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WHY EXPERIENCED INCIVILITY TRIGGERS INSTIGATED INCIVILITY: COMBING
THE AFFECT-BASED AND RESOURCE-BASED PATHWAYS

by

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ABSTRACT

Ever since Andersson and Pearson's seminal work (1999), incivility has become one of the most commonly studied forms of mistreatment in the organizational sciences (Hershcovis, 2011). While research to date has yielded significant findings about the effects of experienced incivility, far less is known about the underlying mechanisms that linked experienced incivility and instigated incivility. Among the limited studies investigating the positively relationship between experienced incivility and instigated incivility, two distinct theoretical frameworks, affective-based perspective and resource-based, were drew upon. And these two perspectives have never been examined in the same model.

To this end, I investigated negative affect (affect-based mechanism) as well as rumination and mental fatigue (resource-based mechanism) as parallel mediators of the relationship between experienced incivility and instigated incivility. I also examined the moderating role of hostile attribution bias in the first stage of the parallel mediation. Using longitudinal design, the current study supported only the affect-based pathway but not the resource-based one. The study also found surprising results regarding the role of hostile attribution bias. Implications and future directions were discussed.

Dedicated to my mom, Jonesy Hou. Thank you for your unconditional emotional and financial support along the course of the last eight year's graduate study even when you have zero idea of what I've been up to in the US.

ACKNOWLEDGMENTS

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CHAPTER ONE: INTRODUCTION

Ever since Andersson and Pearson (1999) introduced the concept of workplace incivility, research interest in both incivility and other forms of mistreatment has grown dramatically over the past two decades (Schilpzand, De Pater, & Erez, 2016). Incivility has become one of the most commonly studied forms of mistreatment in the organizational sciences due to its widespread prevalence at work and detrimental consequences (Hershcovis, 2011). For example, Porath and Pearson (2010, 2013) surveyed thousands of employees and found that over 90% reported experiencing at least some incivility in the workplace. Studies have generally associated the experience of incivility with lower levels of positive affect, job satisfaction, and organizational commitment, as well as higher likelihoods of counterproductive work behavior and withdrawal (e.g., Pearson, Andersson, & Wegner, 2001; Penny & Spector, 2005; Hershcovis & Barling, 2010; Spence Laschinger, Leiter, Day, & Gilin, 2009).

Although research to date has yielded significant findings about the effects of experienced incivility (Cortina, Kabat-Farr, Magley, & Nelson, 2017), one important consequence has been less frequently examined in the current literature: instigated incivility. The idea that experienced incivility begets instigated incivility also originates from Andersson and Pearson (1999). These two authors theorized that the party who has experienced incivility will also experience negative affect, and this negative affect may increase the urge to reciprocate the uncivil treatment toward the party who had initiated it. Even though the relationship between experienced incivility and instigated incivility was originally explained by the social exchange perspective, and hence was framed in terms of a dyadic exchange between the target of incivility and the initial instigator of incivility, this relationship can be extended beyond the dyad. That is, individuals who are the targets of incivility may become the instigators themselves at a later

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point regardless of whether or not they direct the uncivil mistreatment toward the initial perpetrator.

To the best of my knowledge, only three recently published studies have attempted to investigate the underlying mechanisms linking experienced and instigated incivility (i.e., Gallus et al., 2014; Meier & Gross, 2015; Rosen, Koopman, Gabriel, & Johnson, 2016). These three studies empirically examined the relationship between experienced incivility and instigated incivility, regardless of whether the target was the initial perpetrator. And they all found that individuals who experienced higher level of incivility were more likely to be the instigators of incivility. However, one interesting thing to note is how these studies used two distinct theoretical frameworks to interpret why experienced incivility was positively related to instigated incivility.

One theoretical framework is based on the social interactionist perspective, which can also be described as an affect-based approach because it emphasizes the role of negative affect and suggests that the negative affect resulting from an uncivil experience might trigger the urge to seek revenge by treating the perpetrator rudely as well (Gallus et al., 2014; Meier & Gross, 2015). The relationship between experienced incivility and instigated incivility is thus highlighted as an exchange process stimulated by the experience of negative affect. This affect-based reasoning is behind the "tit-for-tat" relationship that Andersson and Pearson (1999) proposed as well.

The other theoretical perspective used to explain the link between experienced incivility and instigated incivility is resource-based, using the strength model of self-regulation (Baumeister, Vohs, & Tice, 2007). According to this perspective, individuals who have experienced incivility tend to be ego depleted because they need to expend limited attentional

resources to make sense of the uncivil treatment (Rosen et al., 2016). As a result of this cognitive depletion, targets of incivility may not have enough self-control to prevent themselves from engaging in impulsive deviant behaviors toward others such as incivility.

Despite the fact that both the affect-based and resource-based perspectives have been used to explain the relationship between experienced incivility and instigated incivility, these two mechanisms have never been examined in the same model. Therefore, there is a need to consider both mediating mechanisms together in order to gain a more holistic understanding regarding the relationship between experienced incivility and instigated incivility (Schilpzand, De Pater, & Erez, 2016).

Hence, this proposed dissertation addresses the gap in the literature concerning the unanswered question: *How do the affect-based and resource-based mechanisms together explicate the link between experienced incivility and instigated incivility?* By combing these two views, I seek to make three contributions to the literature. First, I attempt to broaden our understanding of how experienced incivility leads to instigated incivility by examining multiple pathways. Specifically, I investigate negative affect (affect-based mechanism) as well as rumination and mental fatigue (resource-based mechanism) as parallel mediators of the relationship between experienced incivility and instigated incivility. This is an important expansion of the social interactionist perspective that Andersson and Pearson (1999) initially proposed.

Second, I intent to empirically compare the relative importance of the two critical approaches: affect-based mechanism and resource-based mechanism. Both mechanisms are presumed to be plausible alternatives for explaining the experienced incivility—instigated incivility relationship, but no study thus far has compared their relative strength. Therefore,

comparing these two mechanisms may lead to additional suggestions as to what types of organizational interventions may be best in reducing incivility. For instance, if the relationship between experienced incivility and instigated incivility can be explained mainly by the affect-based approach, organizations could focus on effective emotion regulation strategies to improve the interpersonal treatment of employees. On the other hand, if the resource-based mechanism could account for major variations in the relationship between experienced incivility and instigated incivility, organizations may wish to adopt interventions that train employees' regulatory capacities.

Finally, given that one of the unique features of incivility is ambiguous intent to harm, I strive to provide insight into conditions that may strengthen or weaken the relationship between experienced incivility and instigated incivility. Specifically, I examine the moderating role of hostile attribution bias, since individuals with stronger hostile attribution bias tend to see clear harmful intent in others' behaviors (Dodge & Coie, 1987). By illustrating whom experienced incivility harms worse, this proposed dissertation answers the call to investigate "attributions in the appraisal of uncivil incidents" (Schilpzand, De Pater, & Erez, 2016).

Figure 1 depicts the model, in which I propose two parallel mechanisms for explaining the relationship between experienced incivility and instigated incivility. For the affect-based mechanism, experienced incivility may result in the experience of negative emotions, which increases the likelihood of engaging in incivility toward others. For the resource-based mechanism, experienced incivility may result in rumination, which results in a heightened sense of mental fatigue which in turn, increases the likelihood of instigated incivility. In addition, for both parallel pathways, I propose hostile attribution bias as a moderator in the first stage of the parallel mediation process.
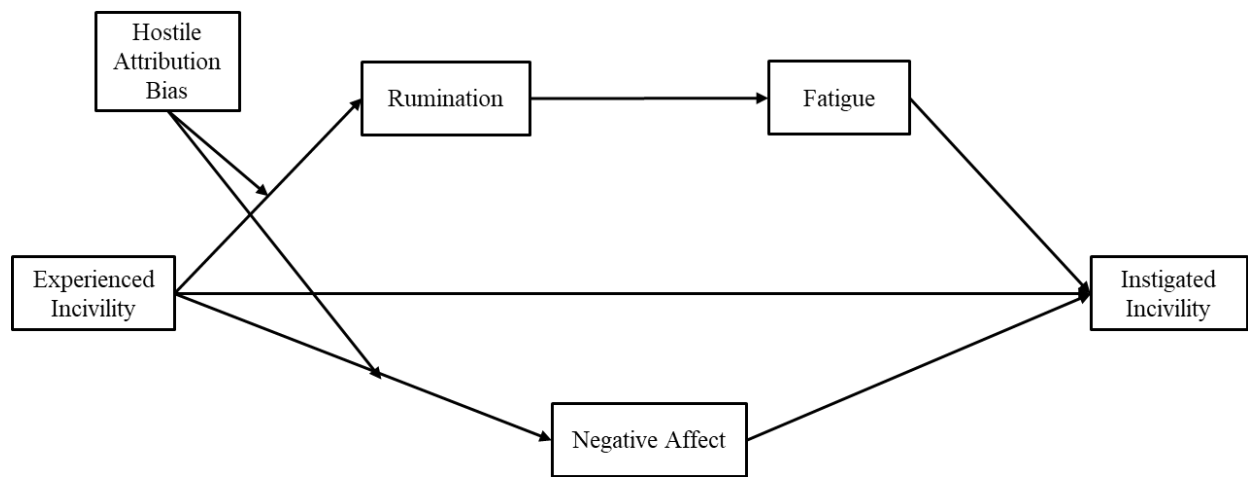
Figure 1: The Proposed Model

To present my dissertation in the following sections, I began by reviewing the literature on both experienced incivility and instigated incivility. The focus of the review is on the consequences of experienced incivility and the predictors of instigated incivility. More importantly, reviews of the three studies (i.e., Gallus et al., 2014; Meier & Gross, 2015; Rosen, Koopman, Gabriel, & Johnson, 2016) investigating the experienced incivility-instigated incivility relationship were included to demonstrate how my dissertation could extend these prior studies. Second, I present the theoretical background in order to develop the affect-based and the resource-based hypotheses of the experienced incivility—instigated incivility relationship. The affect-based pathway was derived from the stress-emotion model of counterproductive work behavior (Spector & Fox, 2002) whereas the resource-based pathway was replied upon the perseverative cognition model (Brosschot, Pieper, & Thayer, 2005) and the strength model of self-regulation (Baumeister et al., 2007). Third, I discussed how experienced incivility can interact with a trait variable (hostile attribution bias) to produce effects on both affect-based and

resource-based pathways. Fourth, I described the methodology and present results of the study.

Finally, I discussed the implications, limitations, and future directions.

CHAPTER TWO: LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

It is generally acknowledged that workplace incivility was first introduced to the organizational sciences by Andersson and Pearson (1999) in their seminal work, and was defined as "low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect" (p. 457). Examples of workplace incivility include avoiding someone, making crude jokes or leaving rude comments (Porath & Pearson, 2013). Although incivility seems to conceptually overlap with other types of deviant behaviors that have been studied in the field, two characteristics make it a unique construct worthy of investigation (Cortina, Kabat-Farr, Magley, & Nelson, 2017).

First, incivility is one type of deviant behavior but unlike more high-intensity forms of deviant behavior in organizations (e.g., workplace violence) that are uncommon and extreme (Dupré & Barling, 2006), incivility represents a less intense form that workers experience frequently on the job (Porath & Pearson, 2013). For example, coworkers ignoring colleagues is a much more common and less intense than physical assaults in the office. The second defining characteristic that makes incivility a unique construct is its ambiguous intent to harm. When employees engage in aggression or bullying, there is no doubt that the perpetrator is being hostile. However, when uncivil behavior occurs, it is unclear whether the perpetrator actually intends to be hostile (Schilpzand, De Pater, & Erez, 2016). For instance, if an individual greeted several colleagues and they did not respond, it would be uncertain if the colleagues were deliberately ignoring the individual or they were simply not paying attention to the individual's greeting.

Consequences of Experienced Incivility

Ever since Andersson and Pearson (1999) conceptualized incivility two decades ago, thousands of studies have been conducted in the area of workplace incivility. For example, a Google Scholar search of the term "workplace incivility" returned 18,000 results (as of May 24th, 2019). Schilpzand, De Pater, and Erez (2016) reviewed 55 published papers and found that more than half of these papers focused on the negative outcomes of experienced incivility.

In the workplace incivility literature, two main theoretical justifications are used to explain the consequences of experienced incivility. One is based on emotion-based theories such as the transactional stress model (Lazarus & Folkman, 1984), the stress-emotion model of counterproductive work behavior (Spector & Fox, 2002), and affective events theory (AET; Weiss & Cropanzano, 1996). Given that incivility involves the social interaction among more than two parties and that experienced incivility is primarily concerned with the victim's perspective, incivility can be considered by the victim as an interpersonal stressor (Spector & Jex, 1998; Penny & Spector, 2005). It has been established in the literature that stressors may lead to intense negative emotions, which then impact attitudinal and behavioral reactions (Weiss & Cropanzano, 1996). Andersson and Pearson (1999) have also proposed that the negative affect aroused by incivility may stimulate the target to perform an uncivil behavior in order to "display the negative affect" and "reciprocate" (p. 461). Therefore, emotion-based theories are well suited for explaining the potential responses to experienced incivility, including perpetrated incivility.

