Negative Mind Wandering as a Symptom of Incivility: What it Means for Important Workplace Outcomes

by

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Abstract

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The effects of experienced incivility have been explained by a variety of cognitive and emotional mechanisms, but mind wandering may also be responsible for many processes and behaviors associated with incivility due to its ability to make room for resources (ego depletion theory) and remedy attentional conflicts generated by incivility (attentional-conflict theory). This study proposed that three negative dimensions of mind wandering (distressed, ruminating and irrelevant) would mediate the relationship between experienced incivility and various workplace outcomes, including instigated incivility, task performance, organizational citizenship behavior (OCB), and creative problem solving. As part of the study, we also developed and validated the Workplace Mind Wandering Scale, the first multidimensional scale to examine mind wandering in the workplace. One hundred and sixty-four participants from Amazon’s Mechanical Turk completed a cross sectional, self-report survey. Results demonstrated that experienced incivility positively predicted instigated incivility, and negatively predicted task performance. Further, distressing mind wandering and irrelevant mind wandering (but not ruminating mind wandering) both mediated the incivility-performance relationship. Similarly, distressing mind wandering and irrelevant mind wandering (but not ruminating mind wandering) mediated the relationship between experienced incivility and instigated incivility. Lastly, problem focused coping moderated the relationship between incivility and distressing mind wandering such that the positive relationship was stronger for individuals with low problem focused coping. These results suggest that negative mind wandering may be a mechanism through which incivility impacts task performance and instigated incivility. Theoretically, this study provides researchers additional mechanisms towards how incivility can impact targets. Practically, this may provide organizations information for how to select or train employees to mitigate the consequences of both incivility and mind wandering. Lastly, limitations and future directions are discussed.

Keywords: incivility, mind wandering, scale development, performance
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Dedication

This thesis is dedicated to my parents, Angelo and Catherine Belluccia. Thank you for supporting my academic and life pursuits. I love you!
INTRODUCTION

Workplace incivility is conceptualized as a mild form of workplace mistreatment with low intensity (Andersson & Pearson, 1999). Research has indicated that incivility is ubiquitous in the workplace, and its prevalence is only increasing. Pearson and Porath (2013) indicate that 98% of workers that were sampled experienced incivility, and 50% experienced these behaviors at least weekly. Because it is a growing problem and has negative work consequences (i.e., job satisfaction, Giumetti, Saunders, Brunette, DiFrancesco, & Graham, 2016) and non-work consequences (i.e., work-family conflict, Lim & Lee, 2011), incivility has become an area of interest for many researchers. The literature has suggested that incivility may decrease performance (Cho, Bonn, Han, & Lee, 2016; Porath & Erez, 2007; Rafaeli et al., 2012) and increase instigated incivility (Foulk, Woolum, & Erez, 2016; Gallus, Bunk, Matthews, Barnes-Farrell, & Magley, 2014; Rosen, Koopman, Gabriel, & Johnson, 2016). However, less is known about how these effects occur or the boundary conditions under which they operate. To advance our understanding of how incivility affects important employee outcomes, this study aims to examine mind wandering as a potential mechanism in these relationships.

Mind wandering refers to mental content that is task unrelated and stimulus independent (Smallwood, Heim, Riby, & Davies, 2006; Stawarczyk, Majerus, Maj, Van der Linden, & D’Argembeau al., 2011). It has never been empirically connected to incivility; however, theories provide potential explanations for why mind wandering might play a role in processing and reacting to incivility. Research on the ego depletion theory posits that difficult or stressful experiences reduce one’s available attentional resources (Baumeister, Bratslavsky, Muraven, & Tice, 1998, McVay & Kane, 2010; Rosen et al., 2016). Because individuals are motivated to avoid complete exhaustion, they might not allocate all the resources necessary to stay on task. Moreover, the attentional-conflict theory argues that when an individual experiences overload, they will behave in a way that clears room for their limited attention (Logan & Gordon, 2001). Specifically, when incivility becomes too much of a distraction, coping mechanisms such as mind wandering may come into play. Mind wandering after an uncivil event, according to the aforementioned theories, will make room for resources, decrease stress related to the experience and solve attention conflicts.

Additionally, previous studies have observed the content of one’s mind wandering experiences (Poerio, Totterdell, & Miles, 2013; Song & Wang, 2012). Understanding the complex architecture of one’s thoughts at work may help explain the adaptiveness of mind wandering behaviors, as well as the nature of various incivility processes. To gain a more holistic view of incivility and its effects on performance and instigated incivility, the current study explored mind
wandering as a mechanism in the process. Specifically, this study aimed to investigate mind wandering as a mechanism explaining incivility and its effect on workplace outcomes. Further, this study explored the role of coping styles and attachment styles as first stage moderators. This thesis will be separated into six parts: 1) review of relevant constructs in the literature 2) research gap and contributions 3) development of hypotheses 4) methodology 5) results and 6) discussion.

LITERATURE REVIEW

Definition of Incivility

Employees can be negatively affected by mistreatment behaviors in the workplace. One of the mild forms of these behaviors is workplace incivility. According to the formative research by Andersson and Pearson (1999), workplace incivility is “low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect” (p. 457). Uncivil behaviors are characteristically rude and discourteous, displaying a lack of regard for others. Such behaviors could even occur when the perpetrator did not even intend to be uncivil; therefore, incivility is in the eye of the beholder (Porath & Pearson, 2010) and the key is that the target interprets the behavior as uncivil. Because it is low intensity, workplace incivility can be conceptualized as a mild form of workplace non-physical aggression when compared to more high-intensity behaviors, such as bullying and abusive supervision (Hershcovis & Reich, 2015). Some examples of incivility include curt and demeaning emails, shutting someone out of a network or team, speaking condescendingly, withholding information, failing to return a call, and using resources needed by someone else (Porath & Pearson, 2010).

Incivility experiences are very common in the workplace, as 98% of all workers and colleagues that were sampled by Porath and Pearson (2013) had experienced incivility at work, with half of these individuals reporting being treated rudely at least once a week. In a review, Porath and Pearson (2010) deemed incivility as “one of today’s most substantial economic drains on American business” (p. 64). Cortina (2008) claimed incivility as one of five of the most pervasive forms of workplace mistreatment.

Further, incivility has the potential to affect the organization as a whole by being detrimental to those who witness the uncivil event and who recall an instance of incivility (Porath & Erez, 2006). Andersson and Pearson (1999) propose that
incivility might have a spiral effect in the workplace, indicating that incivility may develop into aggressive behaviors of higher intensity. It is important to distinguish incivility from other forms of mistreatment that could have a wide range of consequences. Hershcovis (2011) outlined some of the constructs that fall under the umbrella of workplace aggression, including abusive supervision, bullying, social undermining and interpersonal conflict. More specifically, researchers have attempted to distinguish bullying (Kowalski, Toth, & Morgan, 2018), aggression (Robinson & O’Leary-Kelly, 1996), and abusive supervision (Tepper, 2000). Incivility, while a mild form of mistreatment, is more common to daily life and therefore could be even more impactful. Because of its high prevalence and its ability to affect multiple parties, workplace incivility has drawn many researchers’ attention and a large number of studies have sought to understand its wide range of consequences.

**Consequences of Incivility**

Incivility poses a myriad of consequences that range from being merely troublesome to severe, and hinder various facets of the workplace (Andersson & Pearson, 1999; Leiter, Peck, & Gumuchian, 2015). Schilpzand, Pater, and Erez (2016) conducted a review of incivility literature, which posited that there are four broad categories of outcomes regarding experienced incivility: affective (i.e., emotional labor, emotional exhaustion, depression), attitudinal (i.e., lower commitment and job satisfaction), behavioral (i.e., retaliatory, deviant and counterproductive behaviors) and cognitive (i.e., task related memory recall, perceived fairness). Building off these, we will aim to review some more specific outcomes that are of particular interest to this study. These include performance, instigated incivility, negative affect, and withdrawal. Although reduced performance and instigated incivility have been studied as potential consequences of incivility, researchers do not know much about what mechanisms are responsible for these effects. Of the four consequences of incivility outlined by Schilpzand et al. (2016), cognitive outcomes have received the least attention. We believe that mind wandering, a cognitive outcome, may uncover how incivility affects the other outcomes of interest to this study. Mind wandering will help explain the cognitive processes and mentations of a target following an incivility event, which has been largely overlooked in the incivility literature to date. This is also why we decide to discuss withdrawal and affect as outcomes of incivility, as it will help us understand the role of mind wandering as a response to incivility, since they are both related to mind wandering behaviors (Smallwood et al., 2006; Wing, 2017). Below are key incivility outcomes that are integral for the current study, including performance, instigated incivility, affect and withdrawal.
**Task Performance.** Task performance is referred to as activities that contribute to an organization’s technical core, including the production of materials and services (Borman & Motowidlo, 1993). Rudeness, like other types of mistreatment in the workplace, is negatively related to task performance (Cho et al., 2016; Porath & Erez, 2007; Rafaeli et al., 2012). For example, Porath and Erez (2007) discovered that experiencing an isolated act of rudeness could undermine task performance, and even imagining an act of rudeness could be detrimental. Incivility, often used interchangeably with rudeness, may have a large-scale impact on task performance. Porath and Pearson (2005) surveyed approximately 9,000 managers and employees, and nearly 65% reported their performance decreased as a result of experiencing incivility. A more recent study demonstrated that working memory and complex tasks are significantly affected by incivility (Porath, 2015). Task performance may also be affected by web-based incivility (Giumetti et al., 2013), as well as both witnessed and experienced incivility experiences (Schilpzand et al., 2016).

**Contextual Performance.** Contextual performance is referred to as activities that support the broader environment in which the technical core must function (Borman & Motowidlo, 1993). The effects of incivility on performance span both task performance and contextual performance (Fraser, 2013; Mao, 2017), warranting deeper inspection of the various ways incivility impairs productivity in the workplace. For example, employees’ incivility experiences predicted lower citizenship behavior and higher counterproductive work behavior (Mao, 2017). In one within-subjects study, targets and observers experience similar adverse effects following incivility, including lesser likelihood of OCBs (Fraser, 2013). Conversely, a civil environment serves as a foundation to positive relationships and empathy at work (Pearson, Andersson, & Porath, 2000), and organizations operating under a civil environment will partake in more citizenship behavior (Kabat-Farr & Cortina, 2017).

**Instigated Incivility.** Incivility experiences are ubiquitous to the average workday, thus it is alarming how cyclical these behaviors are, often inciting more incivility (Rosen et al., 2016). Foulk et al. (2016) suggest that incivility may be “contagious” by activating concepts related to rudeness in the target’s mind and carrying over into subsequent encounters with others. In this way, incivility could be caught like the common cold, and it only takes an isolated experience for it to be effective. In addition to instigating more incivility, such experiences could lead to even worse workplace mistreatment. According to Andersson and Pearson (1999), low intensity negative behaviors can “spiral” and ultimately become high intensity negative behaviors. Moreover, the literature has frequently relied on a “trickle down framework”, where the contagious negative behavior is modeled from someone in upper management (Ambrose et al., 2013; Mawritz et al., 2012). Incivility at large is profoundly common in the workplace, and it is especially
contagious in climates that tolerate such behaviors. Gallus and colleagues (2014) discovered that incivility experiences predict incivility perpetration, and that employees are more likely to be uncivil when their organization tolerates rudeness.

**Negative Affect.** A number of studies suggest that incivility is related to negative emotions (Bunk & Magley, 2013; Zhou, Yan, Che, & Meier, 2015). In a qualitative study, Pearson et al. (2001) concluded that nearly every study participant who had been the target of workplace incivility reported experiencing negative emotions after the experience. They described being “‘depressed’, ‘down’, ‘disappointed’, ‘moody’, ‘in a funk’, ‘dissed’, ‘irritated’, ‘in a black cloud’ and ‘hurt’, among other states” (p. 1404). In a quantitative study, while controlling for before-work negative affect, incivility predicts end-of-work negative affect (Zhou et al., 2015). Negative emotion is a common reaction to incivility, which is also linked with self-esteem and withdrawal (Kabat-Farr, Cortina, & Marchiondo, 2017). Moreover, studies have used the affective events theory to argue that emotionality relates incivility to job-related outcomes. For example, in a study on 522 US working adults, Bunk and Magley (2013) identified interindividual differences in cognitive/emotional responding to incivility experiences, and that emotionality plays an important role in linking incivility to work outcomes. Affective mechanisms, meanwhile, explain the relationship between incivility and other constructs, and will be discussed later in this literature review.

**Withdrawal Behaviors.** Previous research has found a positive association between workplace incivility and work withdrawal (Lim, Cortina & Magley, 2008; Pearson & Porath, 2009). Work withdrawal occurs when dissatisfied employees decide to reduce their effort and time spent on their work tasks (Hanisch & Hulin, 1990). Withdrawal can happen in the form of coming to work late, excusing oneself from work, taking longer breaks, or taking sick leave when one are not really sick (Andersson & Pearson, 1999; Cortina et al., 2001). Individuals choose to react to incivility by reducing inputs to the organization or their relationship with the uncivil individual, which can cause disastrous effects in the workplace (Andersson & Pearson, 1999; Pearson, et al., 2000; Reich & Hershcovis, 2015), as employee withdrawal can cause major production and service disruptions for organizations (Loi, Loh, & Hine, 2015).

**Underlying Mechanisms**

Employees experience incivility at a high level (Pearson & Porath, 2013), and even organizations that report that rudeness is not a problem are affected by the broad reach of incivility (Porath & Erez, 2007). Although a myriad of studies have demonstrated that incivility predicts more incivility (Foulk et al., 2016; Gallus et al., 2014; Rosen et al., 2016) and decreased performance in the workplace (Cho et al. 2016; Giumetti, et al., 2016; Porath & Erez, 2007), less is known about how
these processes occur. Nonetheless, some researchers have examined the mechanisms by which incivility begets incivility and impairs performance (Erez et al., 2015; Miner-Rubino & Cortina, 2004; Schilpzand, Leavitt, & Lim, 2016), including affective and cognitive mechanisms. Affective mechanisms refer to the emotions and moods one experiences following an event (Cortina et al., 2001). Meanwhile, cognitive mechanisms refer to the conscious and unconscious activity that occurs in the brain. These theories frequently involve the roles of thought, information, memory, appraisal, and self-regulation (Porath & Erez, 2007).

**Emotional Mechanisms.** A large number of studies suggest that incivility is connected with negative emotions and affect (e.g., Bunk & Magley, 2013; Porath & Erez, 2009; Zhou, Yan, Che, & Meier, 2015), and many of these studies underlie the incivility experience-instigation relationship. For example, studies have investigated emotional labor and emotional exhaustion as mechanisms influencing employee instigated incivility (Sliter, Jex, Woford & McInnerney, 2010; van Jaarsveld, Walker, & Skarlicki, 2010). Negative emotions also explain the relationship between incivility and other mild forms of workplace mistreatment, such as counterproductive work behaviors (Bunk & Magley, 2013). Moreover, other troublesome workplace outcomes occurring at the hands of workplace incivility could be explained by affective mechanisms. Kabat-Farr, Cortina, and Marchiondo (2016) determined that incivility experiences resulted in negative affect and guilt, which were linked to withdrawal as well as decreased empowerment and self-esteem. Incivility may induce affective reactions that have nonwork consequences. One study demonstrated that incivility generates hostile emotions, which in turn predicts instigated hostile behaviors, such as anger and withdrawal behavior at home (Lim, Ilies, Koopman, Christoforou, & Arvey, 2016).

Furthermore, studies have examined the affective mechanisms underlying the incivility-performance relationship. As outlined above, the relationship between incivility and negative emotions has been well documented (Porath & Erez, 2009; Zhou et al., 2015), and negative affect is known to reduce creativity and complex task performance (Burke, Heuer, & Reisberg, 1992; Ellis, Moore, Varner, & Ottaway, 1997; Ellis, Thomas, & Rodriguez, 1984). Emotional labor and emotional exhaustion mechanisms have helped draw the line between incivility experiences and reduced customer service quality (Sliter et al., 2010; van Jaarsveld et al., 2010). Porath and Erez (2009), additionally, demonstrates that negative affect plays a mediating role on rudeness and both creative and task performance. Therefore, the research suggests that incivility may lead to emotions that will decrease performance.

**Cognitive Mechanisms.** The cognitive mechanisms of incivility have received less attention than the affective mechanisms (Rosen et al., 2016), although self-regulation of behavior requires both affective and cognitive processes (Lord,
The literature implies that incivility may result in targets’ instigated incivility due to a variety of cognitive reactions. For example, Foulk and colleagues (2016) demonstrated that rudeness-related concepts, when activated in semantic memory, acted as a mechanism for further instigated rudeness. Based on ego depletion theory, a reduction in attentional resources is another cognitive mechanism that explains how victims of incivility may become instigators (Baumeister et al., 1998; Rosen et al., 2016). Diminished self-control may manifest in impulsive and destructive workplace behaviors (DeWall, Baumeister, Stillman, & Gailliot, 2007; Lin et al., 2016); because incivility is of low intensity and more innocuous, it might not receive “priority” treatment when self-regulating (Rosen et al., 2016). Moreover, cognitive appraisals of incivility experiences could be altered depending on whether incivility is witnessed or experienced. Schilpzand et al. (2016) discovered that targets of incivility experience high levels of rumination, but this effect is mitigated when they witness someone else being treated rudely.

