences in self-esteem have also been implicated in differences regarding cognitive and emotional responses to perceived threats. According to the transactional model of stress, individuals must first appraise situations to determine whether they are threatening before reacting to the stressor (Lazarus & Folkman, 1987). Lazarus (1991) argues that this cognitive process occurs before emotional responses direct the individual towards certain behaviors to address the stressor. Drawing from this perspective, Perrewe and Zellars (1999) posit that searching for the cause of the stressor is part of the primary appraisal process and that this process results in causal attribution formation. The three dimensions that constitute causal attribution formation relate to causality, controllability and stability. Causality refers to whether an event occurs due to factors that are internal to the individual making causal attributions, or are external to that individual and due instead to situational factors or to another individual (Weiner, 1985). Controllability, also known as intentionality, refers to whether the event was caused
intentionally by the actor (Weiner, 1985). Stability refers to whether the cause of the event was due to chance or a one-time event versus something ongoing or stable about the actor or situation (Weiner, 1985).

According to both Perrewe and Zellars’ (1999) transactional approach to organizational stress model, as well as Martinko et al.’s (2002) causal reasoning model of CWB, the attributions made regarding the locus of causality, stability and controllability dictate the type of emotional response, which then affects whether reactions to the stressor will be outwardly or inwardly focused. If the negative event is attributed to the self, the resulting emotions will be guilt and shame. If the negative event is attributed to others, the resulting emotions will be frustration and aggression. According to Martinko et al. (2002), these different emotional reactions then predict whether the counterproductive behavior will take a self-destructive, avoidance-oriented form (e.g. absenteeism, poor performance, withdrawal, etc.) or a retaliatory, approach-oriented form (e.g. aggression, harassment, stealing, etc).

Utilizing these two models can help answer the questions that still remain regarding why high levels of narcissism are related to CWB over low levels (Grijalva & Harms, 2013). While the role of anger has been highlighted in research relating to narcissism and CWB, relevant cognitions, such as attribution style, have remained relatively unexplored in organizational research. Understanding narcissistic attribution styles could shed light on how narcissism differs from general high vs. low self-esteem, another distinction which has not been examined in organizational research.

In the social psychology literature, both attributional processes and emotional reactions have been found to differ based on individual differences. Self-esteem based variables, such as
LSE and narcissism, have been linked to distinct attributional styles, as well as to distinct discrete emotions. Self-esteem is generally defined as whether an individual regards him or herself in a positive or negative light (Crocker & Park, 2004). In the causal attribution process, individuals tend to evaluate the external environment in a manner conducive to maintaining a positive self-regard – for instance, they will be likely to overestimate their ability and will be likely to attribute successes to internal factors and failures to external factors (Miller & Ross, 1975; Weinstein, 1980). However, evidence has suggested that LSE individuals make more realistic judgments and do not engage in self-serving biases regarding the cause of success and failure (Tennenc & Herzberger, 1987) and may even be more prone to pessimistic attribution styles, in which negative events, such as task failure, are seen as being due to internal and stable causes (Fitch, 1970). Thus, the following hypothesis is proposed:

**Hypothesis 2:** The effects of low self-esteem and interpersonal justice will interact to predict internal attributions, such that interpersonal injustice will strengthen the relationship between low self-esteem and internal attributions.

Low self-esteem is also linked to a unique set of emotional responses following perceptions of interpersonal threat, as would arise in situations involving interpersonal injustice. Social threats, such as interpersonal injustice, often lead to shame for LSE individuals as they incorporate the content and their interpreted meanings of social threats into their self-concepts (Dickerson, Gruenewald & Kemeny, 2004; Kemeny, Gruenewald & Dickinson, 2004). Shame as a discrete emotion is defined as a perceived sense of deficiency in oneself (Tangney, Miller, Flicker & Barlow, 1996). Shame differs from guilt, which has received more attention within organizational research, in that the emotion is turned towards the self as an entity, rather than towards the action that one may or may not have engaged in (Tangney, Miller & Flicker, 1996).
Therefore unlike guilt, shame is related to avoidance-based coping styles, such as emotion-focused coping and withdrawal, and this effect is especially strong for individuals with LSE (Yelsma, Brown & Elison, 2002). Since shame is the result of blaming oneself for a negative event, the following hypothesis is proposed:

