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## Predicting Counterproductive Work Behavior with Explicit and Implicit Measures of Conscientiousness, Agreeableness, and Emotional Stability

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PREDICTING COUNTERPRODUCTIVE WORK BEHAVIOR  
WITH EXPLICIT AND IMPLICIT MEASURES OF  
CONSCIENTIOUSNESS, AGREEABLENESS, AND EMOTIONAL STABILITY

by

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B.A. University of California, Santa Barbara, 2013

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

The current study leveraged the stressor-emotion model of CWB, the reflective-impulsive model of behavior, and theories of explicit and implicit personality to investigate the roles explicit and implicit aspects of personality, and work stressors have in influencing CWB. The stressor-emotion and reflective-impulsive models suggest that in addition to reflective (i.e., explicit) processes, impulsive (i.e., implicit) processes may also influence CWB because the act can be motivated by negative emotions induced by frustrating working conditions. Theories of personality and motivation suggest that conscientiousness, agreeableness, and emotional stability predict CWB because these traits motivate people to pursue goals that reduce or increase acts of CWB. Explicit and implicit theories of personality suggest that explicit aspects of personality should predict CWB driven by explicit processes, whereas implicit aspects of personality should predict CWB driven by implicit processes. These ideas were tested by examining explicit and implicit conscientiousness, agreeableness, and emotional stability as predictors of CWB, by examining implicit personality's incremental prediction of CWB over explicit personality, and by examining the interactions between implicit personality and work stressors as predictors of CWB. A series of hierarchical regression analyses were conducted using online survey data from 194 participants. The results of this study suggest that CWBs can be influenced by both explicit and implicit aspects of personality; however, in contrast to explicit personality, implicit personality is most likely to influence CWB when individuals experience a high level of work stressors.

*Keywords:* counterproductive work behavior, implicit personality, work stressors

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## **CHAPTER ONE: INTRODUCTION**

Counterproductive work behavior (CWB) is intentional behavior enacted by employees that goes against the legitimate interests of the organization or its employees (Sackett & DeVore, 2001). These harmful behaviors may involve theft (e.g., stealing from others), sabotage (e.g., destroying company equipment), abuse (e.g., insulting others), withdrawal (e.g., leaving work early), and production deviance (e.g., working slow on purpose). It is estimated that organizations lose billions each year because of counterproductive work behavior (Murphy, 1993). Employee theft costs retail industries an estimated 15 billion dollars in 2014 (National Retail Federation, 2015). In addition to theft, costs associated with equipment damage as a result of sabotage, turnover due to interpersonal conflict, and reduced productivity levels as a consequence of employee withdrawal and production deviance may be more difficult to quantify in dollar amounts. Furthermore, employees targeted by CWB are also more likely to experience a lower sense of well-being (e.g., Frone, 2000). Given the high cost of these behaviors and the negative effects they have on employees, the ability to predict CWB can greatly benefit organizations trying to reduce costly CWB and increase well-being in their workplace.

Much of CWB research has focused on identifying factors that motivate people to engage in harmful behaviors at work. One research stream has focused on identifying situational antecedents of CWB; within this body of research, interpersonally and organizationally relevant work stressors (e.g., interpersonal conflict, organizational constraints, organizational injustice) have been found to explain at least partially why people engage in CWB (Hershcovis et al., 2007). Another research stream has focused on identifying personal factors that differentiate between people who engage and those who do not engage in CWB (e.g., personality traits;

Berry, Ones, & Sackett, 2007; Dalal, 2005). Within this body of research, three personality traits within the Big Five – conscientiousness, agreeableness, and emotional stability – have been found to be the most consistent predictors of CWB (Berry et al., 2007; Shoss, Hunter, & Penney, 2016). A third research stream integrates situational and personality explanations of CWB to understand the conditions in which personality is likely to predict CWB (e.g., Shoss et al., 2016; Bowling & Eschleman, 2010). Although these types of studies have helped the literature glean a better understanding of the personal and situational factors that motivate CWB, it is important to consider that the assessment of conscientiousness, agreeableness, and emotional stability in past research has relied entirely on the use of explicit measures (i.e., traditional self-report survey) of personality. Explicit measures of conscientiousness, agreeableness, and emotional stability involve introspective assessment, in which individuals judge their standing on these traits and responses to these questions reflect explicit personality (Asendorpf, Barse, & Mucke, 2002). Explicit personality is formed via information processing that is controlled, slow, and effortful, resulting in propositional representations of the self (e.g., “I pay attention to details”; Asendorpf et al., 2002).

While CWB can be driven by information processing that is controlled, slow, and effortful (e.g., stealing from the organization because the object is desired; Fox & Spector, 2010), it can also be driven by information processing that is automatic, fast, and effortless (i.e., implicit processes; Johnson & Lord, 2010; Johnson & Saboe, 2010), reflected in CWB that occur as an emotional response to stressful work environments (Spector & Fox, 2005). For example, people experiencing strong negative emotions at work may react impulsively with destructive behaviors as a form of emotion-based coping (Johnson, Tolentino, Rodopman, & Cho, 2010;

Krischer, Penney, & Hunter, 2010). Because explicit measures of personality have limited access to the implicit aspects of personality (Schmukle, Back, & Egloff, 2008), they may also have limitations for predicting emotionally-driven CWB (Vasilopoulos, Siers, & Shaw, 2013). In contrast to explicit personality, implicit personality is formed via information processing that is automatic, fast, and effortless, resulting in associative representations of the self (e.g., “me – meticulous”; Back, Schmukle, & Egloff, 2009). Implicit measures of personality capture associative self-representations, and thus have been found to predict behaviors that are influenced by associative (implicit) processes (Steffens & Schulze König, 2006). Given that CWB can also be driven by implicit processes (Johnson & Saboe, 2010), implicit measures of personality may also predict CWB.

In recent years, organizational researchers have pointed out that a complete understanding of work-related behavior requires studying both explicit and implicit processes, and that studying one while neglecting the other results in an incomplete view of how people behave at work (Bowling & Johnson, 2013). Much of the organizational literature, however, has long focused on the explicit aspects of people and work, which are readily captured in explicit measures (Uhlmann et al., 2012). This method of assessment is also true for research that examines personality (i.e., conscientiousness, agreeableness, emotional stability) as a predictor of CWB. Failing to use implicit measures to assess implicit aspects of personality, may result in an incomplete picture of the link between personality and CWB. Indeed, Vasilopoulos and colleagues (2013) raised the idea that although explicit measures have been found to predict CWB, their impact is likely smaller than implicit measures of personality, which are likely to be the strongest predictors of CWB that occur as an emotional response to stressful work

conditions. This suggests that a potential disconnect between theory and method exists because behaviors theorized as driven primarily by emotion and therefore by associative processes are predicted solely with explicit measures. Indirect support for this argument stems from research in the social cognition literature where Asendorpf et al. (2002) demonstrated that an explicit measure of personality uniquely predicted controlled, but not spontaneous behaviors. In contrast, an implicit measure of personality uniquely predicted spontaneous, but not controlled behaviors. Their findings suggest that personality measured with explicit measures may better account for CWB that is more controlled and methodical, whereas, personality assessed with an implicit measure may better account for CWB that is more spontaneous or impulsive. Therefore, a gap exists in the CWB literature because by not including implicit measures of personality, prior studies may have failed to capture a complete picture of the conscientiousness, agreeableness, emotional stability, and CWB relationships.

The current study attempts to address this gap in the literature by incorporating implicit and explicit measures of personality – conscientiousness, agreeableness, and emotional stability – for predicting CWB. In subsequent sections, I will review the extant literature on CWB and discuss why these behaviors may be driven by processes that operate at the implicit level. I will also review research on explicit and implicit personality and discuss why explicit measures are insufficient for assessing implicit personality. Next, I will propose hypotheses regarding the unique contribution of an implicit measure of conscientiousness, agreeableness, and emotional stability for explaining variance in CWB over and above explicit measures of these traits. Finally, given that contemporary theories describe CWB as behavior that occurs in response to stressful work conditions, this study will also examine the moderating effects of interpersonal

conflict, customer incivility, organizational injustice, and organizational constraints on the relationship between implicit personality and CWB. Therefore, the purpose of this study is to examine the relationship between conscientiousness, agreeableness, emotional stability, interpersonal conflict, customer incivility, organizational injustice, organizational constraints, and CWB using explicit and implicit measures of personality.

## **CHAPTER TWO: LITERATURE REVIEW**

### Counterproductive Work Behavior

#### Definitions and Conceptualizations

As previously noted, Sackett and DeVore (2001) defined counterproductive work behavior (CWB) as intentional behavior enacted by employees that goes against the legitimate interests of the organization (CWB-O) or its employees (CWB-I). This definition takes the perspective of the organization; thus, behaviors that are considered by many employees as the norm (e.g., calling in sick when not really sick) are still CWB from an organizational perspective. This definition also states that the behavior must go against the legitimate interests of the organization; for example, working overtime without extra compensation may be of interest to organizations, but refusing to engage in this behavior is not considered CWB because it is not “legitimate” (i.e., illegal, immoral, deviant; Sackett & DeVore, 2001). Some of CWBs are overt, such as being verbally abusive or stealing, and some are more passive such as doing work incorrectly or slow on purpose.

According to Spector and Fox (2005), a key characteristic of CWB is that the behavior must be intentional and not accidental. For example, an employee failing to complete job duties successfully due to improper training is not an instance of CWB because the poor performance was not intentional. Furthermore, Spector and Fox (2005) proposed that the harmful outcome of CWB does not have to be intentional; that is, the actor does not need to have harmful intentions to consider the act a CWB. For example, an employee may purposely break company equipment because he/she knows it will be replaced with newer equipment that will make their jobs easier;

in this situation, the harmful behavior is still a CWB because the behavior itself was intentional even though the intention is for personal gain and not for harm.

### Classifications

Since the beginning of the 1980s, there have been multiple taxonomies developed by researchers to classify CWB. Hollinger and Clark (1982) developed a broad list of CWB, proposed a conceptual framework for interrelating these behaviors, and organized them into two broad categories. The first category, property deviance, included behaviors such as stealing and damaging company property. The second category, production deviance, included acts such as being late or absent to work, taking unauthorized breaks, and doing work incorrectly and/or slow on purpose.

In their effort to develop a more comprehensive theory of CWB, Robinson and Bennett (1995) expanded upon Hollinger and Clark's framework by including more interpersonally-oriented CWB such as sexual harassment and bullying. Robinson and Bennett (1995) used multidimensional scaling to identify the underlying dimensions of CWB and found these behaviors to vary along two dimensions. The first dimension reflects the intended targets of CWB, which are harmful acts that target the organization (CWB-O) and people within the organization (CWB-I). The second dimension reflects the severity of CWB, which varies along a continuum from minor to severe. Combining the interpersonal/organizational and minor/severe dimensions yield four subcategories of CWB: personal aggression (e.g., harassment, bullying), production deviance (e.g. purposefully doing work incorrectly, slowly, and failing to follow procedures) property deviance (e.g., sabotage, theft), and political deviance (e.g., spreading



rumors). A later study by Bennett and Robinson (2000) used factor analysis to develop a typology focusing solely on the interpersonal/organizational nature of CWB. Examples of interpersonal CWB include making fun of, cursing at, and acting rude toward someone at work. Examples of organizational CWB include taking property from work, coming in late to work, and intentionally working slower than you could have worked.

Using factor analysis, Sackett and DeVore (2001) proposed a hierarchical model of CWB with three levels. At the top level is a general dimension of CWB. At the level below are two group factors that are similar to Robinson and Bennett's (1995) interpersonal and organizational CWB, and at the bottom level are more specific behavioral domains such as theft, safety, absence, and drug and alcohol use.

The most recent taxonomy of CWB proposed by Spector and colleagues (2006) used theory of human aggression to classify CWB into five categories based off their potential antecedents. The first category is abuse towards others, which are physically and psychologically harmful acts directed at the organization and/or people; these behaviors typically involve threatening, making fun, or ignoring people within the organization, and badmouthing the employer outside of work. The second category, production deviance, is failing to perform the tasks and duties of the job the way they should be performed on purpose. The third category, sabotage, is damaging or destroying company property. The fourth category, theft, is stealing from coworkers or the organization. The fifth category is withdrawal, which involves reducing the time an individual is physically present at work; these behaviors include skipping or arriving late to work, leaving early from work, and taking unauthorized breaks.

The current study adopts Bennett and Robinson's (2000) classification of CWB, which distinguishes between harmful acts targeted towards the organization (CWB-O) and harmful acts targeted towards people in the organization (CWB-I). Researchers have suggested that variables predicting CWB-I may be different than those predicting CWB-O. For instance, conscientiousness has been more closely linked to CWB-O than CWB-I, and agreeableness has been more closely linked to CWB-I than CWB-O (Berry et al., 2007). Furthermore, organizational stressors (e.g., organizational injustice) have been found to have a stronger association with CWB-O than CWB-I, and interpersonal stressors (e.g., interpersonal conflict) have been found to have a stronger association with CWB-I than CWB-O (Fox, Spector, & Miles, 2001). Therefore, I will split CWB into those targeting the organization (CWB-O) and those targeting the people within the organization (CWB-I) to examine potential differential predictions and to examine more organizationally and interpersonally relevant moderators.

### Contemporary Theories of CWB

Many contemporary explanations of CWB have their origin in theories of human aggression (Spector et al., 2006). Theories of human aggression link certain aggressive behavior to one's experience of negative emotions precipitated by frustrating and provoking environmental conditions (e.g., Berkowitz, 1993). This form of aggression is hostile; that is, the behavior has harm as its primary motive and is associated with the experience of negative affect, typically anger or "hot" emotions (Spector et al., 2006). These behaviors are often impulsive, and unpremeditated, occurring as a reaction to some perceived provocation or frustrating event (Anderson & Huesmann, 2003). Within a workplace context, hostile aggression reflects CWB

that is intentionally harmful and frequently impulsive or spontaneous, occurring immediately as an affective response to frustrating work events. Although purely instrumental reasons for CWB are possible (e.g., Bushman & Anderson, 2001), affect has been theorized, and found, to drive CWB, often mediating between stressful experiences at work and CWB (Fox et al., 2001; Penney & Spector, 2005; Spector & Fox, 2005).

The stressor-emotion model (Spector & Fox, 2005) integrates human aggression and occupational stress research, describing these behaviors as an emotion-based response to perceived work stressors. Work stressors include any frustrating condition in the workplace that substantially interferes with work goals and job performance. Examples of work stressors that have been studied include organizational constraints, organizational injustice, interpersonal conflict, and customer incivility (Fox & Spector, 1999; Fox et al., 2001; Greenberg, 1990; Miles, Borman, Spector, & Fox, 2002; Penney & Spector, 2005; Sliter, Jex, Wolford, & McInnerney, 2010). Both the work frustration-aggression (Fox & Spector, 1999) and stressor-emotion models (Spector & Fox, 2005) propose that people engage in CWB as an emotion-based response to frustrating events at work. Take, for example, when employees are provoked by coworkers; they may feel anger and respond impulsively by threatening their coworkers. Additionally, frustrated employees may also start an argument with or insult coworkers whom they think are underperforming. Lastly, employees may punish the organization for a perceived wrongdoing by working slowly. Indeed, abuse against others, production deviance, theft, and sabotage have been suggested as varying forms of aggression influenced by negative emotions and frustrating work conditions (Neuman & Baron, 2005; Spector et al., 2006), and withdrawal is seen as an attempt to escape or avoid negative emotions and stressors at work (Krischer et al., 2010). Support for

these linkages have been demonstrated by Spector et al. (2006), who found that abuse against others, production deviance, and withdrawal had positive relationships with negative emotions and frustrating work conditions, and that theft and sabotage had positive relationships with frustrating working conditions. Their findings support the idea of CWB being a response to negative emotions and frustrating conditions at work.

### An Explicit and Implicit Theory of CWB

According to Uhlmann et al. (2012), discrete work events may invoke emotion-driven behavior through an implicit route or more premeditated behavior through an explicit route that is also shaped by implicit processes. Johnson and Tan (2009) suggested the idea that many characteristics (e.g., high cognitive load, routine tasks) of typical jobs, may increase the impact of implicit processing on employee behavior in the workplace. Taken together, this logic suggests that CWB, which has been theorized to be an emotion-based response to frustrating working conditions (Fox & Spector, 1999), may be influenced by implicit information processes. Implicit information processes have been theorized to reflect an impulsive system that is part of a larger dual-processing framework referred to as the reflective-impulsive model (Strack & Deutsch, 2004). The reflective-impulsive model (Strack & Deutsch, 2004) has been used to explain how behavior is initiated by both reflective and impulsive information processing systems. Information processing in the reflective system is slow and effortful, and requires cognition and mental resources. Behaviors influenced by the reflective system can be understood as reasoned action. This means that the situation is perceived and categorized, and knowledge

regarding the potential value and possible consequences of a behavior is contemplated and integrated before a decision is made to engage in that behavior (Strack & Deutsch, 2004).

In contrast, the impulsive system is made up of associations between thought and behavioral schemas, which are patterns of thoughts or ideas that organize categories of information, formed from one's personal experiences (Strack & Deutsch, 2004). Information processing in the impulsive system is automatic, fast, and effortless. This means that situational cues are automatically perceived and leads directly to the activation and spreading of associations between thought and behavioral schemas. Alternatively, reflective processes may also elicit the spreading activation of associations between thought and behavioral schemas in the impulsive system (Strack & Deutsch, 2004). Moreover, information processing in the impulsive system is influenced by two motivational orientations that are associated with avoidance and approach tendencies. An avoidance orientation is the tendency to increase the distance between the person and the stimuli, whereas, an approach orientation is the tendency to decrease the distance between the person and the stimuli (Ferris, Yan, Lim, Chen, & Fatimah, 2016; Strack & Deutsch, 2004). Motivational orientations and the perception of situational cues interact to activate behavioral schemas. Specifically, the impulsive system activates behavioral schemas by generating emotional states that initiate approach or avoidance tendencies (Deutsch & Strack, 2006). For example, a person may immediately think of running (behavioral schema) when he/she sees a snake (situational cue) because the idea of a snake generates fear (emotional state), which automatically initiates an avoidance tendency.

The reflective and impulsive systems are both involved in the activation of behavioral schemas that, in turn, initiates actual behavior once a behavioral schema reaches a certain

threshold of activation (Strack & Deutsch, 2004). However, it is important to note that although both reflective and impulsive systems operate simultaneously and interact to influence behavior, the impulsive system is always active and involved in information processing and therefore has a more central role in driving behavior (Vasilopoulos et al., 2013). More specifically, people automatically perceive and process aspects of a situation in the impulsive system and this information may enter the reflective system for further processing depending on the intensity of the stimulus and attention it receives (Strack & Deutsch, 2004). Therefore, even when behaviors are driven by the reflective system, the impulsive system regulates the information that is available for reflective processing (Strack & Deutsch, 2004). Furthermore, the reflective system operates most efficiently when the stimulus elicits intermediate levels of arousal, whereas, low or high levels of arousal will interfere with its operation and cause it to disengage (Vasilopoulos et al., 2013). Thus, the impulsive system is most likely to initiate behavior when there is low arousal or when high arousal invokes a motivational orientation that facilitates the execution of the behavior.

By integrating the reflective-impulsive (Deutsch & Strack, 2006) and stressor-emotion model (Spector & Fox, 2005) perspectives, it is proposed that the impulsive system may have a direct influence on CWB because the act is motivated by negative emotions induced by frustrating working conditions. This means that the impulsive system may generate high levels of arousal when certain aspects of the job are perceived as stressful, which may disengage the reflective system. Once the reflective system is disengaged, the impulsive system becomes the primary driver of behavior by activating and spreading associations, generating negative emotions (i.e. arousal) that initiate approach/avoidance tendencies that, in turn, motivate their

corresponding CWB. For instance, when an employee is provoked by a coworker, he/she may feel anger and respond impulsively by threatening the coworker. In line with the stressor-emotion model (Spector & Fox, 2005), which proposes that individuals appraise the environment and go through an attribution process before engaging in CWB, the impulsive system may also have an indirect influence on CWB through its effect on reflective processes. More specifically, the impulsive system generates arousal when a stressful working condition is perceived, but instead of initiating approach/avoidance tendencies, negative affective experiences enter the reflective system for processing, leading to more elaborate feelings and emotions that are used as the basis for motivating subsequent CWB. For example, an employee may become frustrated at a coworker whom he/she thinks is underperforming on purpose and decide to retaliate by insulting or calling him/her out in front of others. In both the direct and indirect path to CWB, the immediate appraisal of a stressful working condition occurs in the impulsive system.