Other studies have explored how incivility takes a toll on performance by way of cognitive processes. Research suggests that incivility may deplete cognitive resources as the target tries to appraise the uncivil event, which hinders cognitive function and performance (Erez et al., 2015; Lim et al., 2008; Lim & Lee, 2011; Porath & Erez, 2007, 2009; Rafaeli et al., 2012). As an example, Porath and Erez (2007) have established that incivility may impair task performance via disruption of memory processes, a fundamental cognitive system. Other mechanisms, such as affective and motivational, did not mediate the incivility-performance relationship. Moreover, working memory mediates the relationship between incivility and creativity performance tasks for those who witnessed or even thought about an uncivil event (Erez et al., 2015). In support of these findings, Bush (2016) established that working memory explains the relationship between incivility and task performance. Performance might also be compromised through the depletion of mental, emotional and social energy (Giumetti et al., 2013).

The discussion surrounding these cognitive mechanisms has typically revolved around working memory, rumination, and other constructs that capture one type of reaction. However, examining the thought content of incivility targets could lend insight into the complexities of these cognitive mechanisms. Mind wandering is different from other cognitive mechanisms such as working memory or resource depletion, in that it captures specific off-task mentations that may explain on-task behaviors. Mind wandering is more similar to cognitive mechanisms such as rumination; however, it casts a wider net of inner dialogue, whereas rumination deals primarily with previous experiences. Mind wandering can take place in the past or future, be positive or negative in content and related or unrelated to daily life (Poerio et al., 2013). Therefore, mind wandering as a cognitive mechanism is uniquely qualified to explain incivility processes. As a
cognitive mechanism, it has yet to be observed in the incivility research, although its role could be imperative for understanding the mentations that play into this process. The research has not examined mind wandering episodes as a type of coping mechanism to deal with uncivil experiences. The next section will introduce mind wandering, and explain its theoretical connection to incivility.

**Mind Wandering**

We often experience our minds wandering away from our activities and into our inner thoughts, fantasies, and feelings. Mind wandering is defined as mental content that is task-unrelated and stimulus-independent (Smallwood et al., 2006; Stawarczyk et al., 2011). Mind wandering is also known as task unrelated thought (TUT) and can be quite variable in content (Allen et al., 2013). These self-generated thoughts are unique insomuch as they are not related to any immediate sensory input, and that they are decoupled from any current task or sensory information (Smallwood, 2013; Smallwood, Obonsawin, & Heim, 2003). That is, mind wandering can be characterized as a form of endogenous thought.

There is no question that mind wandering is ubiquitous in our mental life, as it constitutes approximately one-third to one-half of our waking life (Killingsworth & Gilbert, 2010; Klinger & Cox, 1987); however, it is severely understudied in psychology (Davidson, 2015; Smallwood et al., 2006). Perhaps mind wandering has evaded the literature because of the myriad of constructs that address the same issue but go by a different name, including task-unrelated thought (Smallwood, O’Connor, Sudberry, & Ballantyre, 2004; Smallwood et al., 2003), task unrelated images and thoughts (Giambra, 1995), stimulus-independent thoughts (Teasdale, Segal, & Williams, 1995), mind pops (Kvavilashvili & Mandler, 2004), and zone outs (Schooler, 2002). Each of these lines of research have addressed the basic characteristics of mind wandering, a shift of our attention from a primary task toward internal information such as memories (Smallwood et al., 2003; Smallwood et al., 2004).

The pursuit for understanding the nature and importance of mind wandering largely began when Smallwood (2006) discovered that mind wandering can be integrated into the executive control model, and that mind wandering is a goal driven process because it requires executive components of attention to shift the focus away from the primary task. Mind wandering has since acquired further attention from the scientific community (Allen et al., 2013), as theories and models have been advanced in an effort to address the unique role of mind wandering both our daily lives and in the workplace.
Consequences of Mind Wandering

Mind wandering makes up 30-50% of our waking life (Killingsworth & Gilbert, 2010), and is very common to the daily experience. Because it makes up such a large part of our life, mind wandering has a complicated relationship with well-being and has both costs and benefits. While mind wandering is linked with negative outcomes such as impaired task performance and negative affect (Marchetti, Koster, & De Raedt, 2012; Thomson, Seli, Besner, & Smilek, 2014), it can also enhance creativity and problem solving ability (Baird et al., 2012; Mooneyham & Schooler, 2013). In the following section, these costs and benefits will be articulated.

Negative Consequences

A variety of negative consequences of mind wandering have been reported, many of which are integral to workplace functions. The harmful outcomes of mind wandering include performance, affect and behavior outcomes, and each is described below.

**Performance.** Mind wandering has an effect on a wide range of tasks and activities, such as reading (Feng, D’Mello, & Graesser, 2013; Thomson, Besner, & Smilek, 2013), driving (He Becic, Lee, & McCarley, 2011), and remembering (Riby, Smallwood, & Gunn, 2008). The effects of mind wandering transcend daily life and often contaminate workplace functions. For example, Allen and colleagues (2013) established that under demanding task conditions, task unrelated thought would interfere with task performance. Over time, this relationship is even more pronounced, as mind wandering and performance are tightly coupled over the course of a laboratory task (Thomson et al., 2014). Academic performance also suffers from mind wandering, as quiz scores were significantly lower for mind wanderers, especially among students whose mind wandering was intentional (Wammes, Seli, Cheyne, Boucher, & Smilek, 2016). Moreover, mind wandering, much like incivility, may interfere with working memory and related processes (Levinson, 2016).

**Affect.** Mind wandering has implications for affective states (Carciofo, Du, Song, & Zhang, 2014; Killingsworth, & Gilbert, 2010; Mooneyham & Schooler, 2013; Poerio et al., 2013; Wing, 2017), generally being linked with negative affect. Task-unrelated thought is associated with depression (Giambra & Traynor, 1978; Stawarczyk, Majerus, Van der Linden, & D’Argembeau, 2012), Attention Deficit Hyperactive Disorder (Smallwood et al., 2007; Seli, Carriere, & Smilek, 2015), and Obsessive Compulsive Disorder (Seli, Risko, Purdon, & Smilek, 2017). Moreover, according to Wing (2017), higher levels of mind wandering frequency were related to negative affect across time. Researchers demonstrated that mind wandering
accounts for 17.7% of between person variance in happiness, and it predicts mood five times better than what activity the individual is doing (Killingsworth & Gilbert, 2010). On the other hand, some researchers have suggested that mind wandering itself is not detrimental to well-being (Mooneyham & Schooler, 2013; Welz, Reinhard, Alpers, & Kuehner, 2017), but that negative mind wandering content predicts continued negative affect (Poerio et al., 2013).

**Behavior Outcomes.** Thomson et al. (2014) demonstrated that fluctuations in mind wandering over time predicted fluctuations in behavior in both response time accuracy and in a simple visual task search. A high frequency of mind wandering also accounts for dangerous behaviors on the road, such as risky driving, aggressive driving, and drunk driving (Qu et al., 2015). Meanwhile, unwanted workplace behaviors, such as CWBs, were predicted by self-control, which has been linked with higher mind wandering frequency (Villanueva, 2006). Cognitive fatigue is also related to mind wandering (Saxena, 2013), which has been linked with negative workplace behaviors. Using data on response variance, researchers have been able to determine other key behavior outcomes of mind wandering, including motor-tracking ability (e.g., Kam et al., 2012), reading comprehension (e.g., Dixon & Li, 2013), oculomotor behaviors (e.g., Reichle, Reineberg, & Schooler, 2010), response inhibition (e.g., Smallwood et al., 2007), performance in visual-attention tasks (e.g., Kam, Dao, Stanculescu, Tildesley, & Handy, 2013), fidgeting behaviors (e.g., Seli et al., 2014).

**Positive Consequences**

Given the striking costs of mind wandering, it is hard to imagine that we would engage in such a disruptive activity so often. Some studies conclude that mind wandering does not affect important work outcomes such as performance (Kam & Handy, 2014; Welz et al., 2017), and is not nearly as detrimental as other studies have shown. Allen (2013), meanwhile, posits that while mind wandering impairs performance, achieving a balance between internally and externally oriented thought assists individuals in optimizing their task performance. Therefore, some mind wandering can be useful. The following section reviews the positive consequences of mind wandering behaviors, many of which may be related to workplace functioning. Some benefits of mind wandering as highlighted by extant literature include autobiographical planning (Baird et al., 2012), creative thinking (Godwin et al., 2017), and dishabituation (Schooler et al., 2011), among others. We will focus specifically on creative thinking, which according to research, may also be predicted by incivility (Sharifirad, 2016).

**Creative Thinking.** While some researchers assume that mind wandering is inherently detrimental, studies corroborate a functional, useful side to the phenomenon (Baird, Smallwood, & Schooler, 2011; Baird et al., 2012; Pachai,
Acai, LoGiudice, & Kim, 2016; Mooneyham & Schooler, 2013). The literature has conceptually linked mind wandering with creativity (Godwin et al., 2017; Smallwood & Schooler, 2006). Specifically, Baird et al. (2012) conducted a study that demonstrated the functionality of an “incubation period” (i.e., a 12-min break) during a creative task that required participants to name multiple uses for a common, everyday item. The benefit of the incubation period was greater when participants were giving an undemanding task during the break (Smallwood et al., 2009), as opposed to a demanding task or no task at all. The results were duplicated by later studies (e.g., Sio & Ormerod, 2009; Yamaoka & Yukawa, 2016). This is critical because undemanding tasks induce higher levels of mind wandering (Smallwood et al., 2009). The more participants’ mind wandered during the incubation period, the more creative ideas they came up with; however, this only held up for items that they were previously exposed to. As such, Baird et al. (2011) indicates that the conditions that maximize mind wandering can also be the most conducive to creative problem solving. Realistically, mind wandering might not enhance general levels of creativity, but according to the existing research, it could be helpful for finding new solutions to old problems.

Other Functions. Extant literature corresponds with the idea that mind wandering content is typically related to things we must accomplish in the future (Stawarczyk et al., 2012; Smallwood, Nind, & O’Connor, 2009). The anticipation of one’s future goals is known as autobiographical planning (Mooneyham & Schooler, 2013), and is one of the functional aspects of mind wandering. Mind wandering also allows for attention to be temporarily diverted away from the primary task so that the mind refreshes its capacity for learning new information, known as dishabituation (Schooler et al., 2011). Because mind wandering is considered a mechanism by which dishabituation could occur (Mooneyham & Schooler, 2013; Schooler et al., 2011), it may give the learner the “break” from the primary task that is necessary to keep the mind fresh and ready to acquire new information (Pachai et al., 2016). Moreover, attentional cycling theories posit in that mind wandering affords us the opportunity to switch between streams of thought, enabling us to maintain goal appropriate behaviors for multiple goals at a time (Mooneyham & Schooler 2013). In addition to relieving boredom (Mooneyham & Schooler, 2013; Pachai et al., 2016), mind wandering may have adaptive consequences that can lead to mood improvements (Welz et al., 2017).

Causes of Mind Wandering

While the consequences of mind wandering have been well documented, less is known about the mechanisms that lead to mind wandering experiences (Poerio et al., 2013). Mind wandering could be reactionary (Pachai et al., 2016;
Zhang & Kumada, 2017), or simply trait based and inevitable (Godwin et al., 2017; Vannucci & Chiorri, 2018). Mind wandering could be easily written off as something that happens to people with low attentional resources, and literature confirms that mind wandering is prevalent among individuals with attention deficit disorders (Franklin et al., 2017; Seli et al., 2015). However, there are processes at play that are overlooked, and mind wandering behaviors could occur for a variety of reasons. In the following sections, the precursors of mind wandering behaviors will be articulated.

**Disposition.** Mind wandering experiences tend to occur for some individuals more than others (Godwin et al., 2017; Vannucci & Chiorri, 2018). Perhaps most noticeably, mind wandering is prevalent among individuals with attention deficit disorders (Franklin et al., 2017; Seli et al., 2015), as such individuals have a difficult time sustaining attention to external stimuli (Van et al., 2017). Furthermore, it has been well established that individuals with low working memory capacity (WMC) mind wander significantly more than those with high working memory resources (Kane et al., 2017; Levinson, 2016). In laboratory tasks, low WMC may lead to attention lapses, which indicate that these individuals fail to realize when their thoughts drift away from primary activities (Schooler, 2002). It is important to distinguish that disposition-affected mind wandering varies depending on whether the data was from the lab or from personal life. For example, Kane et al. (2017) examined various personality dimensions and determined that only neuroticism predicted task-unrelated thought in the lab, but only openness predicted task-unrelated thought in daily life. Seli and colleagues (2016) advanced the literature in a study on deliberate and spontaneous mind wandering, in which he determined that the trait and state level scales of mind wandering validated each other, indicating that state level measures may be generalizable to everyday mind wandering experiences. Lastly, affective disposition may be responsible for mind wandering behaviors, as the two have been tightly linked (Carciofo et al., 2014; Killingsworth & Gilbert, 2010; Mooneyham & Schooler, 2013; Poerio et al., 2013; Wing, 2017). There is a resounding consensus in the literature that mind wandering has a trait component, but there may be other factors that influence the frequency of mind wandering.

**Task Characteristics.** The quality and content of certain tasks are likely to affect the likelihood of mind wandering behaviors (Smallwood et al., 2003, 2006). Most notably, Smallwood et al. (2006) discovered that long, relatively simple tasks induce mind wandering behaviors in lab participants. Specifically, mind wandering occurs more frequently in signal-detection and verbal encoding tasks when blocks are of a long duration (1 min) than when they are of a short duration (30 s; Smallwood et al., 2003). The executive resource hypothesis (McVay & Kane, 2010) corroborates Smallwood’s findings, dictating that difficult tasks require considerable controlled processing to meet the task demands and should minimize
mind wandering. Semantic information and integration also affect the rate of mind wandering (Smallwood et al., 2006; Thomson et al., 2014). For example, task focus was lower when semantic information was presented, and task focus also suffered when the stimulus was difficult to integrate (Smallwood et al., 2003). This lends itself to many workplace scenarios; if an experience is difficult to integrate (i.e., a generally nice supervisor is being rude), you will have a more difficult time staying on task. Also, if an individual is working on a project that is dense with semantic information, there may also be less task focus. In one study, mind wandering was more prevalent when the individual was “bad” at the current activity (Kane et al., 2017), and the importance of the activity was independent from mind wandering. Furthermore, in contrast to Smallwood et al. (2006), Chinchanchokchai (2013) details that low perceptual secondary tasks (e.g., doodling, playing a simple computer game) may decrease mind wandering and increase memory for an advertisement, whereas cognitively loaded tasks may decrease memory of the advertisement. This, coupled with other studies detailing the ambiguity of the task’s influence on mind wandering (Feng et al., 2013), suggest that mind wandering behaviors largely depend on the work environment and the type of daily work that occupies one’s time.

**Daily Experiences.** Mind wandering, at its essence, seems like a passive experience, but it is under the influence of our goals (Smallwood et al., 2003) in a way that seems active. Many studies have hinted at mind wandering as a means to actively deal with daily experiences (Pachai et al., 2016; Zhang & Kumada, 2017), either as a means of diversion from stressful experiences (Avery, 2014; Banks & Boals, 2017; Jordano, 2016), or a means cope with or ruminate about other experiences (Schilpzand et al., 2016). Moreover, while certain states are predictive of mind wandering (Poerio et al., 2013; Seli et al., 2016), little research has been done on the reason for these states, and whether workplace activities and experiences are causing mind wandering behaviors. Watzl (2010) argues that the driving states of captured attention- which draws our attention- are conscious and personal-level encounters of salience. Therefore, if our workplace experience does not include a salient object, we may be more prone to mind wander. Accordingly, Kane et al. (2017) demonstrated that mind wandering was more frequent when an individual was bored. This study also established that if an individual was in a stressed state, they would be more prone to mind wandering. This idea was extended by Zhang and Kumada (2017), who determined that a temporal relationship exists between workload and mind wandering, such that individuals experiencing higher workload will increase mind wandering frequency while driving. Other stressful experiences may trigger mind wandering, such as stereotype threat (ST). Jordano (2016) discovered that older adults primed for ST experienced more task related interference than older adults in the control condition. While many of these studies demonstrate a link between mind
wandering and specific stressful experiences, others have failed to replicate these findings (Banks, Tartar, & Welhaf, 2014). Similarly, ruminative behaviors can result from workplace stressors. In one study, experiencing incivility from a team member increased participants’ rumination about the mistreatment (Schilpzand et al., 2016).

