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EMPATHY AS A BUFFER: THE MODERATING EFFECT OF TRAIT EMPATHY ON
COUNTERPRODUCTIVE WORK BEHAVIOR

by

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B.S. University of Florida, 2017

A thesis submitted in partial fulfillment of the
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ABSTRACT

While much research has been dedicated to determining what may cause workers to engage in counterproductive behavior at work, fairly less attention has been paid to the factors which may influence individuals to refrain from enacting these behaviors. The current study was conducted to determine whether trait empathy may be one such factor and serve as a moderator of the relationship between work stressors and intentions to commit counterproductive work behavior (CWB). Using the theoretical framework of the stressor-emotion model of CWB it was hypothesized more specifically that empathy moderated the mediating effects of negative affect on relationships between stressors and CWB intentions; it was expected that this mediating process would be weaker for those who are more empathetic as compared to those who lower in empathy. 365 Full-time working adults were surveyed using Amazon's Mechanical TURK at two time points to examine this relationship. The moderating effects of the different facets of empathy on the work stressor-CWB relationship were also examined in regard the intention to commit CWB to see if one facet of empathy was more key in the buffering of CWB than the other. Results supported the stressor-emotion model of CWB finding that NA mediated the relationship between the work stressors workload and organizational injustice, and CWB intentions. Results also found that trait empathy significantly attenuated the indirect relationship between the stressors and CWB intentions with trait empathy's affective component found to be particularly influential in this process. Implications of these findings as well as directions for future research are discussed.

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CHAPTER 1: INTRODUCTION

Research into counterproductive work behavior, also known as CWB, has flourished in that last decade (Dalal, 2005; Penney & Spector, 2005). CWB is defined as any volitional act by employees that potentially violates the legitimate interests of, or does harm to, an organization or its stakeholders (e.g., Sackett & DeVore, 2001) and can be regarded as a behavioral manifestation of the strain borne from the perceptions of stressors in the workplace (Fox, Spector, & Miles, 2001; Jex & Beehr, 1991). CWB encompasses an array of behaviors such as incivility, aggression, sabotage, theft, and absenteeism which, as alluded to in its definition, can be directed towards the organization (referred to as CWB-O) or towards other individuals (CWB-I; Fox & Spector, 1999; Robinson & Bennett, 1995). Regardless of the target, CWBs can have significant consequences for both the organization and its members, even if not directly involved in their enactment (Spector & Fox, 2010; Lim et al., 2008). In fact, past research has estimated that CWBs have cost organizations billions of dollars annually (Vardi & Weitz, 2004), can decrease affected employee's job satisfaction, and can increase stress levels and intentions to quits (Budd, Arvey, & Lawless, 1996; Glomb, 2002). Engaging in CWB also has the potential to harm the perpetrator, leading to lower performance evaluations, slower promotions within the organization, and job termination due to the unfavorable nature of the behaviors they are enacting (Spector & Fox, 2010).

Due to the costly nature of CWB for all parties involved, factors that influence its occurrence are of particular interest to researchers and organizations. Two such factors identified by past literature are workplace stressors and employee personality traits (Bowling & Eschleman, 2010). Workplace stressors are aspects of the work environment that individuals may perceive of as aversive (Spector & Jex, 1998) and may include constructs such as workload,

organizational justice, organizational constraints, and interpersonal conflict, numerous studies identifying all as potential antecedents of CWB (Sprung and Jex, 2012).

Personality traits have also been researched regarding individual differences in the enactment of CWBs. However, while previously researched traits such as narcissism and trait anger have been found to successfully moderate the pathway from work stressor to CWB enactment (Penney & Spector, 2002; Ilie et al., 2012), this research and the majority of investigative efforts on personality traits tends to focus on how they may increase the likelihood of an individual enacting a CWB due to the individual becoming more “reactive” to encountered stressors. Lesser researcher has been dedicated to instead investigating the potential buffering role certain personality traits may play, especially ones that may not affect the individual’s initial perception of the stressor, but still heavily influence their subsequent behavior. One personality trait that may do so is empathy.

Empathy is a complex concept generally defined as the ability to share and understand others’ emotions (Batson and Shaw, 1991). While there are a number of theories as to how empathy operates, researchers seem to agree with the idea that empathy is a multidimensional construct consisting of an affective and a cognitive component, with extant research providing conflicting findings as to which component (or both) is more crucial in predicting subsequent behavior (Davis, 2018).

The purpose of the proposed study is to extend this field of research by examining the main effects of work stressors and empathy in relation to CWB, as well as their interactive effects. Particularly, this study sought to examine the moderating effect empathy has on the relationship between negative affect resulting from work stressors and CWBs to identify

potential individual differences in the performance of CWB and whether different facets of empathy may be more salient in this process.

CHAPTER 2: STRESSORS AND CWB

According to Lazarus & Folkman's transactional model of stress and coping (1987), people are thought to constantly monitor and appraise the environment around them for potential threats to their well-being. Events that are appraised as threats are called stressors and induce negative emotional reactions in the individual who appraises them such as anger, anxiety, or frustration (Spector, 1998). Job or work stressors are aspects of the workplace appraised in the same negative manner, with common stressors studied by the literature including workload (Chen & Spector, 1992), organizational justice (Greenberg, 1990), organizational constraints, and interpersonal conflict (Hershcovis et al., 2007; Penney & Spector, 2005). When these potential stressors are encountered, the individual is thought to respond by first appraising them as threats, then consider how to respond and cope in response to the stressor (Folkman et al., 1986, Lazarus & Folkman, 1984, Lazarus & Folkman, 1987). Emotional reactions, especially negative ones, are thought to play a key role in this process as they are an immediate reaction to the stressor and because they can influence subsequent behavior and other responses (Cartwright & Cooper, 1997; Spector, 1998; Fox et al., 2001; Spector and Fox, 2002).

The stressor-emotion model of CWB by Spector and Fox (2005) expands upon this and theorizes that the negative emotional reaction felt in response to job stressors spurs the individual towards a particular course of action to alleviate the negative affect felt. According to theory, the negative affective response to work stressors manifests as strain, an outcome of the job stress process. Strains can be psychological (turnover intentions, job dissatisfaction, etc.), physical (increased blood pressure, headaches, etc.), or behavioral (smoking, withdrawal, etc.), and behavioral manifestations of strain in particular are thought to arise in order to reduce the negative emotions felt and increase positive emotions. One commonly studied behavioral

manifestation of this strain is CWB (Spector & Fox, 2005) and past research supports this, finding that negative emotions, or negative affect, mediates the relationship between job stressors and CWB (Fida et al. 2012; Fox et al. 2001; Rodell and Judge 2009). Affective Events Theory (AET) also supports this affective pathway from an employee's felt emotions to behavior as it states that the events experienced at work (such as work stressors) are proximal causes of affective reactions in the individuals who experience them and that these affective experiences have direct influence on the subsequent attitudes and behaviors of that individual (Weiss & Cropanzano, 1996).

When a workplace stressor such as workload or interpersonal conflict is appraised, the process is theorized to lead to increases in negative affect and then to CWB in particular because the work stressor is appraised to threaten the individual's wellbeing, interfere with that individual's goal attainment or on-going activity, or even because the individual makes an attribution of blame around the source of the stressor because it is viewed as harmful or unjustified in its influence on that individual (Spector & Fox, 2005). Whatever the case, negative emotions such as frustration and anxiety are typically aroused in response and then trigger more aggressive and generally harmful behaviors, many of which may fall under CWB (Dollard et al., 1939; Spector, 1975; Mueller, 1983).

In line with this, the literature on coping supports the idea of enacting CWB in response to negative emotions in that CWB may be seen as a way of coping with the stressor and the negative emotions that arise from perceiving it. A general distinction that researchers make among coping styles is between problem-focused coping and emotion-focused coping. While problem-focused coping attempts to directly impact the perceived stressor, emotion-focused

coping aims to regulate one's emotional response to the stressor by regulating, reducing, or eliminating the negative emotional stress associated with the stressor (Zeidner, 1995).

Due to this, CWB could potentially be classified as either of the coping methods in response to a work stressor. For example, a worker faced with a high workload or interpersonal conflict on the job may engage in emotion-focused coping such as take longer breaks to avoid the perceived stressful conditions associated with their workplace that potentially threatens their general well-being or interferes with their work. CWB could even be conceptualized as problem-focused coping when considering work stressors such as organizational constraints. Workers may perceive an interference with their work goals due to a lack of supplies needed to do their work and subsequently engage in CWB such as theft to obtain the needed supplies. In the case of stressors such as interpersonal conflict and organizational injustice, workers may engage in retaliatory CWBs toward those who they perceive to be the origin of the stressor if they believe the other's actions are harmful or unjustified in order to "get even". As mentioned earlier, the intensity of the negative affect felt, and thus the likelihood and manner of the enactment of subsequent CWB, is dependent in part by an appraisal of blame in which the individual assesses the cause of the stressor and their intent during the appraisal process. Research has shown that the subsequent behavioral outcomes on the part of the victim are most usually targeted toward the appraised cause of the stressor, which in the workplace is often either the organization or another individual (Herscovis et al., 2007). This is also supported by research on the incivility spiral (Andersson & Pearson, 1999) which finds a tendency for victims of perceived incivility to engage in a back and forth of retaliatory behaviors with another party who is perceived to have committed some form of incivility or CWB toward them.