In general, the emotion-based perspective suggests that emotional reactions after determining a potential stressor as threatening may guide individuals' behavioral responses. Many studies have relied on this framework to investigate the consequences of experienced incivility (Schilpazand, De Pater, & Erez, 2016). For example, Penny and Spector (2005) carried

out a cross-sectional study and found that both self- and coworker-reported incivility correlated negatively with job satisfaction and positively with counterproductive work behavior (CWB). Also consistent with the transactional stress model, Porath and Pearson (2012) demonstrated that individuals who experienced incivility to a greater extent also reported greater fear and sadness, and these emotional reactions made them more likely to engage in deviant behavior in the form of absenteeism. Similarly, based on the stress-emotion model of counterproductive work behavior, Sakurai and Jex (2012) showed that when employees experienced higher levels of incivility from coworkers, they experienced more negative emotions which, in turn, decreased their work effort and increased CWBs.

The other theoretical framework that has been widely adopted to explain the negative effects of experienced incivility is the conservation of resources (COR; Hobfoll, 1989) model. The basic tenet of the COR model is that people ultimately seek to "retain, protect, and build resources" (p. 516). Since incivility is a social stressor that may tax one's limited resources, when experiencing incivility, individuals are motivated to restore resources by using coping strategies or choosing to withdraw from work. If these efforts are unable to generate resource gains, distress and exhaustion will follow. Numerous studies have supported the predictions of the COR model in examining the consequences of experienced incivility (e.g., Giumetti et al., 2013; Sliter, Sliter, & Jex, 2012; Viotti, Essenmacher, Hamblin, & Arnetz, 2018; Nicholson & Griffin, 2015). For example, on the basis of the COR model, Viotti et al. (2018) found that experiencing coworker incivility caused elevated exhaustion one year later. Sliter et al. (2012) went a step further in terms of extending the COR model. In addition to examining the main effect of coworker incivility on withdrawal, the authors demonstrated an interactive effect of multiple incivility sources (coworker and customer incivility) on withdrawal and sales

performance such that individuals suffered the most when experiencing greater incivility from both coworkers and customers.

<div align="center">Predictors of Instigated Incivility</div>

Compared to the substantial research attention devoted to experienced incivility, considerably less is known about the factors that prompt individuals to enact uncivil behaviors. In Schilpazand, De Pater, and Erez's (2016) review of 55 empirical papers that were published between 1999 and 2013 in the organizational sciences, only seven focused on the antecedents of instigated incivility. With the goal of including the most up-to-date empirical studies, I used the same literature search adopted by Schilpazand, De Pater, and Erez's (2016) and found seven empirical papers that were published form 2014 to 2019 on antecedents of instigated incivility (i.e., Gallus et al., 2014; Harold & Holtz, 2015; Meier & Gross, 2015; Birkeland & Nerstad, 2016; Torkelson, Holm, Backstrom, & Schad, 2016; Rosen et al., 2016; Ilies, Guo, Lim, Yam, & Li, 2019). Therefore, approximately 14 empirical studies investigating antecedents of instigated incivility were published in scholarly journals between 1999 and 2019.

Even though the number of empirical articles on predictors of instigated incivility is still relatively low, the growth in recent years suggests that instigated incivility is an area that has become increasingly recognized as deserving scholarly attention. Thus far, scholars have begun to gain a more comprehensive understanding of what situational factors and individual characteristics associated with a higher likelihood of instigated incivility. Furthermore, this line of research provides an opportunity to help organizations design intervention strategies to decrease (Jex, Burnfield-Geimer, Clark, Guidroz, & Yugo, 2010).

Although experienced incivility and instigated incivility are essentially the same concept with the exception being the former from targets' perspective whereas the latter from

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perpetrators' perspective, there are substantial differences in the theoretical frameworks used to examine the antecedents of these two constructs. As summarized in the previous section, emotion-focused theories and the COR model are the two main theoretical approaches used to explain the consequences of experienced incivility. In contrast, none of the 15 published studies on predictors of instigated incivility were based on emotion-based models or the COR model. Instead, when explaining why instigated incivility occurs, eight out of 14 empirical articles drew heavily on the social interactionist perspective (Felson & Tedeschi, 1993) that was adopted in Andersson and Pearson (1999), or its variants such as theories of social exchange (Cropanzano & Mitchell, 2005), social power theory (Carli, 1999), theories of justice (Colquitt, Conlon, Wesson, Porter, & Ng, 2001), psychological contract theory (Morrison & Robinson, 1997), and person-organization fit theory (Kristof-Brown, Zimmerman, & Johnson, 2005).

According to the social interactionist perspective, behavior is a function of both individual differences and social environments. Similarly, Andersson and Person (1999) proposed that certain stable characteristics of individuals (known as a "hot" temperament), including impulsiveness, emotional sensitivity, and rebelliousness, interact with a climate of informality may make uncivil behaviors more likely to occur. In an organization in which informality is advocated and promoted, there is no clear set of rules to guide employees to maintain politeness in building social relationships, so that it makes employees with "hot" temperament more likely to engage in incivility. The different variations of the social interactionist perspective emphasize the influence of a certain aspect of an individual or the social environment on the enactment of incivility. For instance, building upon social power theory, Cortina, Magley, Williams, and Langhout (2001) observed that individuals with greater social power were more likely to instigate incivility toward others. Testing the negative

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reciprocity norms of social exchange theory in which individuals have the tendency to reciprocate negative or unfair treatment, van Jaarsveld, Walker, and Skarlicki (2010) showed that employees were more likely to act uncivil to customers if they had first been the recipients of uncivil behavior from customers. Similarly, Blau and Andersson (2005) found that employees were more likely to exhibit incivility when they experienced distributive injustice and procedural injustice.

<p style="text-align:center">Experienced Incivility—Instigated Incivility Relationship</p>

In Andersson and Pearson's (1999) model of incivility, the relationship between experienced incivility and instigated incivility was embedded within the so-called incivility spiral. According to the model, since incivility violates generally accepted norms of respect, individuals experiencing incivility may experience negative emotions, which may fuel the desire to reciprocate by being rude. The target may respond by perpetrating incivility directly toward the initial instigator, although in some cases the uncivil behavior is displaced toward a third party. In either situation, the victim would become the instigator of incivility and empirical evidence has supported this proposition. In this section, I review the three empirical studies that have established a positive relationship between experienced incivility and instigated incivility.

Gallus et al. (2014) were the first to empirically examine incivility from both the target and instigator perspectives. They adopted Andersson and Pearson's (1999) proposition about the incivility spiral, in which targets of incivility may engage in incivility due to the desire to retaliate. Thus, based on this argument these authors proposed that experiences of incivility would predict incivility perpetration. Based on a cross-sectional study of 253 participants, these authors found that incivility experiences were positively related to incivility perpetration. Although Gallus et al. (2014) suggested that targets of incivility become instigators of incivility

because of the motivation to retaliate, the study never directly tested the mediating effect of the desire to retaliate nor used a longitudinal design to determine the direction of causality. As a result, it still remains unclear what theoretical mechanisms may explain the relationship between experienced incivility and instigated incivility.

A second study which empirically investigated the relationship between experienced incivility and instigated incivility was conducted by Meier and Gross (2015). In this study, the authors overcame the limitation of a cross-sectional design existed in Gallus et al. (2014) by using event-based and fixed-time-based sampling to examine incivility in the context of interactions between subordinates and supervisors. Using the strength model of self-regulation, they argued that individuals may not have enough self-control to inhibit the urge to engage in retaliatory behaviors (e.g., instigated incivility) when they feel exhausted. Their findings showed that after employees experienced incivility from their supervisor, they were more likely to behave rudely toward the supervisor in subsequent interactions, and such effects were stronger when employees perceived higher levels of exhaustion. Hence, they introduced the idea of self-control to the workplace incivility literature and it has substantially broadened our current knowledge in terms of when instigated incivility may be triggered. Nevertheless, this study also faced two limitations. First, the authors candidly expressed the uncertainty about the generalizability of the findings to peer interaction since they only studied the interactions between subordinate and supervisor. Second, they shared a similar weakness with Gallus et al. (2014) in which they did not directly model the underlying theoretical mechanism that connected experienced incivility with instigated incivility.

In the most recent empirical study examining the relationship between experienced incivility and instigated incivility, Rosen et al. (2016) recognized the two previously mentioned

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limitations of Meier and Gross (2015). Drawing from the strength model of self-regulation, they directly assessed self-control and examined it as the mechanism explaining the relationship between experienced incivility and instigated incivility. Rosen et al. (2016) suggested that individuals who have experienced higher levels of incivility from others would have diminished self-control because they might need additional attentional resources to make sense of and react to incivility from others. Without sufficient self-control to regulate themselves, individuals may be more prone to engage in deviant behaviors, such as being uncivil toward others. Also, the authors highlighted that organizational politics and construal level may define the boundary conditions of the mediating effect of self-control. They argued that organizational politics (Chang, Rosen, & Levy, 2009) would strengthen the relationship between experienced incivility and diminished self-control because higher levels of organizational politics implied a more ambiguous social environment within an organization which would require more self-control to process and make sense of the incivility incidents. On the other hand, construal level—the extent to which a stimulus can be mentally represented in an abstract and superordinate way (Trope & Liberman, 2010)—was proposed to weaken the relationship between diminished self-control and instigated incivility. Individuals with higher construal level see behaviors in a more abstract way and understand the importance of mutual respect and benign social relationships, so that they are more motivated to overcome the uncivil impulses even in an ego depletion state.

By using an experience sampling method to collect a sample of 70 individuals' responses over 10 consecutive workdays, Rosen et al. (2016) found support for moderated mediation whereby the indirect effect of experienced incivility on instigated incivility via self-control was stronger at higher levels of organizational politics and lower construal levels. Although the authors did not explicitly hypothesize the relationship between experienced incivility and

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instigated incivility, their data showed that experienced incivility around noon had a significantly positive relationship with instigated incivility in the afternoon, providing empirical evidence for the relationship between experienced incivility and instigated incivility as well.

Beyond the Dyadic Exchange

In Andersson and Pearson (1999), the basic tenet of the experienced incivility—instigated incivility relationship is that employees who have experienced incivility want to retaliate against the perpetrator with incivility, or other escalating forms of aggression. This contention is based on the social exchange perspective and the negative reciprocity notion, which usually involves two parties: one identified as the perpetrator and the other as the victim. Thus, the relationship between experienced incivility and instigated incivility that Andersson and Pearson (1999) proposed is a dyadic interaction. However, such a dyadic exchange of incivility has seriously constrained our understanding of how targets of incivility turn into instigators of incivility. As Andersson and Pearson (1999) acknowledged, there were many departure points that one party within a dyad may choose to remove themselves from the incivility exchange. For example, when the target decides not to take any retaliatory reaction, or the instigator recognizes the rudeness and asks for forgiveness, the chain of escalating incivility may stop. But the break of the incivility exchange does not mean that the targets of incivility will not enact incivility at later points in time.

First, individuals who have experienced incivility may not retaliate against the perpetrators directly, but instead may turn to other members of the organization to enact the incivility as a way to vent the negative emotions caused by the initial incivility experience. For example, when an employee is given the "silent treatment", a typical act of incivility, from his supervisor, for fear of negative consequences he might not confront the supervisor and

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"reciprocate" the incivility. Alternatively, to vent the frustration, he might instead engage in uncivil acts toward innocent others, who are less powerful than the supervisor. Therefore, although the dyadic exchange of incivility between the employee and his supervisor is halted, the employee still may become an instigator in the later interaction. Meta-analytic results (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000) have supported that targets of aggression who were unable to retaliate were more likely to turn the aggression to an innocent other. Following the same logic, it is plausible that when targets of incivility are unable to retaliate, they will be also more likely to turn the incivility act to an innocent other since incivility can be seen as a mild form of aggression (Hershcovis, 2011).

Another reason for moving beyond the dyadic exchange of incivility is to emphasize the mediating role of diminished self-control. As argued by Rosen et al. (2016), incivility behaviors are deviant impulses which require self-control to constrain. Individuals who have experienced incivility may require the self-control capacities to make sense of the incivility experience but after that they might not have enough self-control to refrain themselves from not engaging in incivility towards others. Hence, in a more general sense, experienced incivility leads to instigated incivility not because of the retaliatory exchange of incivility but due to the ego depletion effect of experienced incivility.

Although I argue that investigating the relationship between experienced incivility and instigated incivility needs to move beyond the dyadic exchange, I do not mean that the perspective about the role of self-control is counter to the viewpoint of retaliatory motive in the dyadic exchange. Far from it, high self-control may weaken the desire for revenge (Lian et al., 2014) and acts as a moderator on the experienced incivility—instigated incivility relationship. Although experiencing incivility makes it more likely for individuals to engage in uncivil acts in

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order to retaliate against the perpetrator, not all people have the same impulsive desire for revenge. For individuals with high levels of self-control, they may be less likely to direct the incivility back to the perpetrator because they have a stronger ability to restrain the impulse to retaliate (Tangney, Baumeister, & Boone, 2004).

The argument about the mediating role of self-control in the relationship between subsequent experienced incivility and instigated incivility attends more to the inner cognitive process and how the negative incivility experiences consume attentional resources to influence subsequent behaviors. Therefore, applying the mechanism of diminished self-control to explain the relationship between experienced incivility and instigated incivility can greatly advance research regarding the relationship between experienced incivility and instigated incivility because it is no longer limited to the dyadic approach. Hence, taking the arguments and all the empirical evidence into consideration, as well as moving beyond the dyadic approach, I propose a positive relationship between experienced incivility and instigated incivility.