**RESEARCH GAPS AND CONTRIBUTIONS**

Although effects of workplace incivility have been explored through the lens of cognitive mechanisms (Giumetti et al., 2013; Lin et al., 2016; Lord et al., 2010), there is still little to say about how incivility affects the thinking patterns and private mentations of targets. Specifically, this study aimed to examine the effect of incivility on performance and instigated incivility via the mind wandering content of the participants. There exist a variety of research gaps that this study hopes to address. Namely, we aimed to advance understanding of how mind wandering content may serve as a mechanism for our two key outcomes of interest (instigated incivility and performance), advance research on workplace mind wandering, and contribute to the understanding of mind wandering dimensionality. Below we will articulate these research gaps and possible contributions of this study.

While incivility is a known predictor of performance (Cho et al., 2016; Giumetti et al., 2016; Porath & Erez, 2007), how this process occurs has been understudied. Without a firm understanding of how incivility affects performance, attempts to mitigate its effects will only resemble a trial and error methodology. Some cognitive mechanisms of incivility, namely working memory (Erez et al., 2015), information recall (Porath & Erez, 2007), and resource depletion (DeWall et al., 2007), have been established as factors driving the incivility-performance relationship. However, these studies have overlooked other mechanisms that drive this relationship from a level of inner dialogue and private mentation. In order to more fully answer the question of how this relationship exists, it is important to examine the individual thoughts - via the mind wandering content - of the incivility targets, and using field data to determine whether these thoughts play a role in the relationship between incivility and performance.

Second, the extant literature illustrates effect of incivility experiences on incivility perpetration (Gallus et al., 2014; Rosen et al., 2016), however, scientists are still trying to understand why it is so cyclical in nature and under what conditions this relationship occurs. A popular theory for explaining how incivility comes to permeate organizations is Andersson and Pearson’s (1999) social interactionist framework, which suggests that incivility begets incivility. While contagion processes (Foulk et al., 2016) and self-control theories (Rosen et al.,
2016) lend themselves to understanding this destructive relationship, the science has failed to examine how incivility affects the thinking patterns of targets. In order to do this, it is pivotal to examine what is happening underneath these cognitive processes. This study aimed to fill this research gap by exploring how our mind wandering episodes may be mediating the relationship between workplace incivility experience and instigated incivility.

Third, mind wandering theories based solely on lab phenomena may be incomplete. Kane and colleagues (2017) discovered that the dispositional causes of lab mind wandering (neuroticism) were different than the causes of daily life mind wandering (openness). Mind wandering in a lab experiment might not reflect the conditions of a real workplace, and the common laboratory measurement for mind wandering (The Sustained Attention Response Task, SART; Robertson, Manly, Andrade, Baddeley, & Yiend, 1997) operationalizes mind wandering as an “everyday attentional failure”. The participant's task is to press a response key as quickly as possible to every digit except “3” (Robertson et al., 1997). The scope of sustained attention in the laboratory studies do not quite capture a mind wandering episode as it might transpire in the workplace, in that it does not take into account the preceding events, work relationships or additional tasks that might also be triggering a lapse in attention. Considering that few mind wandering studies observe field data or have substantial implications for mind wandering at work, a more detailed examination is in order. This study addressed this research gap by conducting a field study on mind wandering in the workplace, and using a validated survey to collect data on real workplace mind wandering behaviors.

Fourth, researchers have not reached any consensus regarding the dimensions of mind wandering. Mind wandering is typically measured in terms of frequency (Carciofo et al., 2014; Stawarczyk, Majerus, & D’Argembeau, 2013), and researchers have suggested that multiple, often competing dimensions of mind wandering exist (Carciofo et al., 2014; Marcussen-Clavertz, Cardena, & Terhune, 2017; Welz et al., 2017). We discovered five studies that examine mind wandering through a multidimensional lens (Lu, Zhu, Ju, & You, 2016; Poerio et al., 2013; Somer, Lehrfeld, Bigelsen, & Jopp, 2016; Song & Wang, 2012; Ye, Song, Zhang, & Wang, 2014), but collect episodic data geared toward daily life (instead of workplace) mind wandering experiences. Three of these studies (Lu et al., 2016; Somer et al., 2016; Ye et al., 2014) ran factor analyses on their respective daily life mind wandering scales. While Lu et al. (2016) determined that there was only one factor that emerged for mind wandering, the scale developed by Ye et al. (2014) determined that there were two temporal dimensions of mind wandering (future oriented and past oriented). The content and context of mind wandering episodes could explain the role of executive processing in mind wandering, and help illuminate the various functions of the listless mind. Moreover, a reliable workplace mind wandering scale has yet to be developed. Poerio et al. (2013) examined the
content of mind wandering, but only one item was used to assess each dimension, compromising reliability. This study introduced the first multidimensional workplace mind wandering scale to be validated (Appendix F), to the researchers’ knowledge. Understanding the complex architecture of one’s thoughts at work may help explain the adaptiveness of mind wandering behaviors, as well as the nature of various incivility processes. The following section will outline the predicted interactions regarding these mind wandering dimensions, as well as the other predicted effects, as part of the hypothesis development.

**DEVELOPMENT OF HYPOTHESES**

**Direct Relationships of Incivility and Outcomes**

The literature has dictated that experienced incivility can often predict instigated incivility (Andersson & Pearson, 1999; Foulk et al., 2016; Rosen et al., 2016; van Jaarsveld et al., 2010). Uncivil behaviors are highly contagious, and could be “caught like the common cold” (Foulk et al., 2016, p. 50). Andersson and Pearson (1999) hypothesized that when individuals perceive rudeness, they generally reciprocate with negative or retaliatory behaviors, and this is especially true within workplace cultures that tolerate rude behaviors like incivility (Gallus et al., 2014). Because incivility is a low-intensity behavior and more innocuous in nature, it might not receive priority treatment when self-regulating and it will be easier for such behaviors to surface (Rosen et al., 2016). This is especially true for individuals low in attentional resources, according to ego depletion theory (Baumeister et al., 1998), as individuals will allocate fewer resources to inhibiting uncivil behaviors. Other cognitive mechanisms such as memory processes (Bush, 2016; Erez et al., 2015) and rumination (Schilpzand et al., 2016) have been cited as conduits to this unique incivility-incivility relationship.

Incivility can be modeled from various individuals in the workplace. The “trickle down framework” of abusive supervision suggests that employees model the rude behavior from higher management, and then they engage in the behaviors themselves (Ambrose, Schminke, & Mayer, 2013). However, employees typically have higher contact with co-workers, clients and customers (Chiaburu & Harrison, 2008), whose rude behaviors may be experienced more frequently and will be highly contagious (Ferguson & Barry, 2011). For example, three quarters of respondents in a Swedish field study reported that they experienced incivility from coworkers, and in this study experienced incivility was the largest predictor of instigated incivility (Torkelson, Holm, & Bäckström, 2016). In the same vein, recent empirical evidence supports the positive relationship between perception of
rudeness and revenge toward the perpetrator (Trudel & Reio, 2011; van Jaarsveld et al., 2010). Ferguson and Barry (2011) posit that uncivil behaviors could be adopted after merely witnessing incivility; however, directly experienced incivility is more contagious on the grounds that it is taken personally, is more salient, and inspires the need for revenge (Rosen et al., 2016). Because the current study uses a field sample to observe direct experiences of incivility, we believe that the conditions are appropriate for replicate previously found effects, and that experienced incivility will in fact be positively associated with instigated incivility.

**H1a: Experienced incivility will positively predict instigated incivility.**

Various deviant behaviors at work have been negatively related to task performance, such as making stereotypes (O’Brien & Crandall, 2003), bullying (Hansen et al., 2006), and rudeness (Porath & Erez, 2007; Rafaeli et al., 2012). Experienced incivility has also been linked with poor performance relating to the task (Giumetti et al., 2013; Porath et al., 2008). Examined in a lab setting, incivility can significantly impair performance (Bush, 2016; Rafaeli et al., 2012; Reich & Herschovis, 2015); however, the field studies emerge as the most revelatory in explaining the incivility-performance relationship (Porath & Pearson, 2005; Rhee, Hur, & Kim, 2017; Welbourne & Sariol, 2017). For example, Porath and Pearson (2005) surveyed approximately 9,000 managers and employees, and nearly 65% reported their performance decreased as a result of experiencing incivility. Cho et al. (2016) echoed these findings in a field study, whereby workplace incivility reduced job service performance, both when experienced from the customer and from the supervisor. Moreover, indirect experiences of incivility may have performance consequences similar to direct experiences of incivility (Andersson & Pearson, 1999; Cortina et al., 2001; Pearson & Porath, 2001). The effect of incivility is so strong that even witnessing, reading about, or imagining incivility could lead to performance decrements (Porath & Erez, 2007, 2009; Reich & Herschovis, 2015). However, evidence suggests that direct incivility (when the participant is the target of incivility), may have a more severe impact on workplace outcomes (Schilpzand et al., 2016). As a direct target of incivility, the experience is more personal and less likely to be missed or ignored (Miner-Rubino & Cortina, 2004). Given the parameters of the current study, we believe that incivility experiences will negatively predict task performance.

**H1b: Experienced incivility will negatively predict task performance.**

Existing research points to the potential of incivility experiences to disrupt extra-role activity that contributes to the organization, such as helping behaviors (Fraser, 2013; Mao, Chang, Johnson, & Sun, 2017) and OCBs, characterized by Organ (1988) as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the
effective functioning of the organization” (p. 4). While incivility and extra-role behavior have been related in the mentioned studies, existing incivility literature paints an incomplete picture of this link. In an examination workplace civility, organizations operating under a civil environment will partake in more citizenship behavior (Kabat-Farr & Cortina, 2017). Thomspen, Carlson, Hunterm, and Whitten, (2016) discovered that incivility, while positively relating to deviance through revenge cognitions, also engaged in covert revenge of reduced OCBs. This reduction in citizenship behavior may be exclusive to instigator-victim relationships, as Fraser (2013) discovered that incivility mitigates the likelihood of OCBs the victim engages in with the instigator. Moreover, incivility hinders employees’ effort to go above and beyond (Sakurai & Jex, 2012), and merely experiencing incivility is enough to reduce citizenship behaviors (Mao et al., 2017). It is important to mention that some of these studies employ vignettes in order to capture participants’ reactions to single episodes of incivility (Boysen, 2012; Fraser, 2013). This could be problematic, considering a single episode may not be strong enough to hinder citizenship behavior. Such an effect is more likely to come via a series of patterned, consistent negative events. Therefore, a measure of incivility frequency (preferably in a field study) would offer participants a wider universe of experiences to draw from, and ultimately lead to a more accurate relationship between incivility and OCBs.

Additionally, while the research on incivility-OCBs has been scant, theory on the cognitive mechanisms involved in incivility suggest that targets employ less effort and are less attentive after such experiences (Giumetti et al., 2013; Porath & Erez, 2007), and might therefore extend less effort towards behaviors such as OCBs. Affective commitment to the job may also be driving this relationship. In a study of matched data from 190 job incumbents and their supervisors, Taylor, Bedeian, and Kluemper (2012) determined that uncivil exchanges in the workplace reduced citizenship behavior, and that this relationship was transmitted through affective commitment. Given the extant literature on the relationship, we believe that experienced incivility will negatively predict the frequency of OCBs.

**H1c: Experienced incivility will negatively predict OCBs.**

The literature has yet inspected incivility as a predictor of creative problem solving. However, incivility may disrupt many processes important for problem solving, such as working memory (Porath et al., 2015), contextual performance (Fraser, 2013) and prosocial behaviors (Sakurai & Jex, 2012). Marquis and Huston (1992) identify that one of the best strategies for complex problem solving is collaboration. Incivility creates interpersonal conflict and therefore mitigates collaboration and, as team performance (Sharifirad, 2016). Meanwhile, the componential theory (Amabile, 1997) suggests that a leader’s behavior may undermine creativity through showing lack of support, decreasing intrinsic
motivation and engendering negative emotions. Immediate supervisors who demonstrate support and value the ideas of their subordinates, conversely, will positively influence subordinates’ creativity. Moreover, incivility increases negative affect (Bunk & Magley, 2013; Zhou et al., 2015), which is important predictor of subsequent motivation (Ilies & Judge, 2005). Negative affect also decreases intrinsic motivation (Hur, Moon, & Jun, 2016), which is a key ingredient for creativity and will increase one’s chances of having creative ideas (Boggiano, Ruble & Pittman, 1982; Utman, 1997). Accordingly, intrinsic motivation mediates the relationship between incivility and creativity (Hur et al., 2016), and Sharifirad (2016) demonstrates that incivility decreases knowledge sharing between team members, thereby reducing creative performance. Given the literature on the relationship, we believe that experienced incivility will negatively predict creative problem solving.

H1d: Experienced incivility will negatively predict creative problem solving

Cognitive Mechanisms

Among the mechanisms explaining incivility, cognitive mechanisms have received less attention than others (Rosen et al., 2016). However, cognition perhaps plays an integral role in the incivility experience. One study determined that cognitive mechanisms mediated the relationship between incivility and important workplace outcomes while motivational and emotional mechanisms did not (Porath & Erez, 2007). Mind wandering, which is often triggered from environmental and mental cues (Smeekens, 2013), has never been observed as a consequence of incivility, although existing theories allude to the conceivability of this reaction. These theories elucidate the dynamic link between incivility and cognition, paving the path for incivility research in which the targets’ thought content is observed as a means to understand workplace outcomes.

Ego Depletion Theory. According to the ego depletion theory, people have limited resources (i.e., attention, energy) used to regulate behaviors (Baumeister et al., 1998), and difficult or stressful experiences reduce one’s available attentional resources (McVay & Kane, 2010; Rosen et al., 2016). As such, experiencing incivility may deplete resources as the individual attempts to appraise the uncivil event, which will impair cognitive functioning and cause distraction (Erez et al., 2015; Lazarus & Folkman, 1984; Rafaeli et al., 2012). When facing an uncivil event, an individual may decide to either shut down or use cognitive resources to make sense of the situation, both of which disrupt performance and memory recall (Erez et al., 2015; Porath & Erez, 2007). In fact, the relationship between incivility and information recall has been well established (Farkas, Johnson, Duffett, & Collins, 2002; Rafaeli et al., 2012), and the underlying mechanisms are primarily cognitive.
Because individuals are motivated to avoid complete exhaustion, they might not allocate resources necessary to stay on task (Rosen et al., 2016). In some cases, individuals may fail to inhibit patterns in thinking (i.e., intrusive or task unrelated thoughts). Under the assumption that experiencing incivility decreases attentional resources, victims will be more likely to engage in TUTs and other types of withdrawal behavior as a means to preserve attentional resources (Loi et al., 2015). In Baumeister’s (1998) seminal study on ego depletion theory, participants that were required to utilize self-control in the first task would have fewer resources for the second task, and performance would suffer. Similarly, incivility targets often engage in self-regulatory behaviors - such as inhibiting their own retaliatory behaviors and acting out- and they have less active resources to focus on the current task. Ultimately, attentional resources are required to maintain positive interpersonal relations, which involve repressing certain behaviors and thoughts (Baumeister, Heatherton, & Tice, 1994). The consequent depletion of resources may lead to instant retaliatory behavior (Baumeister & Vohs, 2007; Rosen et al., 2016), but for others it may result in listless thought, or mind wandering behaviors as a means to regenerate the appropriate resources to continue workplace functions.

**Distributed Model Theory.** The distributed model theory asserts that task unrelated thoughts will be directly related to whether a stimulus is difficult or easy to integrate into the conceptual whole (Smallwood et al., 2003). Many processing models (e.g., Faulconnier & Turner, 1998; Kennephol, 1999; Rumelhart, Hinton, & Williams, 1986) favor a paralleled approach that dictates the mental representations are not associated with a single entity but rather distributed across the network as a whole, avoiding the necessity of a central executive (Kennephol, 1999). Specifically, task focus will be higher when the stimulus forms a coherent relationship with the context within which it is embedded (Rumelhart et al., 1986), and there will be less task related activity when the stimulus forms an incoherent relationship with the context. In terms adaptable to the workplace, mind wandering instances may increase when something unexpected or difficult to process occurs in the office. Because incivility is ambiguous and in violation of workplace norms (Montgomery, Kane, & Vance, 2004; Pearson et al., 2005), experiencing it can be difficult to integrate into the conceptual whole of the workplace, and according to the distributed model theory, will lead to a greater amount of task unrelated thoughts.