While it is generally accepted that this proposed path from work stressor to CWB is correct, most research into the relationship between workplace stressors and CWB utilizes cross-sectional designs and thus makes it difficult to determine the direction of effects and may increase the probability that employees report higher levels of stressors to rationalize their performance of CWB (Meier & Spector, 2013; Bordia et al., 2008). The proposed study will utilize two-wave lagged design measuring work stressors and self-reported CWB at two time points one month apart to combat potentially inflated correlations due to common method variance, similarly to Illie et al.'s (2012) study design investigating the role of trait anger in the stressor-CWB relationship (Zapf et al., 1996). This approach advances past research on CWB due to the proliferation of cross-section research investigating CWB and the factors that may influence it, which ultimately limits determinations of causality between variables (Spector & Fox, 2005). Measuring predictor variables at time 1 and the outcome variable of CWB likelihood at time 2 should help to reduce some uncertainty about the temporal direction of effects (Zapf et al., 1996)

Additionally, there exist several pitfalls in the typical measurement of CWB, many of which stem from a lack of situation or context-specific measures of CWB. Bowling & Gruys (2010) outline this issue in detail, bringing up how one-size-fits-all checklist measures of CWB that are not appropriately tailored to the organization or occupation of the participants being studied are heavily used in the CWB literature and that this makes it very likely two issues shall arise: the generic measures of CWB may include behaviors completely irrelevant to the jobs or organizations being studied, and the measures may potentially exclude important behaviors specific to particular occupations. Further, many measures of CWB do not include an option for participants to indicate the posed CWBs are “not applicable”, instead listing different

counterproductive behaviors and asking the extent to which participants perform them. Due to this, respondents might instead be forced to respond with answers indicating that they choose to not perform certain CWB when the reality is performing certain CWB is not at all possible in their occupation, leading to an underestimation of the extent to which CWB is actually being performed (Bowling & Gruys, 2010).

Our proposed study first aims to replicate past research investigating the mediating role of NA on the relationship between several popular work stressors and CWB, but to also add to the literature by specifically measuring the likelihood of committing CWB and to do so over two time points, one month apart.

Workload

High workload is likely to result in an increased likelihood to commit CWB based on literature suggesting workload's negative correlation with employee well-being (Demerouti & Bakker, 2011) and its ability to potentially deplete workers of their physical and cognitive resources, making a high workload undesirable and likely to spur feelings of frustration and anxiety (Fox & Spector, 1999). Additionally, high workload has been found to relate to general CWB in the past, though it was studied in a cross-sectional method (Spector & Fox, 2002). Therefore, it is hypothesized that workload will be positively related to CWB, and that NA will mediate this relationship.

Hypothesis 1a

Time 1 workload will be positively related to time 2 CWB likelihood and time 1 negative affect will mediate this relationship.

Interpersonal conflict

Past research has illuminated interpersonal conflict's positive relationship with CWB as mediated by negative affect (Penney & Spector, 2005; Fida et al., 2014). Further supporting this, research in the aggression literature finds that individuals are likely to experience negative emotions in response to interpersonal aggression and to respond with aggression towards the perceived target, such as with Andersson and Pearson's theorized spiral of incivility (1999). Aggression is a common component of interpersonal conflict and has been found to have a positive relationship with interpersonal conflict (Hershcovis et al., 2007). Therefore, it is hypothesized that interpersonal conflict will be positively related to CWB, and that NA will mediate this relationship.

Hypothesis 1b

Time 1 interpersonal conflict will be positively related to time 2 CWB likelihood and time 1 negative affect will mediate this relationship.

Organizational constraints

Organizational constraints are aspects of the work environment that interfere with employees translating ability and effort into high levels of job performance that usually involve lack of time, resources, or help from others (Spector & Jex, 1998). It involves incompatible demands on employees that interfere with accomplishing work goals because the nature of organizational constraints prevents the worker from attaining desired objectives, which has been found to lead to feelings of frustration and aggressive behaviors. Some examples of organizational constraints are organizational rules and procedures, lack of equipment or supplies,

and inadequate training. Organizational constraints have also has been linked to the enactment of aggressive behavior aimed towards the organization (CWB-O) in particular, as workers typically attribute the causes of organizational constraints to a variety of sources from the organization (Fox et al., 2001; Penney & Spector, 2005; Hershcovis et al., 2007). Therefore, it is hypothesized that organizational constraints will be positively related to CWB, and that NA will mediate this relationship.

Hypothesis 1c

Time 1 organizational constraints will be positively related to time 2 CWB likelihood and time 1 negative affect will mediate this relationship.

Organizational injustice

Organizational injustice, or employee perceptions of unfair treatment (Greenberg, 1990) is also likely to relate to CWB (Hershcovis, et al., 2007). Two salient facets of organizational injustice are distributive and procedural justice. Distributive injustice refers to the perceived unfairness of organizational outcomes. Procedural injustice, on the other hand, refers to the unfairness of procedures used to arrive at organizational outcome decisions (Thibaut & Walker, 1975). Both are likely to lead to the experience of negative emotions once perceived because injustice is typically seen as a breaking of a balanced and fair relationship of inputs and outputs between the individual and another entity. This perceived imbalance is thought to cause feelings of anxiety and other negative states, likely because it could potentially threaten one's well-being or interfere with goals, which may then prompt negative behaviors in response (Greenberg, 1987). Perceived injustice may also prompt CWB in particular as the cause of organizational

injustice is typically attributed to the organization due to procedure decisions being made at the organization level. Additionally, CWB has been implicated as a retaliatory behavior in response to perceived organizational injustice in the past (Spector & Miles, 2001; Hershcovis, 2007). Therefore, it is hypothesized that organizational injustice will be positively related to CWB, and that NA will mediate this relationship.

Hypothesis 1d

Time 1 organizational injustice will be positively related to time 2 CWB likelihood and time 1 negative affect will mediate this relationship.

There exist, however, individual differences that may make one more or less likely to react in response to these negative emotions felt from perceiving stressors, thus reducing potential negative behavioral outcomes (i.e. CWB). Many studies conducted in the past have suggested that the relationship between stressors and CWB may vary depending on individual differences in personality (Bowling & Eschleman, 2010; Penney & Spector, 2005). One individual difference I examine that might buffer this work stressor-to-CWB framework is trait empathy.

CHAPTER 3: TRAIT EMPATHY AS A MODERATOR

While empathy has been studied extensively in the social psychology and the clinical literature, over the years researchers have largely been divided on a single conceptual model of the construct. Two components of empathy seem to consistently resurface, however: affective and cognitive empathy. Affective empathy can be defined as the vicarious sharing and resonating with others' specific emotional states, while cognitive empathy is the ability to identify and assess emotions of another person and the ability to recognize another's perspective (Feshbach, 1989). These two aspects of empathy have been made apparent by a number of studies stating that the cognitive and affective components of empathy encompass different abilities that rely on different non-overlapping neurocognitive circuits (Singer, 2007).

Despite evidence distinguishing affective and cognitive empathy, the broad term of empathy continues to be applied to studies which frame empathy as solely a cognitive or an affective trait with two dimensions, or do not distinguish between measuring empathy as a process or as an outcome (Davis, 2018). The literature is also bogged down by anecdotal and historic word interpretations of what we believe encompasses "empathy" that bias our conceptualization of the construct.

To simplify the literature, I offer a potential conceptualization of empathy that includes a combination of these two separate affective and cognitive pathways. Empathy as we know it might consist of a cognitive process and an affective outcome in which one cognitively identifies the emotion of another individual and responds affectively. The cognitive process in this conceptualization is cognitive empathy in which an observer identifies an emotional response in another individual, with past experiences and knowledge on the part of the observer informing this cognitive process to more accurately identify what emotions the other person is feeling.

When one is younger and has low, immature levels of cognitive empathy, one will tend to mirror the emotions of the individual they are observing or instead believe that the other individual is feeling the same emotions as they are themselves. This egocentric “mirroring” is a less complex, almost crude assessment and interpretation of another individual’s emotions that is used more heavily when we are younger and reflects a simulation perspective of understanding. This perspective states that we instinctively mimic others’ mental activity and use our own to understand what they are thinking and feeling (Gallese & Goldman, 1998).

As one matures and gains knowledge and past experiences of how individuals experience emotions and how they themselves have experienced emotions, they become better informed and can more accurately identify another’s emotions using cognitive empathy. A farther along, more complex explanation for understanding behavior is called the theory of mind perspective which is a theory of information processing in which humans apply a system of rules derived from their own experiences to represent the mental state of others, which can have a number of social benefits for the observer (Gopnik & Meltzoff, 1997). This overall developing, dynamic view of cognitive empathy is supported by research showing brain regions relevant to cognitive empathy are thought to develop later than brain regions relevant to more affective aspects of empathy (Singer, 2006).

Cognitive empathy then in turn results in the affective, emotional outcome of affective empathy, essentially the experience of emotions, typically mirroring the emotions that an individual believes another is experiencing. Due to affective empathy allowing for a more “inside look” at what another is feeling and going through, affective empathy along with cognitive empathy used to identify that emotion, can motivate the observer’s behavioral reactions moving forward. A stronger understanding of another’s emotions, especially through

such a salient process of experiencing another's emotions is thought to then increase the likelihood of the observer to attempt to relieve the distress of the other individual. Theoretical backing for this idea lies with the empathy-altruism hypothesis that states that empathetic reactions produce altruistic motivation in individuals, or a motivational state with the ultimate goal of increasing another's welfare (Batson, 2010). As a result, the experience of empathy (both cognitive and affective) has largely been implicated to be related to positive outcomes, such as prosocial helping behaviors, and furthermore almost every major theory of why people offer help to others identifies empathetic reactions as a mediating variable (Batson, 1991; Davis, 1994; Schroeder, Penner, Dovidio, & Piliavin, 1995).

Along with increasing concern for the welfare of others, empathy (or lack thereof) has been implicated as an important component in explaining why individuals may carry out negative or aggressive acts. Social psychology research on bullying has found that lower levels of empathy are significantly related to more bullying behaviors (Jolliffe & Farrington, 2006; Jolliffe & Farrington, 2010; Gini et al, 2007) and higher levels of empathy are related to less aggressive or delinquent behaviors in adolescents (Lovett & Sheffield, 2007). While Jolliffe and Farrington's research found this positive relationship between low empathy and bullying behaviors significant only in regard to affective empathy, this may be due to the young age of their sample (~15 years old) and their potentially immature levels of cognitive empathy.