**Hypothesis 3:** Internal attributions for interpersonal treatment relates to feelings of shame.

On the other hand, narcissism comprises a subset of high self-esteem individuals who exhibit an unstable self-esteem that is subject to fluctuations based on external factors (Zeigler-Hill, 2006). Within their esteem threat framework of CWB, Ferris et al. (2012) found that instances of CWB rose when state self-esteem fell for high trait self-esteem individuals. High trait self-esteem coupled with unstable state self-esteem is characteristic of narcissistic individuals (Zeigler-Hill, 2006). Along with an unstable sense of self-esteem, narcissism has been linked to exaggerated self-enhancing attributions that serve to maintain overly positive views of the self, wherein responsibility for negative events is ascribed to outside factors, while responsibility for positive events is ascribed to internal factors (Farwell & Wohlwend-Lloyd, 1998; John & Robins, 1994; Stucke, 2003). These self-enhancing attributions can lead to narcissistic individuals blaming others or external features for negative events (Weiner, 1995). Self-serving attributional styles have been found to relate to increased conflict with supervisors and coworkers (Harvey & Martinko, 2009), as individuals with this attributional style tend to not take responsibility for negative events that may occur, preferring instead to blame others. Interpersonal injustice has been found to result in external attributions, because the presence of a manager or coworker, especially one who threatens self-esteem, provides an identifiable entity to blame for the perceived negative event (Bies, 2005). Due to the importance placed on
maintaining self-esteem for narcissistic individuals, the need to isolate the causes of threats to achievement and/or affiliation goals will likely facilitate the causal attribution process.

**Hypothesis 4:** The effects of narcissism and interpersonal justice will interact to predict external attributions, such that external attributions for interpersonal treatment will most likely be made when individuals high in narcissism perceive that they are being treated unfairly.

Not only is narcissism linked to self-enhancing attributions, but it is also linked to affective reactions of anger following setbacks. For instance, Meier and Semmer (2012) found that perceptions of a lack of reciprocity predicted incivility through anger as a mediating variable, and that this effect was especially strong for individuals with high narcissism scores. High levels of narcissism have also been linked to a general disposition to readily experience anger (Papps & O’Carroll, 1998). Anger is especially implicated in CWB-related research, as it motivates individuals to engage in actions to confront the perceived transgressor (Carver & Harmon-Jones, 2009). According to Martinko et al. (2002), external attributions to negative events lead to anger in order to allow the individual to correct or retaliate against the perceived external source of said event. Thus, the following hypothesis is proposed:

**Hypothesis 5:** External attributions for unjust interpersonal treatment relates to feelings of anger.

**The Role of the Approach-Avoidance Motivational System in Predicting CWB**

By considering differential reactions prompted by the specified emotional responses of shame versus anger, the causal reasoning perspective introduces a new distinction that needs to be made when considering the wide range of behaviors captured under the umbrella term CWB. The dominant typology in CWB research is Robinson and Benet’s (1995) categorization of CWB along the same lines as organizational citizenship behaviors [OCB] – there are CWB-O
(CWB directed towards the organization) and CWB-I (CWB directed towards individuals). While including the target of CWB allows researchers to examine multi-level antecedents and outcomes related to the construct, a fuller understanding can likely be achieved by drawing from established typologies related to stress research, as seen in the model proposed by Martinko et al. (2002) that divides CWBs into passive vs. active behaviors, aligned with research regarding the approach-avoidance motivational system.

The consideration that there may be two separate motivational systems that spur individuals towards certain behaviors arose from early work on the behavioral activation-inhibition systems (BAS/BIS) by Gray (1981), who posited that there are individual differences regarding tendencies to engage in one system over the other. The BAS is attuned to appetitive stimuli, and thereby prompts behaviors aimed towards obtaining those stimuli, whereas the BIS is attuned to aversive stimuli, and thereby prompts behaviors aimed towards avoiding those stimuli (Thrash & Elliot, 2002). Research on these two separate systems paved the way for Carver and Scheier’s (1998) work on the approach-avoidance self-regulation systems, in which an approach-oriented motivation aligns with the BAS while an avoidance-oriented motivation aligns with the BIS. These self-regulation systems have been found to relate to self-esteem, such that individuals with high self-esteem are characterized by an approach self-regulation system while those with low self-esteem are characterized by an avoidance self-regulation system (Heimpel, Elliot & Wood, 2006).

One mechanism through which these motivational systems facilitate behavior is through activating discrete emotions. There is also evidence that there may be a reciprocal feedback loop, with a separate loop for positive affect and the approach motivational system, and another for negative affect and the avoidance motivational system (Carver, 2006). These findings have
implications for work-related behaviors, especially regarding OCB and CWB. For instance, both positive affect and approach motivations have established relationships with OCB, while both negative affect and avoidance motivations have established relationships with CWB (Lanaj, Chang & Johnson, 2012; Spector & Fox, 2002). However, pairing approach motivations with positive affect and avoidance motivations with negative affect may be too simplistic. Even though an approach motivational system tends to be positively viewed due to its focus on promoting desired outcomes, the outcomes themselves do not necessarily have to be positive in nature. For instance, approach motivations have been linked to such detrimental activities as drug and alcohol abuse (Ostafin, Palfai & Wechsler, 2003). Furthermore, certain negatively valenced emotions are characterized by their ability to promote approach motivations – namely, anger, which prompts behaviors directed towards either correcting or getting revenge for a negative event (Fridja, Kuipers, ter Schure, 1989).