Although CWB has not been studied under the reflective-impulsive model (Deutsch & Strack, 2006) framework, research has examined some of the relationships within the impulsive system. For example, negative experiences have been found to increase implicit information processing (Tiedens & Linton, 2001). Implicit information processing of negative events has been found to increase negative emotions (Maas & Bos, 2009) and negative emotions have been linked to avoidance (e.g., anxiety; Carver & White, 1994) and approach tendencies (e.g., anger; Youngstrom & Izard, 2008), and CWB (Spector et al., 2006). A recent study by Ferris et al. (2016) proposed the idea that negative emotions may differentially mediate the relationship between job stressors and approach/avoidance-oriented CWB. Indeed, they found that anger mediates the relationship between abusive supervision and approach-oriented CWB – that is,

employees engaged in antagonistic CWB (e.g., mocking, insulting, and pranking his/her supervisor) because the abusive supervisor made them angry. They also found that anxiety mediates the relationship between social ostracism and avoidance-oriented CWB – that is, employees engaged in withdrawal and avoidance CWB because they felt anxious from experiencing ostracism at work. Furthermore, Skarlicki and Rupp (2010) suggested the idea that implicit processing is most salient when emotion is engaged and thus would lead to an increase in retributive behaviors. Specifically, they found that people were more likely to punish transgressors who mistreated others when the incident was processed implicitly as opposed to explicitly. Taken together, these findings provide support for the idea that emotion-based CWB may be influenced by the impulsive system.

#### Predicting Counterproductive Work Behavior with Personality

Popular theories on the relationship between personality and job performance propose motivation as the key mechanism for which personality traits affect job performance (Barrick, Stewart, & Piotrowski, 2002; Hogan & Holland, 2003; Kanfer & Ackerman, 2000). Motivation has been defined as the “arousal, direction, intensity and persistence of voluntary actions that are goal directed” (Mitchell, 1997). Theories of personality and motivation suggest that conscientiousness, agreeableness, and emotional stability predict CWB because these traits motivate people to pursue goals that reduce or increase acts of CWB (e.g., Colbert, Mount, Harter, Witt, & Barrick, 2004; Shoss et al., 2016). For example, conscientious individuals are described as dutiful, self-disciplined, hardworking, achievement striving, ambitious, and dependable (Costa & McCrae, 1992). People who possess these traits have a strong tendency to



abide by ethical principles and norms (Colbert et al., 2004). Therefore, employees high in conscientiousness may have a general tendency to avoid enacting CWB (e.g., coworker harassment, stealing from coworkers and the employer), because these acts violate social and organizational norms (Colbert et al., 2004). Furthermore, conscientiousness relates to accomplishment striving, which is a high task orientation reflecting one's desire to complete task-related goals (Barrick et al., 2002). Employees striving to accomplish task-related goals may avoid CWB because doing work slowly and/or incorrectly (e.g., withdrawal, production deviance) naturally conflicts with completing tasks. Indeed, many empirical studies have found a negative relationship between conscientiousness and CWB (e.g., Berry et al., 2007; Sackett, Berry, Wiemann, & Laczko, 2006; Salgado, 2002).

The personality trait agreeableness reflects the tendency to be compliant, altruistic, helpful, friendly, and kind (Costa & McCrae, 1992). People described as having an agreeable personality have a strong tendency towards compliance and prefer cooperation over competition (Costa & McCrae, 1992). Because of these tendencies, agreeable employees are more likely to comply with organizational and social norms against interpersonally directed CWB (Colbert et al., 2004). Agreeable people also tend to be nonaggressive (Meier, Robinson, & Wilkowski, 2006) and therefore may be less likely to destroy company property or complain about their employer outside of work. Furthermore, research has found that agreeable people tend to be communion striving, which means that their actions are directed toward getting along with others (Barrick et al., 2002). This suggests that agreeable employees may avoid enacting CWB because stealing from, threatening, insulting, or making fun of coworkers runs contrary to their goal of getting along with others. Research has also found that employees engaging in CWB experience

more incivility (Meier & Spector, 2013), which has been found to be related to feelings of social rejection (Caza & Cortina, 2007). Since agreeable employees want to be liked and accepted by others, they may avoid engaging in CWB at work because these behaviors lead to feelings of rejection. Many empirical studies have found a negative relationship between agreeableness and CWB (e.g., Berry et al., 2007; Sackett et al., 2006; Salgado, 2002).

Finally, the personality trait emotional stability reflects the extent to which people are angry, insecure, anxious, depressed, vulnerable, and impulsive (Costa & McCrae, 1992). People low in emotional stability are predisposed to experience negative emotions (McCrae & Costa, 1991). Research has found that emotionally unstable people perceive more job stressors (Grant & Langan-Fox, 2007), and are more likely to experience negative emotions (Lahey, 2009). Furthermore, employees low on emotional stability are motivated to reduce negative emotions or avoid the stressor (Penney, David, & Witt, 2011). One way for employees to reduce feelings of negative emotion at work is to cope, which is defined as the cognitive and behavioral efforts people take to manage perceived demands (Lazarus & Folkman, 1984). Krischer et al. (2010) pointed out that some coping behaviors resemble CWB (e.g., withdrawal and production deviance), and proposed the idea of CWB as an emotion-based coping mechanism used by employees to avoid stressors and reduce negative emotions at work. Indeed, their study found a weaker relationship between organizational injustice and feelings of negative emotion for people performing CWB at work. Their finding suggests that some people may be motivated to enact CWB to cope with the feeling of negative emotions that are associated with perceived job stressors. Shoss et al. (2016) found support for the idea that a disengagement coping style explains the relationship between emotional stability and CWB; this means that emotionally

unstable employees enact CWB more because they prefer to distance themselves from the experience of negative emotions and job stressors instead of dealing with both directly. Taken together, this suggests that employees low in emotional stability are motivated to enact CWB because it helps them cope with the negative emotions associated with perceived job stressors. In terms of empirical support, many studies have shown a substantial relationship between emotional stability and CWB (e.g., Berry et al., 2007; Sackett et al., 2006; Salgado, 2002).

### An Explicit and Implicit Theory of Personality

According to Back et al. (2009), personality is shaped by both impulsive and reflective systems. How personality is formed by the impulsive system – that is, how people automatically perceive situational cues and what behaviors are spontaneously performed – should result in associative self-representations or their implicit personality. For instance, an individual may spontaneously smile (automatic behavior) when he/she sees someone walking towards them (situational cue). Because the behavior (smiling) is a manifestation of a (friendly) personality trait, repeating this process over time leads to chronic associations between an individual's self-schema and attributes describing one's personality (i.e., associative self-representations)(e.g., "me – friendly"; Back et al., 2009). In contrast to associative self-representations, a propositional self-representation is the instantiation of the self and relational schema in which a truth value is applied (Strack & Deutsch, 2004). Personality formed by the reflective system – that is, how people usually perceive and categorize situations, which behaviors they typically prefer, and how they come to understand these preferences – should result in propositional self-representations (i.e., explicit personality). For example, someone who is invited to a party may choose to stay at

home. When similar decisions are frequently made throughout the course of one's life, individual's may come to realize his/her nonsocial tendencies and form propositional representations of the self (e.g., "I don't like to party on the weekends").

### Predicting Counterproductive Work Behavior with Explicit and Implicit Measures of Personality

The most straightforward way to gather information about personality is to ask people what kind of person they are. Thus, explicit measures are commonly used to assess personality. In recent years, researchers have pointed out some inherent flaws associated with explicit measures of personality; that is, they can be faked (Viswesvaran & Ones, 1999) and people are often unreliable at reporting themselves (Hogan & Bickle, 2013). Alternatively, some researchers argue that explicit measures only capture certain aspects of personality (Asendorpf et al., 2002; Bowling & Johnson, 2013); that is, they involve introspection, in which people think and judge themselves on relevant traits, thus capturing propositional representations of the self or explicit aspects of their personality. As noted earlier, propositional self-representations are shaped by the information processes of the reflective system. In contrast, implicit aspects of personality are made of associations between the self-schema and attributes that describe personality, which are automatic associations formed by the processes of the impulsive system. The information processes of the reflective system have limited access to automatic associations (Schmukle et al., 2008) and therefore may have limited involvement in shaping associative representations of the self (i.e., implicit personality). Although explicit measures are appropriate for capturing propositional representations of the self (i.e., explicit personality), which are shaped by reflective processes, it may have limitations for capturing associative representations of the self (i.e.,

implicit personality), which are shaped by associative processes (Schmukle et al., 2008). On the other hand, an implicit measure is a more valid assessment of implicit personality because it captures automatic associations (Steffens & Schulze König, 2006) and therefore associative representations of the self. Given that CWB can also be impulsive (Spector, 2010), these ideas suggest that an implicit measure of personality should also predict CWB because it captures associative self-representations, which are also formed by the associative processes involved in motivating impulsive behaviors (Strack & Deutsch, 2004). In contrast, an explicit measure of personality has limited accessibility to associative self-representations and therefore may be limited for predicting CWB that are driven by associative processes. However, this does not mean that there is no value in using an explicit measure of personality to predict CWB. As previously mentioned, instrumental reasons for CWB are also possible (e.g., Bushman & Anderson, 2001), which are influenced by slow, controlled, and effortful information processes; therefore, explicit measures of personality should also predict CWB.

Indirect support for this idea comes from research examining explicit and implicit measures of personality as predictors of controlled and spontaneous behaviors, which are theorized to be driven by the reflective and impulsive systems, respectively. For example, Asendorpf et al. (2002) found that an implicit measure of shy personality predicted spontaneous behavior once an explicit measure of shy personality was accounted for, and that an explicit measure of shy personality predicted controlled behavior once an implicit measure of shy personality was accounted for. Similarly, Steffens and Schulze König (2006) found that implicit measures of personality predicted spontaneous behaviors, whereas, explicit measures of personality did not. They also found that explicit measures of personality predicted controlled

behaviors, whereas, implicit measures of personality did not. Furthermore, additional support for this idea comes from research examining explicit and implicit measures of personality as predictors of job performance. For example, Johnson and Saboe (2011) found that an implicit measure of self-concept predicted CWB once an explicit measure of self-concept was accounted for. Similarly, Johnson et al. (2010) found that an implicit measure of negative trait affectivity predicted CWB once an explicit measure of negative trait affectivity was accounted for. Taken together, these findings suggest that explicit and implicit measures of conscientiousness, agreeableness, and emotional stability should predict CWB, and that an implicit measure of conscientiousness, agreeableness, and emotional stability may add to the prediction of CWB over an explicit measure of these traits.

*Hypothesis 1a-1c:* Implicit and explicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability will predict CWB-I and CWB-O.

*Hypothesis 2a-2c:* Implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability will contribute to the prediction of CWB-I and CWB-O incrementally beyond explicit conscientiousness, agreeableness, and emotional stability.

#### Predicting Counterproductive Work Behavior with Implicit Personality: The Role of Situational Context

Although I expect implicit measures of conscientiousness, agreeableness, and emotional stability will predict CWB, situational factors should impact the magnitude of these effects. According to Vasilopoulos et al. (2013), association-based measures of personality are likely to be the strongest predictors of CWB that occur in stressful work environments. As noted

previously in the CWB section, an integration of the reflective-impulsive (Deutsch & Strack, 2006) and stressor-emotion model (Spector & Fox, 2005) perspectives would suggest that the impulsive system is more likely to have an influence on CWB when the work environment is perceived as stressful (i.e., high arousal). More specifically, when the experience of work stressors generates the level of arousal needed to disengage the reflective system, the associative processes of the impulsive system should have a stronger influence on CWB. Given that implicit measures capture automatic associations (Steffens & Schulze König, 2006), this suggests that an implicit measure of personality may more strongly predict CWB when individuals experience stressors at work because their behavior is more likely to be influenced by associative processes. This idea is consistent with what has been suggested in the aggression literature; that is, implicit measures have the ability to capture associative processes that underlie an individual's immediate appraisal of a situation as hostile, which may lead to subsequent aggressive behavior (Bluemke & Teige-Mocigemba, 2015).

This study will examine four stressors that individuals may perceive at work. The first two stressors are interpersonal in nature and consist of: interpersonal conflict and customer incivility. Interpersonal conflict is a type of stressor that involves disagreement between employees (Spector & Jex, 1998). These negative interpersonal interactions may involve hostility, angry exchanges, and verbal aggression (Keenan & Newton, 1985). For example, individuals involved in interpersonal conflict experience nastiness from other employees and may reciprocate immediately by engaging in similar or more intense forms of behavior (Spector et al., 2006). Ilies, Johnson, Judge, and Keeney (2011) suggested the idea that the experience of interpersonal conflict may be perceived by employees as stressful and thus should be associated

with an immediate experience of strain. Indeed, Ilies and colleagues found that employees reported experiencing negative affect following the perception of interpersonal conflict.

Customer incivility reflects low-intensity deviant behavior that is perpetrated by a customer or client, is ambiguous in its intent to harm an employee, and violates social norms of mutual respect and courtesy (Sliter et al., 2010). Customer incivility can be thought of as a workplace stressor, which is an aspect of the work environment that may elicit stress and arousal in employees. Research on customer incivility and conceptually related constructs (e.g., customer verbal aggression, customer interpersonal conflict) have linked these stressors to high appraisals of stress (Grandey, Dickter, & Sin, 2004), and emotional exhaustion (Sliter et al., 2010; Sliter, Pui, Sliter, & Jex, 2011).

According to Vasilopoulos et al. (2013), situations that heighten one's state of arousal and require an immediate response increases the likelihood that behavior is driven primarily by associative processes. Thus, implicit personality should have a stronger influence on CWB when individuals experience a heightened sense of arousal at work due to high levels of interpersonal conflict or customer incivility. Additionally, the type of CWB explained by implicit personality should be interpersonal in nature because an employee is likely to retaliate against the person who is causing him/her to feel negative emotions (Buk-Lee & Spector, 2006). Furthermore, social stressor can have cross-source relationships with CWB targets (Buk-Lee & Spector, 2006), which suggests that the experience of customer incivility by employees may lead to displaced aggression in the form of employee-targeted CWB. Taken together, these ideas suggest that when individuals work in an environment characterized by high levels of interpersonal conflict or customer incivility, implicit personality should explain whether employees engage in



CWB-I. Therefore, an implicit measure of conscientiousness, agreeableness, and emotional stability should more strongly predict CWB-I when individuals frequently experience interpersonal conflict or customer incivility at work.

*Hypothesis 3a-3c:* Interpersonal conflict will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-I, such that the relationship will be stronger when interpersonal conflict is high and weaker when interpersonal conflict is low.

*Hypothesis 4a-4c:* Customer incivility will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-I, such that the relationship will be stronger when customer incivility is high and weaker when customer incivility is low.

A third stressor employees may perceive at work is organizational injustice. organizational injustice refers to an individual's perceptions of unfairness at work, which includes the perceived unfairness of decision outcomes, the procedures that determine those outcomes, and treatment by decision makers (Cropanzano, Byrne, Bobocel, & Rupp, 2001). When employees perceive unfair treatment from the organization, they are likely to experience negative emotions such as anger and hostility (Barclay, Skarlicki, & Pugh, 2005). The relationship between injustice perceptions and emotions is thought to be reciprocal; that is, affective reactions to fairness-related events stimulates one's concern for fairness, and therefore, individuals pay more attention to fairness-related events and react more strongly towards subsequent injustices. Along these lines, Barsky and Kaplan (2007) found a positive relationship between organizational injustice and state negative affect. According to Johnson and Lord

(2010), injustice perceptions are likely to have implicit effects because they involve a state of high arousal and strong affect. Given that high arousal and strong affect increases the likelihood of implicit (i.e., associative) processing (Metcalf & Mischel, 1999; Vasilopoulos et al., 2013), these ideas suggest that the perception of injustice is a highly stressful experience that can augment the influence of associative processes (i.e. implicit personality) on CWB. Furthermore, the type of CWB explained by implicit personality should be organizationally directed because employees are motivated to retaliate against the perceived source of injustice (i.e., the organization; Skarlicki and Folger, 1997). Therefore, when employees experience negative emotions due to organizational injustice, implicit personality should have a stronger influence on employees' CWB-O. Taken together, these ideas suggest that implicit measures of conscientiousness, agreeableness, and emotional stability should more strongly predict CWB-O when individuals experience high levels of organizational injustice.

*Hypothesis 5a-5c:* Organizational injustice will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-O, such that the relationship will be stronger when organizational injustice is high and weaker when organizational injustice is low.

Finally, this study will also examine organizational constraints as a stressor that employees may perceive at work. Organizational constraints reflect aspects of the work environment that employees perceive as interfering with work goals and effective job performance. Such constraints may include conflicting job demands, poor equipment, inadequate information, and interference from supervisors and coworkers (Spector & Jex, 1998). The experience of organizational constraints can involve feelings of frustration, arousal, anxiety, and

anger (Fox, Spector, & Miles, 2001). In support of this notion, research has linked organizational constraints to frustration and negative affect (Fox & Spector, 1999; Fox, Spector, & Miles, 2001). As previously mentioned, high arousal and strong affect increases the likelihood of implicit (i.e., associative) processing (Metcalf & Mischel, 1999; Vasilopoulos et al., 2013); therefore the experience of organizational constraints is also expected to augment the influence of implicit personality on CWB. However, unlike each of the previously mentioned stressors, the experience of organizational constraints should augment the effects of implicit personality on both CWB-O and CWB-I. Organizational constraints consist of a broad set of stressors, which involves interference from all aspects of work such as the organization (e.g., red tape), the job (e.g., conflicting job demands), and the social environment (e.g., coworkers). Therefore, when employees experience high levels of organizational constraints, implicit personality should explain variance in CWB-O and CWB-I because these behaviors are directed at the organization and its people. Taken together, these ideas suggest that implicit measures of conscientiousness, agreeableness, and emotional stability should more strongly predict CWB-O and CWB-I when individuals experience high levels of organizational constraints as opposed to low.

*Hypothesis 6a-6c:* Organizational constraints will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-O, such that the relationship will be stronger when organizational constraints are high and weaker when organizational constraints are low.

*Hypothesis 7a-7c:* Organizational constraints will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-

I, such that the relationship will be stronger when organizational constraints are high and weaker when organizational constraints are low.

In addition to studying implicit personality and how it may interact with work stressors to predict broader CWB constructs (i.e., CWB-I, CWB-O), I also want to examine if implicit personality and work stressors interact to predict more strongly specific narrow types of CWB (i.e., production deviance, withdrawal, theft, sabotage, abuse) in an exploratory manner. Therefore, I also pose five research questions that explore whether (1) implicit personality predicts more strongly specific narrow types of CWB, and whether the interactions between (2) implicit personality and interpersonal conflict, (3) implicit personality and customer incivility, (4) implicit personality and organizational injustice, and (5) implicit personality and organizational constraints, predict more strongly specific narrow types of CWB.

## CHAPTER THREE: METHODOLOGY

### Sample

Participants consisted of undergraduate psychology students at a southeastern university. To be eligible, participants had to be at least 18 years of age, employed, proficient in English, and able to take the survey on a non-mobile device. Participants received classroom research credit for their participation. A power analysis using G\*power (Faul, Erdfelder, Buchner, & Lang, 2009) was conducted to determine the necessary sample size for a test of linear multiple regression with  $\Delta R^2 = .09$ , 80% power, and an  $\alpha = .05$ . The power analysis suggests that a sample size of  $n = 200$  was needed to detect an effect size that is similar to what has been founded in prior research examining implicit and explicit measures of personality, and CWB (Johnson & Saboe, 2011). Therefore, the current study tried to recruit approximately 325 participants due to anticipated attrition and careless responding associated with online research (Meade & Pappalardo, 2013). A total of 208 participants took the survey. After excluding participants who inaccurately responded to both quality control questions ( $n = 14$ ), I had 194 usable participants (68.2 percent were female,  $M$  age = 21.91,  $M$  hours worked per week = 26.37,  $M$  tenure = 9.63 years) to conduct my analyses. Participants reported working in a broad range of industries such as retail, hospitality, finance, legal, construction, food services, customer service, education, healthcare, government, manufacturing, and information technology.