Empathy has principally been theorized as a personality trait, or a "relatively enduring" pattern of thoughts, feelings, and behaviors that distinguish individuals from each other (Roberts & Mroczek, 2008). While past researchers have assumed this "relatively enduring" aspect of traits meant that personality traits stop changing in adulthood and remain generally fixed around a set point (McCrae & Costa, 1994), cross-sectional and longitudinal studies in recent years have

challenged this notion with research demonstrating personality traits continue to change well into adulthood and often into old age (Mroczek & Spiro, 2003; Roberts, Walton, & Viechtbauer, 2006; Srivastava et al., 2003). Studying mean-level changes, or gains and/or losses in specific traits over a specified period of time and age in the life course of a population, cross-sectional research has found that those in middle-age tend to score higher than young adults on certain personality traits such as agreeableness and conscientiousness, and lower on extraversion, neuroticism, and openness (Srivastava et al., 2003). Furthermore, a meta-analysis of 92 longitudinal studies covering encompassing years old found significant mean-level change in all trait domains at some point in the life course and a statistically significant change was found in 75% of traits in middle (40-60) and old age (60+; Roberts, Walton, & Viechtbauer, 2006) challenging the assumption that personality traits remained relatively stable throughout one's life. These findings are consistent with a principle of a life-span orientation that humans are "open systems" and possess the capacity to change at all ages (Baltes & Nesselrode, 1973). The reason for these personality changes has been shown by a number of studies to be due to life and work experiences (Roberts, Caspi, & Moffitt, 2003; for a review see Roberts, Wood, & Caspi 2008) and this is consistent with theories regarding the role of experiences in informing and improving the cognitive and thus, ultimately, the affective facets of empathy. So, despite the dynamic process involved in the experience of empathy, the construct is similar to that of other personality traits and will be measured as such in the current study.

While many personality traits studied in the quest to inhibit negative work behaviors focus on how personality traits may make one more or less likely to perceive a stressor as a threat (Schneider, 2004), in the current study the focus is on how trait empathy may inhibit counterproductive behaviors after a stressor has already been appraised as a threat and induces a

negative emotional reaction. The cues and triggers for personality traits to emerge are typically studied as fast-acting activations, such as a direct response to perceiving a potential threat, influencing the levels of negative emotions they feel instantly in response (Schneider, 2004; Lazarus & Folkman, 1986). However, it can be argued that certain personality traits, especially more dynamic ones such as trait empathy, can be triggered even after the first perception of a stressor and stay activated for a much longer period of time as the individual deals with the perceived stressor. Even after a stressor has ended, the “load” it has taken on an individual may still influence the negative emotions felt, extending the experience of coping with the aftermath of the stressor (Glei et al., 2007). Due to this, it is still quite possible for a worker to intend to commit CWB even after an extended period of time after first experiencing the initial stressor, such as a few weeks.

While empathy is a more socially based personality trait and may rely more heavily on direct, instant observation of another human being to “cue” the experience of perspective taking and empathetic concern as studied in the past particularly with facial expressions (Knafo et al., 2008) (i.e. the sight of a distressed coworker on the registers causing another worker to empathize with their plight and help them out), it can be argued that trait empathy can still be activated and influence one’s behaviors even without direct cues about others (i.e. a worker choosing not to socially loaf during their closing shift despite a high workload because they know it’ll potentially negatively impact their coworkers who work in the morning).

Research on empathy and anticipated victim responsiveness finds that those who are more empathetic are likely to make decisions and behave in ways in which they anticipate will have the greatest positive impact on others in the future (Barnett et al., 1983). Simply having past experiences in which similar actions have had negative consequences on themselves or others

can be enough to trigger the memory of those who are highly empathetic and cause them to more easily engage in perspective taking toward potential victims of their actions (Gerace et al., 2015), ultimately causing individuals to question if there will be victims of their behaviors and thus be less likely to perform those behaviors if there is a potential anticipated victim, whether it be another person or the organization.

Indeed, research on empathy in the workplace finds that those higher in empathy are even likely to perform prosocial behaviors aimed at organizations as well as prosocial behaviors aimed at individuals (McNeely & Meglino, 1994) despite prosocial organizational behavior situations being potentially less likely to trigger an empathetic reaction from a lack of cues indicating there is another similar being who needs their help (Iacoboni, 2009) due to prosocial organization behaviors typically involving workers donating time, energy, and other personal resources for the overall good of the company rather than helping another distinct individual who may be in peril at a specific moment (Brief & Motowidlo, 1986).

Along with promoting prosocial behaviors (Spector & Fox, 2002), more recent research suggests empathy should inhibit harmful behaviors in the workplace, as well. While there has not yet been a study examining whether empathy will reduce intentions to commit CWB or even performed CWB, studies looking at workers with psychopathy (theorized to be low in empathy) have found they are significantly more likely to commit CWB (Carre et al., 2018), and those who are more emotionally intelligent (one component of emotional intelligence being empathy) have been found to have a negative correlation with deviant workplace behavior (Rahman et al., 2012). Finally, those who are more empathetic have been found to be more likely to report CWB witnessed compared to those lower in empathy (Bowling et al., 2020).

In light of research suggesting its role in inhibiting negative behaviors, it is theorized that trait empathy will moderate NA's mediation of the stressor-CWB pathway as identified by Fox and Spector's stressor-emotion model of CWB (2005). The knowledge gaining process of cognitive empathy and the resulting affective empathetic reaction that occurs during an appraisal of a stressor should, at higher levels, act as a buffer to the enactment of CWB. Specifically, the deeper understanding of the potential negative consequences for another entity resulting from an individual performing a CWB should thus weaken one's motivation to perform that CWB. For example, a worker with high empathy faced with a high workload or interpersonal conflict on the job may consider taking longer breaks to avoid the stressful conditions associated with their workplace, but ultimately decide not to because they understand and empathize with the potential negative outcomes for their coworker who would have to pick up the slack (especially if that has happened to them in the past) or even the organization who would potentially lose productivity and revenue due to their absence. Therefore, it is hypothesized that trait empathy will moderate NA's mediation effect for each hypothesized stressor's relationship with CWB intentions.

Hypothesis 2

Time 1 trait empathy will moderate time 1 NA's mediation of the relationship between time 1 stressors (2a) workload, (2b) organizational constraints, (2c) interpersonal conflict, and (2d) organizational injustice and time 2 CWB intentions, such that the positive NA-CWB relationship will be weaker for those higher in trait empathy compared to those lower in trait empathy.

Trait empathy is specifically theorized to be a second stage moderator and affect the NA-CWB relationship in the stressor-emotion model of CWB due to one's likelihood of automatically feeling negative emotions in response to assessing a stressor that threatens their well-being or blocks their goal attainment, regardless of individual differences in trait empathy. While it is possible trait empathy may influence perceptions of stressors in the first place, we argue that the inherent unpleasant nature of perceiving work stressors causes individuals to experience negative emotions regardless of levels of trait empathy and that it is more likely that the cognitive-affective process inherent in the experience of empathy is more influential in guiding intentions to perform behaviors after the experience of negative emotions stemming from stressors. Trait empathy is thus theorized to affect not an immediate affective response to a stressor, but the likelihood of an individual in engaging in counterproductive behaviors. For a model of the proposed moderated mediation effect, please see Figure 1.

Further, it is hypothesized that the different facets of empathy may have differing relevance to this buffering of CWB. While the overall composite measure of empathy will be used for the main hypotheses, empathy's moderating effects may differ between the affective and cognitive facets. The influential emotional experience of high affective empathy may be a stronger influence than cognitive empathy on stopping an individual from enacting counterproductive behaviors at work. Conversely, it's possible that the emotion-matching perspective-taking aspect of cognitive empathy may have more of an influence when forming intentions to perform CWB or not in response to NA. Despite the experience of empathy most likely including both affective and cognitive empathy, knowing which facet may have more of an influence in buffering CWB can be practically useful for efforts dedicated to reducing CWB by fostering the emergence of personality traits such as trait empathy. Therefore, a proposed

research question for the current study questions whether affective or cognitive empathy is more influential in reducing CWB.

Research Question 1

Is one facet of empathy more important in “buffering” CWB?

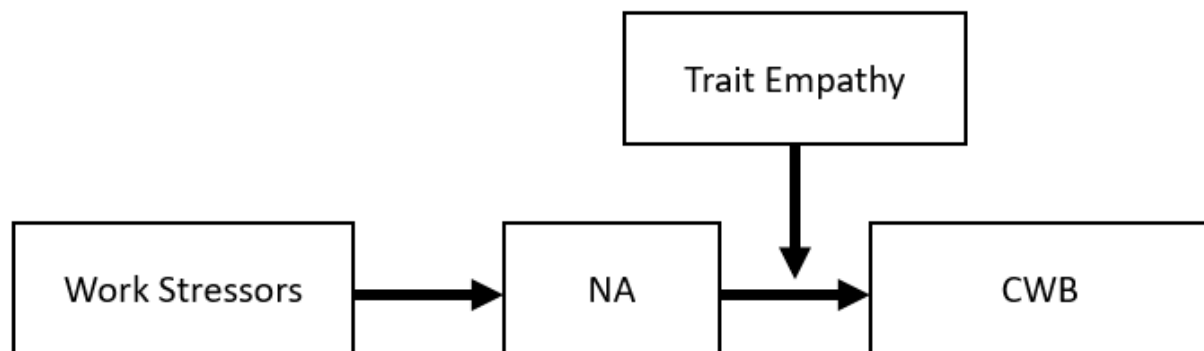


Figure 1: The conceptual model

Impact of COVID-19

The larger context surrounding the time in which the survey data was collected may potentially have an influence on the study variables of interest. Data collection centered around the month of October 2020, a time period in which the COVID-19 virus was at an all-time high and much uncertainty surrounded one’s employment status due to large numbers of workers being laid off or furloughed (Mejia et al., 2021). Due to a requirement to participate in the

current study being a full-time worker status, it may be very possible workers experienced higher than normal levels of the measured stressors: workload, interpersonal conflict, organizational constraints, and organization injustice. Workload and interpersonal conflict may have been heightened due to underemployment and stressful, potentially dangerous workplace settings. Organizational constraints due to the unprecedented need and lack of supply for personal protective equipment (PPE) and other workplace safety measures may have also been an issue, potentially raising levels of perceived organization injustice if workers did not believe they were being treated fairly by their organizations during this time.

