An Integrative Model and Meta-Analysis of Experienced Incivility

and its Correlates

by

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ABSTRACT

AN INTEGRATIVE MODEL AND META-ANALYSIS OF EXPERIENCED INCIVILITY AND ITS CORRELATES

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The present study examines meta-analytic relations between experienced incivility and ill-being, job attitudes, work behaviours, and individual differences and provides an integrative conceptual framework describing these relations. It builds on previous meta-analytic work by examining incivility correlates that have not previously been meta-analyzed and moderators related to measurement, occupation type, source of incivility, and gender. Omnibus analyses and categorical moderators were examined using Hunter-Schmidt (2004) calculations and continuous moderators were examined using a hybrid of Hunter-Schmidt (2004) and Hedges-Olkin (1985). Results indicated that experienced incivility was negatively related to job satisfaction and positively related to trait negative affect, stress, emotional exhaustion, somatic symptoms, turnover intentions, and enacted incivility. Additionally, results of moderator analyses indicated that the effect of incivility on job satisfaction and enacted incivility was strongest in human service samples. Furthermore, supervisor incivility had the strongest effect on emotional exhaustion, job satisfaction, and turnover intentions, whereas outsider incivility had the weakest effects. Finally, in relation to measurement, longer reference periods were related to weaker effect sizes for job satisfaction and somatic symptoms. I discuss theoretical and practical implications as well as directions for future research.
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An Integrative Model and Meta-Analysis of Experienced Incivility and its Correlates

High profile cases highlight the issue of workplace violence and harassment. However, the most common form of workplace mistreatment, incivility, attracts far less attention despite its profound and far-reaching consequences for individuals and organizations. Workplace incivility is defined as “low intensity deviant behaviour with ambiguous intent to harm the target in violation of workplace norms for mutual respect” (Andersson & Pearson, 1999, p. 457). More simply, incivility includes rude, disrespectful, discourteous behaviours. In a poll of over 2000 individuals from the United States, nearly 80% of respondents indicated that lack of respect and courtesy is a serious problem at work and 60% indicated that it was getting worse (Remington & Darden, 2002).

Incivility has several defining features. First, uncivil acts are of low intensity which means they are of lower magnitude of force (Cortina & Magley, 2009; Glomb, 2002). Second, the intent to harm is ambiguous as perceived through the eyes of the enactor, the target, and/or the witness. In other words, it may not be clear to those involved whether the uncivil act was intentional or not (Andersson & Pearson, 1999). An individual may be uncivil in order to harm the target or may do so without intent to harm (Pearson, Andersson, & Wegner, 2001). Third, uncivil behaviours violate norms for mutual respect (Andersson & Pearson, 1999). Although norms for respect differ from one organization to the next, it assumed that in all organizations, norms for respect do exist. Incivility can be manifested in a number of ways. Examples of uncivil behaviours include ignoring, excluding, interrupting, withholding information, making rude or derogatory remarks, or making negative gestures (Cortina et al., 2001; Cortina, Kabat-Farr, Leskinen, Huerta & Magley, 2013; Pearson & Porath, 2009). Thus, incivility constitutes low intensity, ambiguous behaviours that violate workplace norms.
Since the introduction of the incivility construct in 1999 by Andersson and Pearson, the incivility literature has become a prolific area of study and has received considerable empirical research attention. Scholars have examined experienced (e.g., Caza & Cortina, 2007; Cortina et al., 2001; Lim, Cortina, & Magley, 2008; Sliter, Jex, Wolford & McInnerney, 2010), enacted (Birkeland & Nerstad, 2016; Blau & Andersson, 2005; Leiter, Day, & Price, 2015; Reio & Ghosh, 2009; van Jaarsveld et al., 2010), and witnessed incivility (Lee & Jensen, 2014; Miner & Eischeid, 2012; Taylor & Keleumper, 2012; Porath, MacInnis & Folkes, 2010), from the perspective of the target, the enactor, and the witness, respectively. Research has shown that incivility has negative consequences for targets including decreased well-being (Beattie & Griffin, 2014; Lim & Cortina, 2005), work engagement (Chen et al., 2013) and job satisfaction (Blau & Andersson, 2005; Cortina et al., 2001; Lim et al., 2008). Incivility also has also been related to negative consequences for organizations. Studies have found that targets are more likely to engage in withdrawal behaviours (Sliter, Sliter, Withrow, & Jex, 2012), they report greater intentions to leave the organization (Cortina et al., 2001; Lim et al., 2008), and their task performance (Chen et al., 2013; Porath & Erez, 2007) and organizational commitment (Walsh, Magley, Reeves, Davies-Schrils, Marmet & Gallus, 2012) declines. These findings demonstrate that incivility is harmful for both targets and organizations.