Hypothesis 1: Experienced incivility is positively related to instigated incivility.

<u>The Affect-Based Pathway: The Role of Negative Affect</u>

Affect is a broad term that is used to describe a wide range of emotions and moods that individuals experience (Barsade & Gibson, 2007). Affect can be classified into negative and positive categories (Watson & Tellegen, 1985); negative affect refers to the extent to which individuals are unpleasantly aroused whereas positive affect refers to the extent to which individuals are pleasantly aroused. Affect can also be studied in its distinct forms. Depending on the degree of hedonic tone, discrete emotions such as anger, anxiety, joy, excitement, or sadness can be placed under the corresponding negative or positive affect (Watson & Clark, 1991).

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Both the global negative affect and discrete negative emotions are associated with experience of workplace mistreatment or engagement in deviant behaviors. Negative affect is a likely emotional response when employees perceive mistreatment (Olson-Buchanan & Boswell, 2008). For instance, Cortina et al. (2001) found that experiencing incivility was linked to feelings of depression and anxiety. Research also found that negative affect has a direct impact on individuals' behavioral reactions the experience of incivility. For example, Lee and Allen (2002) found that hostility was a critical factor in predicting whether employees engaged in deviant work behavior.

<center>Stressor-Emotion Model of Counterproductive Work Behavior</center>

Negative affect has been frequently used to explain the link between mistreatment experiences and deviant behavior. An important framework to illustrate the central role of negative affect is the stressor-emotion model of counterproductive work behavior (CWB; Spector & Fox, 2002). This model postulates that negative affect is a common reaction to many stressors and then the negative affect may fuel subsequent action tendencies to engage in CWBs which are intended to harm organizations or individuals. Thus, two primary claims are made in the stress-emotion model of CWB.

First, the model states that many events and situations at work trigger negative affect. When an event or situation is perceived as threatening one's wellbeing, or interfering with regular work activities, general negative affect or discrete emotional responses may be generated (Lazarus & Folkman, 1984). Spector and Fox (2002) summarized a list of potential stressors that may induce negative affect, such as organizational constraints, role stressors, interpersonal stressors, perceptions of unfairness, and violation of the psychological contract. Given that experienced incivility is an interpersonal stressor (Spector & Jex, 1998), based on the stress-

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emotion model of CWB, it follows that experienced incivility may also trigger negative affect.

As empirical evidence, a number of studies have demonstrated that uncivil work treatment is

associated with higher levels of negative affect. Zhou, Yan, Che, and Meier (2015) found that

employees who received more uncivil treatment on a daily base experienced more negative

affect at the end of a workday. Sakurai and Jex (2012) found that when employees experienced

more incivility from their coworkers, they also experienced higher levels of negative affect. In

addition to the link between uncivil treatment and general negative affect, some researchers have

also found a relationship between experienced incivility and discrete negative emotional

responses. For example, Porath and Pearson (2012) showed that individuals reported greater

anger, fear, and sadness after experiencing incivility. Kabat-Farr, Cortina, & Marchiondo (2018)

found that employees felt more anger and guilt following an uncivil experience. All these studies

have demonstrated a positive link between experienced incivility and negative affect. Hence,

building on the stress-emotion model of CWB and existing empirical evidence, I propose the

following hypothesis:

Hypothesis 2: Experienced incivility is positively related to negative affect.

The stress-emotion model also suggests that negative affect may precipitate acts of CWB.

When in a negative emotional state, people will attempt to engage in acts that help to reduce the

negative affect. This is what Lazarus and Folkman (1984) refers to as emotion-focused coping.

CWB is a common emotion-focus coping strategy that individuals employ to help eliminate

negative affect caused by work stressors. Krischer, Penney, and Hunter (2010) found that the

negative relationship between justice and emotional exhaustion has become weaker when more

CWBs were engaged, which empirically suggested that CWB can function as an effective

emotion-coping approach. The positive relationship between negative affect and CWB is well

documented in the literature. For example, Shockley, Ispas, Rossi, and Levine's (2012) meta-analysis found that negative affect was positively related to CWB and that seven discrete negative emotions (i.e., anxiety, frustration, anger, sadness, hostility, envy, and guilt) were positively related to CWB.

CWBs are voluntary acts that intent to harm organizations or individuals. Although conceptually CWB and instigated incivility represent two distinct constructs, empirically it is difficult to distinguish between mild forms of CWB and instigated incivility. CWB covers a wide range of mild deviant behaviors that often overlap with acts of instigated incivility (Andersson & Pearson, 1999). For instance, when the intent to harm is unclear, gossiping about coworkers can be classified as both CWB and instigated incivility. As a result, instigated incivility is usually considered by researchers to be a subset of CWB (e.g., Meier & Semmer, 2013). Since negative affect is positively related to CWB, it may also be positively related to instigated incivility. Ghosh, Dierkes, and Falletta (2011) found empirical support for the negative affect as an antecedent of instigated incivility. Roberts (2012) applied the stress-emotion model to incivility and showed that both the general negative affect and frustration as a discrete negative emotion were positively related to instigated incivility. Therefore, based on the stress-emotion model and empirical evidence, I hypothesize the following:

Hypothesis 3: Negative affect is positively related to instigated incivility.

Taken together, the emotion-stress model places negative emotions as a key mediating variable in understanding how stressors influence CWBs. In a similar manner, experienced incivility may indirectly affect instigated incivility due to heightened negative affect. Combining the aforementioned two hypotheses, I propose that negative affect partially mediates the relationship between experienced incivility and instigated incivility. Incivility targets are more

likely to experience negative affect. When feeling higher levels of negative affect, employees may instigate incivility as a way of coping with the negative emotional state. The mediating role of negative affect is also consistent with the incivility spiral (Andersson & Pearson, 1999). The incivility spiral proposes that after experiencing incivility, the targets may perceive a loss of interactional injustice, which induces negative affect and then prompts the desire for revenge manifested as the enactment of incivility or some other form of aggression. Although the incivility spiral relies on the social exchange perspective and construes instigated incivility as a way of retaliation whereas the stress-emotion model considers instigated incivility as a mild form of CWB and places instigated incivility as a result of the emotional reaction, the two distinct perspectives both explain why negative affect may mediate the relationship between experienced incivility and instigated incivility. Hence, I propose:

Hypothesis 4: Negative affect partially mediates the relationship between experienced incivility and instigated incivility.

<div align="center">The Resource-Based Pathway: The Role of Rumination and Fatigue</div>

As mentioned in the beginning, Rosen et al. (2016) applied the resource perspective to explain why experienced incivility begets instigated incivility. They maintained that individuals who experienced incivility would have less self-regulatory resources because they have consumed the resources to make sense of the intent behind the incivility and formulate reactions to the incivility. However, the crucial postulation that self-regulatory resources are depleted in order to understand intentions of incivility and compose reactions to incivility has never been directly tested. Therefore, to expand on Rosen et al., (2016) and provide a more comprehensive picture of the resource-based pathway, I would directly test this missing link and argue that rumination is a more proximal result of experienced incivility compared to diminished self-

regulatory resources. Therefore, in the following paragraphs, I introduced the theoretical framework of rumination—the perseverative cognition model and explained why rumination may be a more proximal response to experienced incivility.

Perseverative Cognition Model

The perseverative cognition model posits that some stressors may trigger individuals to repeatedly contemplate the negative experiences or incidents associated with stressors habitually, which will cause a prolonged negative influence on both physical and psychological well-being. The chronic activation of thoughts associated with stressors, even when they are absent in the environment, is referred to as perseverative cognition (Brosschot, Pieper, & Thayer, 2005; Brosschot, Gerin, & Thay, 2006). The perseverative cognition model emphasizes the dynamics of time, an element often overlooked in most contemporary stress theories. For example, the transactional stress model (Lazarus & Folkman, 1984) states that individuals will choose between emotion-focused strategies and problem-focused strategies to cope with a stressor once it has been appraised as threatening. However, the reality is usually more nuanced. After encountering a stressor, employees may first take some time to think about what specific coping strategy to use, or they might switch between different coping strategies before finally settling on a certain set of coping behaviors. During the time period when individuals are unsure about the best coping strategies to adopt, the stressor is still withholding a sustained activation because it keeps individuals' mind preoccupied, even without its actual presence. However, a prolonged period of time spent in pondering is not captured in the transactional stress model or other mainstream stress theories.

Therefore, owing to the lack of emphasis on the time elapsed in mainstream stress stories, the perseverative cognition model was proposed to explain the link between a stressor like

experienced incivility and its prolonged negative impact. Rumination is a specific type of perseverative cognition, which is defined as "a class of conscious thoughts that revolve around a common instrumental theme and that recur in the absence of immediate environmental demands requiring the thoughts" (Martin & Tesser, 1996, p. 7). That is, rumination is a cognitive process characterized by repetitive thoughts and a focus on one's own negative emotions (Mor & Winquist, 2002).

The perseverative cognition model theorizes that the controllability of the stressor (i.e., the extent to which the individual can take actions to mitigate the stressor) plays a central role in determining how likely the stressor may cause rumination (Brosschot, Gerin, & Thay, 2006). The logic behind this argument is relatively simple. When an individual has control over a stressor, he or she can quickly find a way to cope with it, and hence there is no need to spend extra time ruminating about it. The association between the perceived controllability of the stressor and rumination has not been formally tested but there is some evidence showing that stressors characterized by low control are related to high rumination. Vahle-Hinz, Bamberg, Dettmers, Friedrich, and Keller (2014) conducted a daily study of on-call workers whose work schedules were less predictable and who were expected to be available on short notice, finding that workload during the day led to more rumination at night. As another example, Frone (2015) found that high levels of role conflict (e.g., a stressor that employees usually have less control over) has been linked to increased work rumination.

Experienced incivility in the workplace is often considered a type of social stressor, given that it typically evokes negative emotional responses (Porath & Pearson, 2012; Zhou, Yan, Che, & Meier, 2015). This is consistent with the definition of a stressor (Spector, 1998). In addition, targets of incivility rarely have control over the experience of uncivil behaviors, as they are the

passive recipients of an instigator's negative behavior. Based on the perseverative cognition model, the perceived uncontrollability of incivility may cause people to prolong the cognitive activation of the stressor (Brosschot, Gerin, & Thay, 2006). Thus, I argue that individuals may perceive that they cannot control the occurrence of experienced incivility, and therefore, may have repetitive thoughts about incidents of incivility. Furthermore, since one of the defining characteristics of incivility is ambiguous intent to harm, individuals who have experienced incivility may spend time engaging in repetitive thought processes and trying to either "explain away" the rude behavior (Porath & Erez, 2007) or determine the root cause.

Nevertheless, although the intent to harm of incivility is unclear, there is the possibility that some employees who receive uncivil treatment may be well aware of the intent behind the uncivil acts. Under situations when the intent to harm is not ambiguous, rumination is still a tenable reaction to experienced incivility. Instead of ruminating over the reasons why incivility occurred, employees may ruminate over the negative consequences following the incivility. Incivility is a social stressor (Spector & Jex, 1998) and is related to a variety of unfavorable outcomes (Schilpzand, De Pater, & Erez, 2016), so when employees have experienced incivility and recognized the harmful intent behind it, they may ponder the possible negative consequences of incivility (Robinson & Alloy, 2003). For example, when an employee realizes that a coworker intentionally makes jokes about a mistake in order to damage his or her reputation, the employee may contemplate that the coworker is complaining about his performance and that he is considered incompetent, which may make him less valued by other members of the work group. The employee may also speculate that if the supervisor knows about the jokes, the supervisor may even give him a poor rating in future performance appraisal. The example illustrates that

when employees encounter incivility treatment and are aware of the intent to harm, it is likely

that they still spend time ruminating over the potential harm caused by the uncivil act.

Therefore, regardless whether or not the intent to harm of incivility is clear to the

targeted employees, rumination is a plausible reaction to experienced incivility. Past research has

also shown that experienced incivility is related to increased rumination (Demsky, Fritz,

Hammer, & Black, 2019). Hence, based on the perseverative cognition model and empirical

evidence, I expect a positive relationship between experienced incivility and rumination.

Hypothesis 5: Experienced incivility is positively related to rumination.

Strength Model of Self-Regulation

Developed by Baumeister and colleagues (Baumeister & Heatherton, 1996; Muraven,

Tice, & Baumeister, 1998), the strength model of self-regulation describes a process in which the

self has the capacity (i.e., self-regulatory resources) to alter its own thoughts and behaviors in

order to align with social expectations or to achieve planful goals, but this capacity will wane

over time. The strength model has two main tenets. First, behaviors guided by long-term goals

require the self-regulatory resources to manage the urge to drop the future-oriented behaviors for

instant gratification (Vohs, Baumeister, & Ciarocco, 2005). When a conflict between a goal-

oriented behavior and a predominant urge for immediate pleasure is detected, self-control is

needed to resist the impulse and keep the self on the right course.