Perceptions of NA experienced by workers may also be heightened by the context surrounding COVID-19, as it was a particularly uncertain, stressful, and fearful time for many, thus potentially elevating the levels of intentions to commit CWB in response to these negative emotions being felt. Past research has also found that uncertainty may cause workers to experience even greater levels of strain in response to stressors due to the unpleasant experience of uncertainty around whether one's actions will translate to desired outcomes, further inhibiting goals (O'Driscoll & Beehr, 1994).

It could also be very possible that an amplifying effect of empathy may have taken place in which those who rate higher on trait empathy would become even more less likely to commit CWB in response to stressors, potentially perceiving the consequences of deviant behaviors having even greater of a negative influence on others during this challenging time period.

CHAPTER 4: METHOD

Participants and Procedure

The study utilized data collected from Amazon's Mechanical Turk (MTurk). To determine an appropriate sample size, power tables provided by Preacher et al (2007) for a second-stage moderated mediation model indicated an adequate sample size would be 100 participants for a large effect size. Given that estimate, 650 participants were initially recruited to take part in the study to ensure an adequate sample size, even after inevitable participant attrition.

The first of two surveys were posted on September 30th, 2020, and to ensure data quality, the survey was restricted to only U.S. participants with a 98% or higher approval rating. Additional screening items for participating in the survey were included to ensure participants from MTurk would be representative of a working population in that the participants had to be at least 18 years of age and employed at least part-time (working at least 20 hours a week). Those who met both criteria were given informed consent and allowed to complete the first time 1 online Qualtrics survey and were compensated \$1.00 upon completion of the survey. One month later participants were contacted to complete the second time 2 online Qualtrics survey and were compensated 100 U.S. cents upon completion of the survey. Additionally, a number of quality control checks were used in the survey to ensure that only participants who filled out the survey intentionally were maintained in data analysis. Quality control checks included three attention check items in each survey, a reCAPTCHA system to detect non-human responses, an analysis of responses to detect missing data.

There were 650 participants who initially completed the time 1 survey. Of those individuals, 618 passed the quality control checks and proceeded to take the time 2 survey. Of those 618 participants who were invited to take the time 2 survey, only 434 completed the survey

and only 365 of those participants passed quality control checks, providing usable data for testing the hypotheses. This number is significantly lower than expected due to an error in which the check for missing data was not initially implemented after the time 1 survey and allowed participants with missing data to proceed to survey 2. These participants with missing time 1 survey data were however later analyzed for missing data and excluded from the analyses. Therefore, the final sample for the current study includes 365 participants. Despite the significant drop in participants, it still meets the recommended sample size and it is unlikely there will be a power issue for the statistical analyses.

Of the 365 participants who had useable data at both time points, 52.2% were male. The mean age of the sample was 38.2 ($SD = 11.76$), with 52.5% of the sample identifying as Caucasian/White, 29.8 % as Asian/Pacific Islander, 9.9% as Hispanic/Latino, and 5.7% as African American/Black. 7.1% of the sample held an Associate's degree, 51.3% a Bachelor's degree, and 26.5% a Master's degree or beyond. On average, participants worked 40.3 hours a week ($SD = 8.61$), 5.27 days a week ($SD = 0.70$), and had held their current job for an average of 58.53 months ($SD = 59.72$) at the time of the first data collection. At the time of the first survey, 64.1% of the final sample participants had experienced a change in their work location due to COVID-19, with 44.7% beginning to work remotely. Overall at time 1, 45.6% of the sample was working in-person while a month later at time 2, that percentage surprisingly increased to 46.1%, with 31.0% of that percentage not having a change in their work location and continuing to work in-person at their workplaces, the other 15.1% transitioning to in-person work due to COVID-19.

In comparison, the initial sample of 650 participants was 53.8% male and the mean age of the sample was 37.13 ($SD = 11.22$). 55.7% of the sample identified as Caucasian/White, 25.2 % as Asian/Pacific Islander, 8.0% as Hispanic/Latino, and 9.1% as African American/Black.

6.7% of the sample held an Associate's degree, 52.0% a Bachelor's degree, and 26.8% a Master's degree or beyond.

Measures

Appendix A contains a list of all measures used in the study.

Workload

Workload was measured using the 5-item Quantitative Workload Inventory ($\alpha = .88$; Spector & Jex, 1998) which inquired about the amount of work the participant must perform on the job. Participants were asked to respond on how often each item occurs on a 5-point Likert-type scale (1 = less than once per month or never, to 5 = several times per day). An example item is "How often does your job leave you with little time to get things done?" Higher scores indicate higher levels of workload.

Interpersonal conflict

Interpersonal conflict was measured using the 4-item Interpersonal Conflict at Work Scale (ICAWS; $\alpha = .90$; Spector & Jex, 1998) which inquired about how well the participant gets along with others at work. Participants were asked to respond on how often each item occurs on a 5-point Likert-type scale (1 = less than once per month or never, to 5 = several times per day). An example item is "How often do you get into arguments with others at work?" Higher scores indicate higher levels of interpersonal conflict.

Organizational constraints

Organizational constraints were measured using the 11-item Organizational Constraints Scale (OCS; $\alpha = .91$; Spector & Jex, 1998) which inquired about aspects of the job that prevent participants from translating ability and effort into high job performance. Participants were asked to respond on how often their job is difficult to perform based on these aspects on a 5-point Likert-type scale (1 = less than once per month or never, 5 = several times per day). An example item is “Poor equipment or supplies”. Higher scores indicate higher levels of constraints.

Organizational injustice

Organizational injustice was measured by reverse scoring and combining the distributive justice and procedural justice scales from Moorman (1991; $\alpha = .96$), similarly to Fox et al. (2001) and Sprung & Jex (2012). The 6-item distributive justice scale inquired about how participants were rewarded for work inputs, such as effort and performance, and participants were asked to respond on how fairly they were rewarded on a 5-point Likert-type scale (1 = very unfairly, 5 = very fairly). An example item is “...for the amount of effort that you put forth”. The 12-item procedural justice scale inquired about the fairness of the process used in the workplace to allocate resources and make decisions. Participants were asked to respond using a 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree). An example item is “...accurate information upon which the decisions are based is collected.” The two scales were reverse scored and combined to create an overall measure of injustice. Higher scores indicate higher levels of injustice.

Negative Affect

Negative affect was measured using the negative affect subscale of the Job-Related Affective Well-Being Scale ($\alpha = .91$; JAWS; Van Katwyk et al., 2000). While the full scale inquired about emotions experienced in the last 30 days in response to the job, the negative affect subscale included 15-items assessing negative emotions experienced. Participants were asked to respond on how often they experienced these emotions due to any part of their job on a 5-point Likert-type scale (1 = almost never, 5 = extremely often or always). An example item is “My job made me feel anxious”.

Trait Empathy

Empathy was measured using two dimensions of the Interpersonal Reactivity Index (Davis, 1980), empathetic concern ($\alpha = .80$) and perspective taking ($\alpha = .79$). The 7-item empathetic concern dimension inquired about the tendency to have feelings of compassion and concern for other people and refers to the affective component of empathy. The 7-item perspective taking dimensions inquired about the tendency to adopt the point of view of other people and refers to the cognitive component of empathy. Participants were asked to respond on how well each item described them on a 5-point Likert-type scale (1 = does not describe me at all, 5 = describes me very well). An example item for the empathetic concern/affective empathy dimension is “I often have tender, concerned feelings for people less fortunate than me” and an example item for the perspective taking/cognitive empathy dimension is “I sometimes find it difficult to see things from the ‘other guy’s’ point of view.

Counterproductive Work Behavior Intentions

CWB intentions were measured using a modified version of the 45-item Counterproductive Work Behavior Checklist ($\alpha = .99$; Spector et al., 2006). The scale includes a 21-item dimension assessing behaviors targeting the organization (CWB-O) and a 24-item dimension assessing behaviors targeting other people within the organization (CWB-I). This measure was modified according to recommendations by Bowling & Gruys (2010) and instead measures CWB intentions to avoid the issue of not including CWB that participants would not have had the opportunity to enact in the time frame measured. Thus, participants were asked to respond on how likely they would be to perform each of the listed behaviors at their job, and if they were working remotely due to COVID-19, what the likelihood of them engaging in the listed behaviors would be if they were still in their usual workplace using a 5-point Likert-type scale (1 = very low, 5 = very high). Participants were also given the option to respond to each behavior with “not applicable”, as advised by Bowling & Gruys (2010). An example item for the CWB-O scale is “Purposely wasted your employer’s materials/supplies”. An example item for the CWB-I scale is “Refused to help someone at work”. Higher scores on both scale dimensions indicate higher levels of CWB.

Control variables

For the mediation and moderated mediation hypotheses age and gender of participants were controlled for. Age was controlled based on extant literature suggesting that as age increases, employees engage in less CWB (Pletzer, 2021). Gender was also controlled for in both analyses based on research finding that women report significantly more empathy than males (Schieman & Van Gundy, 2000) and engage in less CWB than males (Spector & Zhou,

2013).

Data analysis

To test the proposed hypotheses, the PROCESS macro (Hayes, 2013) was utilized along with Statistical Package for Social Science (SPSS) Version 27. PROCESS is a computational tool for path analysis-based mediation analyses, moderation analyses, and their integration in the form of a conditional process model.