## Measures

### Independent and Dependent Variables

#### *Implicit Personality*

The current study used three Implicit Association Tests (IAT; Greenwald, McGhee, & Schwartz, 1998) designed to assess implicit conscientiousness, agreeableness, and emotional stability (Schmukle et al., 2008). Using the IAT to measure these personality dimensions, Schmukle et al. (2008) reported a reliability of  $\alpha = .78$  for conscientiousness,  $\alpha = .82$  for agreeableness, and  $\alpha = .77$  for emotional stability. The IATs were embedded in a Qualtrics survey using iatgen (Carpenter et al., in press). Iatgen utilizes the JavaScript functionality in Qualtrics; thus, each IAT is run entirely within a web browser, does not require additional software, and is unaffected by internet connection speed. JavaScript has been validated for psychological research (De Leeuw, 2015). The IAT measures the strength of the association between two target categories (e.g., self vs others) and two attribute categories (e.g., conscientiousness vs carelessness) via a computerized classification task. The dual categorization task asks participants to sort words into two categories by pressing one of two keys (“E” or “I”) on the computer keyboard. Each IAT procedure was comprised of seven blocks of trials (Greenwald, McGhee, & Schwartz, 1998; Greenwald et al., 2003). For each trial, participants viewed a word in the middle of the screen and had to sort the word into its corresponding category as fast as possible by pressing the “E” with their left hand or “I” key with their right hand. The “E” key is mapped to the category displayed at the top left corner of the screen and the

“I” key is mapped to the category displayed at the top right corner of the screen. If participants made an error, they had to correct the error before the reaction time was captured.

For all three IATs, participants viewed words that are associated with the target categories me (me, my, self, I, own) and others (you, your, them, they, others). For the conscientiousness IAT, participants viewed 10 words that are associated with the attribute categories conscientiousness (meticulous, neat, reliable, fussy, thorough) and carelessness (careless, chaotic, unreliable, erratic, frivolous). For the agreeableness IAT, participants viewed 10 words that are associated with the attribute categories agreeableness (well-meaning, trusting, helpful, friendly, good-natured) and disagreeableness (quarrelsome, hostile, obstinate, hard-hearted, resentful). For emotional stability, participants viewed 10 words that are associated with the attribute categories calmness (relaxed, calm, restful, at ease, balanced) and anxiety (nervous, fearful, anxious, uncertain, afraid).

The following example uses conscientiousness to demonstrate the procedure used to conduct each IAT. The procedure for the agreeableness and emotional stability IATs was identical to the conscientiousness IAT except that the conscientiousness-related attribute words and categories were replaced with those for agreeableness and emotional stability. Block 1 consisted of 20 trials, participants practiced discriminating target words belonging to the category me and words belonging to the category others. Block 2 also consisted of 20 trials, participants practiced discriminating attribute words belonging to the category conscientiousness and words belonging to the category carelessness. Blocks 3 and 4 consisted of 20 and 40 trials, respectively, participants sorted 10 target and 10 attribute words into the two combined categories – me or conscientiousness vs. you or carelessness. Blocks 3 and 4 are called

conscientiousness blocks because the target category me is paired with the conscientiousness category (i.e., me or conscientiousness). Block 5 consisted of 20 trials and is similar to block 1; however, the target categories were switched. Blocks 6 and 7 consisted of 20 and 40 trials; respectively, participants categorized 10 target and 10 attribute words into two combined categories – me or carelessness vs. others or conscientiousness. Blocks 6 and 7 are called carelessness blocks because the target category me is paired with the carelessness category (i.e., me – carelessness). The conscientiousness and carelessness blocks were counterbalanced such that half of the participants completed the conscientiousness block before the carelessness block, and the other half completed the carelessness block before the conscientiousness block.

Scores for the conscientiousness, agreeableness, and emotional stability IATs were computed using an algorithm suggested by Greenwald et al. (2003); this procedure was used to compute a separate D-score for conscientiousness, agreeableness, and emotional stability. To compute each D-score, I used data from the compatible (e.g., conscientiousness) and incompatible (e.g., carelessness) blocks (Blocks 3, 4, 6, and 7). First, I scored as missing any trial (participant response) with a latency greater than 10,000 ms and scored as missing any participant who responded to more than ten percent of trials with less than 300 ms latency. The conscientiousness, agreeableness and emotional stability IATs had, respectively, 33, 29 and 29 participants treated as missing. Second, I computed two pooled standard deviations, one using the trial times from Blocks 3 and 6 and another using the trial times from Blocks 4 and 7. Third, I computed a separate mean latency for each block using its associated trial times. Fourth, I computed two mean difference scores by subtracting the mean latency score of Block 3 from Block 6 and Block 4 from Block 7. Fifth, I divided each mean difference score by its associated



pooled standard deviation. Finally, I averaged the two values to compute the final D score that was used for subsequent data analyses. A highly positive D-score indicates a stronger association between the self and the positive pole of the trait (e.g., me – conscientiousness), whereas a highly negative D-score indicates a stronger association between the self and the negative pole of the trait (e.g., me – careless). Reliability estimates for each IAT were generated using the procedure recommended by De Houwer and De Bruyker (2007). Trials were sorted by target/category; odd and even trials were correlated with a spearman-brown correction for split-half reliability estimation.

### Explicit Personality

This study used a 10-item conscientiousness (e.g., “I am always prepared”), 10-item agreeableness (e.g., “I am interested in people”) and 10-item emotional stability (e.g., “I am relaxed most of the time”) scale taken from the International Personality Item Pool (Goldberg et al., 2006). Participants were asked “Please indicate the extent to which you agree or disagree with the following statements” on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The authors reported a reliability of  $\alpha = .79$  for conscientiousness,  $\alpha = .82$  for agreeableness, and  $\alpha = .86$  for emotional stability.

### Interpersonal Conflict

This study used a 4-item Interpersonal Conflict At Work Scale (Spector & Jex, 1998) to assess interpersonal conflict. Participants were asked “How often do you get into arguments with others at work?”, “How often do other people yell at you at work?”, “How often are people rude

to you at work?”, and “How often do other people do nasty things to you at work?” and rated each on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). The authors reported a reliability of  $\alpha = .74$ .

### Customer Incivility

This study used a 11-item Customer Incivility Scale (Burnfield, Clark, Devendorf, & Jex, 2004) to assess customer incivility. Participants were asked about their experiences of customer incivility (e.g., “Customers/clients are condescending to me.”, “My customers make personal verbal attacks against me.”). Each question was rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The authors reported a reliability of  $\alpha = .94$ .

### Organizational Injustice

This study used a 6-item Perceived Overall Justice Scale (Ambrose & Schminke, 2009) to assess organizational injustice. Participants were asked about their justice experiences (e.g., “Overall, I am treated fairly by my organization”, “In general, I can count on this organization to be fair”) and the general fairness of the organization (e.g., “Usually, the way things work in this organization are not fair”, “For the most part, this organization treats its employees fairly”). Each question was rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) and items reflecting the positive end of organizational justice were reverse-coded to reflect injustice. The authors reported a reliability of  $\alpha = .93$ .

### Organizational Constraints

This study used a 11-item Organizational Constraints Scale (Spector & Jex, 1998) to assess organizational constraints. Participants were asked how often they find it difficult or impossible to do their job because of... (e.g., “Poor equipment or supplies”, “Interruptions by other people”). Each question was rated on a 5-point Likert-type scale ranging from 1 (less than once per month or never) to 5 (several times per day). The authors reported a reliability of  $\alpha = .85$ .

### Counterproductive Work Behavior

This study used the 45-item Counterproductive Work Behavior Checklist (Spector et al., 2006) to assess CWB-I and CWB-O. Participants were asked “How often have you done each of the following things on your present job?” and rate on a 5-point Likert-type scale ranging from 1 (never) to 5 (everyday) how frequently they engage in CWB targeted towards people (CWB-I; e.g., “Made fun of someone’s personal life”, “Been nasty or rude to a client or customer”) and CWB targeted towards the organization (CWB-O; e.g., “Purposely damaged a piece of equipment or property”). The authors reported a reliability of  $\alpha = .86$  for CWB-I and  $\alpha = .86$  for CWB-O.

### Quality Control

This study used bogus/careless response items (Meade & Craig, 2012) to exclude careless responders. On a 5-point Likert-type scale ranging from (1) highly disagree to (5) highly agree,

participants gave answers to two questions: “I am enrolled in a Psychology course currently” (reverse-coded), and “I do not understand a word of English.”

### Demographics

I used several brief demographic items to gather descriptive information on the participants: age, gender, employment status, tenure, work hours, and work industry.

### Procedure

Participants were recruited via the Psychology Department’s SONA system. Participants read a brief description of the study and clicked on a link that directed them to a web-based survey (via the Qualtrics survey platform) to participate in the study. Participants attempting to access the survey on a mobile device (e.g., smartphone, tablet) were redirected to the end of the survey and asked to complete the study on a computer. The first page of the online survey displayed an informed consent form. Participants who agree to the specifications listed on the informed consent form continued onto the survey. Participants who do not agree to the specifications on the informed consent form were sent to the final page of the survey without answering any survey items. After providing consent, participants completed several demographic items. Once demographic items were completed, half of the participants completed three separate IATs for implicit personality (conscientiousness, agreeableness, emotional stability), followed by explicit measures of explicit personality (conscientiousness, agreeableness, emotional stability). The other half completed explicit measures of personality first, followed by implicit measures of personality. After implicit and explicit measures of

personality were completed, participants completed measures of interpersonal conflict, customer incivility, organizational injustice, organizational constraints, and counterproductive work behavior. Upon completion of the survey, participants were debriefed and thanked for their time.

### Data Analysis

Once data collection was completed, I cleaned the data before testing my hypotheses. A quality control variable was created to filter out careless/inattentive responders. Participants responding higher than 2 to both of the bogus/careless response items (Meade & Craig, 2012) were filtered out ( $n = 14$ ). I chose to exclude participants who responded incorrectly to both bogus/careless response items (instead of one) in order to conserve my power to detect an effect. Data analyses were conducted once with careless/inattentive responders filtered out and a second time with careless/inattentive responders included. IAT data cleaning and scoring is discussed in the measures section.

After the data was cleaned, I computed means, standard deviations, intercorrelations, and reliability estimates for all study variables. I also computed frequencies for age and gender. To test the hypotheses in this study, I conducted hierarchical regression analyses. For all regressions, I entered age, gender, tenure, and work hours as controls in step one because they have been shown to be related to CWB (Berry et al., 2007; Hershcovis et al., 2007). Age is associated with a desire for positive social interactions, cooperation, and less competition, which are negatively related to CWB (Hershcovis et al., 2007; Hollinger & Clark, 1982). Men (compared to women) tend to be more aggressive, which is positively associated with CWB (Hershcovis et al., 2007). Individuals who stay with an organization (i.e., tenure) tend to be more committed, which is

negatively related to CWB (Cohen, Panter, & Turan, 2013). Finally, individuals working longer hours have more opportunities to engage in CWB (Cohen et al., 2013).

To test hypotheses 1a-c and 2a-c, I regressed scores on the CWB measure onto scores on the explicit conscientiousness, agreeableness, and emotional stability measures in step two. In step three, the D-scores from the implicit conscientiousness, agreeableness, and emotional stability measures were added to the model.

To test for hypothesis 3a-c. I first computed two-way interactions between implicit personality and interpersonal conflict (conscientiousness x interpersonal conflict, agreeableness x interpersonal conflict, emotional stability x interpersonal conflict). Next, I regressed scores on the CWB measure onto scores on the interpersonal conflict measure, and onto the D-scores from the implicit conscientiousness, agreeableness, and emotional stability measures in step one. In step two, I added the previously computed two-way interactions into the model.

To test for hypothesis 4a-c. I first computed two-way interactions between implicit personality and customer incivility (conscientiousness x customer incivility, agreeableness x customer incivility, emotional stability x customer incivility). Next, I regressed scores on the CWB measure onto scores on the customer incivility measure, and onto the D-scores from the implicit conscientiousness, agreeableness, and emotional stability measures in step one. In step two, I added the previously computed two-way interactions into the model.

To test for hypothesis 5a-c. I first computed two-way interactions between implicit personality and organizational injustice (conscientiousness x organizational injustice, agreeableness x organizational injustice, emotional stability x organizational injustice). Next, I regressed scores on the CWB measure onto scores on the organizational injustice measure, and

onto the D-scores from the implicit conscientiousness, agreeableness, and emotional stability measures in step one. In step two, I added the previously computed two-way interactions into the model.

To test for hypotheses 6a-c and 7a-c. I first computed two-way interactions between implicit personality and organizational constraints (conscientiousness x organizational constraints, agreeableness x organizational constraints, emotional stability x organizational constraints). Next, I regressed scores on the CWB measure onto scores on the organizational constraints measure, and onto the D-scores from the implicit conscientiousness, agreeableness, and emotional stability measures in step one. In step two, I added the previously computed two-way interactions into the model. Separate analyses were conducted for CWB-O and CWB-I.

## **CHAPTER FOUR: RESULTS**

The means, standard deviations, reliabilities, and intercorrelations for the study variables are displayed in Table 1.



Table 1: Descriptive statistics and correlations for all study variables.

Variables	M (SD)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
<i>Control Variables</i>																	
1. Age	21.91 (5.75)																
2. Gender	1.32 (0.47)	-.17*															
3. Work Hours	26.39 (11.20)	.32**	.03														
4. Tenure	9.63 (5.88)	.42**	-.13	.05													
<i>Explicit Personality</i>																	
5. Conscientiousness	3.84 (0.69)	.04	.01	-.12	.10	(.85)											
6. Agreeableness	4.15 (0.64)	.14	-.27**	-.01	.16*	.24**	(.88)										
7. Emotional Stability	3.29 (0.81)	.11	.23**	.10	.11	.36**	.01	(.87)									
<i>Implicit Personality</i>																	
8. Conscientiousness	0.29 (0.33)	.03	-.02	.00	.06	-.06	.08	-.06	(.69)								
9. Agreeableness	0.45 (0.33)	.10	.05	.19	.09	-.11	.05	.08	.17*	(.76)							
10. Emotional Stability	-0.34 (0.34)	-.09	-.12	-.05	-.05	-.02	.01	-.09	-.15	-.09	(.79)						
<i>Work Stressors</i>																	
11. Interpersonal Conflict	1.59 (0.71)	.02	.07	.15*	-.03	-.28**	-.18*	-.20**	.04	.13	.02	(.78)					
12. Customer Incivility	2.44 (1.20)	-.08	.00	.05	.02	-.21**	-.13	-.17*	.08	-.05	.01	.55**	(.96)				
13. Organizational Injustice	2.10 (0.96)	.04	.10	.16*	-.02	-.24**	-.16	-.15*	.17*	.05	.03	.41**	.31**	(.88)			
14. Organizational Constraints	1.74 (0.86)	.07	.07	.20**	.03	-.26**	-.08	-.20**	.22**	.03	-.02	.54**	.41**	.61**	(.94)		
<i>CWB</i>																	
15. CWB-O	1.44 (0.49)	-.02	.13	.09	-.06	-.31**	-.28**	-.27**	.07	.00	.07	.51**	.29**	.33**	.50**	(.92)	
16. CWB-I	1.17 (0.46)	.00	.15	.11	-.08	-.27**	-.26**	-.14*	-.03	.02	-.04	.49**	.20**	.23**	.41**	.82**	(.98)

Note.  $N = 195$ . For gender, 1 = male, 2 = female. CWB-O = counterproductive work behaviors directed at the organization; CWB-I = counterproductive work behaviors directed at individuals.

Reliabilities appear in parentheses on the diagonal.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 2 displays the main effects of explicit and implicit personality and provides partial support for Hypothesis 1a-c, which predicted that implicit and explicit conscientiousness, agreeableness, and emotional stability will predict CWB-I and CWB-O. Specifically, explicit conscientiousness ( $\beta = -.17, p < .05$ ), explicit agreeableness ( $\beta = -.20, p < .001$ ), and explicit emotional stability ( $\beta = -.25, p < .05$ ) predicted CWB-O. However, implicit conscientiousness ( $\beta = .08, n.s.$ ), implicit agreeableness ( $\beta = -.03, n.s.$ ), and implicit emotional stability ( $\beta = .08, n.s.$ ) failed to predict CWB-O. Additionally, explicit agreeableness ( $\beta = -.18, p < .05$ ) predicted CWB-I. However, explicit conscientiousness ( $\beta = -.17, n.s.$ ) and explicit emotional stability ( $\beta = -.04, n.s.$ ), and implicit conscientiousness ( $\beta = -.04, n.s.$ ), implicit agreeableness ( $\beta = -.01, n.s.$ ), and implicit emotional stability ( $\beta = -.04, n.s.$ ) failed to predict CWB-I.

The results presented in Table 2 fail to support Hypothesis 2a-c, which predicted that implicit conscientiousness, agreeableness, and emotional stability will contribute to the prediction of CWB-I and CWB-O incrementally to explicit conscientiousness, agreeableness, and emotional stability. Specifically, implicit conscientiousness, agreeableness, and emotional stability failed to contribute to the prediction of CWB-I ( $\Delta R^2 = .00, n.s.$ ) and CWB-O ( $\Delta R^2 = .01, n.s.$ ) incrementally to explicit conscientiousness, agreeableness, and emotional stability.

Table 3 displays the interactive effects of work stressors and implicit personality. The results failed to support Hypothesis 3a-c, which predicted that interpersonal conflict will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-I, such that the relationship will be stronger when interpersonal conflict is high and weaker when interpersonal conflict is low.

Interpersonal conflict failed to interact with implicit conscientiousness ( $\beta = -.07, n.s.$ ), implicit agreeableness ( $\beta = .04, n.s.$ ), and implicit emotional stability ( $\beta = -.04, n.s.$ ) to predict CWB-I ( $\Delta R^2 = .01, n.s.$ ).

Table 2: Hierarchical Regression Analyses Examining the Main Effects of Explicit and Implicit Personality

Variable	CWB-I	CWB-O
Step 1 - Covariates		
Age	.03	-.01
Gender	.14	.13
Hours worked per week	.10	.09
Tenure	-.08	-.04
$R^2$	.04	.03
Step 2 – Explicit personality		
Conscientiousness	-.17	-.17*
Agreeableness	-.18*	-.20*
Emotional stability	-.12	-.25**
$R^2$	.14**	.20**
$\Delta R^2$	.10***	.17***
Step 3 – Implicit personality		
Conscientiousness	-.04	.08
Agreeableness	-.01	-.03
Emotional stability	-.04	.08
$R^2$	.15*	.21***
$\Delta R^2$	.00	.01

Note. Standardized regression coefficients are presented.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

The results failed to provide support for Hypothesis 4a-c, which predicted that customer incivility will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-I, such that the relationship will be stronger when customer incivility is high and weaker when customer incivility is low. Customer incivility

failed to interact with implicit conscientiousness ( $\beta = -.08, n.s.$ ), implicit agreeableness ( $\beta = .02, n.s.$ ), and implicit emotional stability ( $\beta = -.06, n.s.$ ) to predict CWB-I ( $\Delta R^2 = .01, n.s.$ ).

The results failed to provide support for Hypothesis 5a-c, which predicted that organizational injustice will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-O, such that the relationship will be stronger when organizational injustice is high and weaker when organizational injustice is low. Organizational injustice failed to interact with implicit conscientiousness ( $\beta = -.09, n.s.$ ), implicit agreeableness ( $\beta = -.13, n.s.$ ), and implicit emotional stability ( $\beta = -.03, n.s.$ ) to predict CWB-O ( $\Delta R^2 = .03, n.s.$ ).