**Attentional-Conflict Theory.** There is little debate that incivility robs an individual of attention due to the cognitively demanding nature of the experience. It is also a very high profile workplace distraction (Erez et al., 2015). According to the attentional-conflict theory, during periods of attentional overload, an individual will take short cuts to conserve their limited attention (Logan & Gordon, 2001). These short cuts usually come in the form of stereotypes, prior knowledge or experience, or making use of easily located reference materials to finish a given
task. Because attentional conflicts are caused by distractions (i.e., being treated rudely), it is likely that an individual will be thinking of the distracting event even when primed with a separate task. Moreover, Barling, Rogers, and Kelloway (2001) have theorized that experiences of abusive behaviors at work lead to negative mood, cognitive distraction, and fear. Similarly, incivility has the ability to induce inattentional blindness, whereby observers fail to detect unexpected stimuli in the environment (Porath & Erez, 2007). Erez, Porath, and Foulk (2007) conducted studies to observe the various cognitive effects of incivility, and found that incivility severely limits an individual’s attention. For example, one study concluded that targets affected by incivility missed critical information in a visuospatial task, while additionally affecting the attention control functioning on working memory. Erez et al. (2007) also illustrates that incivility disrupts the memory maintenance and attention control functions of working memory. As the aforementioned studies display, incivility is often a major workplace distraction, especially when the individual is directly targeted. Attention control suffers and key information is missed, suggesting the presence of task unrelated thoughts and behaviors such as mind wandering.

Furthermore, the attentional-conflict theory lends itself to action taking: when an individual experiences overload, they will behave in a way that clears room for their limited attention (Logan & Gordon, 2001). Specifically, when incivility becomes too much of a distraction, coping mechanisms may come into play. One such mechanism is withdrawal behavior, such as psychological detachment and absenteeism (Loi et al., 2015; Sliter et al., 2012; Welbourne & Sariol, 2017). The scope of these mechanisms is still being examined, and as research has indicated, there are multiple ways to cope with distracting stimuli (Wright & Cropanzano, 1998). However, literature alludes to the functionality of self-removal when a situation becomes distracting or leads to burnout (Sliter et al., 2012). Activities that remove the individual from the distracting event, such as task unrelated thoughts or mind wandering, may aid in overcoming the event (Baumeister & Vohs, 2007; Sliter et al., 2012; Welbourne & Sariol, 2017).

In summary, three theories demonstrate why mind wandering will occur after experiences of incivility. According to the ego depletion theory, after an uncivil experience, mind wandering will make room for resources. According to the distributed model theory, mind wandering will allow an uncivil experience to integrate into the conceptual whole. According to the attentional-conflict theory, after an uncivil experience, mind wandering will solve attention conflicts. Over the following sections, we will articulate how experienced incivility interacts with various dimensions of mind wandering.
Mind Wandering Dimensions

Self-reported mind wandering is often examined in empirical studies as a measure of “frequency”; however, frequency alone captures a small portion of the mind wandering domain. Mind wandering, in order to be thoroughly addressed as a workplace presence, should be examined across multiple dimensions, especially when considering it as an outcome of divisive workplace experiences such as incivility. Related research lacks substantial support for the notion that incivility experiences impact the thought content of the targets. The effect of incivility is often observed through the lens of personal well-being or organizational impact. However, some studies offer evidence to suggest that incivility may be predictive of different cognitive states (Cortina, Kabat-Farr, Magley, & Nelson, 2017), and therefore different states or dimensions of mind wandering.

As part of a pilot study, we developed a multidimensional scale of mind wandering and conducted a factor analysis, which suggests five distinct dimensions of mind wandering (Belluccia, 2018). These dimensions include distressing mind wandering, related to unpleasant content of one’s mind wandering; planning mind wandering, related to the future-orientation of one’s mind wandering; ruminating mind wandering, related to the past-orientation of one’s mind wandering; comforting mind wandering, related to pleasant content of one’s mind wandering; and irrelevant mind wandering, related to the unimportance and disconnectedness of one’s mind wandering. Incivility, although it has not been connected to mind wandering empirically, is responsible for negative emotions and mentations (Bunk & Magley, 2013; Schilpzand et al., 2016). Because three of these dimensions are negative in valence (distressing mind wandering, ruminating mind wandering and irrelevant mind wandering), the following section focuses on the three negative mind wandering dimensions, and argues the hypothesized effects of incivility on these three types of mind wandering.

Experienced Incivility and Mind Wandering

While incivility predicts psychological withdrawal (Deery, Iverson, & Walsh, 2002; Schilpzand et al., 2016), less is known about the nature of this withdrawal. Whether one is emotionally impacted by the experience, or simply mind wandering to deploy their attention (with no particular emotional state), is outside the realm of current research. Although task unrelated thought is somewhat of a black box as it relates to stressful experiences, extant literature does indicate that incivility and negative affect are tightly coupled (Bunk & Magley, 2013; Porath & Erez, 2009; Zhou et al., 2015). The affective outcomes of incivility suggest that targets of mistreatment may be experiencing worrisome, upsetting thoughts. Relatedly, incivility reduces self-efficacy (Ali, Ryan, Lyons, Ehrhart, &
Wessel, 2016; Tuckey & Neall, 2014) and interrupts positive thinking about the self. Because incivility disrupts maintenance of attention control (Erez et al., 2007), these negative thoughts may be unrelated to what the person is actually doing (i.e., thinking about a negative interpersonal experience instead of working) and could increase levels of distress. On its own, mind wandering has major implications for affective states (Carciofo et al., 2014; Mooneyham & Schooler, 2013; Poerio et al., 2013; Wing, 2017). For those with a proclivity to mind wander, the patterns in thinking might already be negative, as mind wandering episodes maintain negative affect across time (Stawaczyk & D’Argembeau, 2013; Wing, 2017), and mind wandering predicts mood five times better than what the person is actually doing (Killingsworth & Gilbert, 2010).

Because this study measures direct incivility as opposed to indirect incivility, the potential for personal harm is much greater as research has demonstrated (Schilpzand et al., 2016), and individuals may suffer distressing emotions under this condition (Porath & Erez, 2009). Moreover, because incivility is low intensity and more innocuous, targets are not likely to confront the behavior in the moment, and may detach from their work in order to confront their negative feelings, or rebuild their emotional resources (Cho et al., 2016). Consistent with this, ignoring or avoiding the instigator of an incivility incident is a common response for those high in neuroticism, and these individuals may be attempting to cope with the stressful occasion (Beattie & Griffin, 2014). According to the attentional-conflict theory, individuals will create shortcuts to deal with attentional conflicts (Logan & Gordon, 2001), such as emotions that stem from incivility experiences. Distressing mind wandering may result as targets of incivility try to remedy these negative attentional conflicts. An association was discovered between frequency of emotion-related thoughts and negative affective recovery following a Sustained Attention Response Task (SART, Robertson et al., 1997), suggesting that emotion related thoughts are an important factor in recovery from a stressful stimulus (Avery, 2014). Because of this, we predict that uncivil experiences will positively predict distressing mind wandering at work.

**H2a: Experienced incivility will positively predict distressing mind wandering**

Stressful events such as incivility are known to cause retroactive thinking and psychological withdrawal (Kabat-Farr et al., 2016; Schilpzand et al., 2016). People faced with stressful conditions during work take a much longer time to relax psychologically and will ruminate about their stressful experiences while away from work (Cropley & Purvis, 2003). Moreover, Schilpzand et al.’s (2016) article illustrates how mistreatment causes withdrawal from the task, as well as rumination as one tries to understand the situation. While many studies have observed rumination in a general sense, this study narrows its focus towards ruminative mind
wandering that happens *during* the workday. It is intuitive to handle a stressful experience in the moment, but often it is not appropriate to halt a task or responsibility to manage the situation. Consequently, targets of stressful incidents like incivility might compromise via ruminative mind wandering, in which they are dealing with the incivility in their own way (thinking retroactively about it), without disrupting the external environment. Importantly, while ruminating and ruminating mind wandering are similar conceptually, ruminating may include thinking that is related to a current stimulus, whereas ruminating mind wandering refers to mental content that is uniquely independent from the stimulus or task.

Because incivility is recognized as a stressor in the stressor-strain model (Bowling & Beehr, 2006), it has a unique ability to impact work-related rumination, a workplace strain. A study by Shapiro (2013) confirmed that stress-reactive rumination mediated the relationship between incivility experiences and performance outcomes. Specifically, those who reported more incivility experiences engaged in more stress-reactive mind wandering, which reduced performance outcomes. For less ambiguous cases of mistreatment, such as bullying and violence, the need to think retroactively to understand the experience is lower. However, because incivility is of ambiguous intent (Andersson & Pearson, 1999), uncivil encounters might result in more ruminative thinking as the target attempts to make sense of what happened (Bayne, 2015). The distributed model theory supports this notion by suggesting mind wandering helps stimuli blend into the conceptual whole (Smallwood et al., 2003), perhaps even stimuli from our past that we have not reconciled with yet. Moreover, an individual who ruminates will possess more self-reflective tendencies (Watkins & Baracaia, 2001; Watkins, 2004), and will likely remember more events as uncivil. Because of this, we predict that uncivil experiences will positively predict ruminating mind wandering at work.

*H2b: Experienced incivility will positively predict ruminating mind wandering*

Targets of incivility may withdrawal from their current task in order to make sense of the stressful event (Bayne, 2015), however, according to the ego depletion theory, expending resources on making sense of the situation could make the target feel worse (Rosen et al., 2016). Likewise, meaning making models of incivility suggest that individuals may think more about the uncivil event in order to appraise it accurately (Marchiondo, 2012), but this may only result in more negative outcomes. Engaging in mind wandering that is disconnected from real events may be the most effective way to replenish one’s resources. Irrelevant thinking, moreover, is related to negative affect (Killingsworth & Gilbert, 2010; Wing, 2017), so individuals may be inclined to disengage from on-task activities.
when introduced with a negative event such as an incivility experience. Dealing with stressful daily experiences often requires that we think about other things, and many studies have hinted that mind wandering could be a vehicle to actively dealing with these daily experiences (Pachai et al., 2016; Zhang & Kumada, 2017). When one is presented with a difficult experience, mind wandering functions as a diversion (Avery, 2014; Banks & Boals, 2017; Jordano, 2016), especially when one’s mentations are unrelated to the uncivil experience. Furthermore, thinking about something completely irrelevant may assist one in incorporating an incivility experience into the context of the workplace and making sense of it, according to the distributed model theory (Smallwood et al., 2003). Because we define irrelevant mind wandering as disconnected and unimportant mental content, we believe that targets will engage in this type of mind wandering after an uncivil event. We hypothesize, specifically, that experienced incivility will positively predict irrelevant mind wandering.

\[ H2c: \text{Experienced incivility will positively predict irrelevant mind wandering} \]

**Task Performance**

The extant literature suggests that mind wandering significantly impacts cognitive functioning, and can mitigate task performance (Allen et al., 2013; Stawarczyk et al., 2016; Wammes et al., 2016). Although this is an established relationship, few studies articulate why it exists, or what type of mind wandering is responsible for low performance outcomes. The content of mind wandering behaviors may play a role separate from other mechanisms that have been obstructing the relationship with performance, such as reading comprehension (Feng, 2013) and memory processes (Riby et al., 2008). Carciofo (2014) asserts that positive affect was moderately and positively related to problem solving daydreams. This suggests that the affective content of one’s mind wandering experiences may have a significant impact on functions important for task performance. Specifically, when one’s mind is preoccupied with distressing thoughts, their performance will suffer (Perini, Abbott, & Rapee, 2006). Mind wandering is negatively linked to both emotion and performance over time (Thomson et al., 2014; Wing, 2017), and when mind wandering persists, low task performance can be expected (Allen et al., 2013; Wammes, 2016). Because of this, we hypothesize that distressing mind wandering will negatively predict task performance.

Although some studies hint at the adaptiveness of rumination for performance (Ciarocco, Vohs, & Baumeister, 2010), the extant literature largely suggests that ruminators exhibit performance deficits (Lyubomirsky, Tucker,
negative biases in recall (Lyubomirsky, Caldwell, & Nolen-Hoeksema, 1998) and cognitive inflexibility (Lyubomirsky & Nolen-Hoeksema, 1995). Likewise, because the focus is on the past, ruminating mind wandering will negatively impact current functions, including performance on the current task. In support of this, ruminators appear to have a proclivity for negative thinking and experience prolonged stress responses and attention lapses, potentially contributing to low performance (Lyubomirsky, 1998; Zoccola, 2010). Further, Ciarocco et al. (2010) discovered that task irrelevant rumination and state focused rumination did not improve performance. Considering the conditions of the current study, in which the rumination being assessed is task unrelated, we expect that the outcome to be consistent with Ciarocco et al. (2010).

According to many executive theories, mind wandering selectively engages specific facets of executive functions (Kam & Handy, 2014; Smallwood & Schooler, 2006), such that mind wandering recruits executive resources away from the external task and towards one’s inner thoughts. The content of these thoughts are often not only unrelated to the task, but unrelated to daily life in general. At this time, the mind may either be listless or nonsensical. Smallwood and Schooler (2006) extrapolate that mind wandering requires executive resources, and that mind wandering reflects executive function rather than an executive failure. Therefore, because it consumes executive resources, in-role performance may decrease when one decides to redirect attention from life matters towards matters unrelated to daily life. Irrelevant thoughts, because they are irrelevant to the successful solution of the criterion task, will undermine task performance (Seibert & Ellis, 1991). Although irrelevant mind wandering is an unexplored area of research, we believe that the effects of the current study will be consistent with the results from research on irrelevant thinking, and we hypothesize that irrelevant mind wandering may negatively affect task performance.

Hypothesis 3: Distressing (a), ruminating (b), and irrelevant (c) mind wandering will negatively predict task performance.

Incivility is a consistent predictor of performance (Cho et al., 2016; Porath & Erez, 2007; Rafaeli et al., 2012); however, the explanatory mechanisms of this relationship have not been fully identified. Negative affect is related to both incivility and performance (Bush, 2016; Cortina, Kabat-Farr, Magley, & Nelson, 2017) and targets’ task performance may be disrupted due to the emotional distress they experience from the incivility experience. Affect, when it takes root in one’s thinking patterns and mentations, could be even more severe. For example, Lim and Tai (2014) discovered that incivility from family members leads to distressed thinking, which ultimately reduces performance while at work. The effects from this study may be even more pronounced for workplace incivility, as there is often activity and obligatory interaction between victim and target that may increase the
possibility of distress. Hur, Kim, and Park (2016) echoed these findings by
determining that emotional exhaustion mediates the relationship between incivility
and job performance. Because of these studies, we hypothesize that distressing
mind wandering will mediate the relationship between experienced incivility and
task performance.

Targets of incivility are inclined to ruminate on uncivil experiences after
they happen (Schilpzand et al., 2016) which will detract from their task focus and
ultimately reduce performance. Research suggests that dysphoric ruminators have
poor problem solving skills (Davis & Nolen-Hoeksema, 2000) and experience
academic performance deficits (Lyubomirsky et al., 1999), so individuals who
attempt to handle incivility via rumination may be too occupied with their own
thoughts to effectively perform. Because incivility is of ambiguous intent
(Andersson & Pearson, 1999), uncivil encounters might result in more ruminative
mind wandering as the target attempts to make sense of the vagueness of the
experience (Bayne, 2015). Importantly, an individual who ruminates will possess
more self-reflective tendencies (Watkins & Baracaia, 2001; Watkins, 2004), and
will likely remember more events as uncivil. Shapiro (2013) echoed findings that
ruminative thinking might explain the incivility-performance relationship. She
asserted that incivility has an indirect effect on task performance through stress
reactive rumination, such that those who reported more incivility experiences also
engaged in more stress-reactive rumination, which reduced performance outcomes.
Therefore, we believe that ruminating mind wandering also underlies the
relationship between incivility experiences and task performance.

The extant literature suggests that psychological withdrawal may affect the
thoughts of incivility targets (Kabat-Farr et al., 2016; Schilpzand et al., 2016). In
analyzing the research that has directly addressed this issue, it was determined that
the cognitive mechanisms underlying the incivility-performance relationship might
need to be expanded to include more “listless” states of mind. Furthermore, the
irrelevant content of one’s mind wandering episodes, namely, the content that is not
grounded in real life experiences, may be driving this relationship. Whereas
relevant (i.e., planning) mind wandering may involve future oriented thinking and
planning ideation (Mooneyham & Schooler, 2013), irrelevant mind wandering is
particularly distracting in that it is completely irrelevant to any solution, task
related or task unrelated. Therefore, individuals engaging in this form of mind
wandering may be experiencing more absent-mindedness than others. In fact,
irrelevant thinking was linked with poor recall performance (Ellis et al., 1997) and
unsuccessful solution of the criteria task (Seibert & Ellis, 1991). Moreover,
incivility experiences may motivate targets to withdrawal from the task, and
perhaps even the context of their daily life altogether. Because individuals who are
mind wandering may still be doing it in a functional way that contributes to the
task, we believe that irrelevant mind wandering specifically will decrease task performance because it is completely disconnected from real life events.

Hypothesis 4: Distressing (a), ruminating (b), and irrelevant (c) mind wandering will mediate the relationship between experienced incivility and task performance.