Second, another central claim of the strength model is that self-regulatory resources used

to resolve the conflict between the goal-pursuit behavior and the spontaneous urge is limited and

can deteriorate over time if exerted repeatedly. That is, when individuals engage in behaviors

that have expended some self-regulatory resources and do not have enough resources left for the

following goal-directed behavior, this will likely result in a self-regulation impairment, or ego

depletion effect, as coined by Baumeister et al. (1996). Baumeister, Vohs, and Tice (2007) describes that the limited-capacity resources resemble a muscle. The excessive expenditure of the resources is akin to the muscle getting tired and experiencing fatigue. The comparison of ego depletion to fatigue is appropriate because fatigue features a state of extreme tiredness and lack of energy to function properly (Frone & Tidewell, 2015). Hence, literature on the strength model of self-regulation often uses fatigue to express the state of ego depletion (e.g., Schmeichel & Baumeister, 2004).

Based on the strength model of self-regulation, I argue that rumination would mediate the relationship between experienced incivility and fatigue. As mentioned above, the ambiguous intent of incivility may prompt some victims to expend resources to figure out why they have experienced the mistreatment and come up with appropriate reactions (Pauli & Griffin, 2016). For those who may already be aware of the unkind intent, they would probably infer the negative consequences that will follow from the uncivil treatment (Robinson & Alloy, 2003). Both the sensemaking process and the inference process about future consequences are work-related rumination because in order to diagnose the real intention behind the incivility or infer future negative consequences, targets will need to spend time to keep thinking about the incivility incidents. And the rumination will most likely lead to fatigue since self-regulatory resources have been used in the sense making and inference processes of incivility. Previous research has supported a positive relationship between rumination and fatigue. Åkerstedt et al., (2004) found that the inability to stop thinking about work during free time was a strong predictor of fatigue. Querstret and Cropley (2012) also found that individuals who ruminate more often were more likely to experience both chronic and acute fatigue. Hence, I propose a mediation effect in which rumination mediates the relationship between experienced incivility and fatigue.

Hypothesis 6: Rumination mediates the relationship between experienced incivility and fatigue.

Finally, combing the perseverative cognition model and the strength model of self-regulation, I propose the resource-based pathway through which the relationship between experienced incivility and instigated incivility may occur. In other words, experiencing incivility can exaggerate rumination, thereby increasing fatigue, and ultimately increasing the likelihood of perpetrating incivility toward others. As stated previously, employees who have experienced incivility may have more repetitive thoughts about the incivility incidents because they try to make sense of the ambiguous motives behind those acts (Demsky et al., 2019). Engaging in perseverative cognitions will expend the limited self-regulatory resources and result in fatigue, which can be seen as a state of depletion (Schmeichel & Baumeister, 2004). According to the strength model of self-regulation, after exerting self-regulatory resources, the amount of resources available for subsequent regulation of the self is diminished. Hence, without enough resources in their reservoir, people are more prone to perpetrate incivility, given that ruminating about incivility may increase aggressive impulses, and avoiding norm-breaking behavior requires self-control (Hirschi & Gottfredson, 2001).

Therefore, I hypothesize:

Hypothesis 7: Rumination and fatigue serially mediate the relationship between experienced incivility and instigated incivility.

The Moderator Role of Hostile Attribution Bias

Hostile attribution bias (HAB) refers to the general attributional style to see harmful intent in the actions of others (Dodge & Coie, 1987). It is an implicit reasoning that people use when making attributions about the most plausible intent of others' behaviors (Burroughs &

James, 2005). Since a distinguishing feature of incivility is the ambiguous intent to harm, it is possible that targets of incivility may develop different attributions in terms of the cause of the incivility (Andersson & Pearson, 1999). For instance, some individuals who have experienced incivility may attribute it to momentary factors such as an unintentional oversight and they may soon forget about it. But some people may attribute it to more negative motives and may have more intense reactions. Therefore, I argue that hostile attribution bias may augment the influence of experienced incivility. Specifically, I expect that hostile attribution bias would moderate the direct effects of experienced incivility on both negative affect and rumination.

As explained above, experienced incivility tends to elicit negative affect. Based on the stress-emotion model, situations that are appraised as unpleasant or interfering with one's work activity are likely to induce negative affect and experienced incivility as interpersonal conflict can be regarded as unpleasant (Spector & Fox, 2002; Porath & Pearson, 2012). This suggests that factors increasing the likelihood of appraising incivility as more unpleasant or threatening may intensify people's feelings of negative affect. Since hostile attribution bias represents a tendency to interpret behaviors as intentionally damaging to the self, targets with high hostile attribution bias may be more likely to perceive the uncivil behaviors they have experienced coming from others' harmful intention. Therefore, the targets' negative emotional reactions will be stronger. Zhou et al., (2015) found that when hostile attribution bias was high, daily workplace incivility experience was more positively related to end-of-work negative affect, which provides support for the argument that hostile attribution bias may serve to intensify individuals' negative affect after they experience incivility.

Hypothesis 8: Hostile attribution bias moderates the relationship between experienced incivility and negative affect. The positive relationship between experienced incivility and negative effect is stronger for individuals who have high (vs. low) hostile attribution bias.

Since hostile attribution bias describes an individual's general tendency to identify the causes of events or behaviors, individuals with high levels of hostile attribution bias will tend to attribute negative events or behaviors to factors that are controllable or intentional (Douglas & Martinko, 2001). Conversely, individuals with low hostile attribution bias may identify uncontrollable or unintentional causes for the occurrence of negative events. When employees low in hostile attribution bias experience incivility, they may be more prone to give the perpetrator the benefit of doubt because they may think the rude behaviors are excusable (Wu, Zhang, Chiu, & He, 2014).

As I have hypothesized, experienced incivility would be positively related to rumination because the ambiguous nature and the uncontrollability of incivility may elicit prolonged repetitive thinking about the uncivil incidents. But the severity of the ruminative reaction to workplace incivility may depend on where the incivility targets attribute the cause of the negative events. Since individuals with high levels of hostile attribution bias are more sensitive to interpersonal treatments that violated workplace norms (Judge, Scott, & Ilies, 2006; Hoobler & Brass, 2006), their ruminative thinking toward the uncivil treatment may also be more intense. People with high levels of hostile attribution bias may spend more time dwelling upon the negative events and analyzing the negative incidents' causes and meaning (Wilkowski & Robinson, 2010). On the other hand, People low in hostile attribution bias will label the incivility as excusable and thus be more forgiving of the negative situations. They will spend less time thinking about the incivility or trying to figure out why the perpetrator treat them rudely.

Therefore, I expect the ruminative thinking will be less frequent for people who are low in hostile attribution bias after they experience incivility.

Hypothesis 9: Hostile attribution bias moderates the relationship between experienced incivility and rumination. The positive relationship between experienced incivility and rumination is weaker for individuals who have low (vs. high) hostile attribution bias.

Combining the affect-based and resource-based pathways with the two hypotheses about the moderating effect of hostile attribution bias, I further predict that hostile attribution bias will moderate the mediating processes linking experienced incivility and instigated incivility.

Hypothesis 10: The indirect relationship between experienced incivility and instigated incivility via negative affect is stronger when hostile attribution bias is high than when hostile attribution bias is low.

Hypothesis 11: The indirect relationship between experienced incivility and instigated incivility via rumination and fatigue is weaker when hostile attribution bias is low than when hostile attribution bias is high.

CHAPTER THREE: METHOD

Participants and Procedure

Data for this dissertation project were part of a larger four-wave data collection effort

(IRB number: SEB-18-13926) in which respondents from Amazon's Mechanical Turk (Mturk)

were surveyed longitudinally with a time lag of one month between each wave. Respondents had

to be at least 18 years old, work at least 10 hours per week, reside in the United States, and used

only one Mturk ID and IP address in order to be eligible. To ensure data integrity, three careless

responder items were included ("Please select 'Strongly disagree', "Please select 'Never'", and

"I have been to every country in the world") and respondents who incorrectly answered any one

of them were eliminated from further data analysis. In addition, respondents who have missed

over 20% of survey items were also removed from data analysis.

A total of 588 respondents responded to the first survey and 107 respondents were

removed from the sample because they did not meet the inclusion criteria, resulting in a valid

sample of 481 respondents to start with. At the second wave, 436 matched responses were

received but 55 respondents were removed from the sample because they did not meet the

inclusion criteria, resulting in a valid matched sample of 318 respondents. At the third wave, 313

matched responses were received but 14 respondents were removed because they did not meet

the inclusion criteria, resulting in a matched sample of 299. At the last wave, 253 matched

responses were received but 16 respondents were removed because they failed to meet the

inclusion criteria. Therefore, across all four time waves, a valid sample of 237 respondents was

retained.

However, although four waves of data were collected, only the last three waves were

utilized in the study based on theoretical and practical considerations. From a theoretical

standpoint, in order to investigate the resource-based and affect-based pathways concurrently, the same time frame should be used for both pathways. Given that the affect-based pathway has one mediator whereas the resource-based has two serial mediators, it would be more logical to measure both pathways at the same time point. That being said, all three mediators should be measured at the same time. From the practical standpoint, with the counts of valid sample size, the retention rate from the first wave to the second wave of data collection was 66% whereas it was 94% and 80% from the second wave to the third wave and from the third to the fourth, respectively. Given the high attrition rate existed between the first survey and the second survey suggestive of poor data quality in the first wave, I hence dropped the first wave of data from further analysis. Therefore, the other three waves of surveys were referred to as Time 1, Time 2, and Time 3, respectively.

Respondents in the final sample ($n = 237$) were largely white (84%) and male (54%), with an average age of 35.7 years (ranging from 21 to 71 years) and an average organizational tenure of 6.3 years (ranging from 0.5 to 41.4 years). On average, respondents worked 40 hours (ranging from 10 to 61 hours). 37% respondents were married and 54% respondents had at least Bachelor's degree.

<div align="center">Measures</div>

Experienced Incivility

Experienced incivility was measured at Time 1 using four items (Crobach's $\alpha = .86$) from the Workplace Incivility Scale (WIS) developed by Cortina, Magley, Williams, and Langhout (2001). Participants were asked to indicate how often they have been subjected to the uncivil acts over the last month on a response scale ranging from 1 "Never" to 5" Extremely often". A sample statement is "Paid little attention to your statements or show little interest in your

opinion." Scores were calculated by averaging the responses on four items, such that higher score indicated experiencing more frequent incivility within last month.

Hostile Attribution Bias

Since hostile attribution bias tends to remain stable over a long period of time (Dodge & Coie, 1987), it was measured at Time 1. Bal and O'Brien's (2010) seven-item Hostile Attributional Style Short Form was used to assess hostile attribution bias (Crobach's α = .84). Each item was rated on a five-point Likert-type scale, ranging from 1 "Strongly disagree" to 5 "Strongly agree". An example item is "If people are laughing at work, I think they are laughing at me." An overall score was created by averaging all seven items such that higher score indicated stronger hostile attribution bias.

Negative Affect

Negative affect was measured at Time 2 using 10 negative emotion items (Crobach's α = .90) from the Job-related Affective Well-Being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). Participants were asked to reflect their job-related negative emotional states in the past month. An example negative emotion item is "My job made me feel anxious". Each item was rated on a five-point response scale ranging from 1 "Never" to 5 "Extremely often". The negative affect score was obtained by averaging them.

Rumination

Rumination was measured at Time 2 using three items (Crobach's α = .89) from the Irritation Scale developed by Mohr, Müller, Rigotti, Aycan, and Tschan (2006). Respondents were asked to indicate their agreement (1= Strong disagree; 5 = Strongly agree) with statements such as "Even at home I often think of my problems at work." over the past month. An overall

score was created by averaging all three items such that higher score reflected higher likelihood of rumination.

Fatigue

At time 2, fatigue was measured using the Three-Dimensional Work Fatigue Inventory (3D-WFI) developed by Frone and Tidwell (2015) that comprised of three subscales: physical fatigue, mental fatigue, and emotional fatigue. Since the conceptualization of the mental fatigue was more closely related to the resource-based framework, I used three items of the mental fatigue subscale (Crobach's α = .97) that exhibited the highest factor loadings in Frone and Tidwell (2015) in this study. Respondents were asked to indicate how often within the past month that they have experienced extreme mental tiredness at the end of the workday. An example item is "Feel mentally drained at the end of the workday." The response options ranged from 1 "Never" to 5 "Extremely often". An overall score was created by averaging all three items such that higher score indicated more likelihood of fatigue.

Instigated Incivility

I measured instigated incivility at Time 3 using the same four items (Crobach's α = .79) that were used to assess experienced incivility, except that the instructions were reworded to reflect instigation instead of experience. Participants were asked to indicate how often they have perpetrate the uncivil acts to their supervisors or coworkers over the past month and the response scale ranged from 1 "Never" to 5" Extremely often". An example statement was "put them down or was condescending to them." An overall score was created by averaging all four items such that higher score reflected that the respondent instigated incivility to a more frequent extent over the previous month.

Control Variables

Demographic Characteristics. Three demographic variables--gender, age, and race were controlled for in the analyses because they have been found to relate to incivility, rumination, or fatigue. Research has shown that females experience more uncivil treatment than males, and that people of color experience more uncivil treatment than Whites (Cortina, Kabat-Farr, Leskinen, Huerta, & Magley, 2013). Older people tend to report less ruminative thinking and less fatigue than younger age groups (Sütterlin, Paap, Babic, Kübler, & Vögele, 2012; Åkerstedt, Fredlund, Gillberg, & Jansson, 2002). Respondents reported gender (0 = male, 1 = female), age (years), and race (0 = White, 1 = Non-White).