Hypothesis 6a-c predicted that organizational constraints will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-O, such that the relationship will be stronger when organizational constraints are high and weaker when organizational constraints are low. This prediction was partially supported by the results; organizational constraints interacted with implicit conscientiousness ( $\beta = -.44, p < .001$ ), implicit agreeableness ( $\beta = -.14, p < .05$ ), and implicit emotional stability ( $\beta = -.20, p < .01$ ) to predict CWB-O ( $\Delta R^2 = .15, p < .001$ ).

Table 3: Hierarchical Regression Analyses Examining the Implicit Personality and Organizational Constraints Interaction

Variable	CWB-I			CWB-O	
	I	II	III	III	IV
<i>Control Variables</i>					
Age	.03	.05	.02	-.01	-.01
Gender	.11	.14	.11	.11	.10
Hours worked per week	.04	.08	.02	.05	.00
Tenure	-.06	-.10	-.09	-.03	-.05
<i>Implicit Personality</i>					
Conscientiousness	-.05	-.05	-.13	.04	-.02
Agreeableness	-.05	.01	.02	-.03	-.01
Emotional Stability	-.05	-.03	-.04	.08	.09
<i>Work Stressors</i>					
Interpersonal Conflict	.48***				
Customer Incivility		.21*			
Organizational Injustice				.30***	
Organizational Constraints			.23***		.50***
$R^2$	.26***	.08	.21***	.13*	.27***
<i>Implicit Personality X Stressor Interaction</i>					
Conscientiousness X Interpersonal Conflict	-.07				
Agreeableness X Interpersonal Conflict	.04				
Emotional Stability X Interpersonal Conflict	-.04				
Conscientiousness X Customer Incivility		-.08			
Agreeableness X Customer Incivility		.00			
Emotional Stability X Customer Incivility		-.06			
Conscientiousness X Organizational Injustice				-.09	
Agreeableness X Organizational Injustice				-.13	
Emotional Stability X Organizational Injustice				-.03	
Conscientiousness X Organizational Constraints			-.40***		-.44***
Agreeableness X Organizational Constraints			-.12		-.14*
Emotional Stability X Organizational Constraints			-.30***		-.20**
$R^2$	.27***	.09	.37***	.15*	.42***
$\Delta R^2$	.01	.01	.16***	.03	.15***

Note. Standardized regression coefficients are presented. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

To explore the nature of the interactions, two lines were plotted using values at 1 standard deviation above and below the mean of organizational constraints. Contrary to my expectations (Figure 1.), the relationship between implicit conscientiousness and CWB-O was negative among individuals who experienced high levels of organizational constraints ( $b = -1.10$ ,  $SE = .21$ ,  $p < .001$ ) and a positive among those who experienced low levels ( $b = 0.48$ ,  $SE = .14$ ,  $p < .001$ ). As shown in Figure 2, the negative relationship between implicit agreeableness and CWB-O was stronger among individuals who experienced high levels of organizational constraints ( $b = -0.24$ ,  $SE = .14$ ,  $p = .091$ ) compared to those who experienced low levels ( $b = 0.18$ ,  $SE = .15$ ,  $n.s.$ ). Contrary to my expectations (Figure 3.), the relationship between implicit emotional stability and CWB-O was negative among individuals who experienced high levels of organizational constraints ( $b = -0.33$ ,  $SE = .16$ ,  $p < .05$ ) and a positive among those who experienced low levels ( $b = 0.31$ ,  $SE = .14$ ,  $p < .05$ ).

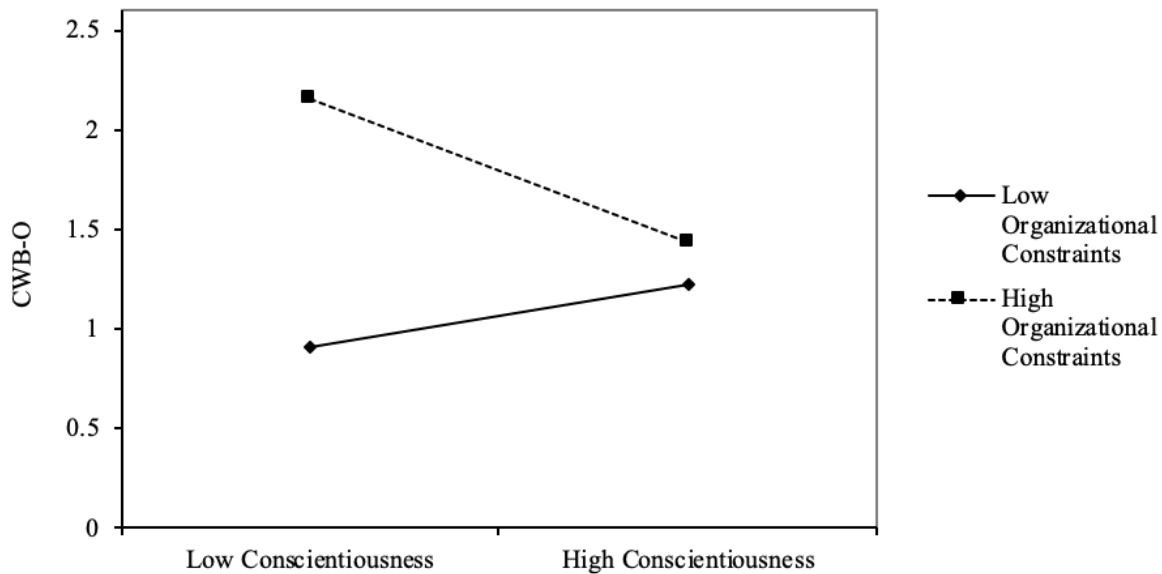


Figure 1: Interaction Between Implicit Conscientiousness and Organizational Constraints, Predicting CWB-O.

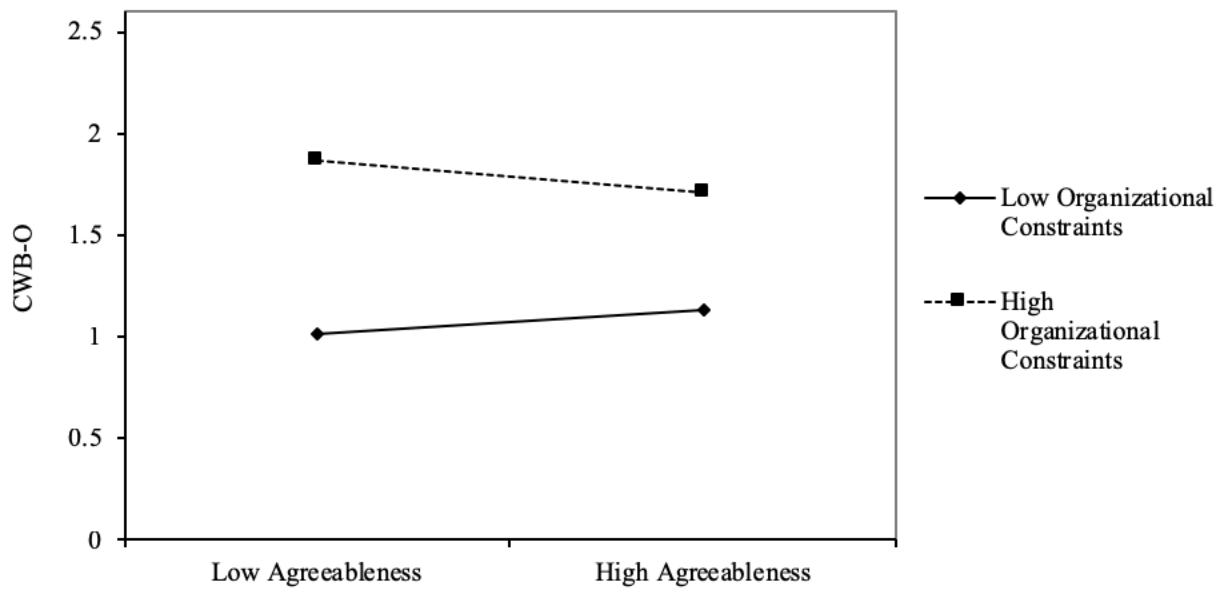


Figure 2: Interaction Between Implicit Agreeableness and Organizational Constraints, Predicting CWB-O.

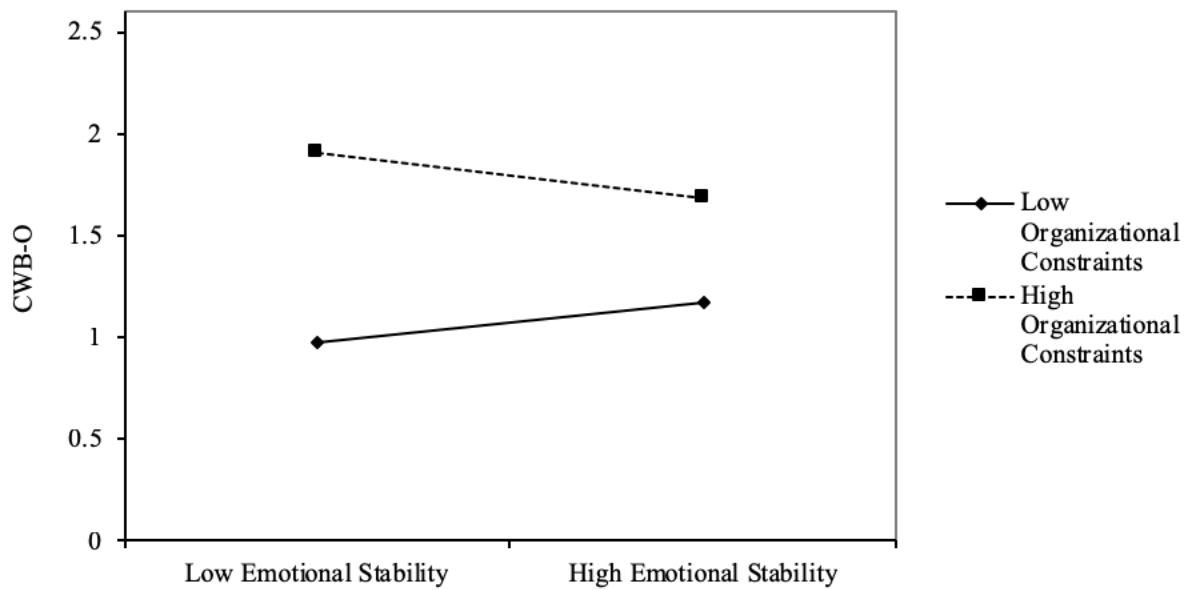


Figure 3: Interaction Between Implicit Emotional Stability and Organizational Constraints, Predicting CWB-O.

Hypothesis 7a-c predicted that organizational constraints will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-I, such that the relationship will be stronger when organizational constraints are high and weaker when organizational constraints are low. Organizational constraints interacted with implicit conscientiousness ( $\beta = -.40, p < .001$ ) and implicit emotional stability ( $\beta = -.30, p < .01$ ), but did not interact with implicit agreeableness ( $\beta = -.12, n.s.$ ) to predict CWB-I ( $\Delta R^2 = .16, p < .001$ ). To explore the nature of the interactions, two lines were plotted using values at 1 standard deviation above and below the mean of organizational constraints. As shown in Figure 4, the negative relationship between implicit conscientiousness and CWB-I was stronger among individuals who experienced high levels of organizational constraints ( $b = -1.13, SE = .21, p < .001$ ) compared to those who experienced low levels ( $b = 0.24, SE = .14, n.s.$ ). Contrary to my expectations (Figure 5.), the relationship between implicit emotional stability and CWB-I was negative among individuals who experienced high levels of organizational constraints ( $b = -0.63, SE = .16, p < .001$ ) and positive among individuals who experienced low levels of organizational constraints ( $b = 0.29, SE = .14, p < .05$ ).



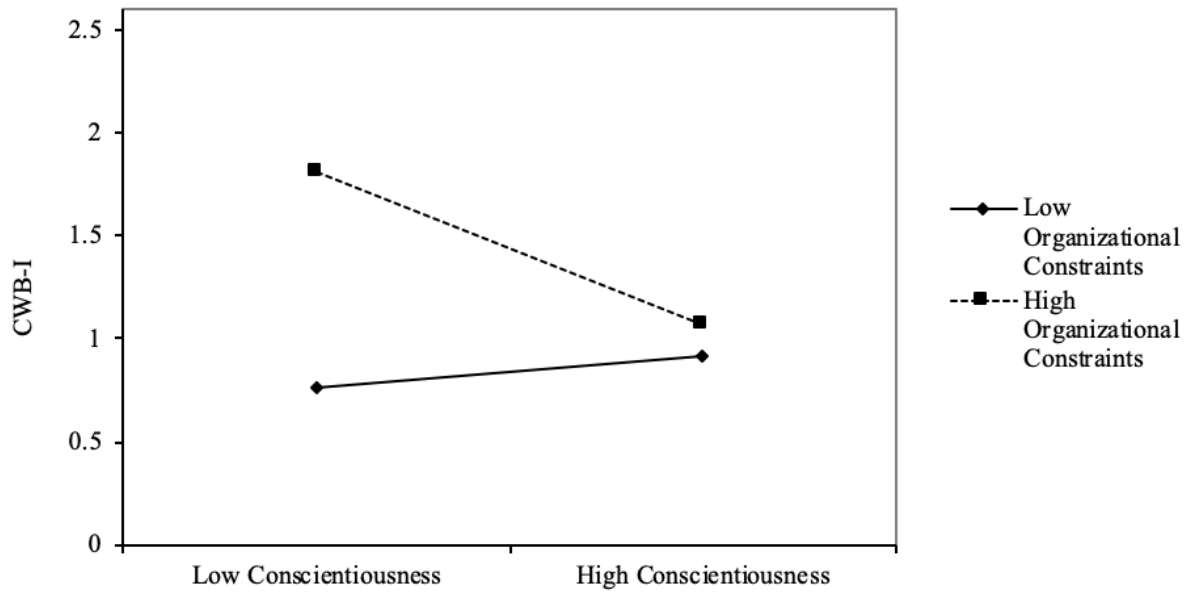


Figure 4: Interaction Between Implicit Conscientiousness and Organizational Constraints, Predicting CWB-I.

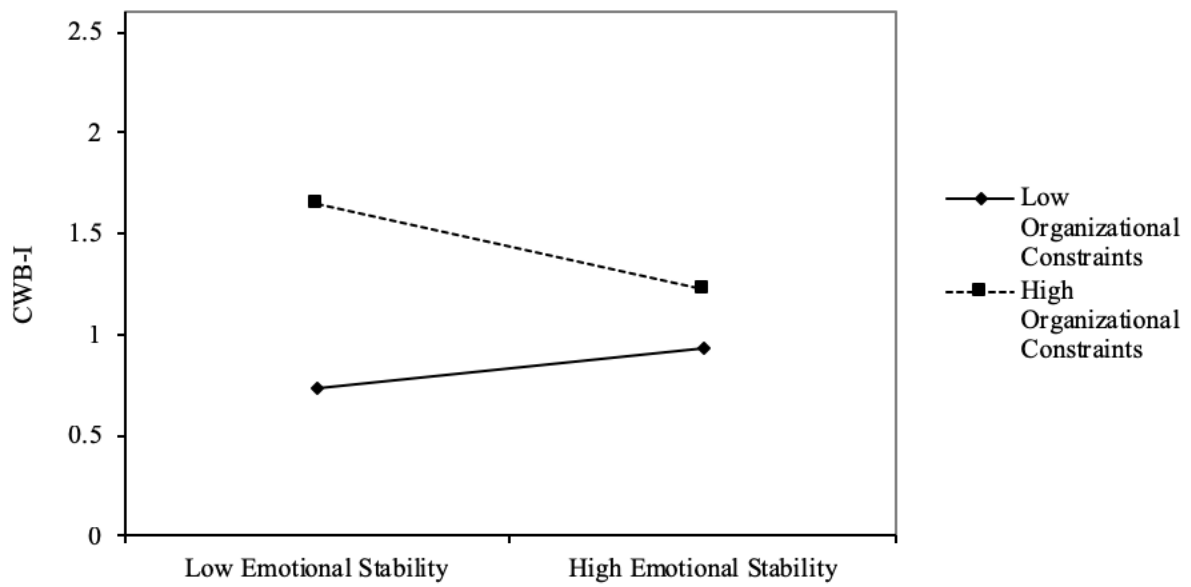


Figure 5: Interaction Between Implicit Emotional Stability and Organizational Constraints, Predicting CWB-I.

Given that the interaction between explicit personality (i.e., conscientiousness, agreeableness, negative affect) and organizational constraints has been shown to predict CWB-O and CWB-I (e.g., Bowling & Eschleman, 2010), I conducted hierarchical regression analyses that tested if the interaction between implicit personality and organizational constraints explained variance in CWB-O and CWB-I once the interaction between explicit personality and organizational constraints was accounted for. As shown in Table 4, once the interaction between explicit personality and organizational constraints was accounted for, implicit conscientiousness and emotional stability interacted with organizational constraints to predict CWB-O and CWB-I. However, implicit agreeableness failed to interact with organizational constraints to predict CWB-O. In general, these findings support the notion that CWB can also be influenced by implicit personality.

Table 4: Hierarchical Regression Analyses Examining the Implicit Personality and Organizational Constraints Interaction, Accounting for the Explicit Personality and Organizational Constraints Interaction

Variable	CWB-I	CWB-O
Age	.04	.02
Gender	.09	.11
Hours worked per week	.01	.00
Tenure	-.05	.00
Organizational Constraints	.38***	.41***
Explicit Conscientiousness	-.11	-.10
Explicit Agreeableness	-.17*	-.19**
Explicit Emotional Stability	-.06	-.17*
Implicit Conscientiousness	-.12	-.01
Implicit Agreeableness	.02	-.01
Implicit Emotional Stability	-.05	.08
$R^2$	.26***	.35***
Explicit Conscientiousness X Organizational Constraints	-.06	-.13
Explicit Agreeableness X Organizational Constraints	-.26**	-.21**
Explicit Emotional Stability X Organizational Constraints	-.21**	-.18*
$R^2$	.39***	.47***
$\Delta R^2$	.13***	.11***
Implicit Conscientiousness X Organizational Constraints	-.35***	-.38***
Implicit Agreeableness X Organizational Constraints	-.04	-.07
Implicit Emotional Stability X Organizational Constraints	-.35***	-.22***
$R^2$	.52***	.57***
$\Delta R^2$	.13***	.10***

Note. Standardized regression coefficients are presented.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Post Hoc Analyses

In addition to my formal hypotheses, I also addressed my five research questions that explore whether (1) implicit personality predicts more strongly specific narrow types of CWB (i.e., production deviance, withdrawal, theft, sabotage, abuse), and whether the interactions between (2) implicit personality and interpersonal conflict, (3) implicit personality and customer incivility, (4) implicit personality and organizational injustice, and (5) implicit personality and organizational constraints, predict more strongly specific narrow types of CWB. To do so, I regressed scores on each of the CWB subscales (e.g., theft) on the D-scores from an implicit measure of conscientiousness, agreeableness, and emotional stability in step one, followed by scores on a work stressor measure (e.g., interpersonal conflict) in step two, and the interaction between scores on an implicit measure of conscientiousness, agreeableness, and emotional stability and scores on a work stressor measure (e.g. implicit conscientiousness x interpersonal conflict, implicit agreeableness x interpersonal conflict, implicit emotional stability x interpersonal conflict) in step 3. Separate analyses were conducted for each type of CWB (theft, sabotage, production deviance, withdrawal, and abuse) and work stressor (interpersonal conflict, customer incivility, organizational injustice, and organizational constraints).

For research question 1, the results indicate that implicit conscientiousness, agreeableness, and emotional stability failed to explain variance in production deviance ( $R^2 = .01, n.s.$ ), withdrawal ( $R^2 = .00, n.s.$ ), theft ( $R^2 = .00, n.s.$ ), sabotage ( $R^2 = .00, n.s.$ ), and abuse ( $R^2 = .00, n.s.$ ).