One way to understand how both approach and avoidance systems can be positive or negative in nature is to examine the cognitive processes that lead to their activation. According to Martinko et al. (2002), causal attributions provide a cognitive explanation for why individuals use different motivational systems in an attempt to cope with negative work-related events. Initially, Weiner (1980) integrated his attribution theory within a cognitive-emotion-action model of motivated behavior, wherein attributions for events dictated emotional responses which directed approach or avoidance motivated behaviors. In this sense, both positively and negatively valenced emotions have the potential to lead to approach and avoidance behaviors. Martinko et al. (2002) adopted the same basic premise, in that internal attributions for negative events result in negative self-directed affect, such as shame, whereas external attributions for negative events result in negative other-directed affect, such as anger. These emotions, in turn,
are related to approach or avoidance motivational systems and their related behavioral activation patterns. In the only empirical study found to consider this distinction, Le Roy, Bastounis and Poussard (2012) demonstrated that anger predicted active, or approach-oriented CWB such as theft and aggression, while fear predicted passive, or avoidance-oriented CWB such as tardiness and withdrawal.

Even though Le Roy et al. (2012) focused on the role of fear, shame also relates to behavioral inhibition, or avoidance-oriented behaviors in response to perceived threats (Yelsma, Brown & Elison, 2002). Developmental research has indicated that shame results from pessimistic attribution styles, which are characterized by self-blame for negative events (Feiring, Taska & Lewis, 2002). Shame prompts attempts to avoid or escape (physically or psychologically) the negative event that has been attributed to stable, internal causes (e.g., Tracy & Robins, 2006). Thus, the following hypothesis is proposed:

**Hypothesis 6:** Feelings of shame predict engagement in avoidance-oriented CWB, namely lowered performance and passivity.

On the other hand, a wide range of research, along with the findings by Le Roy et al. (2012), has indicated that anger promotes behavioral activation, or approach-oriented behaviors, in response to perceived threats (Carver & Harmon-Jones, 2009). These approach-oriented behaviors constitute a form of active revenge against the perceived instigator of the negative event, which generally arises following blame attributions (Bies & Tripp, 1998). In delinquent youth research, both theft and general aggression have been linked to the BAS, or approach motivation system (e.g., Vermeersch, T’Sjoen, Kaufman & Van Houte, 2011). Whether these findings are also applicable to theft and aggression in the workplace in the form of approach-
oriented CWB has yet to be empirically examined, but has support from other areas of research. Thus, the following hypothesis is proposed:

*Hypothesis 7:* Feelings of anger predict engaging in approach-oriented CWB, namely theft and interpersonal aggression.

Not only are narcissism and LSE potentially linked to approach and avoidance-oriented behaviors through the emotions of shame and anger, research indicates that they are *directly* related to the approach-avoidance motivational system as well. Thus, this system provides a way to explain and consolidate the disparate streams of research regarding the cognitive, emotional and behavioral tendencies associated with varying levels of self-esteem. In support of this notion, two recent meta-analyses (Gorman, Meriac, Overstreet, Apodaca, McIntyre, Park & Godbey, 2012; Lanaj, et al., 2012) have called for personality researchers to integrate their findings within this motivational framework, especially since both the approach and avoidance motivations relate to work behaviors ranging from task performance to organizational citizenship behaviors [OCB] to CWB.

Low self-esteem, independent of its previously discussed relationship to shame, is characterized by a self-protective motivational system that acts to defend against interpersonal threats, generally through avoidance behaviors (Downey, Mougios, Ayduk, London & Shoda, 2004). This echoes an earlier proposition by Baumeister, Tice and Hutton (1989) that LSE individuals have a self-protection motivation focusing on preventing further losses whereas high self-esteem [HSE] individuals have a self-enhancement motivation focusing on promoting further gains. The tendency of LSE individuals to prevent further losses may in turn correspond to avoidance-oriented CWBs such as passivity and absenteeism, allowing individuals to
withdraw from situations that evoke self-blame for negative events (Martinko et al., 2002). In this regard, low self-esteem has been found to relate to turnover intentions as well as absenteeism across several studies (e.g., Abraham, 1999; Hui & Lee, 2000; Keller, 1983). Previous research has also found that when LSE individuals attribute negative events, such as task failure, to their own personal characteristics, and thus withdraw from further evaluative tasks to avoid more negative outcomes (McGregor & Elliot, 2005). Due to the interrelationships among LSE, internal attributions, shame and the avoidance motivation, the following hypothesis is proposed:

*Hypothesis 8:* LSE is positively related to avoidance-oriented CWB, and the relationship is mediated in two stages by internal attributions and shame.