Although primary studies and narrative reviews (e.g., Schilpzand, de Pater, & Erez, 2016) have enhanced our understanding of the incivility phenomenon, the literature does not have a strong theoretical foundation, which has resulted in a fragmented body of literature (Schilpzand et al., 2016). In this dissertation, I aim to make two contributions. First, I introduce an integrative conceptual model where I outline relevant theories for understanding the processes that link experienced incivility to antecedents and outcomes. Second, I study the relations between
incivility and its correlates using a meta-analytic approach. Meta-analyses use statistical procedures to determine the best estimate of the population effect size and control for sampling error, which adds considerable variability to the results of primary studies (Hunter & Schmidt, 2004). Additionally, meta-analyses enable researchers to detect moderating variables that may explain variation in study findings (Schmidt & Hunter, 2015).

**An Integrative Model**

Andersson and Pearson (1999) introduced the incivility construct and provided theoretical propositions regarding the spiraling nature of incivility. However, since the introduction of the construct, the literature has progressed in many different directions (Schilpzand et al., 2016). Researchers have not specifically examined the propositions presented in Andersson and Pearson’s seminal paper (1999). Instead, they have examined the antecedents and outcomes of experienced, witnessed, and enacted incivility and have drawn on a multitude of theories to ground their hypotheses. For example, researchers have drawn on power theories (Miner-Rubino & Cortina, 2004), social exchange theory (Cameron & Webster, 2011; Scott et al., 2013), the emotion-centered model of work behaviour (Sakurai & Jex, 2012), the cognitive-motivational relational theory (Bunk & Magley, 2013), social identity theory (Kabat-Farr, Walsh, & McGonagle), and dysempowerment theory (Lim & Teo, 2009), among others. The incivility literature lacks a strong theoretical foundation (Schilpzand et al., 2016).

In order to integrate and understand the findings of the incivility research, Schilpzand et al. (2016) provided a narrative review of the literature, focusing on the antecedents and consequences of experienced, witnessed, and enacted incivility. They highlighted the need for a theoretical framework that could be used to guide future theoretical development and empirical study. In the present paper, I address this call by providing an integrative conceptual model (see
Figure 1), which draws on theories to elucidate the processes connecting experienced incivility with job attitudes, behaviours, ill-being variables, and individual differences.

The proposed conceptual model includes theories from two theoretical backgrounds to explain why experienced incivility may lead to theoretically derived outcome variables. First, I draw on stress theories, including the transactional model of stress (Lazarus & Folkman, 1984) and conservation of resources theory (Hobfoll, 1989) to elucidate the mechanisms linking experienced incivility to ill-being outcomes. Second, I draw on organizational-behaviour theories, including social exchange theory (Blau, 1964), organizational support theory (Eisenberger et al., 1986), and affective events theory (Weiss & Cropanzano, 1996) to explicate the processes linking experienced incivility to job attitudes and behaviours. These theories have been previously referenced in the literature to explain why incivility may lead to negative job attitudes, behaviours, and ill-being.

Although scholars have frequently examined job attitudes, behaviours, and ill-being as outcomes of incivility, they have rarely examined these variable categories as antecedents of incivility. Incivility is unique because it is of low intensity and it is ambiguous in intent (Andersson & Pearson, 1999). Because of its low intensity, incivility is a form mistreatment that all individuals likely experience at some point. It may also be committed by non-malicious, “normal” people (Kohler, Gonzalez-Morales, Sojo, & Olsen, 2018). As a result, individuals who display negative job attitudes, negative behaviours, or ill-being, may become unintentional or intentional targets of incivility (see Figure 1). In order to understand this phenomenon without blaming the victim, I apply a perpetrator predation paradigm of workplace mistreatment.

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1 One exception is Ghosh, Dierkes, & Falleta (2011) who theorized that mentor’s negative behaviour (e.g., distancing and manipulation) would predict instigated incivility towards them by protégés. Although negative behaviour (by the mentor) is theorized as the antecedent and enacted incivility (by the protégé) is theorized as the outcome, the study was cross-sectional.
(Cortina, 2017; Cortina, Rabelo, & Holland, 2017) and a modified version applicable to the unique characteristics of incivility, referred to as target selection. Target selection incorporates ideas discussed in the Occupational Health and Positive Psychology Lab as well as other scholarly work (e.g., Fiset & Robinson, 2018; Jensen & Raver, 2018; Kohler et al., 2018; North & Smith, 2018; Oliveira et al., 2018; Thornton-Lugo & Munjal, 2018). It provides a slightly different lens, in comparison to the perpetrator predation paradigm, to understand why individuals who display negative job attitudes, behaviours, and ill-being may become targets of incivility.