For research question 2, the results indicate that the interaction between implicit personality and interpersonal conflict accounted for significant variance in theft ( $\Delta R^2 = .05, p <$

.05), but not sabotage ( $\Delta R^2 = .01, n.s.$ ), withdrawal ( $\Delta R^2 = .01, n.s.$ ), production deviance ( $\Delta R^2 = .01, n.s.$ ), and abuse ( $\Delta R^2 = .00, n.s.$ ). Specifically, interpersonal conflict interacted with implicit conscientiousness ( $\beta = -.24, p < .05$ ) and agreeableness ( $\beta = .20, p < .05$ ) to predict theft.

To explore the nature of the interactions, two lines were plotted using values at 1 standard deviation above and below the mean of interpersonal conflict. As shown in Figure 6, implicit conscientiousness was a stronger predictor of theft among individuals who experienced high levels of interpersonal conflict ( $b = -0.53, SE = .22, p < .05$ ) compared to those who experienced low levels ( $b = 0.25, SE = .16, n.s.$ ). Simple slopes analyses indicate that implicit agreeableness failed to predict theft among individuals who experienced high levels ( $b = 0.23, SE = .15, n.s.$ ) or low levels ( $b = -0.22, SE = .15, n.s.$ ) of interpersonal conflict.

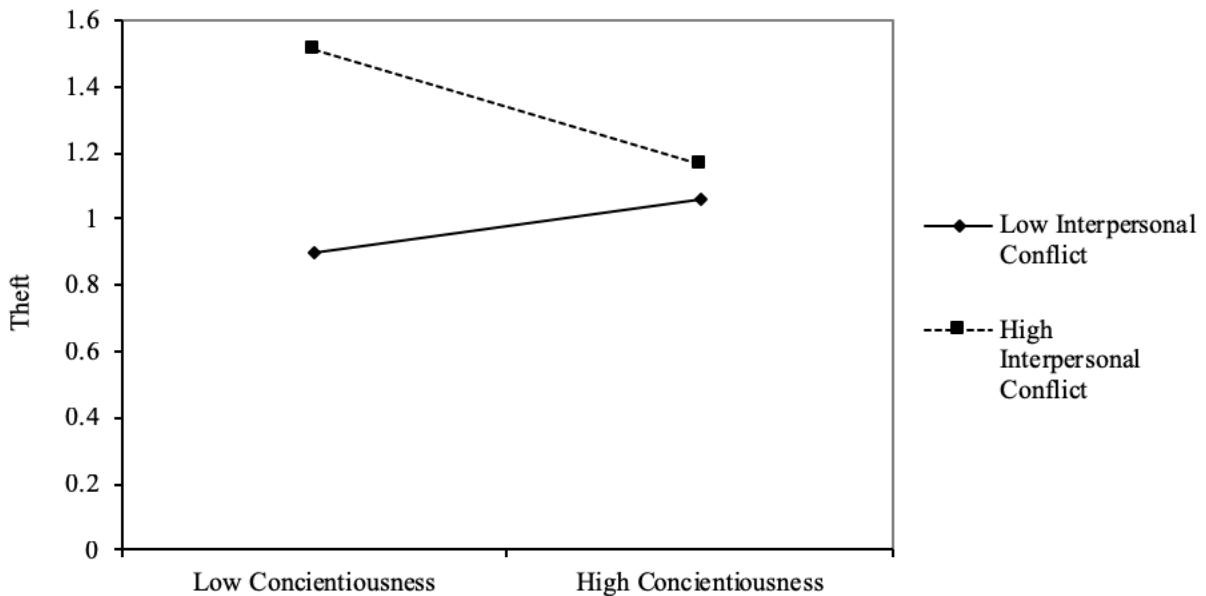


Figure 6: Interaction Between Implicit Conscientiousness and Interpersonal Constraints, Predicting Theft

For research question 3, the results indicate that although the interaction between customer incivility and implicit personality did not account for statistically significant variance in theft ( $\Delta R^2 = .04, n.s.$ ), sabotage ( $\Delta R^2 = .01, n.s.$ ), withdrawal ( $\Delta R^2 = .01, n.s.$ ), production deviance ( $\Delta R^2 = .01, n.s.$ ), or abuse ( $\Delta R^2 = .01, n.s.$ ), one of the interactions approached significance. Specifically, implicit conscientiousness and customer incivility interacted to predict theft ( $\beta = -.17, p = .053$ ).

To explore the nature of the interaction, two lines were plotted using values at 1 standard deviation above and below the mean of customer incivility. As shown in Figure 7, implicit conscientiousness, although marginally significant, was a stronger predictor of theft among individuals who experienced high levels of customer incivility ( $b = -0.30, SE = .18, p = .09$ ) compared to those who experienced low levels ( $b = 0.19, SE = .17, n.s.$ ).

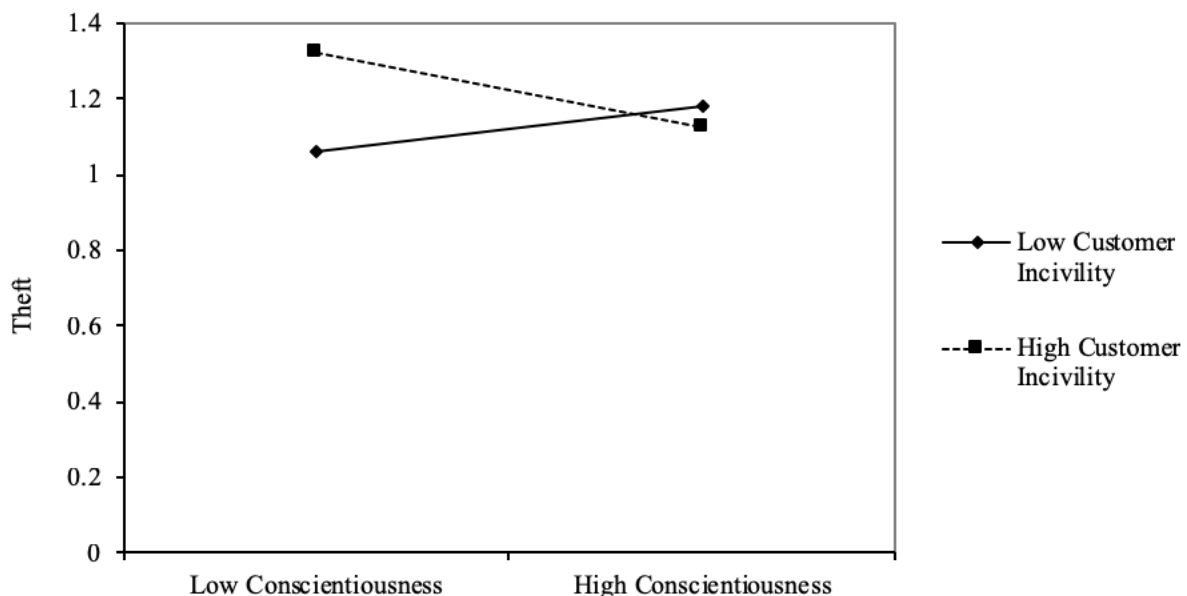


Figure 7: Interaction Between Implicit Conscientiousness and Customer Incivility, Predicting Theft.

For research question 4, the results indicate that the interaction between organizational injustice and implicit personality accounted for significant variance in theft ( $\Delta R^2 = .11, p < .001$ ) and abuse ( $\Delta R^2 = .06, p < .05$ ), but not sabotage ( $\Delta R^2 = .02, n.s.$ ), withdrawal ( $\Delta R^2 = .01, n.s.$ ), and production deviance ( $\Delta R^2 = .02, n.s.$ ). Specifically, organizational injustice interacted with implicit conscientiousness ( $\beta = -.34, p < .001$ ), and although marginally significant, with implicit emotional stability ( $\beta = -.15, p = .06$ ) to predict theft, and organizational injustice interacted with implicit conscientiousness ( $\beta = -.21, p < .05$ ) to predict abuse.

To explore the nature of the interactions, two lines were plotted using values at 1 standard deviation above and below the mean of organizational injustice. As shown in Figure 8, implicit conscientiousness was a stronger predictor of theft among individuals who experienced high levels of organizational injustice ( $b = -0.66, SE = .18, p < .001$ ) compared to those who experienced low levels ( $b = 0.27, SE = .14, n.s.$ ). As shown in Figure 9, implicit emotional stability was a stronger predictor of theft among individuals who experienced high levels of organizational injustice ( $b = -0.32, SE = .16, p = .051$ ) compared to those who experienced low levels ( $b = 0.11, SE = .50, n.s.$ ). As shown in Figure 10, implicit conscientiousness was a stronger predictor of abuse among individuals who experienced high levels of organizational injustice ( $b = -0.49, SE = .19, p < .05$ ) compared to those who experienced low levels ( $b = 0.10, SE = .15, n.s.$ ).

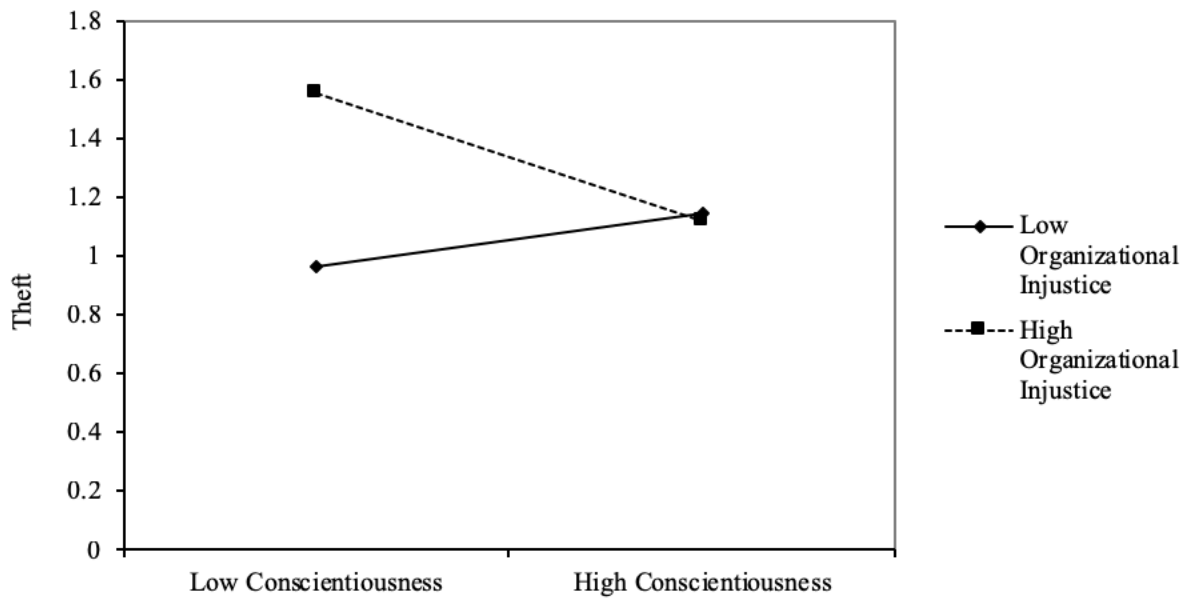


Figure 8: Interaction Between Implicit Conscientiousness and Organizational Injustice, Predicting Theft.

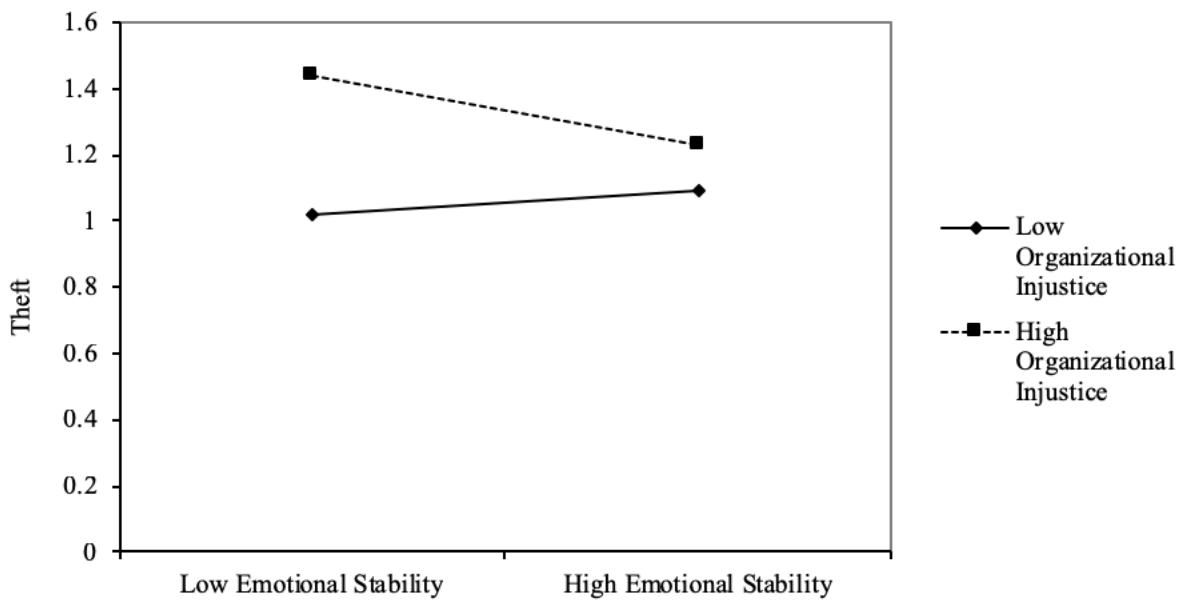


Figure 9: Interaction Between Implicit Emotional Stability and Organizational Injustice, Predicting Theft.



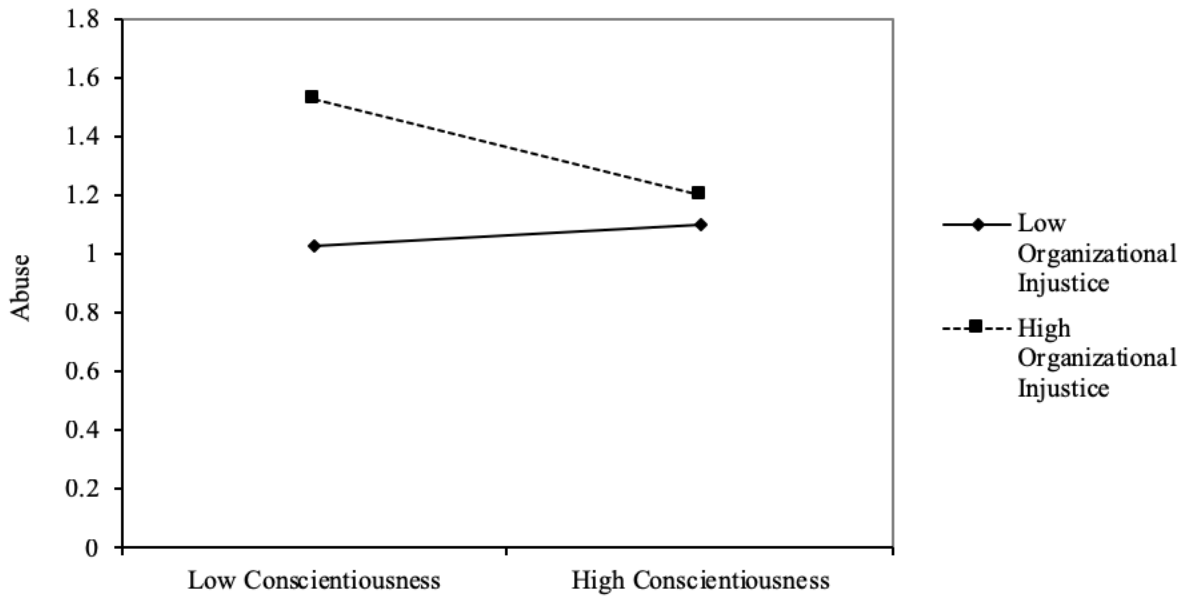


Figure 10: Interaction Between Implicit Conscientiousness and Organizational Injustice, Predicting Abuse.

For research question 5, the results indicate that the interaction between organizational constraints and implicit personality predicted theft ( $\Delta R^2 = .31, p < .001$ ), sabotage ( $\Delta R^2 = .05, p < .05$ ), production deviance ( $\Delta R^2 = .13, p < .001$ ), withdrawal ( $\Delta R^2 = .08, p < .01$ ), and abuse ( $\Delta R^2 = .17, p < .001$ ). Specifically, organizational constraints interacted with implicit conscientiousness ( $\beta = -.64, p < .001$ ) and implicit emotional stability ( $\beta = -.33, p < .001$ ) to predict theft. Organizational constraints interacted with implicit conscientiousness ( $\beta = -.26, p < .01$ ) and implicit emotional stability ( $\beta = -.14, p = .061$ ) to predict sabotage. Organizational constraints interacted with implicit conscientiousness ( $\beta = -.39, p < .001$ ) and implicit emotional stability ( $\beta = -.23, p < .01$ ) to predict production deviance. Organizational constraints interacted with implicit conscientiousness ( $\beta = -.27, p < .01$ ), implicit agreeableness ( $\beta = -.13, p = .081$ ), and implicit emotional stability ( $\beta = -.19, p < .05$ ) to predict withdrawal. Finally, organizational

constraints interacted with implicit conscientiousness ( $\beta = -.42, p < .001$ ), implicit emotional stability ( $\beta = -.29, p < .001$ ), and implicit agreeableness ( $\beta = -.14, p < .05$ ) to predict abuse.

To explore the nature of the interactions, two lines were plotted using values at 1 standard deviation above and below the mean of organizational constraints. As shown in Figure 11, implicit conscientiousness was a stronger predictor of theft among individuals who experienced high levels of organizational constraints ( $b = -1.56, SE = .19, p < .001$ ) compared to those who experienced low levels ( $b = 0.60, SE = .13, p < .001$ ). As shown in Figure 12, implicit emotional stability was a stronger predictor of theft among individuals who experienced high levels of organizational constraints ( $b = -0.72, SE = .14, p < .001$ ) compared to those who experienced low levels ( $b = 0.28, SE = .13, p < .05$ ).

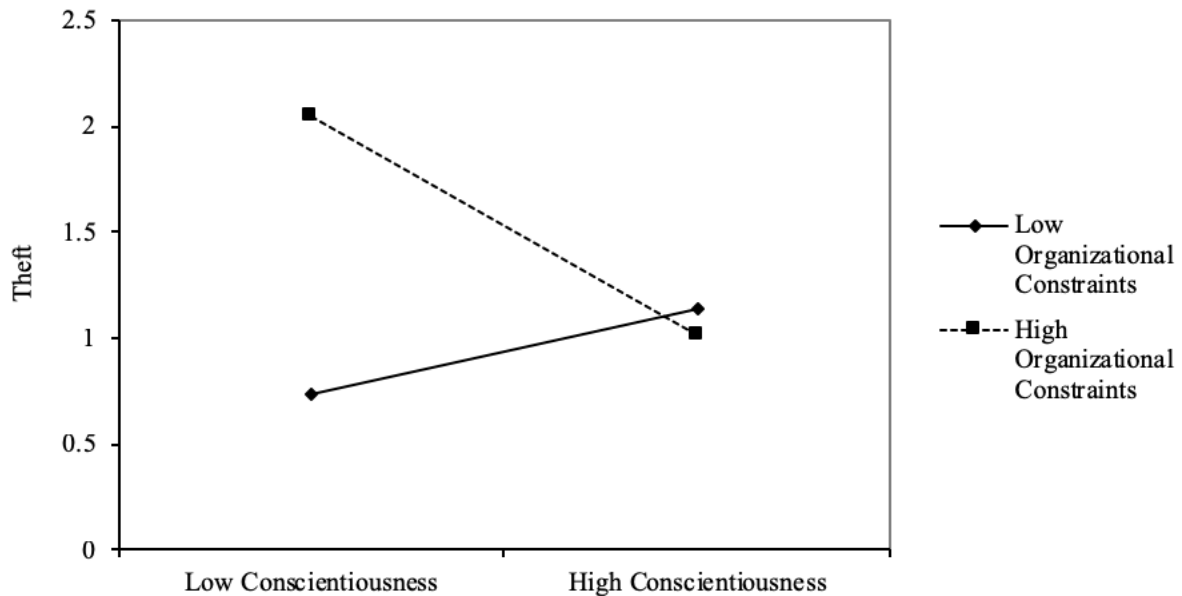


Figure 11: Interaction Between Implicit Conscientiousness and Organizational Constraints, Predicting Theft.