Narcissism is characterized by impulsivity, as well as a high approach motivational system and low avoidant motivational system (Foster & Trimm, 2008). Thus, narcissists’ actions in response to esteem threats may correspond to the other-oriented retaliatory CWBs listed by Martinko et al. (2002). Grijalva and Harms (2013) point out that many instances of CWB instigated by narcissists are likely in response to threats to self-esteem. Previous research has found that when individuals high in narcissism attribute a negative event to another individual, they react with retaliatory, aggressive behaviors to protect their sense of self-esteem (Martinko et al., 2002). Both external attributions and anger seem to facilitate approach-oriented behaviors relating to interpersonal aggression towards the transgressor. Thus, the following hypothesis is proposed:

*Hypothesis 9:* Narcissism is positively related to approach-oriented CWB, and the relationship is mediated in two stages by external attributions and anger.
Method

Participants

One-hundred ninety-one undergraduate participants were recruited from UAlbany’s department of psychology subject pool. Twenty-one cases were deleted from analysis due to either missing data and/or participants’ stated awareness of the presence of deception in the experiment during the debriefing, leaving 170 cases. Participants were required to have held at least one part-time or full-time job in the past. Females represented 55.3% of the participants, and 80% of the participants were between the ages of 18 and 20 years old, 17.1% were between the ages of 21-24, and 2.9% were between the ages of 25-30. Participants were 55.4% Caucasian, 18.5% African American, 11.8% Asian and 14.3% other.

Measures

Trait Self-Esteem. Trait self-esteem was measured using the 10-item Rosenberg Self-Esteem Scale (1987). Participants were asked the extent to which they agreed with statements such as, “On the whole, I am satisfied with myself,” on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly disagree). α = .90.

Narcissism. Narcissism was measured with the 16-item Narcissistic Personality Inventory [NPI-16] developed by Ames, Rose and Anderson (2006). Participants chose between two responses, one of which corresponded to narcissism, with an example choice being, “I am no better nor worse than most people,” versus, “I think I am a special person.” α = .70

State Emotions. State affect was measured using the PANAS with the modified instructions of “Indicate to what extent you feel this way right now, that is at the present
moment” with 20 affect terms assessed on a 5-point Likert-type scale (Watson, Clark & Tellegen, 1988). Only ratings for anger and shame were used.

**Immediate Attributions.** Attributions following the fairness manipulation were assessed using Russell’s (1982) Causal Dimension Scale. Subjects were asked to write down the cause of the quality of the assistance they received from the experimenter on the main distractor task. They were then asked to evaluate this cause with a 9-item scale concerned with locus of causality, stability and controllability. These items were rated on a 7-point scale, with an example item being, “Is the cause:” 1 (*Something about others*) through 7 (*Something about you*).

**Interpersonal Justice Perceptions.** To evaluate whether the manipulation worked in the intended direction, participants were asked to rate the extent to which they were treated with interpersonal justice using the 4-item scale developed by Colquitt (2001). These items were rated on a 5-point scale ranging from 1 (*to no extent*) to 5 (*to a large extent*). An example item is, “To what extent did the experimenter treat you in a polite manner?”

**Counterproductive Work Behaviors.** Measured CWBs included interpersonal aggression, stealing, absenteeism and passivity. Interpersonal aggression was measured by asking participants whether the experimenter should continue to receive funding in the next academic year. Stealing was measured by dropping a $1 bill and coding for the reaction of the subject (returned, left on floor, stolen, or other). Passivity was measured by asking participants whether they would be willing to be contacted by the experimenter for future studies. Lowered performance was measured by presenting participants with an optional task that depended on
persistence rather than skill, namely listing as many objects in the room and copying as much of a chapter from a book as wanted.

**Procedure**

Participants were told that the study was a simulation of a working environment and would focus on variables that influence learning speed, and that they would be asked to do two similar tasks to see the extent to which they had learned from the first. However, if they were able to quickly learn how to complete the first task, they would not be asked to do a secondary task. They were told that almost all participants have been able to complete the task successfully the first time, so that they all had the same expectation going in and would see unsuccessful task completion as being below average.

Participants were randomly sorted into either the interpersonally fair or unfair group. Experimenters were trained on how to be interpersonally unfair, such as exhibiting a condescending tone, keeping participants waiting while they texted on their phones, begrudgingly assisting participants when they had questions, etc. Before beginning any tasks, participants completed questionnaires with demographic information, trait affectivity, self-esteem and narcissism.