Instigated Incivility

Because mind wandering may lead to destructive behaviors away from work (Qu et al., 2015), it is reasonable to predict that mind wandering would negatively impact behaviors in the workplace. For example, fluctuations in mind wandering predicted fluctuations in work behavior over time (Thompson, 2014). Similarly, fluctuations in affect predict behavior over time (Calmeiro, 2006; Kukk, & Akkermann, 2017), including impulsive and destructive decisions. Of the many precursors to incivility that have been studied, affect has been awarded perhaps the most significant amount of attention. Incivility is often generated by the presence of hostile emotions (Lim et al., 2016), and varied emotional states (Bunk & Magley, 2013; Porath & Erez, 2009). Because affect is linked with behavior outcomes, it is sensible to predict that distressing mind wandering will also impact how individuals conduct themselves at work, given their empirical connection. It is also important to consider the attention failures of frequent distressed mind wanderers. Diminished self-control often manifests in impulsive and destructive workplace behaviors (Lin et al., 2016; DeWall et al., 2007), and unwanted workplace behaviors, such as CWBs, were predicted by low self-control (Villanueva, 2006). Because self-control is consistently associated with and often used in validation of mind wandering scales (Seli et al., 2015; Belluccia, 2018), we suspect that an increase of distressing mind wandering will also lead to control failures when attempting to self-regulate incivility. Also, incivility is low intensity and more innocuous, and it might not receive “priority” treatment when self-regulating (Rosen et al., 2016), and other, more immediate or salient behaviors may be regulated before incivility behaviors. This would be especially true for frequent mind wanderers. Because of the aforementioned studies, we predict that distressing mind wandering will positively predict instigated incivility.

Furthermore, evidence suggests that ruminating mind wandering may be an ingredient for instigated incivility. Crucial to this argument is the notion that rumination hinders interpersonal relationships. Rumination stunts a variety of cognitive functions necessary to facilitating social situations, including problem solving skills (Davis & Nolen-Hoeksema, 2000) and cognitive flexibility (Lyubomirsky & Nolen-Hoeksema, 1995). Therefore, ruminating mind wanderers may not choose the appropriate path in handling an interpersonal problem (Hasegawa, Kunisato, Morimoto, Nishimura, & Matsuda, 2017; Wang, 2006).
Mind wandering also undermines self-control, which may lead to impulsive and destructive workplace behaviors (DeWall et al., 2007; Lin et al., 2016). Accordingly, mind wandering is related to overall fatigue and sustained attention errors (Cheyne, Solman, Carriere, & Smilek, 2009; Jonkman, Markus, Franklin, & van Dalfsen, 2017), and may inhibit one’s ability to control their impulses, including incivility behaviors. Although these effects have not been confirmed for ruminating mind wandering specifically, we surmise that ruminating mind wanderers will also experience sustained attention errors and lapses in self-control, due to their tendency to disengage from the current task, and that they will act accordingly with other types of mind wanderers in their impulsive and destructive behaviors (DeWall et al, 2007; Lin et al., 2016). Due to the aforementioned studies, we believe that ruminating mind wandering will predict more instigated incivility.

Extant literature suggests that the disconnectedness of one’s thinking may be responsible for instigated incivility. A study characterized irrelevant thoughts as “thoughts about internal states such as those relating to the experience of an emotional state, about irrelevant features of a criterion task, and about any other distractions” (Seibert & Ellis, 1991; p. 508). When one is mind wandering about irrelevant life matters, it may interfere with a holistic view of an uncivil experience. Theories on attribution bias indicate that one will appraise an action as more hostile when they aren’t paying attention to all the details of a situation (Monshouwer, 2002). There is much to say about how the unconscious, listless mind, may be driving behaviors with more negative undertones. Specifically, recent studies have led to the view that the unconscious mind has pervasive, powerful influence over higher mental processes (Bargh & Morsella, 2008; Luo, 2013), which may result in counterproductive work behaviors. Irrelevant mind wandering, because it involves disconnected and alienated mental content, will bode poorly for self-regulatory mechanisms, and we believe that individuals will be much less likely to inhibit incivility behaviors.

Hypothesis 5: Distressing (a), ruminating (b), and irrelevant (c) mind wandering will positively predict instigated incivility

Cognitive explanations have recently been emerging as a means of understanding why incivility begets incivility. For example, Foulk et al. (2016) suggest that incivility may activate concepts related to rudeness in the target’s mind and carry over into subsequent encounters with others. Incivility may lead to deviant behaviors via revenge cognitions (Thompson et al., 2016; Trudel & Reio, 2011; van Jaarsveld et al., 2010), especially when the target is experiencing hostile emotions. Therefore, distressing mind wandering, which is characterized as unpleasant content of one’s mind wandering, may explain such behaviors. As various studies demonstrate, there is a difference in outcomes between positive and negative mentation (Bunk & Magley, 2013; Sahu & Srivastava, 2013), and
negative affect often explains the relationship between deviance and many other variables (Wang, Long, & Zhou, 2012). Thus, we expect incivility targets to react with higher levels of distressing mind wandering, which will lead to more incivility behaviors.

Although rumination has been observed as an outcome of incivility experiences (Schilpzand et al., 2016), it has not been considered as an explanation for why incivility is so cyclical. Evidence suggests that rumination negatively predicts forgiveness tendencies following a transgression (McCullough, Bono, & Root, 2007; Young, 2010), implying that targets may act vengefully if they frequently ruminate. Similarly, people who ruminate over transgressions by close others report higher motivation to seek revenge (McCullough, 1998), and relationship-specific rumination is associated with mistrust and possessiveness (Carson & Cupach, 2000). Although the mentioned studies used romantic relationships to observe these revenge mentations, there is reason to predict these pattern will be true in the workplace, as rumination is related to revenge motivations towards fellow students (Hu, Zhang, Ja, & Zhong, 2005) and coworkers (Thompson et al., 2016). Consequently, one may choose to reciprocate incivility experiences with their own uncivil behaviors through ruminating on their perception of injustice (Arab, Sheykshahabani, & Beshlideh, 2013). Thus, we believe that individuals will report higher levels of ruminating mind wandering after experiencing incivility, and subsequently engage in more instigating incivility.

Because irrelevant thinking may leave fewer resources to effectively perform a task, it is reasonable to expect that this type of thinking will lead to less inhibited behaviors. This may be especially true following an uncivil experience, in which the mind may be inactive, but the valence of the situation is still present below the conscious level. Importantly, unconscious thought plays a role in one’s judgement, decisions and behaviors (Simonson, 2005), and studies have corroborated that unconscious thought influences higher mental processes (Bargh & Morsella, 2008; Luo, 2013). Because emotions infiltrate the subconscious, we argue that targets of incivility may attempt to mind wander to escape the stress, but will not succeed in mitigating the emotional impact. While more affectively charged individuals produced more irrelevant thoughts than did their neutral counterparts (Seibert & Ellis, 1991), they did not succeed in changing their emotional state. In fact, mind wandering after incivility may exacerbate the issue. When one is mind wandering about irrelevant content, they may be unaware of the revenge ideations and make a less informed decision about how to handle them following an uncivil experience. Moreover, we can observe irrelevant mind wandering as a stress reactive behavior, according to the stress–strain–outcome (SSO) model advanced by Koeske and Koeske (1993). This model joins with the scope of the current study, in that incivility is often considered a stressor (Bowling & Beehr, 2006), and detachment behaviors like mind wandering often happen as a
reaction to stress (Shapiro, 2013). Detrimental outcomes such as instigated incivility may emerge as outcomes of this stress, since targets of this stress are often uninhibited and perhaps affected by the established norms of the uncivil culture (Laschinger, 2016). Considering the extant research, we propose that irrelevant mind wandering may be driving the relationship between experienced incivility and instigated incivility.

*Hypothesis 6: Distressing (a), ruminating (b), and irrelevant (c) mind wandering will mediate the relationship between experienced incivility and instigated incivility*

**Organizational Citizenship Behaviors**

Organizational citizenship behaviors (OCBs) are discretionary behaviors that are not part of the job description and contribute to overall organizational effectiveness (Organ, 1997). This type of behavior often requires that the individual is adaptive, alert and attentive to changes in the environment, qualities often lacking in frequent mind wanderers (Smallwood, 2013). Studies suggest that if one has the proclivity to handle situations through mind wandering, they may be less likely to engage in prosocial behaviors such as helping and citizenship behaviors. For example, Kam et al. (2014) asserted that mind wandering behaviors often mitigate compassion by directly affecting cortical processing of affectively salient stimuli, which reduces sensitivity to physical discomfort in others. Moreover, mind wandering has been associated with worse intra- and inter-personal functioning (Jazaieri et al., 2016). These mind wandering studies, in conjunction with the wealth of research surrounding negative affect and OCBs (Lee & Allen, 2002; Ziegler, Schlett, Casel, & Diehl, 2012), suggest that distressing mind wandering would severely limit one’s propensity to perform OCBs.

Although not formally linked with OCBs, there is research that suggests ruminating mind wandering might be reducing citizenship behavior. Ruminators are disparaged by peers (Schwartz & McCombs-Thomas, 1995), report low social support (Nolen-Hoeksema, Parker, & Larson, 1994) and experience high interpersonal distress (Lam, Schuck, Smith, Farmer, & Checkley, 2003). Compared to others, ruminators form less effective solutions to interpersonal problems (Lyubomirsky & Nolen-Hoeksema, 1995). Because OCBs often require individuals to be socially adaptive, ruminating may decrease such behaviors. Notably, researchers have posited that there is a deliberate aspect of mind wandering (Seli et al., 2015; Smallwood & Schooler, 2006). The more an employee engages in ruminating mind wandering, the less time that same individual has for citizenship behaviors.

We have observed that mind wandering behaviors often mitigate compassion. Mind wanderers are often less sensitive to the physical pain of others
(Kam et al., 2014), and are inattentive to others’ needs (Batson & Powell, 2003). This may be especially true for irrelevant mind wanderers, who are disconnected from relevant life matters, which would reasonably generate even less compassion for individuals. Because it is both irrelevant to the task and daily life, irrelevant mind wandering will not facilitate citizenship behavior. Furthermore, the extant research suggests that individuals who are seeking help will often engage in their own helping behaviors (Chou & Stauffer, 2016). Because mind wandering is often used as an avoidant strategy for dealing with problems, frequent irrelevant mind wanderers are less likely to seek out help, and thus less likely to extend help. Due to the aforementioned studies, we believe that irrelevant mind wandering will be associated with less citizenship behaviors such as OCBs.

**Hypothesis 7: Distressing (a), ruminating (b), and irrelevant (c) mind wandering will negatively predict OCBs**

Targets of incivility may choose to react by reducing their effort, and ultimately their inputs to the organization (Andersson & Pearson, 1999; Pearson, et al., 2000; Reich & Hershcovis, 2015). Individuals might also engage in retaliatory withdrawal behaviors, in which they are often absent from work physically or psychologically (Lim et al., 2008; Pearson & Porath, 2009), which also reduces OCBs. While the link between incivility and citizenship behaviors is well established (Fraser, 2013; Mao et al., 2017), studies have failed to offer an explanatory chain of analysis, citing simply there is a “complex decision making process” as one chooses how to react to incivility (Fraser, 2013, p. 98). One finding suggests that desire for revenge mediated the relationship between experienced incivility and OCBs (Bies & Tripp, 1998), suggesting that targets of incivility may be driven by vengeful, affective reasons. Specifically, if the content of one’s mind wandering is distressing, they may decide to act vengefully, including the intentional reduction of their OCBs. Importantly, Taylor, Bedeian, & Kleumper (2012) determined that incivility experiences affect citizenship behavior through affective commitment. Although in this context, affective commitment is characterized as one’s emotional attachment to the organization (Allen & Meyer, 1990), we predict that distressed mind wandering will function in a similar way because of its to its relatedness to affective content surrounding the workplace. Due to the aforementioned studies, we believe that distressing mind wandering will explain the negative link between incivility and OCBs.

Bies and Tripp (1998) imply that between experiencing incivility and withholding OCBs, there may be a period of reflection in which the target is considering a course of action. Similarly, meaning-making models of incivility suggest that there is an appraisal period after experiencing incivility in which targets consider what happened and then evaluate their options (Marchiondo, 2012). Cognitive appraisal theories meanwhile, detail appraisal as a central
mechanism through which targets’ experiences of incivility relate to work and psychological outcomes (Cortina & Magley, 2009). Accordingly, the extent that one ruminates extends their cognitive appraisal time following an uncivil experience than if the target was engaged in a task. Therefore, we believe that ruminating mind wandering will underlie the relationship between incivility and OCBs.

Incivility may cause targets to engage in disconnected, irrelevant thinking in order to cope with the stress, and because these individuals are engaged in listless thought, they will be less likely to engage in OCBs. Unconscious thought has implications for higher mental processes and behaviors (Bargh & Morsella, 2008; Luo, 2013), suggesting that citizenship behaviors may suffer if one is prone to irrelevant mind wandering. Because mind wanderers are likely to miss key stimuli and suffer attention lapses (Cheyne et al., 2009; Jonkman et al., 2017), we believe that irrelevant mind wanderers are also likely to make these cognitive mistakes, and possibly do it at a higher level, due to the disconnectedness of their thought content. Because of these lapses in attention, we believe that targets of incivility who engage in irrelevant mind wanderers will likely perform less OCBs. Furthermore, irrelevant mind wandering detracts an individual from their work, but does not solve the issues generated from experienced incivility. Therefore, we hypothesize that it will mediate the relationship between experienced incivility and OCBs, much like the other two dimensions of mind wandering.

**Hypothesis 8:** Distressing (a), ruminating (b), and irrelevant (c) mind wandering will mediate the relationship between experienced incivility and OCBs

**Creative Problem Solving**

Mind wandering was found to be positively related to creativity in some studies (Yamaoka & Yukawa, 2017, Smallwood & Schooler, 2006) but negatively related in others (Smeekens, 2013). This contradiction suggests the importance of examining specific dimensions of mind wandering. Given the connectedness of affect and mind wandering (Killingsworth & Gilbert, 2010; Poerio et al., 2013; Wing, 2017), the emotional valence of one’s mind wandering episodes is particularly compelling as a condition for creative problem solving. Because distressing mind wandering is characterized as the unpleasant content of one’s mind wandering, it may mitigate cognitive functioning and decrease creative problem solving ability. In support of this, research implies that negative affect impairs skills central to problem solving and is related to both the impulsive/carelessness dimension of problem solving (Chang, 2017) and negative problem orientation (McCormick, 2016). Importantly, affect is also a prominent antecedent in studies that observe the various effects on creativity (Forgeard, 2011; Park, Seo, & Sherf, 2015; Zenasni & Lubart, 2008). The mind wandering literature,
meanwhile, dictates that task unrelated thought is responsible for a decrease in cognitive functioning (Stawarczyk, 2016) and memory processes (Riby et al., 2008), among other processes important for creative problem solving. This will be especially prevalent for distressed mind wanderers, according to findings in the aforementioned studies.

Carciofo et al. (2014) discovered that daytime sleepiness was positively related to daydreaming frequency, but negatively related to problem solving daydreaming, suggesting that there are potentially several dimensions of mind wandering, particularly that there might be dimensions responsible for problem solving mentations. Ruminating mind wandering, for example, may cause an individual to consider past experiences, often obsessively or intrusively (Arco, 2015), which interferes with aspects of creative problem solving. Negative affect leads to silence behaviors when cognitive rumination was high, for instance (Madrid, Patterson, & Leiva, 2015). Furthermore, the extant literature supports that rumination leads to a host of negative consequences regarding problem solving (Finnigan, 2006; Hasegawa et al., 2017; Lyubomirsky & Nolen-Hoeksema, 1995; O’Mahen, Boyd, & Gashe, 2015). One such study determined that individuals asked to engage in a ruminating task were less effective in their solutions to the Means Ends Problem Solving Procedure (MEPS, Platt & Spivack, 1975), which is a measure of interpersonal problem solving ability (Lyubomirsky & Nolen-Hoeksema, 1995). Ruminating mind wandering, moreover, may cause narrow thinking patterns, which does not translate well to innovation and creativity (Fredrickson, 2001) according to the broaden and build theory. Because creative problem solving is often a systematic process of using creative thinking to identify or define a problem (Pannells, 2010), and requires that one’s mind is open to novel and challenging ideas, we hypothesize that ruminating mind wandering will decrease one’s ability to solve problems creatively.

If one were mind wandering about functional topics or ideas, he or she might be equipped to solve a problem in an innovative way, as studies have supported (Baird et al., 2012; Yamaoka & Yukawa, 2017). However, creativity and mind wandering are not always positively connected (Smeekens, 2013). The level of one’s cognitive function, measured by working memory, was influenced by one’s daydreaming style (Marcusson-Clavertz, Gušić, Bengtsson, Jacobsen, & Cardeña, 2017), suggesting that the subcomponents of mind wandering may be driving these fine-tuned relationships between mind wandering and cognition. Irrelevant mind wandering, for example, may limit one’s universe of ideas, since it is classified as task unrelated thought that is also unrelated to life events. While other dimensions of mind wandering have a target of focus (e.g., affective target for distressed mind wandering; past target for ruminating mind wandering), irrelevant mind wandering is not focused on anything in particular. In fact, the mind is completely disconnected from real life events. The extent literature suggests that
mind wandering may be harmful for some insight problems (Smeekens, 2013). We believe that this is especially true for irrelevant mind wanderers, who are cognitively unavailable and less likely to engage in creative problem solving.