Hypotheses 1a-d were tested using an application (Preacher and Hayes, 2004; Hayes, 2018) for a simple mediation model. Using PROCESS' Model 4, estimates of the total and direct effect of stressors on CWB, as well as the indirect effects of the time 1 stressors on time 2 CWB through time 1 NA were generated along with a bias-corrected 95% bootstrap confidence interval for the indirect effect (samples = 10,000). Point estimates and bias-corrected 95% bootstrap confidence interval estimates of various indices of effect size for the indirect effect were produced, as well. To control for age and sex, they were included in the model as covariates. While each stressor is hypothesized to be in one model together, the PROCESS macro tests each predictor separately. To account for model structure, the remaining stressors were controlled for when running analyses for each stressor (Preacher and Hayes, 2010).

To test Hypotheses 2a-d, the proposed moderator (trait empathy) was included in the model and moderated mediation hypotheses was tested separately for each proposed work stressor. PROCESS' Model 14 (Hayes, 2013), which estimates the conditional indirect effects for a second-stage moderation model as described by Preacher, Rucker, and Hayes' (2007) Model 3, utilized bootstrap procedures (samples = 10,000) to estimate the conditional indirect effects and allowed us to test the null hypothesis of no indirect effect for high (+1 SD), mean,

and low (-SD) values of the moderator through the use of CIs, and estimates of the size of these effects. If significant, these effects were plotted as well. A bootstrap CI for the index of moderated mediation was recommended by Hayes (2015) as this index quantifies the relationship between the indirect mediation effect and the moderator variable (trait empathy). Overall, this strategy tests whether the strength of the hypothesized indirect mediation effect is conditional on the value of the moderator, which is known as conditional indirect effects (Preacher et al., 2007). To control for age and sex, they were included in the model as covariates. To account for model structure, the remaining stressors were controlled for when running analyses for each stressor.

To test the research question, a series of moderated mediation analyses were conducted testing the potentially different buffering effects of different facets of empathy. Moderated mediations were run utilizing PROCESS' Model 14, each with different facets of empathy as the moderator of the NA-CWB pathway.

CHAPTER 5: RESULTS

Descriptive statistics

Participants reported that they had been experiencing moderately high levels of time 1 workload ($M = 3.37$, $SD = 1.00$), lower levels of both time 1 interpersonal conflict ($M = 2.03$, $SD = 1.25$) and organization constraints ($M = 2.26$, $SD = 1.10$), and relatively low levels of time 1 organizational injustice ($M = 2.23$, $SD = 0.81$). Participants reported they experienced low levels of time 1 NA ($M = 2.32$, $SD = 1.12$), had a low likelihood of committing CWB in their workplace at time 2 ($M = 1.93$, $SD = 1.17$), and held moderately high levels of trait empathy at time 1 ($M = 3.74$, $SD = 1.17$). The observed and possible ranges for the variables were similar but not always identical, which suggests range restriction is most likely not an issue for most of the variables, save CWB and empathy. For a full list of descriptive statistics for the study variables, see Table 1.

Table 1: Time 1 descriptive statistics and reliabilities

Variable	Mean	SD	Possible Range	Observed Range	Alpha
Workload	3.37	1.00	1-5	1.4-5	.84
Organizational constraints	2.26	1.10	1-5	1-5	.96
Interpersonal conflict	2.03	1.25	1-5	1-5	.94
Organizational injustice	2.23	0.81	1-5	1-5	.95
NA	2.32	1.12	1-5	1-5	.95
CWB intentions (Time 2)	1.93	0.62	1-5	1-4.8	.99
Trait empathy	3.74	0.62	1-5	2-5	.86
Affective empathy	3.74	0.74	1-5	1.3-5	.80
Cognitive empathy	3.74	0.65	1-5	1.9-5	.77

N = 365

All work stressor variables showed significant and positive correlations between themselves and both NA and CWB intentions, save for organization injustice which was not significantly related to CWB ($r = -.08, p = .10$). Unusually high correlations were observed between the stressors interpersonal conflict and organizational constraints ($r = .84, p < .001$), and between these two predictors and other negative study variables of interest, such as NA and CWB. Multicollinearity was assessed by through VIF and determined to be present. This can be attributed to an error in survey design that did not randomize survey measures, allowing the measures of interpersonal conflict and organizational constraints to follow one another. Due to this and the identical response scale for both items, it is very possible respondents responded similarly to both measures assuming it was assessing one overall negative workplace stressor variable. To avoid these effects, hypotheses involving interpersonal conflict (H1b and H2b) and organizational constraints (H1c and H2c) were omitted from the study. For correlations between all study variables, see Table 2.

Table 2: Time 1 Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11
1 Age	-										
2 Gender	-.20**	-									
3 Workload	-.10*	-.13**	-								
4 Conflict	-.47**	.04	.38**	-							
5 Constraints	-.42**	-.03	.44**	.84**	-						
6 Injustice	.09	.01	.004	-.13*	.12*	-					
7 NA	-.45**	-.03	.38**	.79**	.83**	.16**	-				
8 CWB (T2)	-.51**	.05	.20**	.78**	.69**	-.08	.73**	-			
9 Empathy	.27**	-.11*	.01	-.40**	-.35**	-.23**	-.38**	-.46**	-		
10 Affective	.36**	-.12*	.002	-.43**	-.37*	-.16**	-.42**	-.48**	.91**	-	
11 Cognitive	.11*	-.08	.02	-.28**	-.25**	-.26**	-.26**	-.34**	.88**	.62**	-

$N = 365; p < .05 = *, p < .01 = **$

Mediation hypotheses

Hypotheses 1a-d proposed that time 1 NA will mediate the relationships between the time 1 work stressors (workload, interpersonal conflict, organizational constraints, and organizational justice) and time 2 CWB intentions. Hypotheses 1b and 1c involving the stressors interpersonal conflict and organizational constraints respectively were not tested due to the high multicollinearity between these two predictor variables and variables of interest in the study. To address hypothesis 1a and 1d, the proposed mediation models were tested using PROCESS macro model number 4, testing a model wherein NA mediates the relationship between all hypothesized time 1 work stressors and time 2 CWB intentions. The macro was run twice for the dependent variable, time 2 CWB intentions, each time entering one variable as the predictor and the other predictor as a control, as recommended by Preacher and Hayes (2010). Age and gender were also entered as covariates.

Workload

Results from a simple mediation analysis indicated that workload was indirectly related to CWB through its relationship with NA. Workload was significantly and positively related to NA ($a = 0.380, p < .001$), as was NA to CWB intentions ($b = 0.730, p < .001$). A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect ($ab = 0.278$) was entirely above zero (0.204 to 0.360) indicating a likely significant mediation (MacKinnon et al., 2007). Further, the positive total effect of workload on CWB intentions was significant ($c = 0.175, p < .001$) and became nonsignificant once accounting for workload's indirect effect through NA ($c' = -0.103, p = .016$). Age was negatively related to NA ($b = -0.05,$

$p < .001$) and CWB intentions ($b = -.018, p < .001$), while gender was not significantly related to NA ($b = -0.232, p = .01$) or CWB intentions ($b = 0.094, p = .239$). Overall, the evidence does support Hypothesis 1a.

Organizational injustice

Ultimately, organizational injustice was also found to be indirectly related to CWB intentions through its relationship with NA. Injustice did have a significant relationship with NA ($a = 0.282, p < .001$), while NA and CWB intentions were positively and significantly associated ($b = 0.730, p < .001$). The indirect effect ($ab = 0.206$) did not include the value of zero (.123 to 0.289), showing significance. The total effect of injustice on CWB was not significant ($c = -0.054, p = .404$) and became significant once accounting for injustice's indirect effect through NA ($c' = -0.260, p < .001$). Age was negatively related to NA ($b = -0.057, p < .001$) and CWB intentions ($b = 0.018, p < .001$), while gender was not significantly related to NA ($b = -0.232, p = .015$) or CWB intentions ($b = 0.094, p = .02$). Overall, Hypothesis 1d was supported.

Moderated mediation hypotheses

Workload

To address Hypothesis 2a, the proposed moderated mediation model was tested using PROCESS macro model number 14 which tests a model wherein trait empathy moderates the effect path of b , also known as a second stage moderation (Hayes, 2013). Two models were run, one for each predictor, with the other predictor being controlled for as a covariate. Age and gender were also entered as covariates.

As shown in Table 3, trait empathy did moderate the relationship between NA and

CWB intentions; Unstandardized interaction ($b = -.37, p < .001$). Due to this, a test of simple slopes, or the conditional effects on path b, found that there were differing significant associations between workload and CWB intentions through NA at high ($b = .13, 95\% \text{ CI} = [0.07; 0.20]$), mean ($b = .22, 95\% \text{ CI} = [0.16; 0.29]$), or low levels ($b = .31, 95\% \text{ CI} = [0.22; 0.40]$) of the moderator, trait empathy and these effects were plotted (see Figure 2).

Additionally, the overall moderated mediation model was supported with the index of moderated mediation = -0.14 ($95\% \text{ CI} = [-0.21; -0.08]$). A zero does not exist within the CI, indicating a significant moderating effect of trait empathy on the indirect effect via NA (Hayes, 2015). Age and gender showed similar effects to the workload model; age was negatively related to CWB intentions ($b = -0.02, p < .001$) while gender was not significantly related to CWB intentions ($b = 0.04, p = .55$). Overall, the results do support evidence of the hypothesized moderated mediation for workload on CWB intentions. Therefore, Hypothesis 2a is supported.