After finishing the initial questionnaire, participants then engaged in a filing task in which they were given a stack of documents and had to sort through them, label them and organize them within drawers. Participants were given a set of instructions and were told that the instructions were typed by the experimenter. Participants were told that they had 10 minutes to complete the task and that the task would have to be repeated if it was not completed correctly
the first time. They were also told that they should come to the experimenter with any questions they may have regarding the instructions.

After the filing task, all participants in both the fair and unfair groups were told that they failed and would need to do the second task to assess learning capability after filling out another set of questionnaires. As the experimenter went to grab the questionnaires, she “unknowingly” dropped a $1 dollar bill. Participant reactions to the $1 bill were coded by the experimenter at the end of the study.

Upon returning to the room, the experimenter directed participants to the set of measures regarding state emotion and immediate causal attributions regarding why they were unsuccessful. There was also an optional exercise at the end of the study, which participants were told was for a side project the experimenter was doing. Participants were given the option to skip it or complete it. They were then brought to an evaluation page for the experimenter and told that responses would influence whether the experimenter is eligible for funding next year as a graduate student. Finally, participants were asked whether they would like to participate in a follow up study near the end of the semester for the same experimenter. Once this questionnaire was completed, participants were informed that they did not need to participate in a secondary task and were debriefed on the nature of the experiment.

Results

Preliminary Analyses

To evaluate whether the interpersonal justice manipulation was successful, an independent samples t-test was performed. The assumption of homogeneity of variance was violated according to Levene’s test, $F = 56.7, p < .001$. There was more variation among
interpersonal justice ratings in the unfair group than in the fair group. Therefore, the separate
variances version of the t-test was used, rather than the pooled variances version. The difference
in interpersonal justice rating means was significant between the two groups, \( t(100.5) = 6.89, p < .001 \). The mean interpersonal justice rating was 4.66 (SD = 0.57) for the fair group and 3.60 (SD = 1.24) for the unfair group. The effect size, as indexed by eta squared, was \( \eta^2 = .32 \), which indicates a large effect.

Means, standard deviations and bivariate correlations are presented in Table 1. The interpersonal injustice condition was significantly related to aggression, as indicated by a desire
to cut funding to the research assistant who acted as the experimenter, \( r = .23, p = .003 \).
Narcissism was significantly related to anger, \( r = .20, p = .02 \). Low self-esteem was significantly
related to lowered performance (Table 1 “Performance” stands for higher levels of performance),
\( r = .22, p = .004 \). Anger was negatively related to passivity, \( r = -.26, p = .003 \).

One of the main purposes of the present study was to examine a potential approach-
avoidance dimension along which to categorize CWB. However, the Kuder-Richardson Formula
20 indicator of reliability revealed extremely low reliability coefficients among the four
measures of CWB (\( \alpha < .10 \)). Therefore, all proceeding analyses will be performed keeping the
measures of CWB separate, rather than combining them into their theorized approach and
avoidance orientations. Because hypotheses related to narcissism and low self-esteem were
presented in an alternating fashion, results will be separated based on whether they relate to
narcissism or low self-esteem rather than in the order the hypotheses were listed.
Interaction between Narcissism and Interpersonal Injustice

To assess Hypothesis 1, which centered on whether the effects of narcissism and interpersonal injustice (dummy coded 1 = Fair, 2 = Unfair) interacted to significantly predict the four forms of CWB, logistic regression analyses were performed using a mean-centered narcissism, interpersonal justice and the interaction terms for the dichotomous outcomes (stealing, passivity and aggression), and a linear regression analysis was performed for performance. As multivariate techniques for dichotomous outcome variables are not readily available, logistic and linear regression analyses were kept separate for each form of CWB. Across all dichotomous CWB not engaging in CWB was coded as “0” while engaging in CWB was coded as “1.”

For passivity, as indicated by responses regarding participating in a follow-up study, a binary logistic regression analysis revealed that the test of the full logistic regression model compared with the null model was not statistically significant, $\chi^2(3) = .686, p = .876$. There was virtually no relationship between the predictors and passivity, with Cox and Snell’s $R^2 = .004$ and Nagelkerke’s $R^2 = .007$.

For performance, as indicated by persistence on a transcription task, the regression analysis revealed that the overall model did not significantly predict lowered performance, $F(3,164) = 1.04, p = .38, R = .136, R^2 = .02$, adjusted $R^2 = .00$. The interpersonal justice condition, $t(164) = 1.39, p = .17$, narcissism, $t(164) = .88, p = .38$, and the interaction term, $t(164) = -1.04, p = .30$, were not significant predictors.

For stealing, as indicated by whether participants took the one-dollar bill dropped on the floor, a binary logistic regression analysis revealed that the test of the full logistic regression
model compared with the null model was not statistically significant, $\chi^2(3) = .078$, $p = .994$.