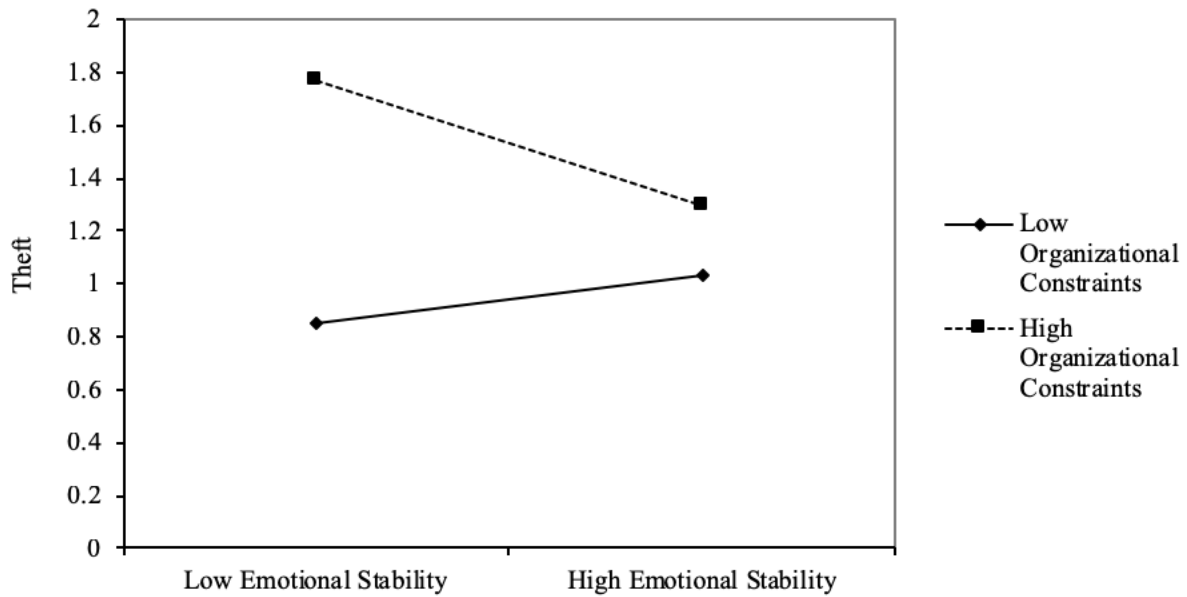


Figure 12: Interaction Between Implicit Emotional Stability and Organizational Constraints, Predicting Theft.

As shown in Figure 13, implicit conscientiousness was a stronger predictor of sabotage among individuals who experienced high levels of organizational constraints ( $b = -0.80, SE = .25, p < .01$ ) compared to those who experienced low levels ( $b = 0.20, SE = .17, n.s.$ ). As shown in Figure 14, implicit emotional stability was a stronger predictor of sabotage among individuals who experienced high levels of organizational constraints ( $b = -0.35, SE = .19, p = .061$ ) compared to those who experienced low levels ( $b = 0.15, SE = .17, n.s.$ ).

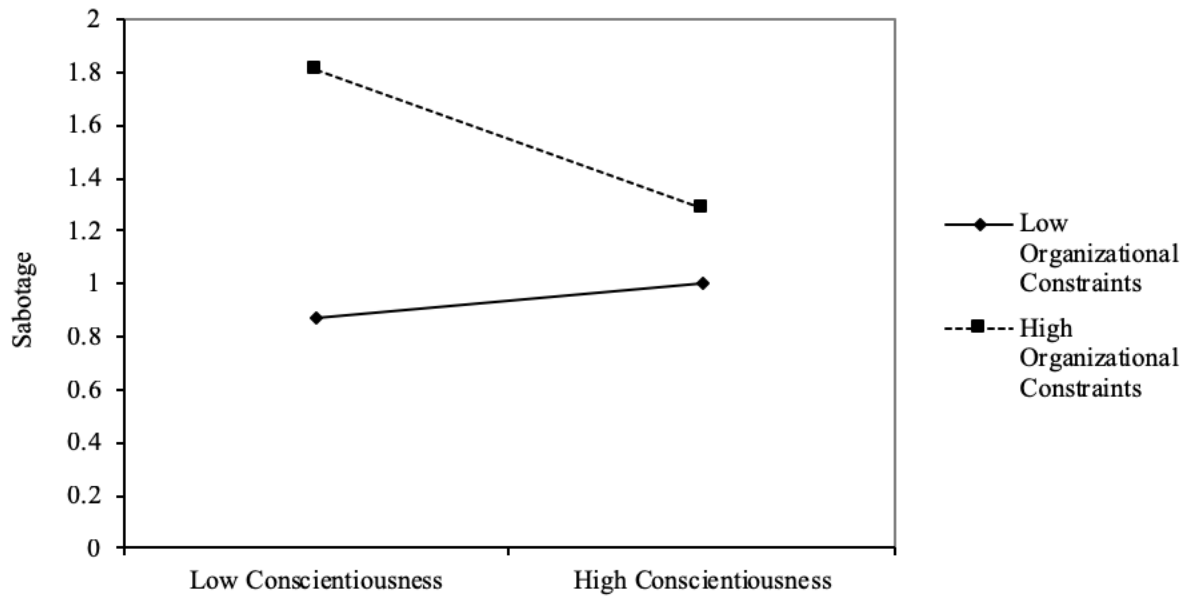


Figure 13: Interaction Between Implicit Conscientiousness and Organizational Constraints, Predicting Sabotage.

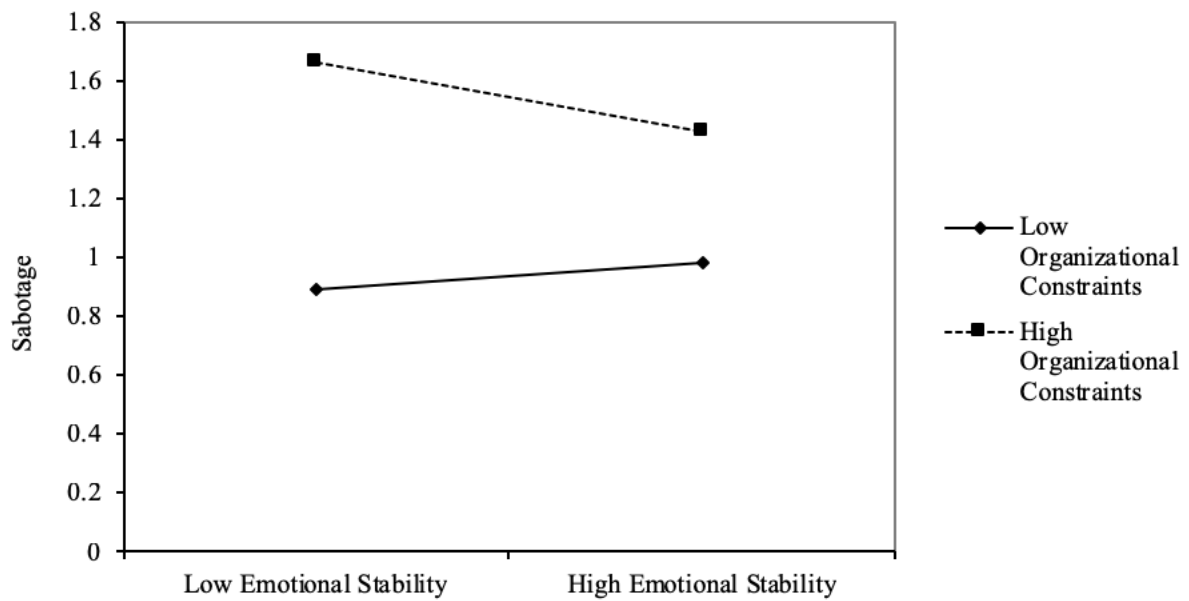


Figure 14: Interaction Between Implicit Emotional Stability and Organizational Constraints, Predicting Sabotage.

As shown in Figure 15, implicit conscientiousness was a stronger predictor of production deviance among individuals who experienced high levels of organizational constraints ( $b = -1.15$ ,  $SE = .32$ ,  $p < .001$ ) compared to those who experienced low levels ( $b = 0.49$ ,  $SE = .26$ ,  $n.s.$ ). As shown in Figure 16, implicit emotional stability was a stronger predictor of production deviance among individuals who experienced high levels of organizational constraints ( $b = -0.44$ ,  $SE = .22$ ,  $p < .05$ ) compared to those who experienced low levels ( $b = 0.42$ ,  $SE = .19$ ,  $p < .05$ ).

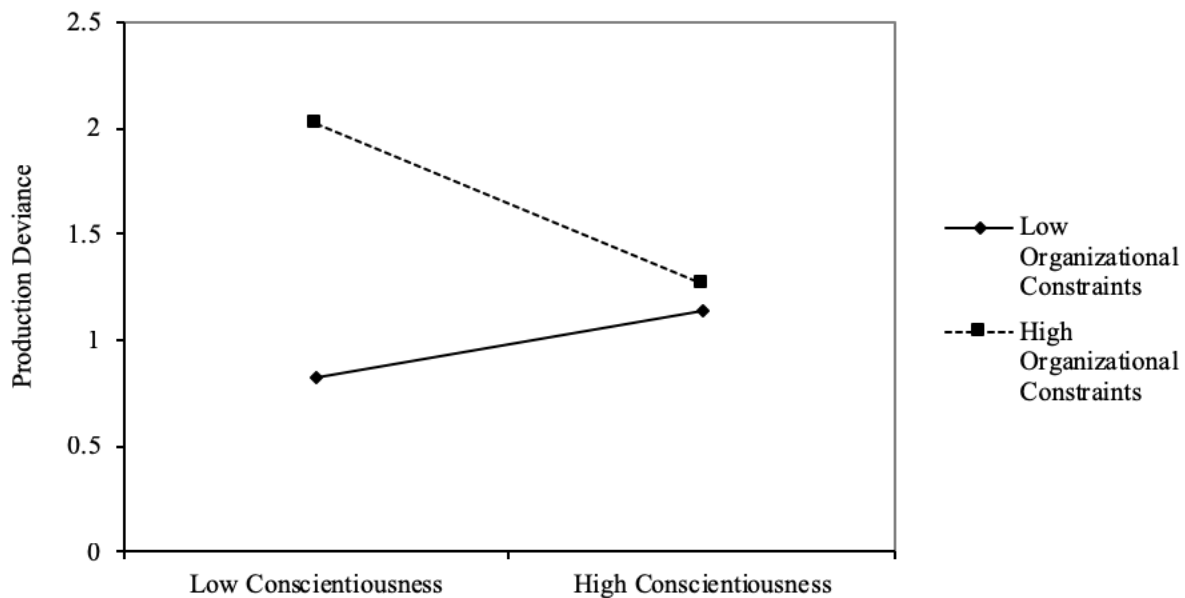


Figure 15: Interaction Between Implicit Conscientiousness and Organizational Constraints, Predicting Production Deviance.

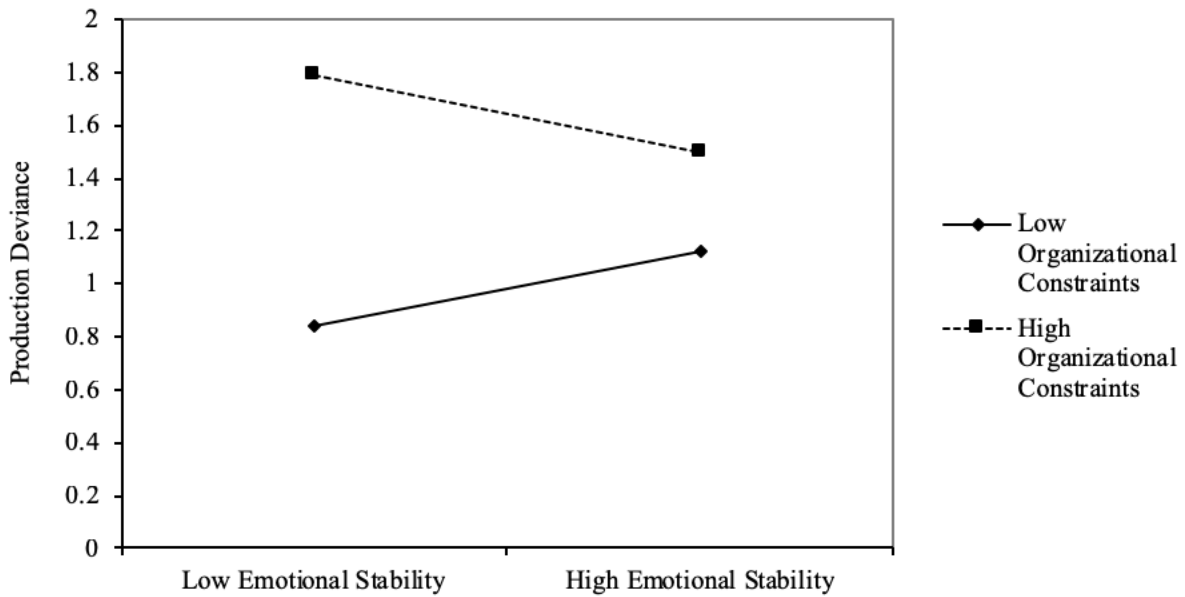


Figure 16: Interaction Between Implicit Emotional Stability and Organizational Constraints, Predicting Production Deviance.

As shown in Figure 17, implicit conscientiousness was a stronger predictor of withdrawal among individuals who experienced high levels of organizational constraints ( $b = -0.92, SE = .29, p < .01$ ) compared to those who experienced low levels ( $b = 0.31, SE = .20, n.s.$ ). As shown in Figure 18, implicit emotional stability was a stronger predictor of withdrawal among individuals who experienced high levels of organizational constraints ( $b = -0.48, SE = .22, p < .05$ ) compared to those who experienced low levels ( $b = 0.28, SE = .19, n.s.$ ).

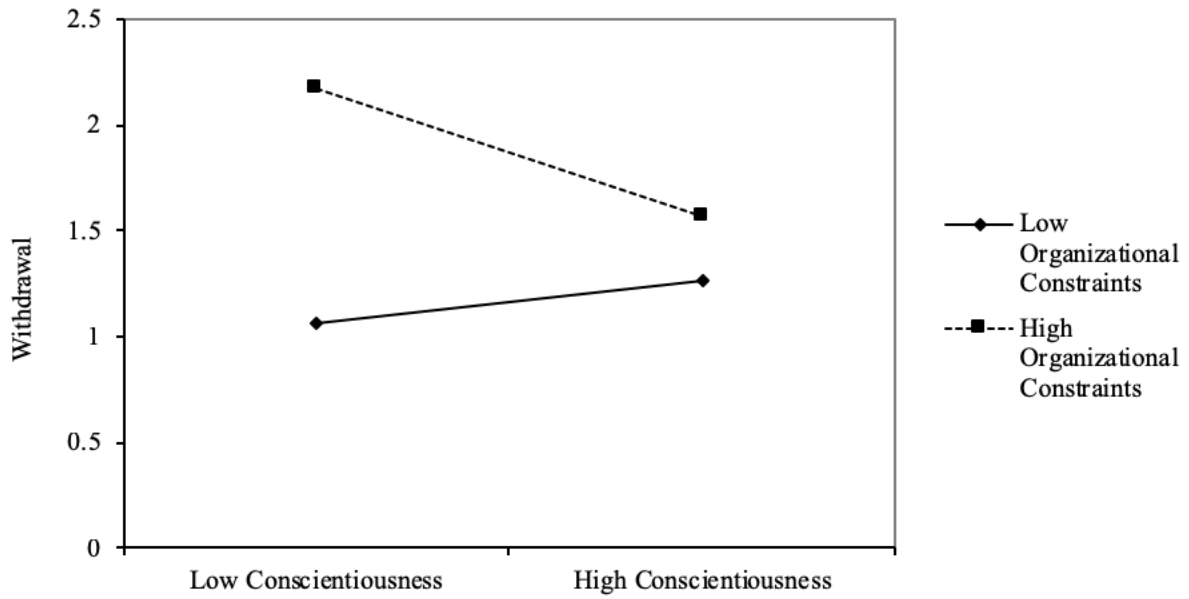


Figure 17: Interaction Between Implicit Conscientiousness and Organizational Constraints, Predicting Withdrawal.

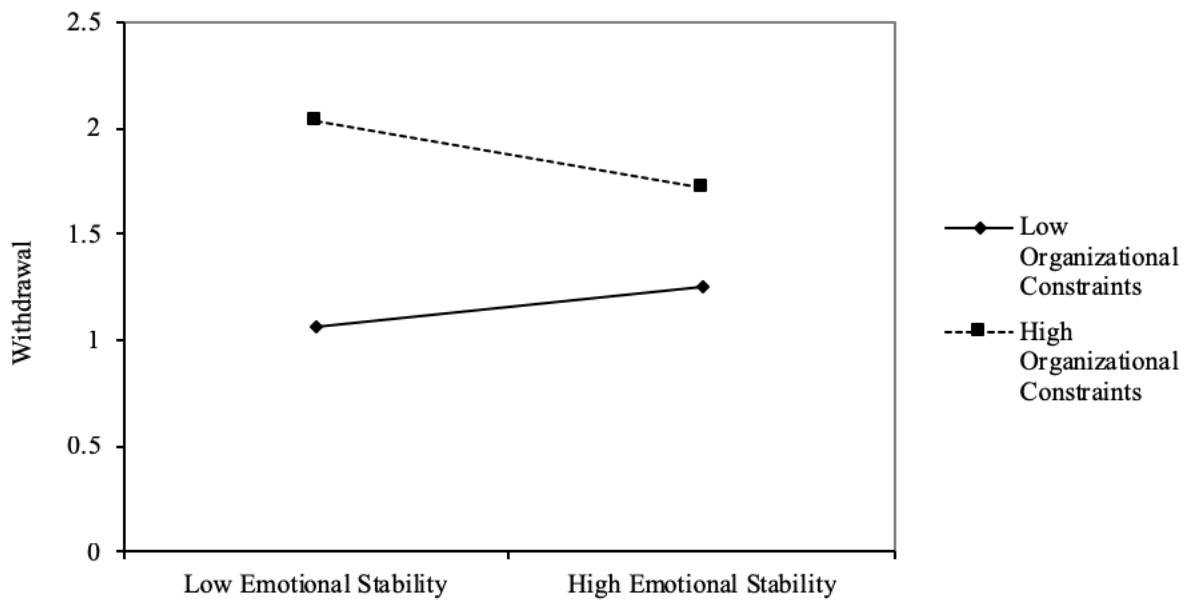


Figure 18: Interaction Between Implicit Emotional Stability and Organizational Constraints, Predicting Withdrawal.

As shown in Figure 19, implicit conscientiousness was a stronger predictor of abuse among individuals who experienced high levels of organizational constraints ( $b = -1.27, SE = .22, p < .001$ ) compared to those who experienced low levels ( $b = 0.35, SE = .15, p < .05$ ). As shown in Figure 20, implicit emotional stability was a stronger predictor of abuse among individuals who experienced high levels of organizational constraints ( $b = -0.60, SE = .15, p < .001$ ) compared to those who experienced low levels ( $b = 0.28, SE = .14, p < .05$ ). Simple slopes analyses indicate that implicit agreeableness failed to predict abuse among individuals who experienced high levels ( $b = -0.22, SE = .15, n.s.$ ) or low levels ( $b = 0.23, SE = .15, n.s.$ ) of organizational constraints. In summary, all of the interactions between implicit personality and organizational constraints displayed a similar pattern where implicit personality was more strongly related to CWB under conditions of high organizational constraints.