Job Demands. Job demands are aspects of the job that require sustained mental efforts and may lead to job strain (de Jonge & Dormann, 2003). When job demands are excessive, employees may be more likely to have repetitive thoughts about work issues during off-work hours and also experience more fatigue (Kinnunen et al., 2017; Van Yperen & Hagedoorn, 2003). In order to control for the job demands that may give rise to rumination and fatigue, three types of job demands were used. One was hours worked per week because long working hours is a demanding aspect of the job (Joudrey & Wallace, 2009). Participants reported how many hours they work on an average week. The second measure of job demands was the five-item Quantitative Workload Inventory (Spector & Jex, 1998) which measures the degree to which employees have to work very hard and very fast. An example item is "How often does your job require you to work very fast". A five-point Likert scale with response options ranging from "Never" to "Extremely often" was used.

The third way job demands were operationalized was with a measure using the Occupational Information Network (O*NET 24.0; U.S. Department of Labor, 2019). Since

respondents reported their job title an industry in which they worked, the information was used to match job titles to the closest occupation in the O*NET database.

Six undergraduate research assistants who were naive to the study hypotheses and whose first language is English independently matched self-reported occupations with the closest matching O*NET occupations. Due to the ambiguity of some of the job titles, I considered it an appropriate match if a self-report job title was coded to the same O*NET occupation by three or more research assistants. For the self-reported job titles that cannot be agreed upon by half of the research assistants, I made the final decision to choose the closest O*NET occupations. Of the 226 participants, 198 self-reported job titles had the majority agreement from the research assistants. The inter-rater reliability among the six research assistants was modest (Fleiss's $k =$ 0.14). The relatively small inter-rater reliability is understandable because participants could not provide more information for more accurate O*NET occupation matching.

After all self-reported job titles were matched with the closest O*NET occupations, I merged O*NET work context ratings with the O*NET occupations. Following Li, Chen, Tuckey, McLinton, and Dollard's practice (2019), I formed three different scales of job demands (i.e., conflictual contact, time pressure, and irregular work schedules) via the use of five work context descriptors. Conflictual contact includes three work context descriptors. An example is "How often are conflict situations a part of your current job." Time pressure scale has one descriptor which is "How often this job requires the worker to meet strict deadlines." Lastly, irregular work schedules contain one descriptor which is "How irregular are the work schedules for this job". The work context descriptors for conflictual contact and time pressure were rated on a 5-point scale while the irregular work schedules descriptor was on a 3-point scale. Regarding the conflictual contact, the cronbach's alpha for its three work context descriptors was .82 and an

exploratory factor analysis supported a single factor structure. Thus, I used the mean rating of the three descriptors to represent the level of conflictual contact. Higher values of the ratings represent higher levels of conflictual contact, time pressure, and irregular work schedules.

The complete list of measures is presented in Appendix A.

CHAPTER FOUR: RESULTS

Preliminary Analyses

Data Screening and Cleaning

Before testing the major hypotheses, I cleaned and screened data in several steps based on Tabachnick and Fidell's (2007) checklist. First, study variables were inspected for univariate and multivariate outliers. Cases with z scores more than 3.29 ($p < .001$) were treated as potential univariate outliers. In the dataset, nine cases with extreme z scores on one or more study variables were excluded from the analyses. Multivariate outliers were recognized with the use of Mahalanobis distance. Using a conservative probability estimate of $p < .001$, two cases were flagged as multivariate outliers and removed from the analyses. After removal of outlies, the final sample size was 226.

Second, all study variables were screened for normality. The Jarque-Bera test statistics showed that experienced incivility, hostile attribution bias, rumination, negative affect, and instigated incivility were not normally distributed. An examination of the skewness and kurtosis statistics revealed that experienced incivility and instigated incivility were severely positively skewed. In addition, two-sided Mardia multivariate skewness and kurtosis tests (Mardia, 1974) also revealed that testing for both multivariate skewness and kurtosis were statistically significant, suggesting the violation of multivariate normality assumption. However, in order to avoid misinterpreting the model parameters, I decided not to transform non-normal variables because transformation may make model parameters harder to interpret. Therefore, due to the non-normality of the data, the robust maximum likelihood estimator MLR was used in the testing of the measurement model and the main analyses for hypothesis testing.

Attrition Bias Analysis

Given that attrition may bias the results of longitudinal studies (Mack & Waite, 1995), multiple logistic regression analyses (Goodman & Blum, 1997) were conducted to investigate whether completing the last wave of survey can be predicted by the independent variable (i.e, experienced incivility) and demographics (i.e., gender and age). Results showed that experienced incivility ($B = -.57$, $SE = .11$, $p < .01$) significantly predicted participation in the last wave of survey. Participants who responded the last wave of survey reported lower scores on experienced incivility ($M = 1.56$, $SD = 0.79$) than those who completed the first wave but then dropped out from the study ($M = 2.15$, $SD = 1.17$). The result suggests that attrition bias may exist in the study and potentially could have affected the study results.

Hypothesis Testing

The descriptive statistics, reliability estimates, and correlations for all variables are shown in Table 1. As expected, experienced incivility was positively related to instigated incivility ($r = .68$, $p < .01$), rumination ($r = .34$, $p < .01$), and negative affect ($r = .54$, $p < .01$) respectively. Negative affect was positively related to instigated incivility ($r = .43$, $p < .01$). Fatigue was positively related to instigated incivility ($r = .22$, $p < .01$). I conducted hypothesis testing with path analytical methodology using Mplus 7 (Muthen & Muthen, 1998-2012). Given the non-normal distributions of most study variables, the robust MLR estimator was used. I also used Maximum Likelihood estimation with bootstrapping ($N = 1000$) to estimate the 95% confidence intervals (CIs) for the indirect effects. It is worthwhile to mentioned that the methods of estimation did not change the significance or results.

Table 1: Descriptive Statistics, Reliability Estimates, and Correlations between Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	--													
2. Gender	.12	--												
3. Race	-.15*	-.09	--											
4. Quantitative workload	.11	.003	-.05	(.88)										
5. Weekly work hours	.05	-.21**	.002	.12	--									
6. O*NET Conflictual contact	.16*	.18**	-.06	.15*	-.06	(.82)								
7. O*NET Time pressure	.14*	.02	-.04	.11	.17*	.09	--							
8. O*NET Irregular work schedules	.06	-.03	-.05	.09	.06	-.07	-.009	--						
9. Experienced incivility	-.02	-.07	-.11	.31**	.03	.19**	-.01	.15*	(.86)					
10. Hostile attribution bias	-.04	.10	.05	.26**	-.09	.11	-.04	.02	.42**	(.84)				
11. Rumination	.003	-.02	-.05	.43**	.04	.01	-.005	.17*	.34**	.35**	(.89)			
12. Fatigue	.003	.07	.05	.42**	-.04	.05	-.08	.07	.36**	.23**	.55**	(.97)		
13. Negative affect	.001	.006	-.03	.45**	-.03	.14*	-.009	.04	.54**	.36**	.48**	.71**	(.90)	
14. Instigated incivility	-.10	-.11	-.07	.20**	.02	.10	-.03	.004	.68**	.40**	.30**	.22**	.43**	(.79)
M	35.81	1.46	0.17	3.02	39.80	2.52	3.88	1.2	1.46	1.89	2.55	2.87	1.92	1.35
SD	10.22	0.50	0.38	.88	5.53	0.42	0.45	0.18	0.63	0.68	1.10	1.12	0.74	0.52

Note. $N = 226$. *$p < .05$. ** $p < .01$.

Gender is coded as 0 for male and 1 for female.

Race is coded as 0 for White and 1for non-White.

Alpha reliability coefficients are presented in the parentheses.

Experienced incivility and hostile attribution bias were measured at Time 1. Rumination, fatigue, and negative affect were measured at Time 2. Instigated incivility were measured at Time 3.

I adopted Anderson and Gerbing's (1988) two-step approach for hypothesis testing. First, I conducted a confirmatory factor analysis (CFA) to build a six-factor measurement model in order to ensure the adequacy of the measurement model. All items were loaded on their respective constructs and error terms were allowed to correlate within the same construct because of the similar wording in the same measure. Following Hu and Bentler's (1999) recommendation, model fit was inspected by several fit indices including the root mean squared error of approximation (RMSEA), the comparative fit index (CFI), the Tucker-Lewis Index (TLI), and the standardized root mean squared residual (SRMR). If values are smaller than .05 on RMSEA and SRMR or larger than .90 on CFI and TLI, it would indicate that the six-factor structure fit the data quit well. The measurement model produced satisfactory model fit: CFI = 0.91, TLI = 0.90, RMSEA = 0.06, SRMR = 0.07. All item loadings were significant. The original measurement model (i.e., model 1) was compared against several alternative nested measurement models in which items measuring different constructs were loaded on the same factor. Model 2 had all items load on a single latent factor. Model 3 had items measuring rumination and fatigue load on the same factor. Model 4 had items measuring hostile attribution bias, rumination, fatigue load on the same latent factor. Because MLR was used for model estimation and the difference between two nested measurement models do not follow a chi-square distribution, the usual chi-square difference test cannot be used for model comparison. Therefore, I used Satorra-Bentler scaled chi-squared difference test to compare nested models because this test takes into account the scaled difference in chi-square. Table 2 presents results of the model comparisons. Results showed that the six-factor measurement model had a superior fit over the other three alternative measurement models. Therefore, the CFA results supported the distinctiveness of the six study variables.

Table 2: CFA of Original and Alternative Measurement Models

Model	χ^2	df	RMSEA	CFI	TLI	SRMR		Scaled $\Delta \chi^2$	Δdf	p
								Model comparison		
Model 1	719.54	412	.06	.91	.90	.07	--	--	--	--
Model 2	1722.11	427	.12	.63	.60	.14	1 vs. 2	1158.50	15	< .001
Model 3	806.04	417	.06	.90	.88	.08	1 vs. 3	79.05	5	< .001
Model 4	1146.73	421	.09	.79	.77	.13	1 vs. 4	248.01	9	< .001

Note. $N = 226$.

The second step of Anderson and Gerbing's (1988) approach of hypothesis testing is to test the proposed model. In order to test the models, the mean scores of all scales were used as the observed variables. Before running the analyses, all variables except instigated incivility were mean centered to reduce concerns of multicollinearity. Then an interaction term was created by multiplying centered experienced incivility and centered hostile attribution bias. Another interaction term was created by multiplying centered experienced incivility and centered negative affect. Rumination was regressed on experienced incivility, hostile attribution bias, and their interaction term. Negative affect was regressed on experienced incivility, hostile attribution bias, and their interaction term. Fatigue was regressed on rumination. Instigated incivility was regressed on fatigue, experienced incivility, and negative affect. All paths were tested simultaneously. Table 3 shows the path analysis results with control variables included. Table 4 reports the results of direct, indirect, and conditional indirect effects. The depiction of the model is provided in Figure 2.

Table 3: Path Analysis Results

Variable	Negative Affect		Rumination		Fatigue		Instigated Incivility	
	B	SE	B	SE	B	SE	B	SE
Age	.00	.004	-.002	.006			-.004	.003
Gender	.01	.08	-.03	.13			-.05	.05
Race	.08	.11	-.08	.16			-.01	.06
Weekly work hours	-.009	.007	.001	.01			.00	.005
Quantitative workload	.26**	.05	.42**	.08			-.009	.04
O*NET Conflictual contact	-.002	.10	-.22	.19			-.02	.06
O*NET Time pressure	-.05	.08	-.04	.15			-.008	.06
O*NET Irregular work schedules	-.21	.19	.63	.34			-.25*	.13
Experienced Incivility	.57**	.10	.29**	.12			.52**	.08
HAB	.13**	.07	.35**	.10				
Experienced Incivility X HAB	-.23*	.09	-.09	.11				
Negative Affect							.13*	.06
Rumination					.56**	.06		
Fatigue							-.06	.04
R^2	.42**	.06	.29**	.05	.30**	.05	.52**	.07

Note. N = 226. Unstandardized coefficients are reported.
*$p < .05$. ** $p < .01$.
HAB = hostile attribution bias

Table 4: Direct, Indirect, and Conditional Indirect Effects

Effect	Estimate	SE	[95%CI]
Direct Effect			
Experienced Incivility → Instigated Incivility	.52**	.08	[.36, .66]
Indirect Effect			
Experienced Incivility → Negative Affect → Instigated Incivility	.08*	.04	[.009, .16]
Experienced Incivility → Rumination → Fatigue	.16*	.08	[.01, .29]
Experienced Incivility → Rumination → Fatigue → Instigated Incivility	-.009	.007	[-.03, .001]
Conditional Indirect Effect			
Experienced Incivility → Negative Affect → Instigated Incivility			
-1 SD Hostile Attribution Bias	.10*	.05	[.01, .20]
+1 SD Hostile Attribution Bias	.06	.03	[.007, .12]
Experienced Incivility → Rumination → Fatigue → Instigated Incivility			
-1 SD Hostile Attribution Bias	-0.1	.01	[-.04, .001]
+1 SD Hostile Attribution Bias	-0.007	.006	[-.03, .001]

Hostile Attribution Bias

Rumination .56** Fatigue

-.09

-.23*

.29**

-.06

Experienced Incivility

.52**

Instigated Incivility

.57**

Negative Affect

.13*
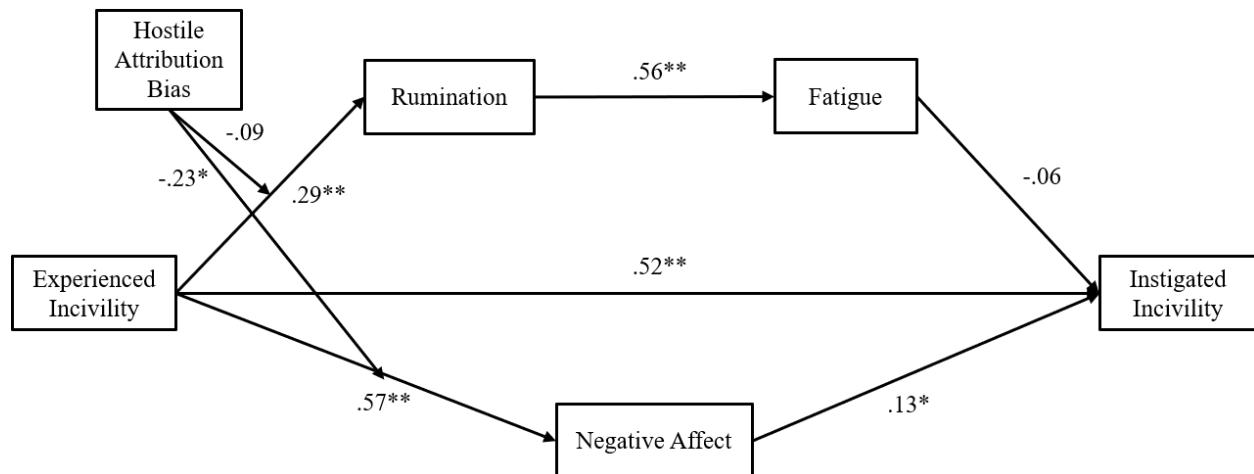
Figure 2: Unstandardized Path Coefficients for the Hypothesized Model
Note. For the purpose of simplicity, the direct effects of control variables are not shown here but can be found in Table 3.
*$p < .05$. ** $p < .01$.