There was no relationship between the predictors and passivity, with Cox and Snell’s $R^2 = .000$ and Nagelkerke’s $R^2 = .001$.

For aggression, as indicated by whether or not participants felt that the experimenter should have her funding cut in the next academic year, a binary logistic regression analysis revealed that the test of the full logistic regression model compared with the null model was statistically significant, $\chi^2(3) = 10.87$, $p = .012$. The strength of the association between the predictors and aggression was relatively weak, however, with Cox and Snell’s $R^2 = .065$ and Nagelkerke’s $R^2 = .166$. The statistical significance of the full model appeared to be due solely to the main effect of interpersonal justice, $B = 2.612$, Wald $\chi^2 = 4.963$, $p = .026$. The odds of indicating that funding should be cut were approximately 13.6 higher for those who were in the interpersonally unfair group compared to those who were in the fair group. Narcissism and the interaction between the effects of narcissism and interpersonal justice were not significant predictors of aggression.

From these analyses it can be concluded that the effects of interpersonal injustice and narcissism did not significantly interact to predict any form of CWB. Thus Hypothesis 1, which stated that the interactive effects between high levels of narcissism and interpersonal injustice relate more strongly to CWB than the effects of low levels of narcissism and interpersonal injustice, was not supported.

**Narcissism Results**

To evaluate Hypothesis 4, which centered on whether the effects of narcissism and interpersonal injustice interacted to predict external attributions, a regression analysis was
performed. Results indicated that the overall regression model was not significantly predictive of external attributions, \( R = .07, R^2 = .01, F(3,150) = .234, p = .87 \). None of the individual predictors reached statistical significance, including the centered interaction term, \( t(150) = .10, p = .91 \). Thus, Hypothesis 4 was not supported.

Hypotheses 5, 7 and 9, which proposed that external attributions related to anger, that anger predicted in engaging in theft and aggression, and that this process mediated the effects of narcissism on CWB, were tested using the PROCESS macro provided by Hayes (2012) using bootstrapped confidence intervals and standard errors. Table 2 summarizes the path coefficients predicting stealing and aggression. The direct effect from narcissism to stealing was not statistically significant, \( \text{narcissism} = -.35, \text{SE} = 1.93, p = .87 \). Even though direct effects were not detected, as per the critique by Hayes (2009) on the causal steps approach outlined by Baron and Kenny (1986), bootstrapped tests for indirect effects were conducted. The overall indirect effect to stealing was also not statistically significant, \( \text{narcissism} = .16, \text{SE} = 1.89, \text{bootstrapped 95\% CI} \ [ -1.91, 1.47 ] \). The only indirect path that reached statistical significance was between narcissism and anger, \( \text{narcissism} = 1.26, t(123) = 2.57, p = .01 \). For aggression, as indicated by whether the participant agreed to cut funding for the experimenter, the direct effect of narcissism was not statistically significant, \( \text{narcissism} = .61, \text{SE} = 1.89, p = .75 \). The overall indirect effect to aggression was also not statistically significant, \( \text{narcissism} = -.59, \text{SE} = 2.04, \text{bootstrapped 95\% CI} \ [ -10.44, .38 ] \). Again, the link between narcissism and anger was the only indirect path that reached statistical significance, \( \text{narcissism} = 1.34, t(126) = 2.75, p = .007 \). Thus, Hypotheses 5, 7 and 9 were not supported.
Low Self-Esteem Results

To evaluate Hypothesis 2, which centered on whether the effects of low self-esteem and interpersonal unfairness interacted to predict internal attributions, a regression analysis was performed. Results indicated that the overall regression model was not significantly predictive of internal attributions, $R = .15$, $R^2 = .02$, $F(3,150) = 1.08, p = .36$. Neither of the individual predictors reached statistical significance, nor did the centered interaction term, $t(150) = .07, p = .94$. The main effect of low self-esteem on internal attributions did approach significance, $t(150) = 1.78, p = .08$. Because the interaction effect was not significant, Hypothesis 2 was not supported.

Hypotheses 3, 6 and 8, which respectively proposed that internal attributions related to shame, that shame predicted passivity and lowered performance, and that this process mediated the effects of low self-esteem on these forms of CWB, were tested using the PROCESS macro provided by Hayes (2013). Please see Table 3 for the path coefficients. The direct effect of LSE on passivity was not statistically significant, LSE = .10, SE = .37, $p = .78$. The overall indirect effect to stealing was also not statistically significant, LSE = .00, SE = .08, bootstrapped 95% CI [-.18, .17]. None of the indirect paths reached statistical significance. For lowered performance, the direct effect of LSE approached statistical significance, LSE = 7.49, SE = 3.93, $p = .06$. The overall indirect effect to lowered performance was also not statistically significant, LSE = -1.08, SE = 1.22, bootstrapped 95% CI [-4.62, .49]. Thus, Hypotheses 3, 6 and 8 were not supported.