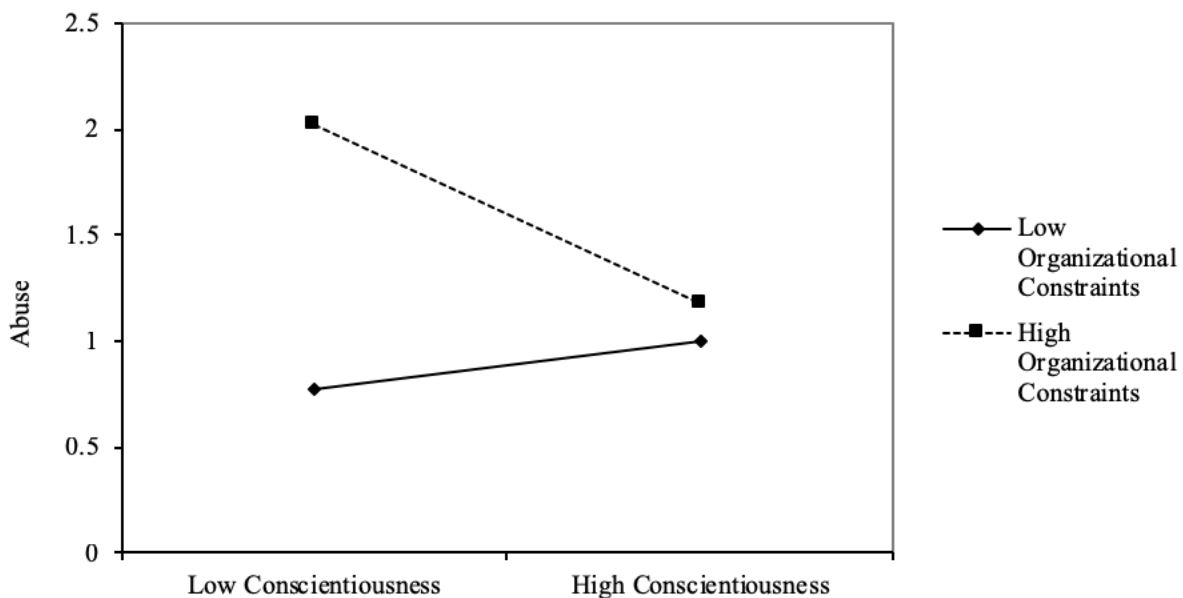


Figure 19: Interaction Between Implicit Conscientiousness and Organizational Constraints, Predicting Abuse.



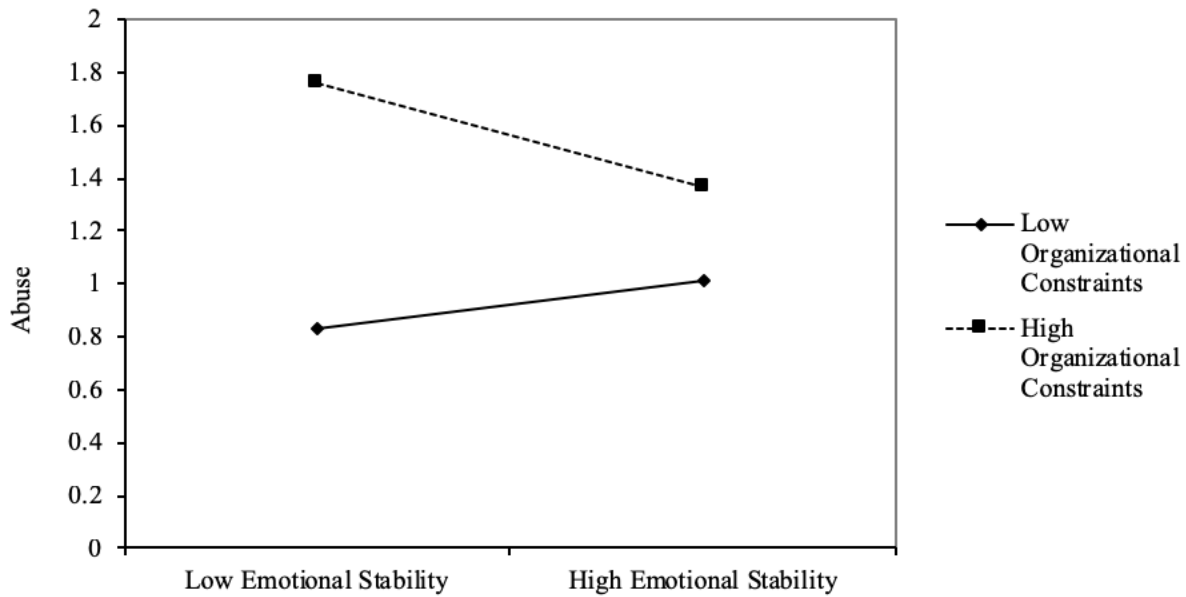


Figure 20: Interaction Between Implicit Emotional Stability and Organizational Constraints, Predicting Abuse.

### Post Hoc Analyses Using Listwise Treatment of Missing Data

As the result of the IAT cleaning procedure, participants' score for an IAT was treated as missing when they responded to more than ten percent of trials with less than 300 ms latency. Two of the most commonly used techniques for handling missing data are listwise and pairwise deletion (Roth, 1994). Pairwise deletion estimates the model with all available information. For instance, if a participant's score on the conscientiousness IAT was missing, the participant's data could still be used to calculate other correlations such as the correlation between scores on an emotional stability IAT and CWB. When listwise deletion is used for model estimation, cases with one or more missing responses are treated as missing. A potential drawback of the listwise deletion technique for model estimation is that it may result in a large loss of data and thus a decrease in power to detect a significant effect when an effect exists (i.e., type II error; Roth,

1994). Therefore, I chose to use pairwise deletion to test my hypotheses and research questions because using listwise deletion would have resulted in a large loss of data (about 40 participants), and thus decreased my power. Indeed, when I used the listwise option in SPSS to treat missing data, the subsequent descriptive statistics analyses (i.e., mean, standard deviation) indicate a severe case of range restriction in my outcome variables. Upon further examination, it was discovered that some of the participants who completed the online survey failed to complete one or more IATs; further, these participants also reported engaging in more CWB (all forms) than those who completed all three IATs. As shown in Table 5, independent samples *t*-tests indicate that the participants who failed to complete one or more IATs ( $n = 40$ ) engaged in higher levels of CWB-I, CWB-O, theft, sabotage, production deviance, withdrawal, and abuse than the participants who completed all three IATs. Given that my hypotheses and research questions were examined using pairwise deletion, I also wanted to reanalyze my data using listwise deletion. The findings are present below.

Table 5: Independent Sample t-test Results

Outcome Variables	Missed One or More IATs		Completed All IATs		<i>t</i> -test
	M	SD	M	SD	
CWB-I	1.49	0.85	1.09	0.20	5.41***
CWB-O	1.76	0.86	1.35	0.27	5.04***
Theft	1.50	0.85	1.07	0.16	5.90***
Sabotage	1.56	0.95	1.11	0.25	5.26***
Withdrawal	1.74	0.94	1.40	0.46	3.20***
Production Deviance	1.66	0.97	1.15	0.32	5.47***
Abuse	1.52	0.84	1.10	0.23	5.37***

*Note.* M = mean. SD = standard deviation. IAT = Implicit Association Test

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

I would like to note that the nonsignificant findings from my initial analyses remained nonsignificant when listwise was used to treat missing data. In addition, for the findings that were significant in the original analysis and remained significant in the reanalysis, the directionality of their effect sizes also remained the same. Therefore, I only point out the results of my hypotheses and research questions that remained statistically significant or became marginally significant or non-significant when my data was reanalyzed.

When listwise deletion was used for model estimation, the results provide partial support for Hypothesis 1a-c, which predicted that implicit and explicit conscientiousness, agreeableness, and emotional stability will predict CWB-I and CWB-O. Specifically, explicit conscientiousness ( $\beta = -.19, p < .05$ ) predicted CWB-O, and explicit emotional stability predicted CWB-O at the marginally significant level ( $\beta = -.17, p = .062$ ). However, although significant when pairwise deletion was used for model estimation, explicit agreeableness failed to predict CWB-O and CWB-I when listwise deletion was used.

When listwise deletion was used for model estimation, the results provide partial support for Hypothesis 6a-c, which predicted that organizational constraints will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-O, such that the relationship will be stronger when organizational constraints are high and weaker when organizational constraints are low.. Specifically, organizational constraints interacted with implicit conscientiousness ( $\beta = -.28, p < .01$ ) and implicit agreeableness ( $\beta = -.19, p < .05$ ) to predict CWB-O. However, although significant when pairwise deletion was used for model estimation, the interaction between organizational constraints and implicit emotional stability failed to predict CWB-O when listwise deletion was used.

When listwise deletion was used for model estimation, the results provide partial support for Hypothesis 7a-c, which predicted that organizational constraints will moderate the negative relationship between implicit (a) conscientiousness, (b) agreeableness, and (c) emotional stability and CWB-I, such that the relationship will be stronger when organizational constraints are high and weaker when organizational constraints are low. Specifically, organizational constraints interacted with implicit conscientiousness to predict CWB-I at the marginally significant level ( $\beta = -.18, p = .063$ ). However, although significant when pairwise deletion was used for model estimation, the interaction between organizational constraints and implicit emotional stability failed to predict CWB-I when listwise deletion was used.

Research question 2 asked if interpersonal conflict and implicit personality will interact to predict more strongly specific narrow types of CWB. When listwise deletion was used for model estimation, interpersonal conflict interacted with implicit conscientiousness to predict theft at the marginally significant level ( $\beta = -.20, p = .068$ ). However, although significant when

pairwise deletion was used for model estimation, the interaction between interpersonal conflict and implicit agreeableness failed to predict theft when listwise deletion was used.

Research question 3 asked if customer incivility and implicit personality will interact to predict more strongly specific narrow types of CWB. When listwise deletion was used for model estimation, customer incivility interacted with implicit conscientiousness to predict theft at the marginally significant level ( $\beta = -.17, p = .051$ ).

Research question 4 asked if organizational injustice and implicit personality will interact to predict more strongly specific narrow types of CWB. When listwise deletion was used for model estimation, organizational injustice interacted with implicit conscientiousness ( $\beta = -.25, p < .01$ ) to predict theft. However, although significant when pairwise deletion was used for model estimation, the interaction between organizational injustice and implicit emotional stability failed to predict theft, and the interaction between organizational injustice and implicit conscientiousness failed to predict abuse when listwise deletion was used.

Research question 5 asked if organizational constraints and implicit personality will interact to predict more strongly narrow types of CWB. When listwise deletion was used for model estimation, organizational constraints interacted with implicit conscientiousness ( $\beta = -.38, p < .001$ ) to predict theft. Organizational constraints interacted with implicit conscientiousness to predict production deviance at the marginally significant level ( $\beta = -.20, p = .052$ ).

Organizational constraints interacted with implicit agreeableness ( $\beta = -.16, p < .05$ ) to predict withdrawal. Organizational constraints interacted with implicit conscientiousness ( $\beta = -.17, p = .09$ ) and implicit agreeableness ( $\beta = -.13, p = .103$ ) to predict abuse at the marginally significant level. However, although significant when pairwise was used for model estimation, the

interaction between organizational constraints and implicit emotional stability failed to predict theft when listwise deletion was used. Similarly, the interaction between organizational constraints and implicit conscientiousness, and the interaction between organizational constraints and implicit emotional stability failed to predict sabotage when listwise was used. The interaction between organizational constraints and implicit emotional stability failed to predict production deviance when listwise was used. The interaction between organizational constraints and conscientiousness, and the interaction between organizational constraints and emotional stability failed to predict withdrawal when listwise was used. Finally, the interaction between organizational constraints and emotional stability failed to predict abuse when listwise deletion was used.

## CHAPTER FIVE: DISCUSSION

Organizational researchers have stressed the importance of studying explicit and implicit influences of work-related behavior (e.g., Bowling & Johnson, 2013). In addition, although the idea that implicit personality should predict CWB that occur as an emotional response to stressful work conditions has been mentioned before (Vasilopoulos et al., 2013), this idea has not been studied empirically. Therefore, the purpose of this study was to examine the relationship between conscientiousness, agreeableness, emotional stability, interpersonal conflict, customer incivility, organizational injustice, organizational constraints, and CWB using explicit and implicit measures of personality. This study leveraged the stressor-emotion and reflective-impulsive models, theories of personality and motivation, and explicit and implicit theories of personality to investigate the roles explicit and implicit aspects of personality, and work stressors have in influencing CWB. The stressor-emotion (Spector & Fox, 2005) and reflective-impulsive (Strack & Deutsch, 2004) models suggest that impulsive (i.e., implicit) processes may also influence CWB because the act can be motivated by negative emotions induced by frustrating working conditions. Alternatively, theories of personality and motivation suggest that conscientiousness, agreeableness, and emotional stability predict CWB because these traits motivate people to pursue goals that reduce or increase acts of CWB (e.g., Colbert, Mount, Harter, Witt, & Barrick, 2004). Finally, explicit and implicit theories of personality suggest that explicit aspects of personality should predict CWB driven by explicit processes, whereas, implicit aspects of personality should predict CWB driven by implicit processes (Vasilopoulos et al., 2013). These ideas were tested by examining explicit and implicit conscientiousness, agreeableness, and emotional stability as predictors of CWB, by examining implicit personality's

incremental prediction of CWB over explicit personality, and by examining the interaction between implicit personality and work stressors as a predictor of CWB.

Generally consistent with my expectations, explicit conscientiousness, agreeableness, and emotional stability predicted CWB-O, and explicit agreeableness predicted CWB-I. However, explicit conscientiousness and emotional stability failed to predict CWB-I. In addition, implicit personality (i.e., conscientiousness, agreeableness, emotional stability) failed to predict CWB-I and CWB-O and did not contribute to the prediction of CWB-I and CWB-O incrementally to explicit personality. The lack of significance of explicit conscientiousness and emotional stability for predicting CWB-I was unexpected; however, it is important to note that the estimates reported in my results section reflect partial correlation coefficients. The zero-order correlations, however, indicate that explicit conscientiousness and emotional stability are related to CWB-I. Taken together, this suggests that explicit conscientiousness and emotional stability do not account for significant unique variance in CWB-I after they are included in a model with explicit agreeableness, which is consistent with research that found similar results when all three traits were examined together (e.g., Bolton, Becker, & Barber, 2010; Mount et al., 2005).

The lack of significance for the relationship between implicit conscientiousness, agreeableness and emotional stability, and CWB was also unexpected given the research that has found significant relationships between implicit personality and CWB (e.g., Johnson & Saboe, 2010). One plausible explanation for this inconsistent finding is that although studies examining implicit personality and CWB used implicit measures, the type of implicit measure used differed across studies. For instance, I used an association-based (e.g., IAT) implicit measure, whereas, the previous studies that have found a significant relationship between implicit personality and



CWB have used accessibility-based (e.g., word completion task; Johnson & Lord, 2010) and interpretation-based (e.g., conditional reasoning test; Bing et al., 2007) implicit measures. This suggests that perhaps, association-based measures are not as effective as accessibility-and interpretation-based measures for predicting work-related behaviors (e.g., job performance; Sier & Christiansen, 2012) or may be effective only under certain conditions (Uhlmann et al., 2012). However, it is important to note that not only did these studies use different implicit measures, they also assessed different types of implicit personality. For instance, Johnson and Lord (2010) assessed implicit individual and interdependent self-concepts, and Bing et al. (2007) assessed implicit aggression. Therefore, it is unclear whether differences in predictor methods (i.e., IAT) or differences in predictor constructs (i.e., implicit conscientiousness, agreeableness, emotional stability) explain my inconsistent finding. Therefore, additional research comparing different implicit measures of personality, while holding the personality traits constant may be needed to support these claims.

Although this study failed to find a main effect of implicit personality, implicit personality did interact with organizational constraints to predict CWB-O and CWB-I. Although I had also predicted that interpersonal conflict and customer incivility would interact with implicit personality to predict CWB-I, and that organizational injustice would interact with implicit personality to predict CWB-O, my analyses found no support for these effects. One plausible explanation for this lack of support is that the experience of interpersonal conflict, customer incivility, and organizational injustice, although stressful, does not generate the level of arousal necessary to disengage the reflective system to an extent that would have allowed associative processes to influence CWB-I or CWB-O. In contrast, the experience of

organizational constraints elicits the level of arousal that is needed to disengage the reflective system and thus allows associative processes to influence CWB. Indeed, some research suggests that the feeling of negative emotions (e.g., frustration, anger) is related more strongly to the experience of organizational constraints than the experience of interpersonal conflict or organizational injustice. For instance, Spector and Jex (1998) found that frustration and anxiety were more strongly correlated with organizational constraints than with interpersonal conflict. Alternatively, Spector and colleagues (2006) found that negative emotions were more strongly correlated with organizational constraints than with interpersonal conflict or organizational injustice (in the form of distributive and procedural justice). Taken together, these ideas suggest that implicit aspects of one's personality are more likely to influence CWB when one experiences a high level of work stressors that can generate the level of arousal needed to disengage the reflective system (e.g., high organizational constraints). These ideas are also consistent with those proposed by an integration of the reflective-impulsive (Deutsch & Strack, 2006) and stressor-emotion model (Spector & Fox, 2005) perspectives, which suggests that when the experience of work stressors generates the level of arousal needed to disengage the reflective system, the associative processes of the impulsive system should have a stronger influence on CWB. However, it seems like out of the four work stressors examined in this study, only the experience of organizational constraints generated the level of arousal needed to disengage the reflective system. Perhaps, future research could attempt to identify additional aspects of the work environment that will elicit the level of arousal needed for implicit personality to influence CWB.

With respect to the construct validity of the IAT, the statistically nonsignificant correlations between implicit and explicit measures of personality (conscientiousness, agreeableness, emotional stability) found in this study fail to support the personality IAT's convergence with self-report personality measures. My results replicate past studies, which have demonstrated low or nonsignificant correlations between implicit and explicit measures of personality (Back et al., 2009; Schmukle et al., 2008; Siers & Christiansen, 2012; Vecchione et al., 2014). Research on the IAT suggests that there are empirical and theoretical reasons why the IAT may fail to converge with self-report personality measures. An empirical reason for the lack of convergence could be due to the excessive unsystematic measurement error shown by the IAT (Asendorpf et al., 2002). For instance, Siers and Christiansen (2012) found low reliabilities for their personality IAT measures, which may explain the poor convergence between the IAT and explicit personality measures in their study. Low reliabilities may also explain why the authors found poor convergence between the IAT and peer ratings of personality. Of the traits (extraversion, conscientiousness, emotional stability) studied in their study, only the extraversion IAT converged with self-report and peer rating measures. However, unsystematic measurement error is less likely to explain the lack of convergence between the IAT and self-report measures in this study given that the conscientiousness, agreeableness and emotional stability IATs demonstrated acceptable to good reliability (average  $\alpha = .75$ ). Given that the current study did not collect peer ratings of personality, future research should examine whether peer ratings of personality converge with Schmukle et al.'s (2008) personality IAT. Another empirical reason for the lack of convergence may be that the introspective nature of self-report measures introduces method-specific variance (e.g. social desirability, faking), which can also weaken the

correlation between explicit and implicit measures (Asendorpf et al., 2002). A theoretical reason for why explicit and implicit measures are not expected to correlate is because they are indicators of distinct explicit and implicit constructs (Schmukle et al., 2008). For this reason, some researchers have pointed out that the interpretation of monotrait-heteromethod correlations as evidence for the construct validity of personality IATs may be inappropriate because implicit and explicit measures assess, respectively, associative and propositional representations of personality (De Cuyper et al., 2017; Schmukle et al., 2008), which are formed by different information processes (e.g., impulsive and reflective; Strack & Deutsch, 2004). Therefore, a lack of convergence between implicit and explicit personality measures is not necessarily a problem and should not be interpreted as a lack of construct validity because they capture distinct process pathways (Back & Nester, 2017; De Cuyper et al., 2017). Instead, the focus should be on whether implicit measures predict relevant behaviors incremental to that of explicit measures (Back et al., 2009). For instance, Schmukle et al. (2008) developed and validated an IAT for the Big Five personality traits (conscientiousness, agreeableness, emotional stability, extraversion, openness to experiences) and found that only extraversion (.32) and conscientiousness (.22) converged with a self-report measure. However, although an IAT of agreeableness, emotional stability and openness to experiences failed to correlate with a self-report measure, they, along with conscientiousness predicted self-report behaviors that are conceptually related to the Big Five incremental to a Big Five self-report measure (Schmukle et al., 2008). Similarly, the current study used the personality IAT developed by Schmukle et al. (2008) and found that it failed to converge with a self-report personality measure; however, consistent with the ideas suggested by the stressor-emotion model of CWB, the reflective-impulsive model of behavior and theories of

implicit and explicit personality, the personality IAT interacted with a measure of organizational constraints to predict CWB-I and CWB-O after controlling for an explicit measure of personality.