**Hypothesis 9: Distressing (a), ruminating (b), and irrelevant (c) mind wandering will negatively predict creative problem solving**

Incivility may disrupt many processes important for creative problem solving, such as working memory (Porath et al., 2015) and attention control (Erez et al., 2007). Erez et al. (2015) also posit that incivility is negatively related to creative performance. The nature of this relationship and the mechanisms has yet to be explored. However, some existing theories offer insight into how distressed thinking could explain this relationship. The broaden and build theory asserts that experiencing positive emotions will broaden people’s momentary thought–action repertoires, which in turn serves to build their enduring personal resources (Fredrickson, 2001). Conversely, when one experiences negative affect in response to an uncivil experience, their personal resources are compromised (Rosen et al., 2016), which are necessary for creativity. Additionally, when one experiences an uncivil event, important processes will be disrupted via the negative affect they experience from the event (Bunk & Magley, 2013; Kabat-Farr, Cortina, & Marchiondo, 2017), which could manifest as distressed mind wandering. The componential theory (Amabile, 1997) suggests that a leader’s behavior may undermine creativity through showing a lack of support, decreasing intrinsic motivation and engendering negative emotions. When this behavior manifests as incivility, we believe that the target will experience distressed mind wandering, and have less ability to solve problems creatively.

Interestingly, some studies posit that rumination can have functional aspects for problem solving (Ciarocco et al., 2010). Repetitive mental activity that is focused on possible ways of coping with a health crisis creates a problem-solving mental state (Segerstrom, Stanton, Alden, & Shortridge, 2003). However, this is contingent on the content of the rumination. It is likely that if an individual works in an environment where incivility is commonplace, the object of the rumination is less likely to be pleasant, and therefore less functional for workplace functions like problem solving. Generally speaking, those whose mentation is focused in the past will have less faculties necessary to problem solve (Mori, Takano, & Tanno, 2015), and will decrease the quality of problem solving strategies (Hasegawa et al., 2017). Past-oriented individuals, moreover, report higher levels of sadness (Poerio et al., 2013), and engaging in a ruminating task may prolong the duration of one’s negative mood (Hotovy, 1997). Distressed individuals tend to ruminate at home, with one study observing that dysphoric ruminating mothers exhibit poor problem solving effectiveness and poor confidence regarding their problem solving (O’Mahen et al., 2015). Because the mothers in this study were experiencing
significant stress at the time, we can surmise that the same effects may be true for recent targets of incivility, who are also experiencing stress from their uncivil experience. As such, we believe that ruminating mind wandering in the workplace will be responsible for the relationship between incivility and creative problem solving.

McVay and Kane (2010) characterize mind wandering as a failure of the executive control system to block interference from thoughts unrelated to the ongoing task. It is often triggered by environmental and mental cues, suggesting that an experience at work such as incivility may trigger a mind wandering episode. When a person fails to inhibit off task thoughts, more errors will occur on a task (McVay & Kane, 2009). This may be especially true for irrelevant mind wanderers, who are disconnected from the task and unplugged from any relevant context. Because of the negative consequences associated with attention control failure, it would be reasonable to expect that irrelevant mind wandering would negatively affect cognitively demanding tasks such as problem solving and creativity (Smeekens, 2013). Incivility affects a range of functions associated with creative problem solving (Fraser, 2013; Porath et al., 2015; Sakurai & Jex, 2012), and since irrelevant mind wandering limits the pool of helpful information, we believe it will drive the relationship between incivility and creative problem solving.

Hypothesis 10: Distressing (a), ruminating (b), and irrelevant (c) mind wandering will mediate the relationship between experienced incivility and creative problem solving

Individual Differences and Moderators

The extant literature has documented that the effects of incivility may be affected by individual differences such as personality traits (Milam, Spitzmueller, & Penney, 2009), measures of affect (Sliter, Withrow, & Jex, 2015), and demographic differences (Milam, 2010). Because incivility is ambiguous in intent (Pearson & Andersson, 1999) and individuals will perceive it differently (Zhou et al., 2015), its effects may be influenced by personal own strategies and coping styles. Considering incivility experiences in the light of the stressor-strain framework, strains such as negative behavioral outcomes and withdrawal can result from stressors such as incivility (Penney & Spector, 2005), and these “negative” behaviors are used as a means to cope with the stress (Krischer, Penney, & Hunter, 2010). Recently, researchers have determined that conflict management styles may affect the way that individuals process and react to incivility (Cortina et al., 2017). Those who have more dominating conflict management styles, for example, are more likely to experience and engage in incivility (Trudel & Reio, 2011). Lazarus and Folkman (1984) define coping as efforts that individuals engage in to manage
stressors that are perceived as exceeding or taxing their resources. Coping can be categorized as emotion-focused (managing negative emotions from stressor), problem-focused (coping that aims to alter stressor itself) or avoidant focused (purposefully not interacting with the stressor) (Howerton & Van Gundy, 2009). Importantly, although coping behaviors do not change the uncivil situation, it may allow targets to cope with the stress by reducing their exposure to incivility or increasing their feelings of control (Krischer et al., 2010).

The outcomes of incivility might depend on the individual coping style of the targets. For example, individuals who deal with incivility experiences constructively might experience negative outcomes to a lesser degree. It is important to note that certain coping styles may affect that way incivility experiences are interpreted. For example, incivility may be more salient for emotion focused copers, because for them attempts to confront incivility are seen as unviable (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Therefore, emotion focused coping may strengthen the relationship between incivility and CWBs such as withdrawal. Problem-focused coping is often viewed as a positive trait that mitigates withdrawal behavior; however problem focused copers, due to their involvedness at work, could experience more disastrous effects from incivility, which is ambiguous and potentially difficult to control (Cortina, 2008). This compares to their uninvolved counterparts who cope with incivility via pre-existing methods (i.e., showing up late, detaching from work, missing meetings) (Welbourne & Sariol, 2017). Similarly, individuals who cope in an avoidant manner will often use personal ways to deal with incivility, which could involve withdrawal. However, avoidant copers also may interact and experience incivility less altogether. These coping styles, moreover, may alter the amount of task unrelated behaviors that occur (Krischer et al., 2010; Penney & Spector, 2007). Because they affect that way one interprets incivility (Folkman et al., 1986), we believe they will also strengthen and weaken outcomes of incivility, such as the amount of mind wandering. However, because the research on this topic is scarce, we do not hypothesize any specific effect, and instead propose the research question as to whether any of the three coping styles will moderate the relationship between experienced incivility and mind wandering frequency.

*RQ1: Will the relationship between experienced incivility and any of the mind wandering dimensions be moderated by Problem Focused Coping (PFC), Emotion Focused Coping (EFC) or Avoidant Focused Coping (AFC)?*

Due to the social nature of incivility, interpersonal style is likely to play a role in incivility perceptions and reactions. Attachment style is defined as one’s ability to form and manage close relationships (Hazan & Shaver, 1994). Although attachment style is often observed through the lens of romantic relationships, it has
been adapted for the workplace context to understand how employees form close working relationships at work and how they manage those relationships (Hazan, 1988; Leiter et al., 2015). This is especially relevant to us because incivility usually takes place between two individuals with some close working relationship, such as manager-subordinate (Gill, 2007) or other organizational insiders such as coworkers (Zhou et al., 2015). Therefore, the style of one’s attachment to close individuals could buffer or strengthen reactions to an incivility experience. The core attachment styles are understood to be secure attachment (easy to become close with others), anxious attachment (worried about not being valued) and avoidant attachment (comfortable not forming close relationships) (Leiter et al., 2015). Considering attachment style in a workplace context, extant research suggests that securely attached individuals have more organizational commitment than their insecure counterparts (Banerjee-Batist & Reio, 2016). Attachment avoidance and attachment anxiety, meanwhile, are both predictive of withdrawal facets of the shame coping style (Heflin, 2015), suggesting that insecure attachment styles may play a role in facilitating withdrawal behaviors and other task unrelated behaviors, such as mind wandering. Although research on attachment styles in the workplace is underdeveloped, it is a prime candidate for incivility research due to incivility’s reliance on interpersonal activity. The way one interprets and reacts to incivility is contingent on the dynamic of the relationship (Levine, 2014), specifically the manner in which the target becomes attached and forms close relationships at work. Furthermore, secure and attachment styles reported higher perceptions of trustworthiness of others compared to those with insecure attachment styles (Frazier, 2015), suggesting that the way that they process and react incivility might be different. To our knowledge, no research has been done on this effect, and observing attachment styles as a moderator might propel the literature into a new arena of incivility perceptions. Because the literature on workplace attachment styles is underdeveloped, we do not hypothesize any specific effect, and instead propose the research question as to whether any of the three attachment styles will modify the relationship between experienced incivility and mind wandering.

**RQ2: Will the relationship between experienced incivility and any of the mind wandering dimensions be moderated by anxious attachment or avoidant attachment styles?**
METHOD

Pilot Study and Scale Development

Before the current study, we conducted a pilot study in order to establish an appropriate multi-dimensional mind wandering scale, which we called the Workplace Mind Wandering Scale (Appendix F). While some studies have alluded to multi-dimensional nature of mind wandering (Poerio et al., 2013; Song & Wang, 2012), these scales have assessed each dimension with one item, which compromises reliability and validity. Moreover, a factor analysis was run on a Chinese version of The Mind Wandering Questionnaire (Luo et al., 2016), and only one factor emerged from the data. Because there are only five items on the original Mind Wandering Questionnaire (Mrazek et al., 2013), we believe that this is not enough to conclude that mind wandering is not multi-dimensional. In fact, Ye et al. (2014) determined that there are two factors of mind wandering in Chinese school children (past oriented and future oriented). Additionally, Somer et al. (2016) determined that three factors exist for maladaptive mind wandering (yearning, kinesthesia and impairment). Despite this research, there is no consensus on the amount of mind wandering dimensions there are, and no existing scale, to the researchers’ knowledge, that has examined mind wandering in the workplace. This pilot study was administered to achieve two primary objectives: 1) to validate the Workplace Mind Wandering Scale and 2) to run a factor analysis to determine the dimensions.

Procedure

Multiple mind wandering items were generated for the Workplace Mind Wandering Scale. Items were extracted from previous literature on mind wandering, daydreaming, task unrelated thought and cognitive interferences. We focused our item generation around seven self-report questionnaires assessing mind wandering or a related construct and a total of 60 items were generated, 41 of which were from previously developed scales and 19 of which were original items. In total, three items were taken from the Maladaptive Daydreaming scale (Somer et al., 2016), eight items were taken from the Daydreaming-Specific Questionnaire (Bigelsen, Lehrfeld, Jopp, & Somer, 2016), five items were taken from the Cognitive Interference Questionnaire (Sarason, Sarason, Keefe, Hayes, & Shearin, 1986), 10 items were taken from The Mind Wandering Questionnaire (Song & Wang, 2012), eight items were taken from the ESM Questionnaire (Marcusson-Clavertz et al., 2017), three items were taken from Mind Wandering Questionnaire (Mrazek et al., 2013), three items were taken from Poerio et al. (2013), and 19 were
original items. Of the 60 items in the original list, 16 items assessed the affectivity of mind wandering, 12 items assessed the time orientation of mind wandering, 10 items assessed the controllability of mind wandering, 13 items assessed the relevance of mind wandering and nine items did not belong into any particular category. The original breakdown of the 60 items can be found in Appendix A.

After the list was generated, items were reworded to reflect mind wandering that occurs in the workplace, and all items were written as statements. We eliminated ten repeating items as well as the nine items that did not belong to a category. The final list of items for the pilot study was 38. In the mind wandering scale that was used in the pilot study, 10 items related to relevance, 10 items related to time orientation, 9 items related to affectivity and 9 items related to control. More details about the individual measures can be found below.

**Measures**

**Mind wandering.** Mind wandering was assessed using the list of 38 items that were generated for the purpose of assessing workplace mind wandering. Using a 7-point Likert scale (1 - strongly disagree; 4 - neither agree nor disagree; 7 - strongly agree), respondents indicated how often they experienced different mind wandering content (e.g., “When my mind wanders at work, I worry about personal problems”). Of the items developed for the survey, nine items assessed affective content ($\alpha = .72$), nine items assessed controllability ($\alpha = .72$), ten items assessed relevance ($\alpha = .71$) and ten items assessed time ($\alpha = .50$).

**Convergent Validity Measures**

**Self-control.** Self-control is the first variable we used to assess convergent validity of the Workplace Mind Wandering Scale. It will be assessed with the 10-item self-scoring Self-Control Scale (Tangney, Baumeister, & Boone, 2004). Using a 7-point Likert type scale (1 - strongly disagree; 4 - neither agree nor disagree; 7 - strongly agree), respondents indicated how much they agree with statements about their self-control (e.g., “I get distracted easily”). Cronbach’s alpha was .87.

**Boredom.** Boredom is the second variable we used to assess convergent validity of the Workplace Mind Wandering Scale. It will be assessed with the 10-item Multidimensional Trait Boredom Scale (MTBS-d, Gerritsen, Toplak, Sciaraffa, & Eastwood, 2014). Using a 7-point Likert type scale (1 - strongly disagree; 4 - neither agree nor disagree; 7 - strongly agree), respondents indicated how much they agree with statements about their boredom (e.g., “I often feel like I’m sitting around waiting for something to happen.”). Cronbach’s alpha was .92.
Divergent Validity Measures

Openness to Aesthetics. Openness to aesthetics is the first variable we used to assess divergent validity of the Workplace Mind Wandering Scale. It will be assessed with the nine-item condensed version of the openness to aesthetics subscale, found in the Openness to Experience Scale (Woo et al., 2014). Using a 7-point Likert type scale (1- strongly disagree; 4- neither agree nor disagree; 7- strongly agree), respondents indicated how much they agree with statements about how open they are to aesthetic experiences (e.g., “If I see artwork I like in a gallery, I will visit it more than once to fully appreciate it”). Cronbach’s alpha of the non-condensed scale was .77.

Honesty-Humility. Honesty-humility is the second variable we used to assess divergent validity of the Workplace Mind Wandering Scale. It will be assessed with the four-item subscale of the Brief HEXACO inventory (De Vries, 2013). Using a 7-point Likert type scale (1- strongly disagree; 4- neither agree nor disagree; 7- strongly agree), respondents indicated how much they agree with statements about how honest they are (e.g., “I would like to know how to make lots of money in a dishonest manner”). Cronbach’s alpha was .65.

Participants

We recruited 345 participants through MTurk to complete our survey (see Appendix B for recruitment email). Based on common practices in MTurk, participants meeting the following three criteria were allowed to take the survey: “HIT approval rate is greater than or equal to 95%”, “Number of HITs approval is greater than or equal to 500” and “location is United States or Canada”. Additionally, given the research topics of our study, we only allowed people who work 30 or more hours per week at their primary job, have been working at their current job for at least 6 months, and have at least minimal level of contact with coworkers or clients. Each participant was compensated $0.25 for successfully completing the survey and passing the two attention check questions (questions in Appendix C). This survey took about 15-20 minutes to complete.

Preliminary Analysis and Results

In total, 345 participants completed a survey. Four responses from people who tested the survey for speed and coherence were removed from the Qualtrics dataset. A total of 119 cases were deleted: 11 deleted due to insufficient interpersonal activity (citing no interaction), 22 deleted due to insufficient number of hours worked per week, 54 deleted due to attention check fail, and 32 deleted
due to unfinished survey (less than 50% finished). After cleaning the data, we were left with 226 cases.

An exploratory factor analysis (EFA) was run to determine how many dimensions there were for our workplace mind wandering scale. The dimensions were extracted via Principal Component Analysis. A promax rotation with Kaiser Normalization was converged in eight iterations. Coefficients less than .3 were hidden from the chart and values were sorted by size. Furthermore, anything with cross loadings that were less than .2 apart was omitted. We extracted eigenvalues greater than one. According to the structure matrix (Appendix D), the factor analysis yielded five clean dimensions of mind wandering: planning, distressing, comforting, irrelevant and ruminating. Moreover, a scree plot was generated (Appendix E) which also dips off at about five, indicating that the measure is multidimensional and likely contains five distinct dimensions.