Examining Main Effect Hypotheses

Regarding the effects of experienced incivility, Hypotheses 1, 2, and 5 proposed that experienced incivility would be positively related to instigated incivility, negative affect, and rumination. As shown in Table 3, experienced incivility was positively related to instigated incivility ($B = .52$, $p < .05$), negative affect ($B = .57$, $p < .01$), and rumination ($B = .29$, $p < .01$). Hence, Hypotheses 1, 2, and 5 were supported. Hypothesis 3 suggested that negative affect would be positively related to instigated incivility. As shown in Table 3, negative affect was positively related to instigated incivility ($B = .13$, $p < .05$). Thus Hypothesis 3 was supported.

Examining Moderator Hypotheses

Hypothesis 8 involved the interaction effect of experienced incivility and hostile attribution bias on negative affect. As shown in Table 3, hostile attribution bias significantly moderated the relationship between experienced incivility and negative affect ($B = -.23$, $p < .01$). The interaction pattern was plotted at low (-1 SD) and high (+1 SD) levels of hostile attribution bias. As Figure 2 shows, experienced incivility was more positively related to negative affect

when hostile attribution was low (simple slope = .73, $p < .01$) than when hostile attribution was high (simple slope = .42, $p < .01$). However, Hypothesis 8 suggested that the positive relationship between experienced incivility and negative affect would be stronger for individuals with high hostile attribution bias. Therefore, although the interaction effect was statistically significant, it was in the opposite direction. Hypothesis 8 was therefore not supported.
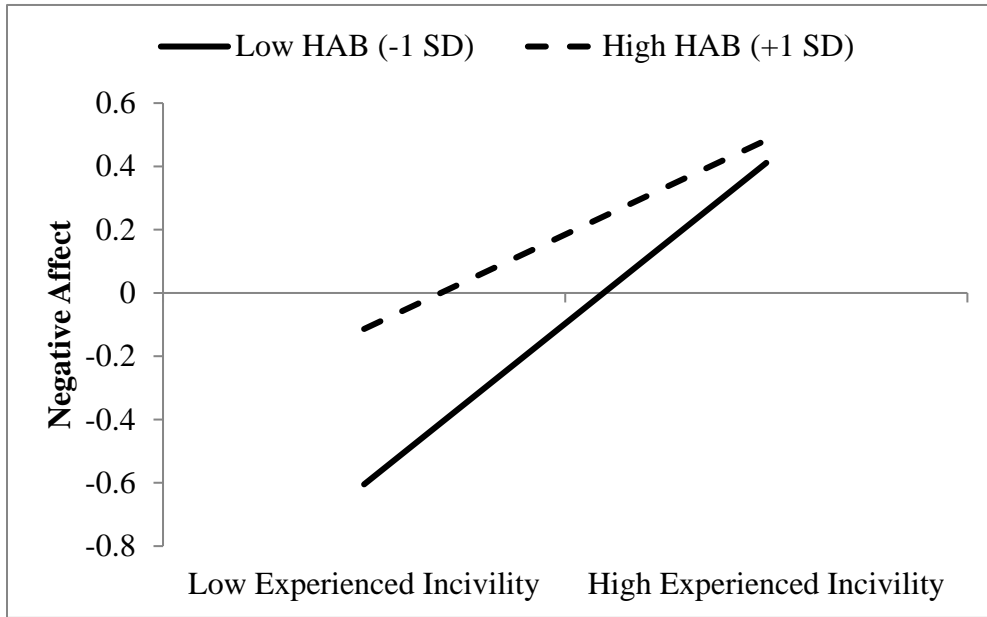
Figure 3: Interaction effect of experienced incivility and HAB on negative affect

Hypothesis 9 stated that hostile attribution bias would moderate the relationship between experienced incivility and rumination. However, as shown in Table 3, the interaction between experienced incivility and hostile attribution bias on rumination was not statistically significant ($B = -.09$, *n.s.*). Therefore, Hypothesis 9 was not supported.

Examining Mediating Relationships

Hypothesis 4 posited that negative affect would partially mediate the relationship between experienced incivility and instigated incivility. This was tested with maximum likelihood bootstrapping with 1,000 replications. The estimate of the indirect effect of

experienced incivility on instigated incivility through negative affect was .08. The 95% CIs were [.01, .16]. Because the 95% CIs did not include zero, Hypothesis 4 was supported. Hypothesis 6 suggested that rumination would mediate the relationship between experienced incivility and fatigue. In support of this hypothesis, rumination mediated the effects between experienced incivility and fatigue with an estimate of indirect effect as .16. The 95% CIs were [.01, .31]. Because the 95% CIs excluded zero, Hypothesis 6 was supported.

Hypothesis 7 predicted that rumination and fatigue would serially mediate the relationship between experienced incivility and instigated incivility. However, the results show that the indirect effect of experienced incivility on instigated incivility via rumination and fatigue was not significant (indirect effect = -.009, 95%CI [-.03, .001]). Therefore, Hypothesis 7 was not supported.

Examining Conditional Indirect Effects

Hypothesis 10 predicted that the indirect relationship between experienced incivility and instigated incivility via negative affect would be moderated by hostile attribution bias, such that the indirect effect would be more positive for employees with high hostile attribution bias. The indirect effects were calculated at low and high levels of hostile attribution bias. As seen in Table 4, the indirect effect of experienced incivility on instigated incivility via negative affect was significant and stronger for low (indirect effect = .10, 95%CI[.01, .20]) as opposed to high hostile attribution bias (indirect effect = .06, 95%CI[.007, .12]). The effects are depicted in Figure 3. Although the indirect effect of experienced incivility on instigated incivility via negative affect was conditional on hostile attribution bias, it was not in the expected direction. Therefore, Hypothesis 10 was not supported.

Hypothesis 11 posited that the indirect effect of experienced incivility on instigated incivility via rumination and fatigue would be moderated by hostile attribution bias. As Table 4 shows, the serial mediation via rumination and fatigue was not significant at either high and lower levels of hostile attribution bias. Thus Hypothesis 11 was not supported.
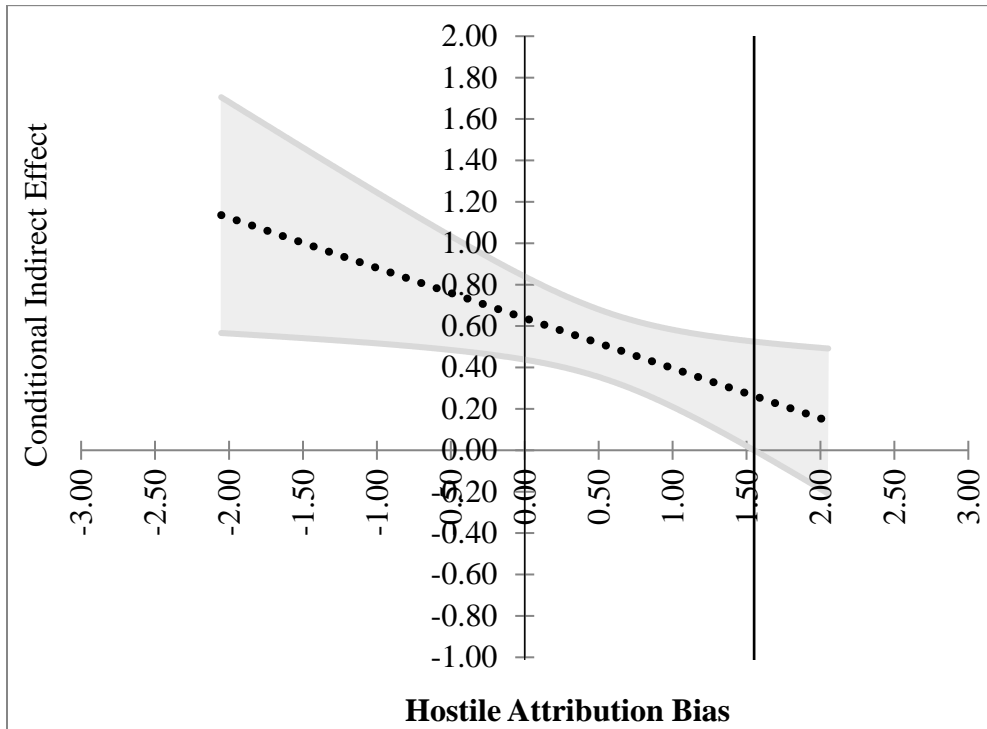
Figure 4: Conditional Indirect effect

<u>Supplementary Analyses</u>

To further examine the results, I performed a number of supplementary analyses. First, as described previously, data for this study came from a four-wave data collection effort but only the last three waves were used for hypothesis testing. In order to investigate the reliability and consistency of the findings, the hypothesized model was tested again using the first three waves of data. Table 5 and Figure 5 present the path analysis results based on the data from the first three waves ($n = 227$). As can be seen, results using the first three waves were essentially

identical to the results using the last three waves reported in Table 3. This supplementary

analysis provides additional support for the study findings.

Table 5: Supplemental Path Analysis Results

Variable	Negative Affect		Rumination		Fatigue		Instigated Incivility	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Age	-.002	.004	-.002	.007			-.003	.003
	(.00)	(.004)	(-.002)	(.006)			(-.004)	(.003)
Gender	-.08	.10	.14	.14			-.06	.06
	(.01)	(.08)	(-.03)	(.13)			(-.05)	(.05)
Race	-.03	.12	.07	.18			-.04	.08
	(.08)	(.11)	(-.08)	(.16)			(-.01)	(.06)
Weekly work hours	-.006	.007	.02	.01			.004	.007
	(-.009)	(.007)	(.001)	(.01)			(.00)	(.005)
Quantitative workload	.21*	.05	.38**	.09			-.05	.05
	(.26**)	(.05)	(.42**)	(.08)			(-.009)	(.04)
O*NET Conflictual contact	.03	.09	-.16	.15			.004	.07
	(-.002)	(.10)	(-.22)	(.19)			(-.02)	(.06)
O*NET Time pressure	.006	.10	.13	.16			.11	.07
	(-.05)	(.08)	(-.04)	(.15)			(-.008)	(.06)
O*NET Irregular work schedules	.05	.20	.29	.36			.24	.18
	(-.21)	(.19)	(63)	(.34)			(-.25*)	(.13)
Experienced Incivility	.51**	.09	.37**	.14			.41**	.08
	(.57**)	(.10)	(.29**)	(.12)			(.52**)	(.08)
HAB	.15**	.07	.34**	.11				
	(.13**)	(.07)	(.35**)	(.10)				
Experienced Incivility X HAB	-.19*	.09	-.10	.12				
	(-.23*)	(.09)	(-.09)	(.11)				
Negative Affect							.13*	.06
							(.13*)	(.06)
Rumination					.52**	.06		
					(.56**)	(.06)		
Fatigue							.02	.03
							(-.06)	(.04)
R²	.35**	.06	.26**	.05	.28**	.06	.35**	.06
	(.42**)	(.06)	(.29**)	(.05)	(.30**)	(.05)	(.52**)	(.07)

Note. N = 227. Unstandardized coefficients are reported. Numbers in the parentheses are coefficients reported in Table 3.
*p < .05. ** p < .01.
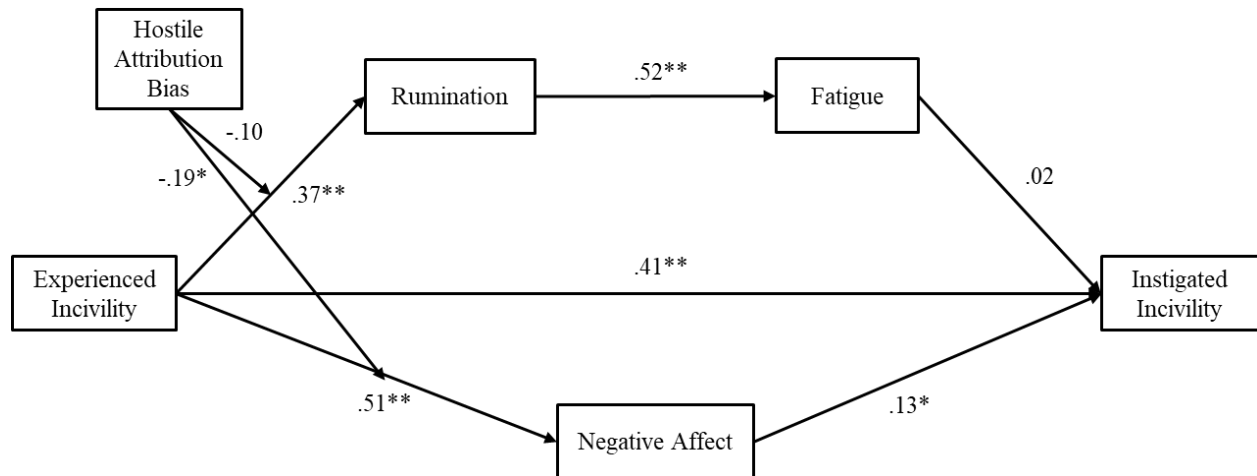HAB = hostile attribution bias

Figure 5: Unstandardized Path Coefficients Using the First Three Waves
Note. For the purpose of simplicity, the direct effects of control variables are not shown here but can be found in Table 5.
*$p < .05$. ** $p < .01$.