Table 3: Test of the moderated mediation effect of workload on CWB intentions

	Outcome: NA		Outcome: CWB intentions	
	<i>B</i>	<i>T</i>	<i>B</i>	<i>T</i>
Workload	0.380**	8.089	-0.041	-1.031
Age	-0.046**	-11.075	-0.016**	-4.380
Gender	-0.232*	-2.449	0.044	0.596
NA			1.975**	7.509
Trait empathy			0.321*	2.033
NA*empathy			-0.375**	-5.130
R2	0.375**		0.662**	
<i>F</i>	55.950		103.505	

$N = 365; p < .05 = *, p < .01 = **$

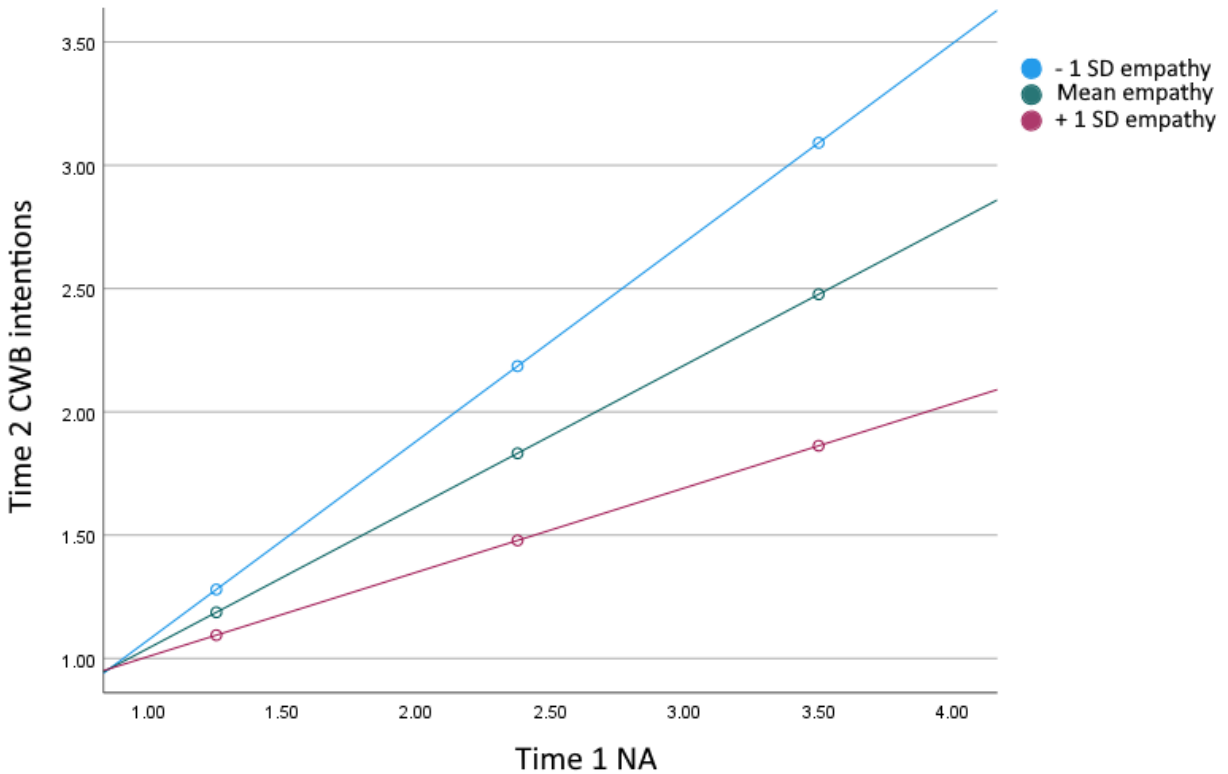


Figure 2: The NA-CWB pathway for workload at different levels of the moderator, trait empathy

Organizational injustice

A moderated mediation model involving trait empathy moderating the b path of NA's mediation of the organization injustice-CWB relationship was tested and ultimately support for conditional indirect effects were found.

As shown in Table 4, trait empathy did ultimately moderate the relationship between NA and CWB; Unstandardized interaction ($b = -.38, p < .001$). A test of simple slopes, or the

conditional effects on path b, found that there were differing significant associations between injustice and CWB intentions through NA at high ($b = .10$, 95% CI = [0.05; 0.15]), mean ($b = .16$, 95% CI = [0.10; 0.23]), or low levels ($b = .23$, 95% CI = [0.13; 0.33]) of the moderator, trait empathy and these effects were plotted (see Figure 3). Additionally, the overall moderated mediation model was supported with the index of moderated mediation = -0.11 (95% CI = [-0.17; -0.05]) as a zero does not exist within the CI, indicating a significant moderating effect of trait empathy on the indirect effect via NA. Age was negatively related to CWB intentions ($b = -0.02$, $p < .001$) while gender was not significantly related to CWB intentions ($b = 0.04$, $p = .55$). Overall, the results do support evidence of the hypothesized moderated mediation. Therefore, Hypothesis 2d is supported.

Table 4: Test of the moderated mediation effect of organizational injustice on CWB intentions

	Outcome: NA		Outcome: CWB intentions	
	<i>B</i>	<i>T</i>	<i>b</i>	<i>t</i>
Injustice	0.282**	4.860	-0.247**	-5.003
Age	-0.056**	-11.075	-0.016**	-4.380
Gender	-0.232*	-2.449	0.044	0.055
NA			1.975**	7.509
Trait empathy			0.321*	2.033
NA*empathy			-0.375**	-5.130
R2	0.375**		0.662**	
<i>F</i>	55.950		103.505	

$N = 365$; $p < .05 = *$, $p < .01 = **$

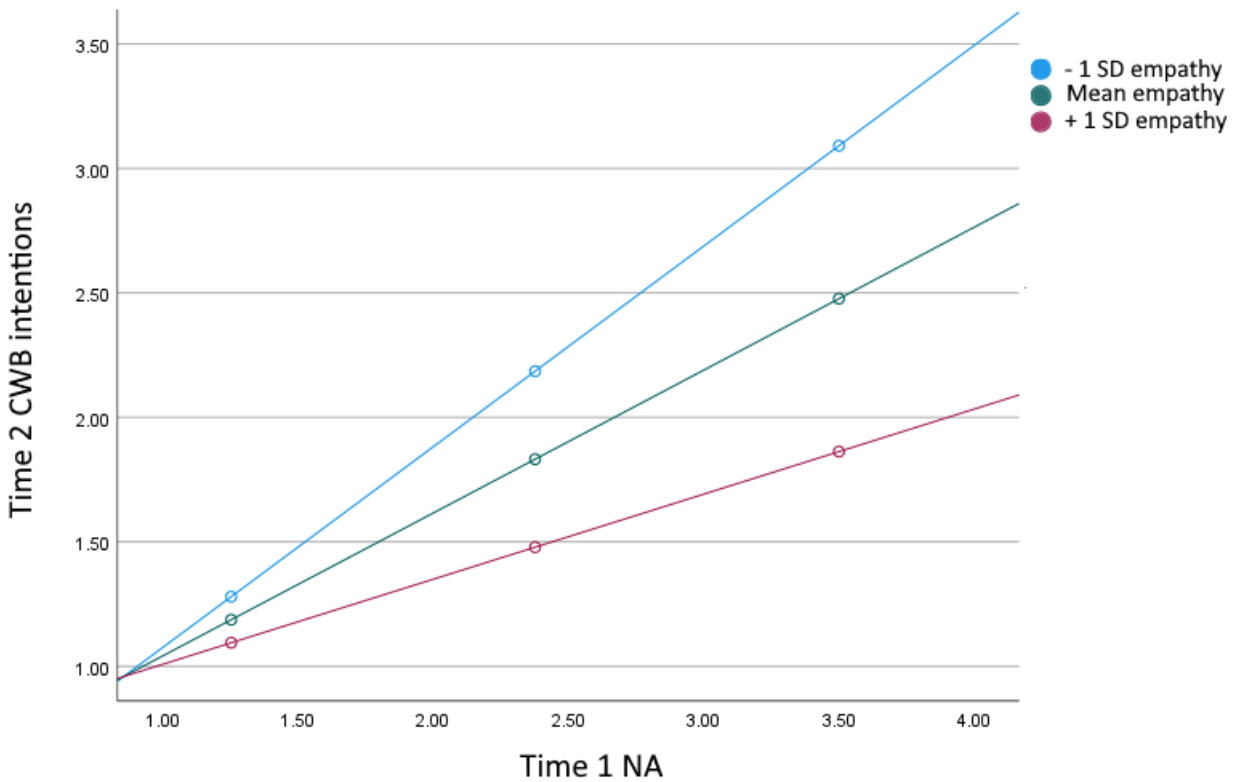


Figure 3: The NA-CWB pathway for injustice at different levels of the moderator, trait empathy

Research question

To test the research question regarding whether one facet of empathy was more key in buffering the enactment of CWB, a series of two moderated mediation models were run building on the supported mediation model in Hypothesis 1a. The only difference between the models was the facet of trait empathy included as a second stage moderator with one model utilizing affective empathy and the other using cognitive empathy to compare and contrast their moderating effects to each other.

As shown in Table 5, cognitive empathy did moderate the relationship between NA and

CWB; Unstandardized interaction ($b = -.21, p < .01$). Due to this, the conditional effects on path b were probed further and found to vary across high ($b = .20, 95\% \text{ CI} = [0.13; 0.27]$), mean ($b = .25, 95\% \text{ CI} = [0.18; 0.32]$), or low levels ($b = .30, 95\% \text{ CI} = [0.22; 0.39]$) of cognitive empathy. The overall moderated mediation model was also supported with the index of moderated mediation = -0.08 ($95\% \text{ CI} = [-0.14; -0.03]$), indicating a significant moderating effect of trait empathy on the indirect effect via NA. Overall, the results do support evidence that cognitive empathy is key in stopping the enactment of CWB.

Affective empathy was also found to moderate the relationship between NA and CWB, as shown in Table 6; Unstandardized interaction ($b = -.34, p < .001$). Due to this, an inspection of the conditional indirect effects found that there was a significant association between workload and CWB through NA at high ($b = .12, 95\% \text{ CI} = [0.06; 0.19]$), mean ($b = .22, 95\% \text{ CI} = [0.16; 0.29]$), or low levels ($b = .31, 95\% \text{ CI} = [0.22; 0.41]$) of the moderator, affective trait empathy. Additionally, the overall moderated mediation model was supported with the index of moderated mediation = -0.13 ($95\% \text{ CI} = [-0.20; -0.07]$). Overall, the results do support evidence of the hypothesized moderated mediation and provide evidence that suggests affective empathy is also a key facet of empathy in the prevention of CWB.