After analyzing the data, we named the five mind wandering dimensions: Distressing, Planning, Ruminating, Comforting and Irrelevant. Overall, nine items loaded onto Factor one (Distressing mind wandering), six items loaded onto Factor 2 (Planning mind wandering), six items loaded onto Factor 3 (Ruminating mind wandering), six items loaded onto Factor 4 (Comforting mind wandering), five items loaded onto Factor 5 (Irrelevant mind wandering), and three items loaded onto a sixth factor that was indicative of Controllable mind wandering. We did not use factor 6 for further analysis, because it only had three items load onto it, and two of those items had significant cross loadings. Reliability analyses indicated Cronbach’s alpha would improve if certain items were deleted. Because of this, we eliminated two items from Distressing mind wandering, two items from Planning mind wandering, two items from Ruminating mind wandering, two items from Comforting mind wandering and one item from Irrelevant mind wandering.

After cleaning the items, we were left with seven items for Distressing mind wandering, four items for Planning mind wandering, four items for Ruminating mind wandering, four items for Comforting mind wandering, and four items for Irrelevant mind wandering. The final list of items can be found in Appendix F. Reliability for each dimension was sufficient, indicating high internal consistency of the measures (Distressing mind wandering, $\alpha = .86$; Planning mind wandering, $\alpha = .80$; Ruminating mind wandering, $\alpha = .80$; Comforting mind wandering, $\alpha = .79$; Irrelevant mind wandering, $\alpha = .73$).

To assess convergent and divergent validity, a series of simple regressions were run. Convergent validity was established by observing relatively large coefficients between each intended mind wandering dimension and self-control and boredom. Specifically, self-control was highly related to each dimension of mind wandering, as expected (Distressing, $b = .46$, $p = .00$; Planning, $b = .28$, $p = .17$;
Ruminating, b = .31, p = .11; Comforting, b = -.56, p = .00; Irrelevant b = .23, p = .15; Controllability, b = 1.08, p = .00). Moreover, boredom was also highly related to each dimension of mind wandering (Distressing, b = -.74, p = .00; Planning, b = .16, p = .48; Ruminating, b = -.31, p = .13; Comforting, b = .42, p = .04; Irrelevant b = -.65, p = .00; Controllability, b = -.58, p = .02). Moreover, these coefficients were not large enough to suggest they are the same construct. Therefore, convergent validity was established for our workplace mind wandering scale.

Divergent validity was established by observing relatively low coefficients between each intended mind wandering dimension and openness to aesthetics and honesty-humility. Specifically, openness to aesthetics was relatively unrelated to each dimension of mind wandering, as expected (Distressing, b = .30, p = .01; Planning, b = .26, p = .22; Ruminating, b = -.31, p = .13; Comforting, b = .29, p = .14; Irrelevant b = .17, p = .35; Controllability, b = .07, p = .78). Moreover, honesty-humility was also relatively unrelated to each dimension of mind wandering (Distressing, b = .15, p = .01; Planning, b = -.02, p = .82; Ruminating, b = .02, p = .83; Comforting, b = -.29, p = .00; Irrelevant b = .24, p = .00; Controllability, b = .18, p = .08). Therefore, divergent validity was established for our workplace mind wandering scale.

**Current Study**

**Procedure**

Data was collected from 365 workers using Amazon’s Mechanical Turk (MTurk) service. All participants filled out an online survey created using Qualtrics. Participants were compensated 25 cents upon completing the survey and passing the attention check questions. Qualification parameters were set within MTurk such that only participants who meet these three criteria were allowed to take the survey: “HIT approval rate is greater than or equal to 95%”, “Number of HITs approval is greater than or equal to 500” and “location is United States or Canada”. Additionally, given the research topics of our study, we only allowed people who work 30 or more hours per week at their primary job, have been working at their current job for at least 6 months, and have at least minimal level of contact with coworkers or clients. Participation was entirely voluntary, and the survey took about 20 minutes.

**Measures**

**Experienced Incivility.** Experienced incivility was assessed with the 7-item Workplace Incivility Scale (Cortina et al., 2001). Using a 5-point Likert type scale
(1 – never; 2 – hardly ever; 3 – rarely; 4 – sometimes; 5 – frequently), respondents indicated how often they have been in a situation where their superiors or coworkers exhibited the behaviors over the past 2-3 months (e.g., “Made unwanted attempts to draw someone into a discussion of personal matters”). Cronbach’s alpha was .89.

**Attachment Styles.** Attachment styles were assessed with the 10-item Brief Attachment Questionnaire (Leiter et al., 2015) comprising two subscales: anxiety (5-items) and avoidance. The scale made specific reference to relationships at work. Using a 5-point Likert type scale (1 – not at all like me; 3 – somewhat like me; 5 – very much like me), respondents indicated the extent to which items described them (e.g., anxiety – “I worry that others don’t value me as much as I value them”; avoidance – “I don’t need close friendships at work”). Cronbach’s alphas were .71 (anxiety) and .89 (avoidance).

**Coping Styles.** Coping styles were assessed with the 12-item Coping Styles Questionnaire (Howerton & Van Gundy, 2009), comprising of three subscales: problem focused coping, emotion focused coping, and avoidance focused coping. The scale was adjusted to reflect coping styles at work. Using a 4-point Likert type scale (1- I usually don’t do this at all; 4- I usually do this a lot), respondents indicated the extent to which items described them (e.g., problem focused- “You try to come up with a strategy about what to do”; emotion focused- “You try to get emotional support from friends or relatives”; avoidance focused- “You admit you can’t deal with it and quit trying”). Cronbach’s alphas were .74 (emotion focused coping), .81 (problem focused coping), and .71 (avoidance focused coping).

**Mind Wandering.** The following three dimensions of mind wandering were measured in accordance with the Workplace Mind Wandering Scale (Belluccia, 2018), which was validated and factor analyzed in our pilot study. A full list of these items can be found in Appendix F.

**Distressing.** The distressing content of mind wandering was measured with six items. Using a 7-point Likert scale (1- strongly disagree; 4- neither agree nor disagree; 7- strongly agree), respondents indicated how often the content of their mind wandering is distressing (e.g., “The content of my mind wandering has been worrying”). Cronbach’s alpha was .86.

**Rumination.** The ruminating content of mind wandering was measured with four items. Using a 7-point Likert scale (1- strongly disagree; 4- neither agree nor disagree; 7- strongly agree), respondents indicated how often the content of their mind wandering involves rumination about the past (e.g., “My mind wandering episodes concern things that have already happened”). Cronbach’s alpha was .85.
Irrelevant. The irrelevant content of mind wandering was measured with four items. Using a 7-point Likert scale (1- strongly disagree; 4- neither agree nor disagree; 7- strongly agree), respondents indicated how often the content of their mind wandering is irrelevant to daily life (e.g., “My mind wandering thoughts are often not grounded in real events”). Cronbach’s alpha was .76.

Instigated Incivility. Instigated incivility was assessed with the 7-item Workplace Incivility Scale (Cortina et al., 2001). Instructions were reworded to capture incivility that was instigated by the participant. Using a 5-point Likert type scale (1 – never; 2 – hardly ever; 3 – rarely; 4 – sometimes; 5 – frequently), respondents indicated the extent to which they have exhibited the behaviors toward a co-worker over the past 2-3 months (e.g., “Made unwanted attempts to draw someone into a discussion of personal matters”). Cronbach's alpha was .90.

Organizational Citizenship Behaviors. Citizenship behavior was assessed with the 10-item OCB-C 10 item scale (Spector, Bauer, & Fox, 2010). Using a 5-point Likert type scale (1 – never; 2 – hardly ever; 3 – rarely; 4 – sometimes; 5 – frequently) respondents indicated how often they have done each of the listed things at their current job over the past 2-3 months (e.g., “Volunteered for extra work assignments”). Cronbach's alpha was .85.

Creative Problem Solving. Creative problem solving was assessed with the 5-Item Use of Creative Cognition Scale (Rogaten, 2015). Using a 5-point Likert type scale (1 – never; 2 – hardly ever; 3 – rarely; 4 – sometimes; 5 – frequently), respondents indicated the extent to which they have engaged in the behaviors over the past 2-3 months (e.g., “If I get stuck on a problem, I try to take a different perspective of the situation.”). Cronbach's alpha was .78.

Task Performance. Task performance was assessed with Williams and Anderson’s (1991) self-report measure of in role performance. Instructions required that participants take the perspective of their supervisor when rating themselves. Schoorman and Mayer (2008) confirm that this method improves self-supervisor rating correlation, and therefore generates a more accurate rating of performance. Using a 7-point Likert type scale (1 – strongly disagree; 4 – neither agree nor disagree; 7 – strongly agree), respondents indicated the extent to which they perform their job well from the perspective of their supervisor (e.g., “You adequately complete your assigned duties at work”). Cronbach’s alpha was .71.
RESULTS

Preliminary Analysis and Descriptive Statistics

In total, 365 participants took a survey. A total of 199 cases were deleted: 6 deleted due to insufficient interpersonal activity (citing no interaction), 50 deleted due to insufficient number of hours worked per week, 89 deleted due to attention check failure, and 56 deleted due to unfinished surveys (less than 50% finished). After cleaning the data, we were left with 164 cases.

Among the remaining 164 participants, 57% were male and 43% were female. 59% of the participants had a bachelor’s degree, 19% of participants had a post-secondary degree, 14% of participants attended some college, 5% of participants have a high school diploma or GED, and 1% attended technical school. The participants were 47% white, 39% Asian, 7% Hispanic, 2% were black and 2% American Indian or Alaskan Native. About 21% of participants worked in the service industry, 18% worked in the manufacturing industry, 16% worked in the finance industry, 9% worked in the medical/social service industry, 6% worked in government, 6% worked in education, 4% worked in entertainment, 2% worked in hospitality and 1% worked in security. The majority (88%) of participants worked a standard Monday-Friday shift, while 2% of participants worked the weekend shift.

The descriptive statistics, including means, standard deviations, and correlation coefficients are displayed in Table 1. Experienced incivility has a significant correlation with each of the dimensions of mind wandering in the predicted direction, and experienced incivility also had a positive, strong correlation with total mind wandering ($r = .55, p < .01$). Further, the mind wandering dimensions correlated with each of the four outcomes (OCBs, instigated incivility, task performance and creative problem solving) in the predicted direction. Reliabilities were all adequate, as Cronbach’s alpha was reported to be above .70 for all variables.

Confirmatory Factor Analysis

We performed a Confirmatory Factor Analysis (CFA) on the 23-item Workplace Mind Wandering Scale. We evaluated the assumptions of multivariate normality through skewness and kurtosis observations on SPSS. We observed and removed one outlier. Moreover, one case was removed due to missing data. First we tested a 5-factor model, including distressing mind wandering, ruminating mind wandering, irrelevant mind wandering, comforting mind wandering and planning mind wandering. This 5-factor model has acceptable model fit, with comparative fit index (CFI) = .90, the Tucker-Lewis fit index (TLI) = .89, and the RMSEA = .07. Moreover, a confirmatory factor analyses was run testing a 2-factor model (positive
mind wandering and negative mind wandering) as well as a 1-factor model of overall mind wandering. The 2-factor model has unsatisfactory model fit, with comparative fit index (CFI) = .60, the Tucker-Lewis fit index (TLI) = .56, and the RMSEA = .13. The 1-factor model also has unsatisfactory model fit, with comparative fit index (CFI) = .27, the Tucker-Lewis fit index (TLI) = .19, and the RMSEA = .18. Therefore, the 5S-factor model is the best fitting model.

**Hypothesis Testing**

The first hypothesis proposed that experienced incivility would significantly predict the four chosen workplace outcomes: instigated incivility, task performance, OCBs and creative problem-solving. To test this, a series of simple linear regressions were run with SPSS. Experienced incivility positively predicted instigated incivility, $\beta = .52$, $p < .01$. Thus, hypothesis 1a was supported. Experienced incivility negatively predicted task performance, $\beta = -.35$, $p < .01$. Thus, hypothesis 1b was supported. Experienced incivility did not significantly predict OCBs, $\beta = .14$, n.s. Thus, hypothesis 1c was not supported. Experienced incivility did not significantly predict creative problem solving, $\beta = -.03$, n.s. Thus, hypothesis 1d was not supported.

The second hypothesis proposed that experienced incivility would significantly predict the three negative dimensions of mind wandering: distressing mind wandering, ruminating mind wandering, and irrelevant mind wandering. To test this, a series of simple linear regressions were run. Experienced incivility positively predicted distressing mind wandering, $\beta = .46$, $p < .01$. Thus, hypothesis 2a was supported. Experienced incivility positively predicted ruminating mind wandering, $\beta = .38$, $p < .01$. Thus, hypothesis 2b was supported. Experienced incivility positively predicted irrelevant mind wandering, $\beta = .30$, $p < .01$. Thus, hypothesis 2c was supported. Main results from the simple linear regressions can be found in Table 2.

The third hypothesis proposed that each of the mind wandering dimensions (distressing, ruminating, irrelevant) would negatively predict task performance. To test this, a multiple regression was run. In the multiple regression, distressing mind wandering, ruminating mind wandering, and irrelevant mind wandering were included as predictors. The findings showed that distressing mind wandering significantly predicted task performance, $\beta = -.49$, $p < .01$, thus supporting hypothesis 3a. Ruminating mind wandering significantly predicted task performance, $\beta = -.16$, $p < .01$, thus supporting hypothesis 3b. Irrelevant mind wandering did not significantly predict task performance, $\beta = -.10$, n.s., thus hypothesis 3b was not supported. The overall model, including all three negative mind wandering dimensions, explained a significant proportion of variance in performance, $R^2 = .28$, $F(1, 157) = 19.87$, $p < .01$. 

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The fifth hypothesis proposed that each of the mind wandering dimensions (distressing, ruminating, irrelevant) would positively predict instigated incivility. To test this, a multiple regression was run. In the multiple regression, distressing mind wandering, ruminating mind wandering, and irrelevant mind wandering were included as predictors. The findings showed that distressing mind wandering significantly predicted instigated incivility, $\beta = .48$, $p < .01$, thus supporting hypothesis 5a. Ruminating mind wandering does not significantly predict instigated incivility, $\beta = -.003$, n.s., thus hypothesis 5b is not supported. Irrelevant mind wandering does not significantly predict instigated incivility, $\beta = .13$, n.s., thus hypothesis 5c is not supported. The overall model, including all three negative mind wandering dimensions, explained a significant proportion of variance in instigated incivility, $R^2 = .25$, $F(1, 158) = 17.46$, $p < .01$.

The seventh hypothesis proposed that each of the mind wandering dimensions (distressing, ruminating, irrelevant) would negatively predict OCBs. To test this, a multiple regression was run. In the multiple regression, distressing mind wandering, ruminating mind wandering, and irrelevant mind wandering were included as predictors. The findings showed that distressing mind wandering does not significantly predict OCBs, $\beta = .05$, n.s., thus hypothesis 7a is not supported. Ruminating mind wandering does not significantly predict OCBs, $\beta = .08$, n.s., thus hypothesis 7b is not supported. Irrelevant mind wandering does not significantly predict OCBs, $\beta = -.02$, n.s., thus hypothesis 7c is not supported.

The ninth hypothesis proposed that each of the mind wandering dimensions (distressing, ruminating, irrelevant) would negatively predict creative problem solving. To test this, a multiple regression was run. In the multiple regression, distressing mind wandering, ruminating mind wandering, and irrelevant mind wandering were included as predictors. The findings suggest that distressing mind wandering significantly predicted creative problem solving, $\beta = -.24$, $p < .01$, thus supporting hypothesis 9a. Ruminating mind wandering does not significantly predict creative problem solving, $\beta = .10$, n.s., thus hypothesis 9b is not supported. Irrelevant mind wandering significantly predicted creative problem solving, $\beta = -.21$, $p < .05$, thus hypothesis 9c is supported. The final model, including all three negative mind wandering dimensions, explained a significant proportion of variance in creative problem solving, $R^2 = .10$, $F(1, 156) = 5.73$, $p < .01$. Main results from the above multiple regressions can be found in Table 3.

**Mediation Hypothesis Testing**

To test the proposed mediation and moderation models, we used the bootstrapping method with the “PROCESS” macro to create bias-corrected confidence intervals (Hayes, 2013; Preacher, Rucker, & Hayes, 2007). The fourth hypothesis proposed that the negative mind wandering dimensions would mediate the relationship between experienced incivility and task performance.
Bootstrapping results revealed incivility to have a significant indirect effect on performance through distressing mind wandering, indirect effect $bi = -.18$, 95% CI: [-.29, -.11]. Thus, hypothesis 4a was supported. Bootstrapping results revealed incivility did not have a significant indirect effect on performance through ruminating mind wandering, indirect effect $bi = .04$, 95% CI: [-.01, .11]. Thus, hypothesis 4b was not supported. Bootstrapping results revealed incivility to have a significant indirect effect on performance through irrelevant mind wandering, $bi = -.06$, 95% CI: [-.13, -.02]. Thus, hypothesis 4c was supported.