Second, since the hypothesis that rumination and fatigue serially mediate the relationship between experienced incivility and instigated incivility was not supported, in order to further probe the resource-based pathway, as well as test Hypotheses 7 and 11, a path from rumination to instigated incivility was added to the model. Figure 6 shows the path coefficients of the new model. Rumination was not significantly related to instigated incivility ($B = .06$, *n.s.*) whereas fatigue had a significant negative effect on instigated incivility ($B = -.08$, $p < .05$). However, even with the new addition, the indirect effect of experienced incivility on instigated incivility via rumination and fatigue was not statistically significant (indirect effect = -.02, 95% CI [-.03, .005]). The conditional indirect effect at either high or low levels of hostile attribution bias was not statistically significant as well. Therefore, both Hypotheses 7 and 11 involving the resource-based pathway were still not supported after the path from rumination to fatigue was added.
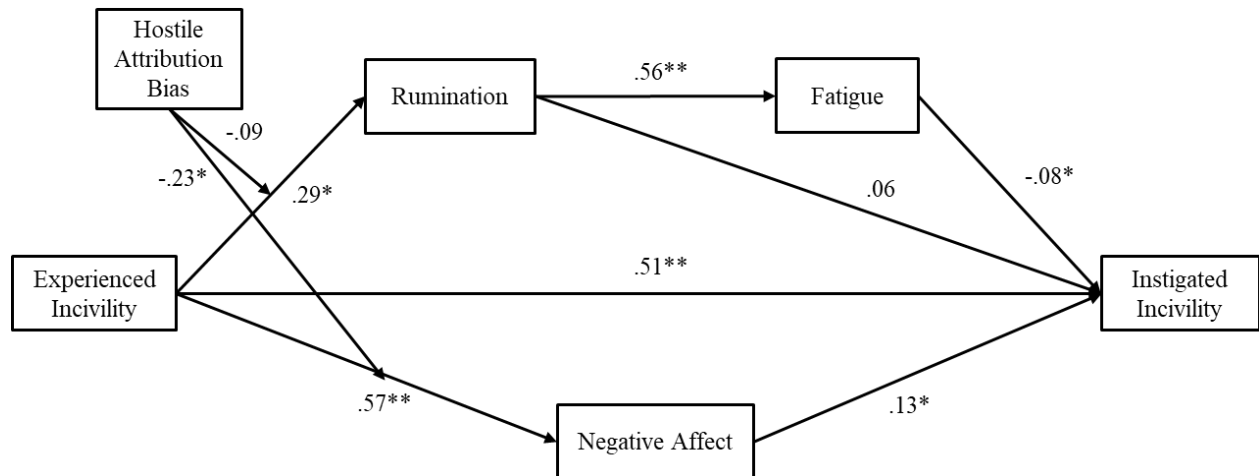
Figure 6: Unstandardized Path Coefficients with Additional Path from Rumination to Instigated incivility

Note. The results were similar with and without control variables. Therefore, for the purpose of simplicity, the effects of control variables are not shown here.

*p < .05. ** p < .01.

CHAPTER FIVE: DISCUSSION

Considerable research has been devoted to workplace incivility and the extant evidence suggests that experienced incivility is positively related to instigated incivility. To further understand the relationship between experienced incivility and instigated incivility, I applied the stressor-emotion model of counterproductive work behavior, the perseverative cognitive model, and the strength model of self-regulation to simultaneously examine two pathways underlying the experienced incivility—instigated incivility relationship: the affect-based pathway and the resource-based pathway. I also tested the moderating role of hostile attribution bias on these two pathways.

Using a three-wave longitudinal design, the results supported the main effect hypotheses that experienced incivility was positively related to instigated incivility, negative affect, and rumination and that negative affect was positively related to instigated incivility. The results also supported two mediating hypotheses: negative affect mediated the relationship between experienced incivility and instigated incivility, and rumination mediated the relationship between experienced incivility and fatigue. However, this study did not find support for the hypotheses regarding the moderating role of hostile attribution bias in both affect-based and resource-based pathways. The hypotheses about the serial mediation effect and the two conditional indirect effects were not supported. In the following sections, I discuss my findings and present both implications and limitations.

<u>Main Effects of Experienced Incivility and Negative Affect</u>

The study results showed that experienced incivility was positively related to instigated incivility. This finding supports the idea of moving beyond dyadic exchange when studying the relationship between experienced incivility and instigated incivility. Andersson and Pearson

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(1999) proposed a dyadic interaction between victims and perpetrators of uncivil behaviors in which the targets who have experienced incivility wanted to directly retaliate against the perpetrator with incivility or other forms of aggression. The current study results suggest that employees who have experienced incivility was more likely to engage in uncivil behaviors towards others months later. In other words, instigated incivility may not always occur in the context of dyadic interactions.

Furthermore, it is worthwhile to note that the direct effect of experienced incivility on instigated incivility was strong ($B = -.52$, $p < .01$). This result suggests that there are other reasons beyond the two pathways investigated in this study to explain the relationship between experienced incivility and instigated incivility. For instance, organizational justice may be an additional mechanism that can explain how experienced incivility triggers instigated incivility. Experienced incivility has conceptual overlaps with interactional justice to some degree and is essentially unfair interpersonal treatment (Andersson & Pearson, 1999; Griffin, 2010; Penny & Spector, 2005). Previous research suggests that when employees perceive being treated unfairly, they are more likely to engage in deviant behaviors or counterproductive work behaviors (Aquino, Levis & Bradfield, 1999; Fox, Spector, Miles, 2001). Therefore, experiencing uncivil treatments at workplace may lead to the feeling of unfairness, which may cause employees to respond with instigated incivility. Future research can extend the current study by including the justice perspective.

The finding that experienced incivility was positively related to negative affect supported the prediction of stressor-emotion model that emotions represent the immediate response to stressful situations (Fox, Spector, & Miles, 2001). Experiencing uncivil treatment from coworkers or supervisors was associated with negative emotional reactions. The result that

experienced incivility was positively related to rumination was consistent with the perseverative cognition model. Uncivil treatment is a stressor with ambiguous intent to harm, and targets of incivility have low control over. Based on the perseverative cognition model (Brosschot, Gerin, & Thay, 2006), the perceived uncontrollability and ambiguity may cause targets of incivility to have ruminative thoughts. Regarding the main effect of negative affect, results indicated that negative affect was positively related to instigated incivility. This supports prior studies which have shown about negative affect's connection to deviant acts (e.g., Ghosh, Dierkes, & Felletta, 2011; Roberts, 2012).

<div align="center">Mediation of Negative Affect and Serial Mediation of Rumination and Fatigue</div>

The current study tested two concurrent pathways that may explain why experienced incivility would trigger instigated incivility. Support was found for the affect-based pathway in which negative affect partially mediated the relationship between experienced incivility and instigated incivility. This result was in line with the stressor-emotion model of counterproductive work behavior and past empirical research. However, while controlling for the affect-based pathway, support was not found for the resource-based pathway in which rumination and fatigue were proposed to serially mediate the relationship between experienced incivility and instigated incivility.

In the resource-based pathway, rumination was found to mediate the relationship between experienced incivility and fatigue. Employees who had experienced more incivility were more likely to engage in ruminate thoughts, which was then associated with high levels of fatigue. However, the path from fatigue to instigated incivility was not statistically significant, indicating that individuals who experienced fatigue due to the sustained exposure of incivility were not more inclined to treat others rudely. The non-significant result is counter to Rosen et al., (2016)

in which the study revealed that diminished attentional resources at the end of the morning increased enacted incivility at the end of the workday. I raise two possible explanations for the failure to support the resource-based pathway in this study. First, the measurement window of one month may have been too long to capture the effect of fatigue. Most studies that found support for the positive effect of diminished self-control on the instigation of incivility or other relevant interpersonal deviant behaviors conducted research at the daily level (e.g., Rosen et al., 2016; Meier & Gross, 2015) or in a laboratory environment (e.g., DeWall, Baumeister, Stillman, & Gailliot, 2007; Bazzy & Woehr, 2017). When the duration between measurement windows is long, employees have time to engage in activities that can help them recover from fatigue and exhaustion and replenish the self-regulation reservoir (Sonnentag, 2001), so that employees have sufficient self-control to inhibit uncivil behaviors. That being said, although the current study did not support the resource-based pathway, it is still possible that the resource-based pathway is a viable mechanism linking experienced and instigated incivility. More specifically, both pathways may be viable explanations, but they may operate on different timelines. The resource-based mechanism is more applicable when the response of ego depletion can be measured immediately or on a daily basis. Because the present study used a 30 day time frame, the effects of fatigue could not be captured.

Another reason for the non-significant relationship between fatigue and instigated incivility pertains to the assumed cause of incivility instigation. Some established research on self-regulation argues that people are less capable of maintaining normative behavior when their self-regulatory resources are running low (Johnson, Lin, & Lee, 2018; Thau & Mitchell, 2010). Since incivility refers to behaviors that violate "workplace norms for mutual respect" (page 1999; Andersson & Pearson, 1999), individuals who have diminished self-control or experienced

fatigue should be more likely to perform incivility. Therefore, following from the self-regulation argument, it could be inferred that maintaining a civil workplace and not treating colleagues rudely requires the commitment of attentional resources and that the cause of incivility instigation is insufficient self-regulatory resources.

However, the non-significant result in the current study did not support this corollary and casts doubt on the cause of incivility instigation to be inadequate self-control. Given that the current study produced a conflicting finding, an interesting question is then raised—does it take self-regulatory resources to be civil and polite in the workplace? Laboratory studies have been conducted with respect to the relationship between ego depletion and constructs like aggression or unethical behaviors. For example, DeWall, Baumeister, Stillman, and Gailliot (2007) found that participants in the depletion condition were more likely to administer higher quantities of hot source or blast louder white noises (both were measures of aggression). Gino, Schweitzer, Mead, and Ariely (2011) found that participants in the depletion condition were more likely to overstate their performance on the problem-solving task (i.e., cheating). However, to my knowledge no research so far has investigated the relationship between ego depletion and incivility instigation in laboratory settings. In light of this, it will be helpful if future research can conduct laboratory studies to test of causal influence of ego depletion on incivility instigation.

Moderating Effects of Hostile Attribution Bias

Two hypotheses were proposed regarding the moderating effects of hostile attribution bias. I argued that hostile attribution bias would moderate the relationship between experienced incivility and negative affect and the relationship between experienced incivility and rumination, respectively. An interesting finding was that although hostile attribution bias did moderate the experienced incivility—negative affect relationship, the direction was opposite of what was

expected. I hypothesized that the positively relationship between experienced incivility and negative affect would be stronger for individuals with high hostile attribution bias, but the results showed that the relation between experienced incivility and negative affect was actually weaker among employees with high hostile attribution bias.

One explanation for this finding is that individuals with a high level of hostile attribution bias are more predisposed to experience negative affect regardless of the severity of uncivil encounters. This argument is consistent with Smith and Lazarus's (1990) attribution-based model of emotion that suggests "appraisal to be a sufficient condition of emotion" (page 235). Previous research has also shown that hostile attribution bias and negative affect were positively related. For example, Epps and Kendall (1995) found that regardless of whether the scenario was ambiguous, hostile, or benign, angered individuals viewed the intent of the protagonist in the scenario as more hostile than those who scored lower on angry tendencies. Matthews and Norris (2007) also found that hostility and felt anger were highly related. Participants who had high aggressive tendency reported high levels of both hostile attribution and felt anger in all conditions whereas low-aggressive individuals consistently reported low hostility and felt anger.