Discussion

The purpose of this study was three-fold: to examine whether interpersonal injustice triggers the emergence of counterproductive work behaviors [CWB] from narcissistic individuals, to examine the cognitive and affective mechanisms related to narcissism and low
self-esteem [LSE], and to explore a potential approach versus avoidance dimension along which the behaviors that comprise CWB can be studied. In examining these issues, the present study drew from the causal reasoning perspective (Martinko et al., 2002). None of the hypotheses were supported in the present study. The results of this study did not support the notion that the effects of interpersonal injustice and narcissism interact to predict CWB, that narcissism and LSE led to different cognitive and emotional responses, or that CWB can be grouped into approach and avoidance dimensions.

Surprisingly, neither causal attributions nor emotions significantly predicted any form of CWB, providing no support for Hypotheses 6 and 7. Emotions, in particular, have been studied extensively in conjunction with CWB (e.g., Krischer, Penney & Hunter, 2010). However, previous research has tended to look at CWB occurrences in aggregate, or across a wide range of time, and thus have relied almost extensively on broad emotion terms such as negative affectivity or trait anger and trait anxiety (e.g., Fox, Spector & Miles, 2001; Penney & Spector, 2005). No studies could be found using state measures of specific emotions. Likewise, not a single study has used immediate causal attributions to predict CWB; rather, all have used trait-like attributional styles instead (e.g., Chao, Cheung & Wu, 2011). Very few studies in general have examined CWB within a laboratory setting (for an exception, see Colquitt, Scott, Judge & Shaw, 2006). It is possible that CWB is best examined under long-term circumstances, perhaps as instances of injustice accumulate across time rather than within a short time span.

Neither narcissism nor LSE seemed to predict causal attribution processes, against the predictions of Hypotheses 2 and 4. One potential reason for this is the low reliability of the Causal Dimension Scale ($\alpha = .58$), which could have attenuated its relationship with the emotion variables as well, thus not providing support for Hypotheses 3 and 5 (Schmitt, 1996). Bivariate
correlations revealed that attributions had a nonexistent relationship with every other variable measured within this study. Narcissism was found to predict anger, but neither anger nor shame predicted any form of CWB. The reason for this may be that multiple instances of interpersonal injustice are required before a target will take any form of action against the perpetrator. There were also floor effects for negative emotions; therefore, it is likely that those who were the angriest or most ashamed within the sample were not angry or ashamed in an absolute sense.

No evidence was provided in the current study that CWB could be categorized into approach and avoidant dimensions, which was integral to Hypotheses 6-9. The main reason for this was likely the quantity and quality of the indicators used. However, it may also be that the underlying dimensionality of CWB is too complex and varied to be sorted into only two factors. A number of additional considerations to make when evaluating the dimensionality of CWB have been uncovered by previous research, such as the target of the behavior (Penney & Spector, 2005), hostile versus instrumental intentions (Spector et al., 2005), emotion versus problem-focused coping (Krischer et al., 2010), and general groupings of behavior types (Gruys & Sackett, 2003). However, it is worth noting that all of the studies mentioned have relied exclusively on self- and other-reported surveys that have all utilized different measures of CWB. As mentioned previously, very few studies examine CWB as it occurs in real-time in a laboratory setting, or otherwise, and it is likely that these different conceptualizations of CWB dimensionality vary in their importance based on temporal considerations.

Perhaps most unexpectedly, the effect of narcissism did not interact with interpersonal justice to predict CWB as proposed in Hypothesis 1. Even on its own, narcissism was not related to any form of CWB. Part of the reason for this likely stems from attenuation due to the relatively low reliability of the narcissism measure, (α = .70) which likely stems the restricted
range of narcissism scores and a slight positive skew, as 75% of participants fell beneath the numerical midpoint of the scale. Previous studies examining the relationship between narcissism and CWB have generally relied on self-reported surveys that ask about a wide range of behaviors (e.g., Penney & Spector, 2002). The fact that narcissism is also generally measured through self-report methods could indicate the presence of common method bias. It is also likely that asking about a wide range of CWB, including relatively minor acts such as gossiping against a supervisor, allowed for a better understanding of the relationship between narcissism and CWB compared to the present study, which only examined whether narcissism was related to stealing and the decision to cut funding to the research assistant, which are both relatively extreme reactions.

Overall, it seems likely that the measurement method of CWB in this particular study prevented the discovery of the proposed relationships. Furthermore, the meta-analytic correlation between narcissism and CWB is $r = .35$, indicating too small an effect to be able to detect potential mediators of the relationship. Based on the lack of significant findings in this study, it may be more advantageous to researchers to examine CWB in field settings, so as to limit neither the range of behaviors nor the span of time in which CWB could emerge.