The results of this study also help address the question of whether certain CWBs are more likely to be driven by implicit or explicit processes. Some researchers have tried to categorize CWBs into acts that are impulsive (i.e., driven by implicit processes) or premeditated (i.e., driven by explicit processes; Ramirez, 2015). Using the judgement of SMEs, Ramirez (2015) managed to classify 26 of the 45 total items on the CWB-Checklist (Spector et al., 2006) into impulsive or premeditated categories, leaving 43% of the total items unclassified. In addition, there was a high correlation between impulsive and premeditated CWB subscales ( $r = .83$ ). Given that a large proportion of CWBs could not be classified as either impulsive or premeditated and that the distinctiveness of impulsive and premeditated categories was empirically unclear, these findings give weak support for the idea that some CWBs are more impulsive or premeditated than others. Instead these findings suggest that CWB can be impulsive and premeditated. The findings from the current study also suggest that CWB can be impulsive and premeditated (i.e., driven by implicit and explicit processes). However, my findings provide stronger support for the idea that CWB can be premeditated by demonstrating that it is influenced by explicit personality, and that CWB can also be impulsive by demonstrating the conditions (i.e. high arousal) in which it is most likely to be influenced by implicit personality. In other words, my findings suggest that CWB is generally premeditated, but when individuals experience a high level of stress at work, CWB can also be impulsive.

The current study also addressed several research questions asking whether implicit personality and its interaction with work stressors predict more strongly specific narrow forms of CWB. Although there was no main effect of implicit personality, it did interact with work stressors to differentially predict specific types of CWB. The results indicate that organizational constraints interacted with implicit personality to predict all five types of CWB (theft, sabotage, production deviance, withdrawal, abuse). Organizational injustice interacted with implicit personality to predict theft and abuse. Lastly, interpersonal conflict and customer incivility interacted with implicit personality to predict theft. The most consistent finding was that interpersonal conflict, customer incivility, organizational injustice, and organizational constraints interacted with implicit conscientiousness to predict theft. These findings are particularly interesting and are of theoretical importance because their pattern of relationships suggests something about the nature of theft (in contrast to abuse, production deviance, withdrawal, or sabotage). Specifically, when participants reported experiencing a high level of interpersonal conflict, customer incivility, and organizational injustice, theft was the only type of CWB consistently predicted by implicit conscientiousness. In contrast, when participants reported experiencing a high level of organizational constraints, all specific types of CWB were predicted by implicit conscientiousness.

One way to think about these findings would suggest that some stressors (e.g., organizational constraints) generate enough arousal to disengage the reflective system and allow implicit personality to influence all types of CWB, whereas other stressors (e.g., interpersonal conflict, customer incivility, organizational injustice) only generate enough arousal to disengage the reflective system and allow implicit personality to influence theft. Another, perhaps more

straightforward way to think about this would suggest that it takes less arousal to disengage the reflective system and allow implicit aspects of personality to influence theft than the level of arousal needed to disengage the reflective system and allow implicit aspects of personality to influence abuse, production deviance, withdrawal, and sabotage. These ideas suggest that the processes that influence theft may differ from the processes that influence other types of CWB. The answer to “what processes?” goes beyond the scope of this study; however, one can speculate based off existing research. For instance, it has been suggested that stressors that are experienced as stressful deplete self-regulatory resources (Hobfoll, 1989), and that the depletion of self-regulatory resources (i.e., disengaging the reflective system), increases the likelihood that the impulsive system will control behavior (Strack & Deutsch, 2004). Alternatively, research has shown that self-regulatory depletion (i.e., self-control, state hostility) is a stronger predictor of theft than of overall CWB (Christian & Ellis, 2011). Taken together, these ideas suggest that the experience of work stressors deplete self-regulatory resources (i.e., disengaging the reflective system), which increases the likelihood that the impulsive system (e.g., implicit personality) will control certain behaviors (e.g., theft) more than others (e.g., overall CWB). Future research should conduct an empirical test of these linkages.

In addition, the idea that the processes influencing theft may differ from other forms of CWB may also help explain why the results of this study failed to support my prediction that interpersonal conflict and customer incivility would interact with implicit personality to predict CWB-I, and that organizational injustice would interact with implicit personality to predict CWB-O. That is, it is possible that combining theft and other narrower forms of CWB into two broader CWB-I and CWB-O constructs removed theft-related variance, which would have been

explained by implicit personality when a high level of interpersonal conflict, customer incivility or organizational injustice is experienced. In other words, combining theft with other forms of CWB into broader CWB-I and CWB-O constructs obscured the relationship among implicit personality, interpersonal conflict, customer incivility, organizational injustice, and theft. In contrast, the experience of high organizational constraints generated the level of arousal needed to disengage the reflective system that would allow associative processes to influence all types of CWB. Thus, combining specific forms of CWB into broader CWB-I and CWB-O constructs does not obscure the relationship between organizational constraints, implicit personality, and CWB. Therefore, future research that examines the relationship between implicit personality, work stressors, and CWB should separate the general CWB construct into theft, abuse, sabotage, production deviance, and withdrawal to identify aspects of the work environment that may differentially interact with implicit personality to predict specific types of CWB.

Taken together, the results of this study provide additional support for the idea that CWB is driven by explicit and implicit processes (e.g., Johnson et al., 2010; Johnson & Lord, 2010; Johnson & Saboe, 2010). My findings suggest that explicit aspects of personality (i.e., explicit conscientiousness, agreeableness, emotional stability), which are formed by controlled, slow, and effortful information processes (i.e., explicit processes) are likely to influence CWB, which can be driven by controlled, slow, and effortful information processes (e.g., Bushman & Anderson, 2001). My findings also suggest that implicit aspects of personality (i.e., implicit conscientiousness, agreeableness, emotional stability), which are formed by automatic, fast, and effortless information processes (i.e., implicit processes), are likely to influence CWB that occur in a stressful work environment (i.e., when employees experienced a high level of organizational



constraints), which is likely to be driven by automatic, fast, and effortless information processes (Vasilopoulos et al., 2013). Taken together, these findings support the idea that CWB can be driven by explicit and implicit processes.

### Practical Implications

This study highlights the potential usefulness of complementing explicit measures of personality with implicit measures of personality in applied contexts. The findings from this study suggest that the organizations that will benefit the most from utilizing implicit measures of personality are those with work environments in which their employees are likely to experience work stressors. Given the high costs associated with CWB, any additional variance in CWB that can be explained has the potential to save organizations a significant amount of revenue. This is especially true for employee theft given that it is considered the costliest form of nonviolent crime (Greenberg, 1990), resulting in an estimated \$200 billion in losses for U.S. businesses every year (Murphy, 1993). Therefore, the implicit measure of conscientiousness used in this study could be particularly useful in an organizational context given that it was able to consistently predict theft when individuals experienced a high level of workplace stressors.

In addition, when explicit and implicit measures of personality are both used for selection purposes, an implicit measure can help address a weakness inherent in explicit measures. A well-known problem with explicit self-report measures is that they are easily faked and that people can distort their responses to paint a more desirable picture of themselves (Viswesvaran & Ones, 1999). In contrast, the implicit measures of personality (i.e., IATs) used in this study have been shown to resist deliberate attempts at faking because they were designed to assess processes that

are hard to consciously control (Asendorpf et al., 2002; Vecchione, Dentale, Alessandri, & Barbaranelli, 2014). Therefore, complementing explicit measures with implicit measures of personality may be of practical use for applied settings.

### Limitations

This study has several potential limitations. One limitation is that the majority of our data were self-reported, which could mean that our findings were influenced by common method variance. However, some researchers have pointed out that the problem of common method variance has been generally overstated (Spector, 2006). In addition, although the measures of implicit personality (i.e., IAT) used in this study may be considered self-report in the sense that the respondent is the one who completes the measure, it is different from a traditional self-report (e.g., personality inventory) in which the respondent judges their standing on traits and their responses to these questions reflect explicit personality. Specifically, the completion of an implicit personality IAT involves a rapid sorting task where items from two target categories (e.g., self vs. others) share common responses with two attributes (e.g., conscientiousness vs. carelessness) and the difference in response latencies when pairing are switched show strength of category-attribute association (e.g., self – conscientiousness and other – carelessness vs. self – carelessness and other – conscientiousness). Therefore, common method variance is unlikely to explain our results. Indeed, the zero-order correlations between implicit measures of personality with explicit measures of personality and with CWB-I and CWB-O were not significant. Moreover, common method variance is also unlikely to explain higher order

interaction effects found in moderator analyses (Evans, 1985) like the ones found between implicit personality and work stressors in the current study.

Another limitation regarding the use of self-report measures is that participants might underestimate or underreport how much they engage in CWB. However, much of the CWB literature has used participant self-reports; moreover, studies that have used supervisor or peer ratings of participants' CWB have found similar results to those of studies using self-report measures (e.g., Berry et al., 2007; Fox, Spector, Goh, & Bruursema, 2007). More recent research also suggests that self-reports may provide a more accurate assessment of CWB, as others may not have the opportunity to observe such behavior (Berry, Carpenter, & Barratt, 2012). However, given that implicit personality has been shown to predict other-reported behavior incrementally to explicit personality (Back et al., 2009), future research should examine whether implicit personality predicts peer-and supervisor-ratings of CWB incremental to explicit personality.

A third limitation is my use of a student sample, given that the average age of participants was 21.91 years old, that females made up 68.2 percent of the sample, and the data came from students enrolled in psychology coursework, the results of this study may not generalize to other populations and contexts. Therefore, future research should replicate this study using a nonstudent sample with characteristics that are more representative of the general workforce population.

A fourth limitation of this study is that it was conducted entirely online. Although an attempt was made to ensure the integrity of the data collected in this study by using quality control questions to exclude inattentive/careless responders and an IAT cleaning procedure to exclude "button smashers," I cannot be certain that participants paid attention and put effort into

completing the survey. Therefore, future studies should replicate this study in a lab or within an applied context. However, it is important to note that given the nature of the dependent variable (CWB) examined in this study, using an online sample helps protect the anonymity of the participants and reduce evaluation apprehension, which may mitigate the effects of response distortion associated with socially desirable responding (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) and the fear of punishment for admission of CWB (Bennett & Robinson, 2000).

A fifth limitation is my use of a cross-sectional design, which prevents me from examining causal relationships and thus disallowing inferences of causality. Taking these limitations into consideration, I recommend the use of longitudinal designs and multisource data in future CWB research.

A final limitation of this study is the evidence of range restriction in CWB (table 5) once a listwise method of excluding missing participants was used to analyze my data. However, given that range restriction tends to attenuate relationships, and therefore making them harder to detect (McClelland & Judd, 1993), it is impressive that this study was still able to find significant interactions between an implicit measure of conscientiousness and work stressors predicting theft, which is a narrow, low-base rate CWB to begin with. Thus, the effect sizes found in my analyses using listwise to treat missing data are likely to be a conservative estimate of the population parameters.

## Conclusion

In summary, this study has helped extend our understanding of the explicit and implicit influences of CWB and under what conditions are implicit influences likely to manifest. This was accomplished by examining the relationship between explicit and implicit conscientiousness, agreeableness, emotional stability, and CWB, and by examining how implicit personality interacts with work stressors (interpersonal conflict, customer incivility, organizational injustice, organizational constraints) to predict CWB. Our findings suggest that CWBs can be influenced by both explicit and implicit aspects of personality; however, in contrast to explicit personality, implicit personality is most likely to influence CWB when individuals experience a high level of organizational constraints.

## **APPENDIX A: STUDY MEASURES**

### A.1: Demographics

1. What is your age?
2. What is your gender?
3. What is your employment status?
4. How long have you worked at your current organization?
5. How many hours per week do you work?
6. Please describe the industry in which you work (e.g., retail, hospitality, restaurant).

### A.2: Implicit Personality

From Schmukle et al. (2008) Personality IAT – Stimuli used in IATs

Me – me, my, self, I, own

Others – you, your, them, they, others

Conscientiousness – meticulous, neat, reliable, fussy, thorough, careless, chaotic, unreliable, erratic, frivolous

Agreeableness – well-meaning, trusting, helpful, friendly, good-natured, quarrelsome, hostile, obstinate, hard-hearted, resentful

Emotional Stability – relaxed, calm, restful, at ease, balanced, nervous, fearful, anxious, uncertain, afraid

### A.3: Explicit Personality

From Goldberg et al. (2006) International Personality Item Pool

*Instructions:* Please indicate the extent to which you agree or disagree with the following statements: (Strongly disagree – Strongly agree)

Conscientiousness

1. I am always prepared.
2. I pay attention to details.
3. I get chores done right away.
4. I like order.
5. I Follow a schedule.
6. I am exacting in my work.
7. I leave my belongings around.
8. I make a mess of things.
9. I often forget to put things back in their proper place.
10. I shirk my duties.

#### Agreeableness

1. I am interested in people.
2. I sympathize with others' feelings.
3. I have a soft heart.
4. I take time out for others.
5. I feel others' emotions.
6. I make people feel at ease.
7. I am not really interested in others.
8. I insult people.
9. I am not interested in other people's problems.
10. I feel little concern for others.

#### Emotional Stability



1. I am relaxed most of the time.
2. I seldom feel blue.
3. I get stressed out easily.
4. I worry about things.
5. I am easily disturbed.
6. I get upset easily.
7. I change my mood a lot.
8. I have frequent mood swings.
9. I get irritated easily.
10. I often feel blue.

#### A.4: Interpersonal Conflict

From Spector and Jex (1998) Interpersonal Conflict At Work Scale

*Instructions:* Please answer the following questions: (Never – Very often)

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?

#### A.5: Organizational Justice

From Ambrose and Schminke (2009) Perceived Overall Justice Scale

*Instructions:* Please indicate the extent to which you agree or disagree with the following statements: (Strongly disagree – Strongly agree)

1. Overall, I am treated fairly by my organization.

2. In general, I can count on this organization to be fair.
3. In general, the treatment I receive around here is fair.
4. Usually, the way things work in this organization are not fair.
5. For the most part, this organization treats its employees fairly.
6. Most of the people who work here would say they are often treated unfairly.

#### A.6: Customer Incivility

From Burnfield, Clark, Devendorf, and Jex (2004) Customer Incivility Scale

*Instructions:* Thinking about the past month, please indicate how strongly you agree or disagree with the following statements.

1. Customers/clients are condescending to me.
2. Customers do not trust the information I give them and ask to speak with someone of higher authority.
3. My customers make personal verbal attacks against me.
4. Customers/clients make comments about my job performance.
5. Customers/clients make comments that question the competence of the employees.
6. Internal or external customers pose unreasonable demands.
7. Customers have taken out their frustrations on employees at my organization.
8. Customers show that they are irritated or impatient.
9. Customers/clients take their anger out on employees.
10. Customers make insulting comments to employees.
11. Customers treat employees as if they are inferior or stupid.

### A.7: Organizational Constraints

From Spector and Jex (1998) Organizational Constraints Scale

*Instructions:* How often do you find it difficult or impossible to do your job because of?

(Less than once per month or never – Several times per day)

1. Poor equipment or supplies.
2. Organizational rules and procedures.
3. Other employees.
4. Your 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.

### A.8: Counterproductive Work Behavior

From Spector et al. (2006) Counterproductive Work Behavior Checklist

*Instructions:* How often have you done each of the following things on your present job?

(Never – Everyday).

1. Purposely wasted your employer's materials/supplies.
2. Daydreamed rather than did your work.
3. Complained about insignificant things at work.

4. Told people outside the job what a lousy place you work for.
5. Purposely did your work incorrectly.
6. Came to work late without permission.
7. Stayed home from work and said you were sick when you weren't.
8. Purposely damaged a piece of equipment or property.
9. Purposely dirtied or littered your place of work.
10. Stolen something belonging to your employer.
11. Started or continued a damaging or harmful rumor at work.
12. Been nasty or rude to a client or customer.
13. Purposely worked slowly when things needed to get done.
14. Refused to take on an assignment when asked.
15. Purposely came late to an appointment or meeting.
16. Failed to report a problem so it would get worse.
17. Taken a longer break than you were allowed to take.
18. Purposely failed to follow instructions.
19. Left work earlier than you were allowed to.
20. Insulted someone about their job performance.
21. Made fun of someone's personal life.
22. Took supplies or tools home without permission.
23. Tried to look busy while doing nothing.
24. Put in to be paid for more hours than you worked.
25. Took money from your employer without permission.

26. Ignored someone at work.
27. Refused to help someone at work.
28. Withheld needed information from someone at work.
29. Purposely interfered with someone at work doing his/her job.
30. Blamed someone at work for error you made.
31. Started an argument with someone at work.
32. Stole something belonging to someone at work.
33. Verbally abused someone at work.
34. Made an obscene gesture (the finger) to someone at work.
35. Threatened someone at work with violence.
36. Threatened someone at work, but not physically.
37. Said something obscene to someone at work to make them feel bad.
38. Hid something so someone at work couldn't find it.
39. Did something to make someone at work look bad.
40. Played a mean prank to embarrass someone at work.
41. Destroyed property belonging to someone at work.
42. Looked at someone at work's private mail/property without permission.
43. Hit or pushed someone at work.
44. Insulted or made fun of someone at work.
45. Avoided returning a phone call to someone you should at work.

#### A.9: Quality Control

From Meade and Craig (2012) Bogus/Careless Response Items

### Bogus items

*Instructions:* Please indicate the extent to which you agree or disagree with the following statements: (Strongly disagree – Strongly agree)

1. I am enrolled in a Psychology course currently.
2. I do not understand a word of English.

### Self-report single item indicators

*Instructions:* Lastly, it is vital to our study that we only include responses from people that devoted their full attention to this study. Otherwise years of effort (the researchers' and the time of other participants) could be wasted. *You will receive credit for this study no matter what*, however, please tell us how much effort you put forth towards this study. Also, often there are several distractions present during studies (other people, TV, music, etc.). Please indicate how much attention you paid to this study. Again, you will receive credit no matter what. We appreciate your honesty!

1. I put forth \_\_\_\_\_ effort towards this study. (Almost no – A lot of)
2. I gave this study \_\_\_\_\_ attention. (Almost no – My full)
3. In your honest opinion, should we use your data in our analyses in this study? (Yes or No)

## **APPENDIX B: UCF IRB OUTCOME LETTER**



University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Determination of Exempt Human Research

From: **UCF Institutional Review Board #1  
FWA00000351, IRB00001138**

To: **Jimmy Zheng**

Date: **March 26, 2018**

Dear Researcher:

On 03/26/2018, the IRB reviewed the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination – Category 2 – Adult Participants  
Online Survey; n=325  
Project Title: Predicting Counterproductive Work Behavior with  
Explicit and Implicit Measures of Conscientiousness,  
Agreeableness, and Emotional Stability: The Role of  
Situational Context  
Investigator: Jimmy Zheng  
IRB Number: SBE-18-13821  
Funding Agency:  
Grant Title:  
Research ID: N/A

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 contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

This letter is signed by:

A handwritten signature in black ink, appearing to read "Jennifer Neal-Jimenez".

Signature applied by Jennifer Neal-Jimenez on 03/26/2018 10:03:53 PM EDT

Designated Reviewer



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