Table 5: Test of cognitive empathy's moderating effect on NA's mediation of workload on CWB intentions

	Outcome: NA		Outcome: CWB intentions	
	<i>B</i>	<i>T</i>	<i>B</i>	<i>t</i>
Workload	0.380**	8.089	-0.072	-1.784
Age	-0.046**	-11.075	-0.019**	-4.978
Gender	-0.232*	-2.449	0.043	0.571
NA			1.445**	5.925
Cognitive empathy			0.048	0.335
NA*cogempathy			-0.213*	-3.216
R2	0.375**		0.644**	
<i>F</i>	55.950		95.717	

$N = 365; p < .05 = *, p < .01 = **$

Table 6: Test of affective empathy's moderating effect on NA's mediation of workload on CWB intentions

	Outcome: NA		Outcome: CWB intentions	
	<i>B</i>	<i>T</i>	<i>b</i>	<i>t</i>
Workload	0.380**	8.089	-0.041	-1.016
Age	-0.046**	-11.075	-0.015**	-3.994
Gender	-0.23*	-2.449	0.078	1.042
NA			1.829**	8.020
Affective empathy			0.393*	2.740
NA*affempathy			-0.337**	-5.255
R2	0.375**		.653**	
<i>F</i>	55.950		99.296	

$N = 365; p < .05 = *, p < .01 = **$

CHAPTER 6: DISCUSSION

Theoretical implications

Stressors and CWB intentions

The results of this study found that time 1 workload was positively associated with CWB intentions at time 2, and that this relationship was fully mediated by time 1 NA in a model in which workload was not related to organizational injustice. Time 1 organizational injustice showed the same effect as workload in that the relationship between injustice and CWB intentions was significantly mediated by NA, though there was no direct effect of injustice on CWB intentions. These findings support extant research on the stressor-strain pathway and NA's mediating role (Penney & Spector, 2005), implicating workload and organizational injustice as significant workplace stressors that employees may encounter and become more likely to perform counterproductive behaviors at work in response due to the negative emotions they feel from perceiving and dealing with these stressors.

Trait empathy as a moderator

The study results also suggest that trait empathy moderated intentions to commit CWB in individuals who rate higher in trait empathy as compared to those who rate lower in trait empathy. This buffering effect was proposed to take place on the relationship between the negative emotions felt in response to a stressor and intentions to commit CWB, which was significantly attenuated for those rating higher in trait empathy. This interaction effect between NA and empathy occurred for the relationship between workload and CWB intentions as well as the relationship between organizational injustice and CWB intentions. Further, results of the study found support for this effect when measuring CWB intentions after a time lag of 1 month

after initial measurement of study predictors. This design helps to shed light on the temporal patterns between study variable that so often plagues research utilizing cross-sectional designs (Zapf et al., 1996).

The results of the moderated mediation analyses along with the moderate negative relationship between trait empathy and CWB intentions ($b = -.46, p < .001$) provide evidence that trait empathy is an influential individual difference in the prevention of deviant behaviors in the workplace, particularly its facets involving perspective taking (cognitive empathy) and empathetic concern (affective empathy). While past research focuses mainly on the Big 5 personality traits as individual differences that could potentially stop CWB (Ones & Viswesvaran, 2003), results of the current study find that those higher in trait empathy and its facets are significantly less likely to desire to commit CWB in response to workplace stressors due to empathy's ability to cause one to understand another's emotions and further experience them, resulting in a deeper understanding of how one's deviant workplace behaviors could potentially impact and harm others.

While a more objective measure of CWB was not used, the desire to intend to commit CWB as measured in the present study could potentially be a more useful indicator of CWB as there are many situational factors that can influence whether one who desires to commit CWB may be able to carry it out as intended (Bowling & Gruys, 2010), especially with workplace restrictions due to COVID-19 changing the workplace for many employees and moving them to remote work, further influencing their potential to carry out traditional CWB. Compared to more objective measures of CWB measuring behaviors committed that are more susceptible to outside factors, the intention to commit CWB can better represent the underlying motives for why much CWB is theorized to take place: as a way with coping with negative emotions from perceiving

stressors and/or to retaliate toward the perceived source of the stressor. The lack of opportunity to commit CWB may result in much lower rates of CWB with more objective measurement, while the desire to commit CWB being fueled by perceiving stressors may instead manifest in other negative ways that cause the worker to negatively impact their organization that would be missed by solely measuring CWB being committed.

Affective and Cognitive Empathy as Moderators

The current study also posed a research question to investigate the potentially differing buffering effects that each facet of trait empathy may have on intentions to engage in CWB. Results found that affective empathy, the experience and resonating of another's emotions in oneself, had a greater attenuating effect on the NA-CWB intention pathway compared to both cognitive empathy and overall trait empathy. While both are key in the experience of empathy, these results provide evidence of the particularly powerful influence that experiencing another's emotions in oneself can have on behavior. Cognitive empathy alone was also able to buffer intentions to commit CWB in response to a high workload, though it did not display as strong of an effect as affective empathy. This supports research that finds those with cognitive empathy, but relatively low levels of affective empathy, are still more likely to commit aggressive acts toward others than those with higher levels of affective empathy (Jolliffe & Farrington, 2006).

Summary

This study contributed to the literature by extending research on NA's mediation of the relationship between workload and CWB intentions by finding that trait empathy is an important moderator of this effect. At high levels of trait empathy, workers are less likely to desire to

commit CWB in response to the negative emotions they feel from perceiving work stressors, such as workload and organizational injustice. This study also contributed to the literature by highlighting the key role the felt empathetic concern of affective empathy plays along with the cognitive empathetic process of perspective taking in stopping individuals from desiring to commit CWB.

Practical implications

The findings from the current study first highlight the importance of making workers aware of the affective reactions they may have to stressors as well as the behavioral reactions they may be tempted to take in response to work stressors like a high workload or feeling of injustice. While counterproductive work behaviors are by definition intentional behaviors, some workers may not hold the emotional intelligence to understand why exactly they feel tempted to perform behaviors that have the potential to harm and may just blindly react to the felt negative emotions from perceiving aversive situations at work. Helping to clarify and untangle the pathway from work stressor to negative emotions to CWB is recommended on the part of organizations.

Intervention efforts to buffer the likelihood of CWB enactment in this pathway can target appraisals of stressors and cognitively reframe how workers view stressors, or the behavioral reactions to NA, as was investigated in the current study, and influence the factors which make individuals less likely to perform certain behaviors after experiencing negative emotions. To do the latter, the current study finds support for recommendations of attempting to foster the emergence of the personality trait, empathy, due to those rating higher in trait empathy being less likely to desire to commit CWB. This is assumed to be due to the deeper understanding of the

impact of their behaviors on others that comes with the experience of empathy. Our current also finds support for the significant role that affective empathy has in this buffering process. While it is important to also make workers cognitively aware of the potential consequences for others who may be impacted by enacted CWB and to aide them in perspective taking, potentially more influential is fostering the affective empathetic emotions that workers will feel toward others once they know the emotional state the other is in. Often, what has been found to inhibit this affective empathy is the perception that another is somehow different from oneself, and that despite both parties feeling the same emotion, the experience is somehow different, resulting in not being able to experience the affective, empathetic concern they feel for those perceived to be more similar to them (Batson et al., 2005). Organizational efforts should be made to reduce perceived dissimilarities between workers, especially if they are required to work interdependently such as on work teams.

These interventions may also be paired with efforts to help workers cognitively reframe their view of stressors in the first place and thus reduce the NA felt in response to work stressors. The challenge-hindrane literature may be particularly influential in this regard as evidence supports that when one appraises a work stressor as a challenge rather than a hindrance, they are less likely to experience NA in response (Li et al., 2020; Naseer et al., 2020)

Strengths and Limitations

One strength in the current study is our measurement of counterproductive behaviors. A large body of past research has utilized non-context specific check-list measures of CWB that cause deceptively low rates of CWB. Following recommendations provided by Bowling & Gruys (2010) the current study instead measured participant's likelihood of committing CWB,

avoiding the potential issue of not including CWB that participants simply would not have had the opportunity to enact if we had instead asked if they had committed the behaviors in the last 30 days. Our adapted measure of CWB intentions also provided a response option to indicate the listed counterproductive behaviors were “not applicable” to their occupation, avoiding the potential issue of forcing participants to respond on items not relevant to their job positions.

The current study also utilized several attention checks and indicators of poor-quality data to exclude in effortful responses, as well as several qualifiers for participant participation such as employment status, age, and success rate on MTurk assignments. This is considered a strength of the current study as it helps to ensure that the study sample and any findings related to the results are generalizable to a larger, working population.

Another strength of the study is that the hypotheses were analyzed with time lagged measures in which predictors were measured at time 1 and the outcome variable was measure at time 2, one month apart. A limitation is, however, is that this method of study design has been critiqued to not have much advantage over cross-sectional designs as is there no evidence against the verse causal hypothesis that the outcome variable is instead causing the hypothesized predictors (Zapf et al., 1996).

A potential limitation of the current study was that all measures were included at both time points, and measure items and the measures themselves were not randomized throughout and across participant surveys. This oversight in survey design may have caused potential control order effects, in that the predictability of the time 2 survey may have influenced participant responses to measures, confounding results. Another feature of the survey that may have influenced the data analysis was allowing a number of participants with missing data to complete the time 2 survey. While their low-quality responses were not included in the analyses, this

resulted in a lower number of participants with quality data to be included in the analyses.

Future research

Future research into the potential factors that influence the occurrence of CWB intentions to supplement these study's findings should first test the most appropriate research design for the hypothesized stressor-strain model: a daily-diary experience sample method (ESM) design in which participants answer two surveys daily across a designated period of time. To help assert temporal precedence, predictors in this research design are measured at the beginning of the day and outcomes at the end of the day.