As seen in Figure 1, when experienced incivility was low, the mean level of negative affect was notably much greater for individuals with high levels of hostile attribution bias than for those with low levels of hostile attribution bias. As the level of experienced incivility increased, although negative affect increased for people with low levels of hostile attribution bias, the mean for this group was still lower compared to those with high hostile attribution bias. That is, for those high in hostile attribution bias, their emotional reaction (i.e., negative affect) is already intense and couldn't increase much. The moderation of hostile attribution bias in the relationship between experienced incivility and negative affect indicates that individuals with

low hostile attribution bias seem to be more vulnerable to the emotional consequences of uncivil treatments.

Hostile attribution bias was also hypothesized to moderate the relationship between experienced incivility and rumination but this hypothesis did not receive support because the interaction effect of hostile attribution bias was not statistically significant. One possible explanation is the low variability in hostile attribution bias. The descriptive statistics (see Table 1) showed that both mean and standard deviation of hostile attribution bias were quite small ($M = 1.89$, $SD = 0.68$). Such a low variability is understandable since hostile attribution bias is an unfavorably valenced construct and most people prefer to present themselves as likeable (Berry, Page, & Sackett, 2007). Therefore, when respondents engaged in social desirability responding and under-reported their actual hostile attribution level, it may considerably lower the statistical power to detect a significant interaction effect (Cohen, Cohen, West, & Aiken, 2003).

Another possible explanation for the non-significant interaction is the constant reaction of hostile attribution bias. People with high levels of hostile attribution bias may not be sensitive to the alteration of experienced incivility in the workplace. They may always feel interpersonal frustration and dwell upon hostile information despite what is actually happening in their work situation. It is also possible that individuals with low hostile attribution bias may still engage in ruminative thinking after they experience incivility. Although individuals with low levels of hostile attribution bias may find uncivil instances excusable and give perpetrators the benefit of the doubt, they may still attempt to figure out why such interpersonal treatment happens and what is the root cause behind it. Therefore, the positive relationship between experienced incivility and rumination remained the same for employees with either high or low levels of hostile attribution bias.

Theoretical and Practical Implications

The results from the present study make several substantive contributions. First, the present study extends existing incivility literature by connecting two parallel processes underlying the relationship between experienced incivility and instigated incivility. Prior research has mainly focused on the emotional mechanism of incivility (e.g., Lim, Ilies, Koopman, Christoforou, & Arvey, 2018). Although research on the cognitive mechanism of incivility has been on the rise lately (e.g., Rosen et al., 2016), no study so far has combined these two mechanisms together. By simultaneously examining the affective-based and resource-based pathways, I was able to compare these two pathways and found the affect-based pathway to have a stronger effect. Thus, the current study further supported the theoretical proposition made by Fox and Spector that experienced incivility as a type of interpersonal stressor can generate negative affective reactions, which then in turn motivates individuals to instigate counterproductive work behavior such as incivility.

Second, this study extends the existing incivility literature by broadening the view of incivility instigation beyond dyadic interactions. Andersson and Pearson (1999) proposed that employees who have experienced uncivil treatment may engage in uncivil behaviors as a results of retaliation. This viewpoint implies a dyadic exchange of incivility between the perpetrator and the target. In this study, no distinction was made between a specific dyadic interaction (i.e., the perpetrator-target pair) or any colleague interaction. When assessing instigated incivility, respondents were asked whether they did any of the uncivil acts to their "supervisors or coworkers". The results showed that employees who have experienced uncivil treatments were more likely to treat other employees rudely, whom could be either the initial wrongdoer or an innocent party. In this sense, anyone in the workplace could be a potential target to uncivil

treatments once there have been incivility incidents occurred before. By broadening the relationship between experienced incivility and instigated incivility to cover dyadic interaction and other general interactions, the study has brought attention to the widespread harm of incivility (Schilpzand, De Pater, & Erez, 2016).

On a relevant note, this study also broadens the temporal view of incivility instigation. Both Meier and Gross (2015) and Rosen et al. (2016) suggests that the effects of experienced incivility are short-lived. In particular, Meier and Gross (2015) found that "experienced incivility was likely to have an effect only when the time lag between the two interactions was shorter than 2.4h". However, the current study employed a monthly measurement interval and found a positive effect of experienced incivility on instigated incivility two months later. Although the findings can't completely dismiss the argument about the short-lived nature of the relationship between experienced incivility and instigated incivility since the within-person variance was not accounted for, it can at least suggest that experienced incivility has a destructive effect longer than what we previously realized, which echoed the view that uncivil behaviors could be contagious and spreading to the whole organizations without prompt attention (Foulk, Woolum, & Erez, 2016).

The finding about the enduring influence of experienced incivility suggests that organizations should try to build an organizational climate that prevents incivility, namely, by promoting a workplace civility (Ottinot, 2008). The current study showed that once employees experienced incivility, there was a high chance that they would become the perpetrators themselves in the future. Therefore, it is critical that organizations implement policies, procedures, and practices to maintain a civil workplace and prevent workplace incivility (Ottinot, 2010). For example, organizations can provide civility interventions to address and emphasize

the respectful way to treat coworkers. Previous research suggests that the civility training programs such as Civility, Respect, and Engagement in the Workplace (CREW) intervention and Respect in the Workplace program have successfully lowered incivility and increased civility perception (e.g., Spence Laschinger, Leiter, Day, Gilin-Oore, & Laschinger, 2012; Smith & Kelloway, 2016).

Last but not least, the current study found that negative affect significantly mediated the relationship between experienced incivility and instigated incivility. The negative affect resulted from the experience of uncivil acts may be more likely to trigger the enactment of uncivil behaviors to others. In order to weaken the effect of negative affect it may be worthwhile for practitioners to pay more attention to emotion-expression strategies. Research has shown that confronting negative emotions and verbally expressing them can lessen the negative feelings and improve subjective well-being (Rimé, 2009). For example, Nils and Rimé's experiment (2012) has found that after participants expressed their negative feelings about a video stimulus, if the listeners can adopt a positive reframing response style (i.e. acknowledge the felt emotions and consider the positive impact that the stimuli can have), the participants' upset level would be significantly lower compared to the condition in which the listeners did not adopt such response style. Similarly, when incivility incidents happen, the organization can consider making effort to acknowledge that any felt negative emotions are completely normal and encourage employees to express them. The organization can also respond via online platforms or in-person meeting that the knowledge of the incivility occurrence will contribute to future prevention of incivility behaviors. By allowing employees to report negative feelings and responding in a positive framing way, the post-sharing anger may get substantially reduced and the likelihood of acting rudely to others may drop.

Limitations and Future Directions

The current study is not without limitations and the findings must be considered carefully in light of these limitations. First, the study used longitudinal data and attrition bias can be a big concern for longitudinal research (Mack & Waite, 1995). As previously mentioned, participants who completed all waves of the survey scored significantly lower on experienced incivility than those who completed only the first wave. Thus respondents with higher levels of experienced incivility dropped out at a faster rate than those with lower level of experienced incivility. Therefore, the attrition contributed to a somewhat conservative model testing. It is possible that the reduced statistical power due to the presence of attrition has swayed the insignificant result of the serial mediation in the resource-based pathway to some extent.

The second limitation is related to the measure of rumination. When developing the hypothesis about the relationship between experienced incivility and rumination, I argued that the ambiguous intent to harm beyond uncivil treatment may prompt employees to have ruminative thoughts about the reasons of why incivility occurred or the negative consequences following uncivil encounters. This kind of rumination is more incivility-related but the rumination scale I employed in the study was designed to measure work-related rumination. The possible discrepancy between what I intended to measure and what I actually measured may pose a threat to the study validity. Nevertheless, although work-related rumination measure was not an accurate operationalization of incivility-related rumination, in reality it may be too subtle to make a distinction between incivility-related rumination and work-related rumination. Employees who ruminate about uncivil encounters may also brood over the general work conditions in order to figure out the reasons and negative consequences of incivility. The strong correlation between experienced incivility and rumination ($r = .34, p < .01$) in this study may

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support the aforementioned contention that employees who have experienced incivility also tent to ruminate about work in general. As an added evidence of justification, Demsky, Fritz, Hammer, and Black (2019) also used a similar scale of work rumination and found that it was significantly positively related with both supervisor incivility and coworker incivility. Therefore, although this study did not use a scale of rumination assessing specific incivility-related events, its threat to study validity should be minimal. The use of work-related rumination measure might actually offer a conservative test of the resource-based pathway, as work-related rumination subsumed incivility-related rumination.

Finally, the results of the present study point to an interesting avenue for future research. The resource-based pathway in the model did not receive empirical support. In particular, fatigue was not significantly related to instigated incivility. It is possible that the measurement gap of one month between fatigue and instigated incivility was too long that although employees felt mentally exhausted, they had time to replenish themselves which gave me enough self-control to refrain from engaging in uncivil behaviors. A promising way to investigate this possibility would be to examine the extent to which employees participate in recovery activities and whether recovery experiences may moderate the relationship between fatigue and instigated incivility.

<div align="center">Conclusion</div>

In summary, using a longitudinal design the current study tested two pathways—affect-based and resource-based to explain the relationship between experienced incivility and instigated incivility, as well as the moderating role of hostile attribution bias. The results supported only the affect-based pathway but not the resource-based one. The study also found surprising results regarding the role of hostile attribution bias. It is hoped that future research

should continue to inspect the cognitive mechanism of incivility and the role of hostile

attribution bias since unexpected results were found.

APPENDIX A: MEASURES

Experienced Incivility

Instruction: During the last month while employed, have you been in a situation where any of your superiors or coworkers:

(1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Quite often, 5 = Extremely often)

1.   Put you down or was condescending to you?

2.   Doubted your judgment on a matter over which you have responsibility?

3.   Paid little attention to your statements or show little interest in your opinion?

4.   Made demeaning or derogatory remarks about you?

Hostile Attribution Bias

(1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree)

Instruction: Please select to which extent you agree with the following:

1.   When coworkers leave me out of social events, it is to hurt my feelings.

2.   If coworkers do not appreciate me enough, it is because they are self-centered.

3.   If coworkers work slowly on a task I assigned them, it is because they do not like me.

4.   If people are laughing at work, I think they are laughing at me.

5.   If coworkers ignore me, it is because they are being rude.

6.   Coworkers deliberately make my job more difficult.

7.   When my things are missing, they have probably been stolen.

Negative Affect

(1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Quite often, 5 = Extremely often)

Instruction: Below are a number of statements that describe different emotions that a job can make a person feel. Please indicate the amount to which any part of your job (e.g., the work, coworkers, supervisor, clients, pay) has made you feel that emotion in the past 30 days. Please check one response for each item that best indicates how often you've experienced each emotion at work over the past 30 days.

1.   My job made me feel angry.

2.   My job made me feel anxious.

3.   My job made me feel bored.

4.   My job made me feel depressed.

5.   My job made me feel discouraged.

6.   My job made me feel disgusted.

7.   My job made me feel fatigued.

8.   My job made me feel frightened.

9.   My job made me feel furious.

10.   My job made me feel gloomy.

Rumination

(1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree)

Instruction: Please select to which extent you agree with the following during the past month:

1.   I have difficulty relaxing after work.

2.   Even at home I often think of my problems at work.

3.   Even on my vacations I think about my problems at work.

Mental Fatigue

(1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Quite often, 5 = Extremely often)

Instruction: During the past month, how often did you…

1.   Feel mentally exhausted at the end of the workday?

2.   Feel mentally worn out at the end of the workday?

3.   Feel mentally drained at the end of the workday?

Instigated Incivility

Instruction: During the last month while employed, have you been in a situation where you did

any of the following to your supervisors or coworkers:

(1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Quite often, 5 = Extremely often)

1.   Put them down or was condescending to them?

2.   Doubted their judgment on a matter over which they have responsibility?

3.   Paid little attention to their statements or show little interest in their opinion?

4.   Made demeaning or derogatory remarks about them?

Job Demands

(1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Quite often, 5 = Extremely often)

1.   How often does your job require you to work very fast?

2.   How often does your job require you to work very hard?

3.   How often does your job leave you with little time to get things done?

4.   How often is there a great deal to be done?

5.   How often do you have to do more work than you can do well?

APPENDIX B: IRB OUTCOME LETTER

NOT HUMAN RESEARCH DETERMINATION

March 17, 2020

Dear Xin Peng:

On 3/17/2020, the IRB reviewed the following protocol:

Type of Review:	Initial Study
Title of Study:	Why experienced incivility triggers instigated incivility: Combining the affect-based and resource-based pathways
Investigator:	Xin Peng
IRB ID:	STUDY00001616
Funding:	None
Grant ID:	None
Documents Reviewed:	• Faculty Advisor Review.pdf, Category: Faculty Research Approval; • Data abstraction form.docx, Category: Survey / Questionnaire; • Dataset.csv, Category: Other; • HRP-250 - FORM - Request for NHSR.docx, Category: IRB Protocol;

The IRB determined that the proposed activity is not research involving human subjects as defined by DHHS and FDA regulations.

IRB review and approval by this organization is not required. 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 activities are research involving human in which the organization is engaged, please submit a new request to the IRB for a determination. You can create a modification by clicking **Create Modification / CR** within the study.

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

Sincerely,

Kamille C. Birkbeck

Kamille Birkbeck
Designated Reviewer

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