**Limitations and Future Research**

This study had several limitations that may have affected the results. First, all participants were told that they failed the filing task, regardless of their actual performance or the experimental group. Thus, the effects of this false feedback could have affected any results that might have been related to interpersonal justice. The receipt of a negative evaluation regarding performance could have had its own impact on cognitive, affective and behavioral outcomes,
regardless of the interpersonal justice group participants were sorted into. Indeed, previous research has found negative performance feedback elicits negative reactions and aggressive behaviors from those who score highly on narcissism (Smalley & Stake, 1996).

Second, this study was conducted in a laboratory setting with undergraduate students, and therefore, may not be generalizable to other populations. While one may argue that the cognitive and affective mechanisms related to personality are likely common across populations, future research should still test whether these effects hold in working adults. Because it was a laboratory experiment, it is also likely that the interpersonal justice manipulation were not as strong as actual workplace injustice. Furthermore, self-esteem research has indicated that self-esteem may be variable across domains of life (Eccles, Wigfield, Flanagan, Miller, Reuman, & Yee, 1989). It may that experiences in a laboratory experiment did not provoke reactions related to esteem-based variables because they did not hold value to the participants.

Third, as previously mentioned, the measure of causal attributions used in this study had a low reliability (α = .58), likely due to its 3-item length. Another issue with the measurement of causal attributions related to the specific wording in the instructions to participants. Participants were instructed to evaluate the cause for the quality of the assistance they received over the course of the experiment so that the true purpose of the study, in terms of evaluating the role of interpersonal injustice, would be less likely to be detected. However, this wording could have led to some confusion, as features of the experiment aside from the experimenter could have been taken into account when making causal attributions. Future research should find alternative methods of evaluating causal sense-making, perhaps through qualitative methods and folk terminology as suggested by Malle (2011).
Fourth, the indicators of CWB were rough approximations of real-world behaviors that may not have directly tapped into the construct of interest. The indicator used for passivity consisted of asking participants whether they would like to participate in a follow-up study with the experimenter, although this action could reasonably constitute an instance of OCB, or going above and beyond what is required, rather than CWB. Only two indicators of each proposed dimension of CWB were included in the present study, which essentially precluded any tests for the proposed factor structure. While difficult to do within a time-limited laboratory setting, future research should examine a broad array of actions that may constitute CWB to better examine potential interrelationships. If possible, relatively more common behaviors should be used so as to avoid the extremely low base rates of certain types of CWB found in this study.

**Practical Implications and Conclusion**

Given the inconclusive results of the present study, there is little that can be applied practically in work settings. While the effect of narcissism was not found to interact with interpersonal justice in predicting CWB, the scope of behaviors examined within this present study were very limited, and may not represent CWB of interest to employers across different industries. The fact that neither narcissism nor interpersonal injustice were related to CWB, aside from the operationalization for aggression (voting to cut funding to the experimenter), may mean that there are other factors to take into account, such as personal beliefs and values that may preclude an individual from acting in a deviant manner (Wu, Sun, Fu & Liu, 2014).

In summary, the results of this study did not provide support for any of the proposed relationships. Neither narcissism nor LSE were significantly related to engaging in CWB. Interpersonal injustice was only found to affect one form of CWB, and its effects were not found
to interact with the effects of narcissism or LSE in predicting either CWB or causal attributions. Causal attributions did not significantly relate to personality traits, emotions, or behaviors, possibly due to the low reliability of the scale used. Finally, CWB could not be reliably separated into approach and avoidance factors. Ultimately, this research study shed light on the difficulty of capturing CWB within a laboratory setting, and suggests that the strength of the relationship between personality traits and CWB may be too weak to require an examination of mediating processes.
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Figure 1. The Causal Reasoning Perspective of CWB within an Esteem Threat Framework
Table 1

*Bivariate correlations, means, standard deviations and reliabilities of study variables*

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<td>.20*</td>
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*Note.* N = 170. Reliabilities for multi-item measures are along the diagonal.
Table 2

*Mediation Analysis from Narcissism to External Attributions to Anger to CWB*

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<th>Stealing 95% CI Upper</th>
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<td>.08</td>
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*Note: N = 129. * p < .05.*
Table 3

Mediation Analysis from Low Self-Esteem to Internal Attributions to Shame to CWB

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<td>.44</td>
<td>3.82</td>
<td>-.64</td>
<td>8.27</td>
</tr>
<tr>
<td>Shame</td>
<td>-.01</td>
<td>-.39</td>
<td>.37</td>
<td>-3.53</td>
<td>-7.50</td>
<td>.44</td>
</tr>
</tbody>
</table>

*Note: N = 135. * p < .05.