The sixth hypothesis proposed that the negative mind wandering dimensions would mediate the relationship between experienced incivility and instigated incivility. Bootstrapping results revealed incivility to have a significant indirect effect on instigated incivility through distressing mind wandering, $bi = .15$, 95% CI: [.08, .26]. Thus, hypothesis 6a was supported. Bootstrapping results revealed incivility did not have a significant indirect effect on instigated incivility through ruminating mind wandering, indirect effect $bi = -.01$, 95% CI: [-.08, .04]. Therefore, hypothesis 6b was not supported. Bootstrapping results revealed incivility to have a significant indirect effect on instigated incivility through irrelevant mind wandering, $bi = .06$, 95% CI: [.02, .13]. Thus, hypothesis 6c was supported.

The eighth hypothesis proposed that the negative mind wandering dimensions would mediate the relationship between experienced incivility and OCBs. However, the results of the mediational analyses do not support the hypothesis of mediation, because experienced incivility did not have significant indirect effects on OCB through any of the three dimensions of mind wandering. Hypotheses 8a, 8b and 8c are not supported.

The tenth hypothesis proposed that the negative mind wandering dimensions would mediate the relationship between experienced incivility and creative problem solving. However, the results of the mediational analyses do not support the hypothesis of mediation, because experienced incivility does not significantly predict creative problem solving, therefore the c path requirement is not fulfilled, and hypothesis 10a, 10b and 10c are not supported. Table 4 illustrates the significant and nonsignificant indirect effects reported in our mediation analyses.

**Moderation Hypothesis Testing**

Research Question 1 asked whether the relationship between experienced incivility and any of the mind wandering dimensions would be moderated by Problem Focused Coping (PFC), Emotion Focused Coping (EFC) or Avoidant Focused Coping (AFC). Regression analyses reveal that the interaction of PFC and incivility to have a significant effect on distressing mind wandering, $b = -.07$, $p < .01$. Bootstrapping results revealed incivility to have a significant conditional effect
on distressing mind wandering dependent on the level of PFC. The unstandardized simple slope for employees 1 SD below the mean of PFC was .96, the unstandardized simple slope for employees with a mean level of negative affect was .64, and the unstandardized simple slope for employees 1 SD above the mean of negative affect was .31. Therefore, low PFC strengthens the positive relationship between experienced incivility and distressing mind wandering. Interaction effect can be seen in Figure 2. No other interactions were found to be significant. Table 5 illustrates the regression analyses used to conduct moderation hypotheses.

Research Question 2 asked whether the relationship between experienced incivility and any of the mind wandering dimensions will be moderated by anxious attachment or avoidant attachment styles. Running the analyses on PROCESS Macro yielded that no significant interactions.

**DISCUSSION**

Based on ego depletion theory (Baumeister et al., 1998), attentional conflict theory (Logan & Gordon, 2001), and distributed model theory (Smallwood et al., 2003), the current study examined the effect of experienced incivility on performance and instigated incivility through negative mind wandering dimensions. Further, coping styles and attachment styles were examined as first stage moderators. Results revealed that experienced incivility was positively related to instigated incivility, and negatively related to task performance. Experienced incivility was also positively related to each of the three negative mind wandering dimensions (distressing mind wandering, ruminating mind wandering and irrelevant mind wandering). Further, both distressing and irrelevant mind wandering were found to mediate the relationship between experienced incivility and task performance, as well as the relationship between experienced incivility and instigated incivility. Problem focused coping moderated the relationship between experienced incivility and distressing mind wandering, such that the positive relationship was stronger for those who scored lower in problem focused coping.

Experienced incivility predicted both task performance and instigated incivility in the predicted direction. The negative relationship between experienced incivility and task performance was consistent with previous research (Giumetti et al., 2013; Porath & Erez, 2009; Porath & Pearson, 2005; Rafaeli et al., 2012), and the positive relationship between experienced incivility and instigated incivility was also consistent with previous research (Rosen et al., 2016; Gallus et al., 2014; Andersson and Pearson, 1999), which contributes to our understanding to how detrimental incivility can be to the workplace. The current study also demonstrates that experienced incivility positively predicted the frequency of negative mind
wandering behaviors, which supports much of previous research on psychological withdrawal and task unrelated thought (Avery, 2014; Deery et al., 2002). The positive relationship between incivility and negative mind wandering invites a discussion for occupational health psychologists—namely, what are people thinking about who have been affected by incivility? This has not been addressed by literature, as reviews on incivility have neglected the thought content of incivility targets. This study answers this question and mind wandering is examined as both an outcome of incivility, as well as a cognitive pathway predicting other workplace outcomes.

Significant indirect effects were discovered for distressing mind wandering and irrelevant mind wandering as mediators of the relationship between incivility and task performance, extending the body of literature on cognitive mechanisms of incivility. The current study, therefore, advances a novel mechanism to help explain the harsh impact of incivility on workplace outcomes. Up to this point, researchers have yet to determine how workplace incivility disrupts the thinking patterns of targets. By exploring negative mind wandering as a cognitive pathway, the current study may shed light upon what is happening behind other cognitive mechanisms of incivility, such as decrease in semantic memory (Foulk et al., 2016), self-control (DeWall et al., 2007), and executive resources (Rosen et al., 2016).

In the moderation analyses, we discovered that low problem focused coping strengthens the relationship between experienced incivility and distressing mind wandering. This suggest that one’s coping style might impact the way one reacts to incivility, and that problem focused coping might help mitigate negative incivility outcomes. This hints at coping style training for incivility-prone workplaces. Other coping styles, such as emotion focused coping and avoidant focused coping, did not turn out to be significant, possibly because these coping styles are not geared toward changing the circumstances. Emotion focused coping and avoidant focused coping modify one’s inner state, but not real outcomes, which is possibly why neither of them were significant moderators. Moreover, anxious and avoidant attachment styles were not significant moderators. Perhaps the more fitting moderator was nature of relationship, as attachment style does not convey any information about who the perpetrator of incivility was, or what the context is.

Curiously, neither creative problem solving nor OCBs were significantly related to experienced incivility, conflicting with the extant research (Fraser, 2013; Hur et al., 2016; Mao et al., 2017; Sharifirad, 2016; Taylor et al., 2012). Although nonsignificant, the positive relationship between OCBs and incivility is peculiar. It is possible that individuals who experience incivility are more inspired to engage in more citizenship behaviors to win back good treatment of their co-workers and supervisors; however, given the current data, and considering that these relationships were not significant, more research is needed to make any conclusions. It is also unexpected that ruminating mind wandering did not mediate any of the hypothesized interactions. Research demonstrates that incivility targets
are motivated to think retroactively about their incivility experiences (Schilpzand et al., 2016; Shapiro, 2013), and that they often dwell on these experiences. However, ruminating mind wandering was the only negative mind wandering dimension for there were not significant indirect effects. This might be because incivility targets are able to compartmentalize ruminating mind wandering, as we commonly ruminate on other things throughout the workday, whereas distressing and irrelevant mind wandering are more intrusive and affect one’s performance and treatment of others. Although ruminating mind wandering may not driving the relationship between incivility and the four chosen workplace outcomes, there is still a connection between experienced incivility and ruminating mind wandering, suggesting that it may be explaining the relationship between incivility and other workplace outcomes.

**Practical Implications**

This study found incivility experiences may bear severe emotional, cognitive, and performance consequences for employees. Thus, organizations should be actively making efforts to reduce incivility. Generally, organizations should be promoting civil cultures, engaging in conflict management from the top down, and reprimanding perpetrators of incivility. Incivility should be addressed directly. Interventions such as Civility, Respect and Engagement in the Workplace (CREW) have been developed with the intention of increasing workplace civility. Once endorsed by the Veterans Health Administration (VHA), it was demonstrated to lead to significant improvement of employee civility ratings from preintervention to postintervention surveys at cites that had CREW interventions (Osatuke, Moore, Ward, Dyrenforth, & Belton, 2009). Organizations are encouraged to directly deal with incivility via interventions such as this to mitigate harmful workplace outcomes.

Results of this study demonstrate that incivility hurts performance and increases instigated incivility through mind wandering targets are engaged in. If we can minimize distressing and irrelevant mind wandering, in particular, the performance of incivility targets might be less impaired, and they will be less likely to instigated incivility. Therefore, because incivility experiences may be difficult to avoid completely, it appears reasonable to equip employees with methods to quell distressing and irrelevant mind wandering after they experience incivility. Two solutions we propose to address this issue are 1) mindfulness training and 2) improved Employee assistance programs (EAPs).

Mindfulness training with a focus on off-task thought is strongly encouraged for workplaces prone to incivility. The training curriculum should emphasize that mind wandering from time to time is inevitable in the workplace, but the content of your mind while you are not engaged in work is bound to have
significant workplace consequences. This training should also stress that centering one’s mind after experiencing conflict or stress may actually be beneficial as well, since positive off-task thought is positively related to performance, OCBs and creative problem solving. Appropriate strategies, such as meditation and breathing, should be discussed.

Another solution that could help mitigate distressing and irrelevant mind wandering is the implementation and improvement of employee assistance programs (EAPs). These programs should be available for any employees in need of therapy or guidance, especially in workplaces prone to incivility (such as call centers and customer service) and workplaces prone to mind wandering (such as desk jobs and jobs that require many hours alone). Clinicians working with these employees should be educated on the implications of distressing and irrelevant mind wandering, and what it means for targets of incivility.

Moreover, the current study conveys that high problem focused coping (developing strategies to get through difficult situations) weakens the relationship between experienced incivility and distressing mind wandering. This finding can be valuable for organizations. For one, it serves as a potential assessment tool in employee selection into jobs where incivility may be common. When potential for incivility is high, organizations would likely want to employ those who are more inclined to find solutions to problems. This may reduce levels of distressing mind wandering, and ultimately, negative workplace outcomes.

Limitations and Future Directions

This study is not without limitations. Most prevalently, this study used a relatively small sample of Mechanical Turk workers. The small size (N = 164) may affect the significance of statistical tests used to test this study’s hypotheses. Moreover, using an MTurk sample may be compromising this study, as inattentive responding has traditionally been a problem for researchers using MTurk (Fleischer, Mead, & Huang, 2015). In our study, we deleted 89 cases alone due to a failed attention check. Although we took action for such issues, there are other platforms, such as Prolific Academic, which is more geared toward academics, and might be a better avenue for future research.

The current study used a cross-sectional, correlational approach to examine the relationship between variables. Therefore, we were unable to establish temporal precedence, and further studies are needed to examine whether mind wandering in fact happens as a result of incivility experiences, and whether workplace outcomes are affected by mind wandering. This would require multiple waves of data collection, a well-constructed lab study, or possible a longitudinal study. Ultimately, whether mind wandering experiences are driving the relationships
between incivility and work outcomes may depend on temporal considerations. Similarly, it is possible that participants are already prone to high levels of distressed and irrelevant mind wandering, and that the high levels are not indicative of incivility processes.

Moreover, the survey was self-report, which may confound the true nature of these relationships. For example, incivility experiences are likely to be misrepresented as some people are more likely to observe and report incivility. Similarly, the newly validated workplace mind wandering scale is self-report, and participants may not be likely to admit to mind wandering experiences. The workplace outcomes (task performance, instigated incivility, OCBs and creative problem solving) were all self-report as well, and future research may benefit from corroborating these findings using objective measures for the workplace outcomes.

Finally, although incivility has been observed through the lens of emotional mechanisms, this study did not compare mind wandering with previously observed mediators in incivility studies. Future research should examine how the Workplace Mind Wandering Scale mediates incivility processes above and beyond other observed mediators, such as affect, as well as other cognitive mechanisms like working memory and rumination. A study like this would garner a deeper understanding of what explanatory factors are most responsible for the negative impact of incivility.

**CONCLUSION**

Through a field sample, this study found that experienced incivility negatively predicted performance and positively predicted instigated incivility through distressing and irrelevant mind wandering. Further, individuals who tend to engage in problem-focused coping were found to be the less negatively affected by incivility. These findings support the key roles of mind wandering and coping styles incivility research.
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55


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## Appendix A – Original Scale Items

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### References
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- Time (12). Mind wandering Questionnaire. (Unpublished manuscript).
Appendix B – Recruitment Message for Participants

Dear Participants,

A research team from the Florida Institute of Technology is conducting a study on mind wandering behaviors in the workplace. If you are working at least 30 hours per week, have been at your current job for at least 6 months, and experience at least minimal contact with coworkers or clients, you are qualified to participate in the current study.

The survey should take approximately 10 minutes to complete, and you will be compensated $0.25 for successfully completing the survey.

This survey is confidential, so you will not need to disclose your name or any identifying information. No one but you will know how you responded. You are free to participate or withdraw from this study at any time. Your decision to participate (or not to participate) will not impact your employment status or relationship with Florida Institute of Technology.

This study has been approved by the Institutional Review Board (IRB) at Florida Institute of Technology. If you have any questions about this research study or would like to learn about the findings of our study, please contact Anthony Belluccia at abelluccia2016@my.fit.edu, or call him at 813-767-5865. If you have any questions about your rights as a person participating in a research study, you may contact the chair of IRB, Dr. Lisa Steelman, at lsteelma@fit.edu, or (321) 674-8104.

Thank you very much for your time and participation!

Sincerely,
Anthony Belluccia
Graduate student
School of Psychology
Florida Institute of Technology

Appendix C – Attention Check Items

Q 44. "I have paid no attention to this survey so far"
Q 82. “Please select Strongly Disagree for this question”
# Appendix D – EFA Structure Matrix

Structure Matrix  

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</table>
A9     .303     .471     .317
R2     .681
A6     .425     .357    -.680
A1     .420    -.525    .395    .637

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
Appendix E – EFA Scree Plot

Appendix F – The Workplace Mind Wandering Scale

Workplace Mind Wandering can be thought of as any instance in which your thoughts are not related to the current work-related activity, that is to say you are not focused on the work-related stimulus presented. An example mind wandering behavior is daydreaming.

Please think about your own behaviors and experiences at work in the past 6 months, and rate to what degree you agree with the following statements (1-strongly disagree, 7-strongly agree)

- During the workday, my daydreaming is disturbing to me
- The content of my mind wandering has been worrying
- At work, my mind drifts to things that are unhappy in nature
- When unrelated to the task, my thoughts have been unhappy
- My mind wandering episodes make me feel sad
- While at work, I have intrusive and unwanted thoughts
- When I mind wander at work, I feel estranged or disconnected from my surroundings
- My daydreams help me plan for the future
- My mind wandering experiences are future-oriented
At work, I mind wander about future events
If I’m not thinking about my work task, my thoughts are related to future plans and goals
When I mind wander at work, I think about things that have happened in the recent past
My mind wandering episodes concern things that have already happened
When I am not on-task, I am usually replaying some previous situation in my head
My daydreams are related to the past
My mind wandering episodes make me feel happy
When I am mind wandering at work, I find it enjoyable
During my workday, the content of my daydreaming is usually positive
I find it comforting to daydream at work
I have paid no attention to this survey so far
The content of my daydreaming is arbitrary and disconnected from real life matters
The things I mind wander about are unimportant
My mind wandering thoughts are often not grounded in real events
My daydreams seem to be irrelevant to anything in my daily life
FIGURES

Figure 1 – Theoretical Model

Figure 2 – Problem Solving Coping moderates the Relationship between Incivility and Distressing Mind Wandering.
# Tables

## Table 1 – Correlation Matrix for all Recorded Variables

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<th>Variables</th>
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<th>11</th>
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<td>(0.36)</td>
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<td>14. Total MW</td>
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Note. *p<.05, **p<.01. Reliabilities are recorded along the diagonal.

## Table 2 – Linear Regression for Outcomes of Experienced Incivility

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<td>OCBs</td>
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<td>Creative Problem Solving</td>
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<td>Ruminating MW</td>
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<td>Irrelevant MW</td>
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Note. Independent Variable: Experienced Incivility
### Table 3 – Linear Regression for Outcomes of Mind Wandering

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<th>Irrelevant MW</th>
<th>$R^2$</th>
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<td>Instigated Incivility</td>
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<td>0.00</td>
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<td>0.25**</td>
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<td>-.16**</td>
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<td>Creative Problem Solving</td>
<td>-.24**</td>
<td>0.10</td>
<td>-.21*</td>
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Note. **$p<.01$, *$p<.05$.

### Table 4 – Significant Indirect Effects of Mediation Analyses

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<td>Incivility -&gt; Irrelevant MW -&gt; Performance</td>
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<td>-0.13</td>
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<td>Incivility -&gt; Distressing MW -&gt; Instigated Incivility</td>
<td>0.15**</td>
<td>0.08</td>
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<td>Incivility -&gt; Ruminating MW -&gt; Instigated Incivility</td>
<td>-.01</td>
<td>-.08</td>
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<td>0.02</td>
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<td>-.03</td>
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Note. Values represent unstandardized coefficients. **$p<.01$, *$p<.05$
Table 5 – Moderation Interaction Effects

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<tr>
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<th>Ruminating Mind Wandering</th>
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<td>PFC</td>
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<td>0.06</td>
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<td>Workplace Incivility * PFC</td>
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<td>0.02</td>
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</table>

Note. Values represent unstandardized coefficients. 
*p<.05 **p<.01