To further assert confidence in why CWB is being committed, future research should explicitly measure attributions of who participants blame for stressors, why they would desire to commit CWB, and whether their likelihood of committing CWB is a retaliatory behavior aimed at an organizational party or if it is a coping mechanism. This could easily be assessed with qualitative open-ended items in future surveys.

Future research should also continue to look into the extent to which trait empathy can be fostered in organizational members. While conceptualized as a relatively stable personality trait, emerging longitudinal research investigating empathy across time finds surprisingly dynamic patterns of emergence (Roberts et al., 2006). While it is still unclear if these are simply situation-based increases in empathy influenced by context or indicative of developments in the trait itself over longer periods of time, the hypothesized process-like nature of empathy may hint at its ability to perform both. Future research should better investigate both the potential proximal and distal performance of counterproductive behaviors at work influenced by empathy. Another suggestion for future researchers would be to include an experimental manipulation of empathy

in their study, or to center the research design and data collection around a significant situational factor that would manipulate empathy levels of participants. Doing so will help to further ensure that any measured effects can be attributed to empathy and not other influential, unmeasured factors.

Conclusion

The current study investigated the stressor-emotion model of CWB across two time points one month apart and found that time 1 NA mediated the relationship between time 1 workload and time 2 CWB intentions, as well as time 1 organizational injustice and time 2 CWB intentions. The study also found that trait empathy was able to moderate the NA-CWB intentions pathway in that the results found those who rated higher in trait empathy were significantly less likely to desire to commit CWB in their workplace than those who rated lower in trait empathy. Results found affective empathy particularly influential in this buffering effect, compared to the facet of cognitive empathy.

APPENDIX A: MEASURES

A. Quantitative Workload Inventory (Spector & Jex, 1998)

Thinking about the past 30 days...:

1. How often does your job require you to work very fast?
2. How often does your job require you to work very hard?
3. How often does your job leave you with little time to get things done?
4. How often is there a great deal to be done?
5. How often do you have to do more work than you can do well?

Not applicable/this isn't possible with my job = 0

Less than once per month or never = 1

Once or twice per month = 2

Once or twice per week = 3

Once or twice per day = 4

Several times per day = 5

B. Interpersonal Conflict (Spector & Jex, 1998).

Thinking about the past 30 days...:

1. How often do you get into arguments with others at work?
2. How often do other people yell at you at work?

3. How often are people rude to you at work?
4. How often do other people do nasty things to you at work?

Not applicable/this isn't possible with my job = 0

Less than once per month or never = 1

Once or twice per month = 2

Once or twice per week = 3

Once or twice per day = 4

Several times per day = 5

C. Organizational Constraints Scale (Spector & Jex, 1998)

Over the past 30 days, how often do you find it difficult or impossible to do your job because of___ ?

1. Poor equipment or supplies.
2. Organizational rules and procedures.
3. Other employees.
4. You supervisor.
5. Lack of equipment or supplies.
6. Inadequate training.
7. Interruptions by other people.
8. Lack of necessary information about what to do or how to do it.
9. Conflicting job demands.
10. Inadequate help from others.
11. Incorrect instructions.

Not applicable/This isn't possible with my job = 0

Less than once per month or never = 1

Once or twice per month = 2

Once or twice per week = 3

Once or twice per day = 4

Several times per day = 5

D. Organizational justice (Moorman, 1991)

Please rate the extent to which you agree with the following statements about your work over the past 30 days:

Distributive justice

1. My rewards reflect the effort I have put into my work
2. My reward is appropriate for the work I have completed
3. My reward reflects my contribution to the company
4. I am able to express my views at this company
5. I feel I have influence over decisions at this company
6. In general, procedures tend to be applied consistently
7. Decisions that are made here are free of bias
8. Decisions are based on accurate information
9. Opportunities exist to appeal certain decisions
10. Procedures comply with ethical and moral standards

Procedural justice

My immediate supervisor...

1. Treats me in a polite manner
2. Treats me with dignity
3. Treats me with respect
4. Refrains from improper remarks or comments
5. Is open and frank in their communications with me
6. Explains the procedures thoroughly
7. Gives me reasonable explanations regarding the procedures
8. Communicates details in a timely manner

Not applicable/This isn't possible with my job = 0

Strongly Disagree = 1

Slightly Disagree = 2

Neither Agree nor Disagree = 3

Slightly Agree = 4

Strongly Agree = 5

E. Negative Affect/Job-related Affective Well-being Scale (Van Katwyk et al., 1999)

Below are a number of statements that describe different emotions that a job can make a person feel. Please indicate the amount to which any part of your job (e.g., the work, coworkers, supervisor, clients, pay) has made you feel that emotion in the past 30 days.

1. My job has made me feel angry.
2. My job has made me feel anxious.
3. My job has made me feel at ease.
4. My job has made me feel bored.

5. My job has made me feel calm.
6. My job has made me feel content.
7. My job has made me feel depressed.
8. My job has made me feel discouraged.
9. My job has made me feel disgusted.
10. My job has made me feel ecstatic.
11. My job has made me feel energetic.
12. My job has made me feel enthusiastic.
13. My job has made me feel excited.
14. My job has made me feel fatigued.
15. My job has made me feel frightened.
16. My job has made me feel furious.
17. My job has made me feel gloomy.

Less than once per month or never = 1

Once or twice per month = 2

Once or twice per week = 3

Once or twice per day = 4

Several times per day = 5

F. Interpersonal Reactivity Index (Davis, 1980)

The following statements inquire about your thoughts and feelings in a variety of situations.

For each item, indicate how well it describes you

Empathetic Concern

1. I often have tender, concerned feelings for people less fortunate than me.

2. Sometimes I don't feel very sorry for other people when they are having problems.
3. When I see someone being taken advantage of, I feel kind of protective towards them.
4. Other people's misfortunes do not usually disturb me a great deal.
5. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
6. I am often quite touched by things that I see happen.
7. I would describe myself as a pretty soft-hearted person.

Perspective Taking

1. I sometimes find it difficult to see things from the "other guy's" point of view.
2. I try to look at everybody's side of a disagreement before I make a decision.
3. I sometimes try to understand my friends better by imagining how things look from their perspective.
4. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
5. I believe that there are two sides to every question and try to look at them both.
6. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
7. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

Strongly disagree = 1

Disagree = 2

Neither agree nor disagree = 3

Agree = 4

Strongly agree = 5

G. Counterproductive Work Behavior (Spector, Fox, Penney, Bruursema, Goh, & Kessler, 2006)

What is the likelihood you would do each of the following things at your job? If you are now working remotely, What is the likelihood you would do each of the following things at your job if you were still in your usual workplace?

1. Purposely wasted your employer's materials/supplies
2. Told people outside the job what a lousy place you work for
3. Purposely did your work incorrectly
4. Came to work late without permission
5. Stayed home from work and said you were sick when you weren't
6. Purposely damaged a piece of equipment or property
7. Purposely dirtied or littered your place of work
8. Stolen something belonging to your employer
9. Started or continued a damaging or harmful rumor at work
10. Been nasty or rude to a client or customer
11. Purposely worked slowly when things needed to get done
12. Purposely failed to follow instructions

13. Left work earlier than you were allowed to
14. Insulted someone about their job performance
15. Made fun of someone's personal life
16. Took supplies or tools home without permission
17. Put in to be paid for more hours than you worked
18. Took money from your employer without permission
19. Ignored someone at work
20. Blamed someone at work for error you made
21. Started an argument with someone at work
22. Stole something belonging to someone at work
23. Verbally abused someone at work
24. Made an obscene gesture (the finger) to someone at work
25. Threatened someone at work with violence
26. Threatened someone at work, but not physically
27. Said something obscene to someone at work to make them feel bad
28. Did something to make someone at work look bad
29. Played a mean prank to embarrass someone at work

30. Looked at someone at work's private mail/property without permission

31. Hit or pushed someone at work

32. Insulted or made fun of someone at work

Not applicable/This isn't possible with my job = 0

Less than once per month or never = 1

Once or twice per month = 2

Once or twice per week = 3

Once or twice per day = 4

Several times per day = 5

H. Demographic information

1. What is your age?
2. What is your gender?
3. What race do you most identify with?
4. Please indicate the level of education you have received.
5. Are you currently employed?
6. What is your current job title?
7. In months, how long have you held this position?
8. On average, how many hours per week do you work at this job?
9. On average, how many days per week do you work at this job?

APPENDIX B: IRB APPROVAL



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board

FWA00000351
IRB00001138,
IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

July 29, 2020

Dear Amanda Grinley:

On 7/29/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study
Title:	Empathy as a buffer: THE MODERATING EFFECT OF TRAIT EMPATHY ON COUNTERPRODUCTIVE WORK BEHAVIOR
Investigator:	Amanda Grinley
IRB ID:	STUDY00001960
Funding:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Faculty advisor form, Category: Faculty Research Approval; • 254 consent, Category: Consent Form; • 255 Request for exemption, Category: IRB Protocol; • 509 debriefing , Category: Consent Form; • Email reminder - recruitment material, Category: Recruitment Materials; • Survey items, Category: Survey / Questionnaire;

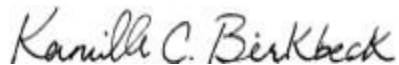
This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your

research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Due to current COVID-19 restrictions, in-person research is not permitted to begin unless you are able to follow the COVID-19 Human Subject Research (HSR) Standard Safety Plan with permission from your Dean of Research or submitted your Study-Specific Safety Plan and received IRB and EH&S approval. Be sure to monitor correspondence from the Office of Research, as they will communicate when restrictions are lifted, and all in-person research can resume.

Sincerely,

A handwritten signature in cursive script that reads "Kamille C. Birkbeck".

Kamille Birkbeck
Designated Reviewer

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