Just as job attitudes, behaviours, and ill-being may predict experienced incivility, I also argue that individual differences (e.g., trait negative affect, gender) may influence individuals’ perceptions and experiences of incivility. Again, I apply perpetrator predation (Cortina, 2017; Cortina et al., 2017) and target selection paradigms to suggest that individual differences, such as negative affect, may lead to higher levels of experienced incivility. In addition, because of incivility’s ambiguous nature, I draw on theory and research related to perceptual biases (Lazarus & Folkman, 1984) to propose that individual differences, such as trait negative affect, are related to higher levels of perceived incivility. Overall, the proposed conceptual model highlights unique processes that have rarely been addressed in previous research but are integral for developing a holistic understanding of the incivility phenomenon.

In the sections that follow, I elaborate on the proposed conceptual model and the theoretical processes underlying the relationships between incivility and its correlates. I develop theoretical propositions that reference the bidirectional nature of the relationships between incivility and job attitudes, behaviours, and ill-being. These theoretical propositions are not tested in the meta-analysis given that there is minimal research that has actually tested the
underlying theoretical mechanisms. However, the propositions provide the foundation for the meta-analytic correlational hypotheses, which I present later in the document.

**Outcomes of Experienced Incivility**

**Psychological and Physical Ill-Being**

Consistent with the way well-being variables have been treated in the incivility literature, the proposed conceptual model includes psychological and physical ill-being as consequences of experienced incivility (see Figure 1). Researchers have described incivility as a job stressor (Lim et al., 2008; Penney & Spector, 2005; Sliter et al., 2010; Sliter et al., 2012; Sliter & Boyd, 2015) or a daily hassle (Cortina et al., 2001; Lim et al., 2008; Sliter et al., 2010). Stressors are job conditions (Jex, Bliese, Buzzell, & Primeau, 2001) that cause strain and can be related to the task, the role, the social environment, or the physical environment (Sonnentag & Frese, 2003). Daily hassles (Lazarus & Folkman, 1984) refer to low-intensity, relatively discrete stressors, and differ from chronic strains, which refer to ongoing high-intensity stressors (Lazarus & Folkman, 1987; Lepore, Palsane, & Evans, 1991). Incivility is a low-intensity interpersonal stressor that occurs regularly and therefore, qualifies as a daily hassle. Although many theories and models have been proposed to explain how and why psychosocial stressors impair psychological and physical well-being (e.g., Spector, 1998), the majority of job stress models suggest that there is a causal flow from job stressors to strain (Spector & Jex, 1998). I draw on the transactional model of stress (Lazarus & Folkman, 1984) and conservation of resource theory (Hobfoll, 1989) to explain the mechanisms linking experienced incivility to ill-being outcomes.

**Transactional model of stress.** The effect of incivility on well-being can be understood through application of the transactional model of stress (Lazarus & Folkman, 1984; see Figure

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2 In fact, the Daily Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981) contains items that would qualify as uncivil (e.g., being exploited, gossip).
The transactional model of stress (Lazarus & Folkman, 1984) conceptualizes stress in terms of the interaction between the person and the environment (Lazarus, 2000). The theory purports that when individuals encounter a potential stressor, they engage in a primary and secondary cognitive appraisal, which influences the stress process. During the primary appraisal, individuals evaluate the relevance of the stressor for well-being, specifically, whether it is threatening, stressful, positive or irrelevant (Lazarus & DeLongis, 1983; Lazarus & Folkman, 1987). During the secondary appraisal, they assess their available coping options and which coping options might work (Lazarus & Folkman, 1984). Primary appraisals regarding relevance to well-being and secondary appraisals of coping options interact with one another, influencing the extent to which individuals experience stress (Lazarus & Folkman, 1987).

When individuals encounter a stressor, such as incivility, their primary and secondary appraisal should impact the stress response. If individuals appraise uncivil encounters as harmful with respect to their commitments, values, or goals, and they also do not believe that they have the ability to cope effectively, they are more likely to experience stress and ill-being. On the other hand, if they believe they have the necessary resources to cope effectively, even if they appraised the event as harmful, they should be less likely to experience stress and ill-being. Finally, if individuals appraise the encounter as irrelevant to their well-being, they should not experience an emotional reaction (Lazarus & Folkman, 1987). According to the transactional model of stress (Lazarus & Folkman, 1984), the cognitive appraisal plays an important role in the stress response.

Based on the transactional model of stress, the proposed conceptual model (see Figure 1) suggests that as incivility frequency increases, appraisals should become more negative, which should in turn have consequences for psychological and physical ill-being. When negative
experiences occur with high frequency, cognitive and emotional capacities for managing the situation become depleted (Cortina & Magley, 2009). Therefore, at higher frequencies of incivility, individuals should be more likely to appraise uncivil encounters as harmful, threatening, or challenging (e.g., Cortina & Magley, 2009; Gottlieb, 1997; Lazarus & Folkman, 1984). Indeed, Cortina and Magley (2009) found that incivility frequency predicted more negative appraisals of specific uncivil events. Negative appraisals have long term outcomes, including lower psychological well-being and somatic health issues (Lazarus & Folkman, 1987). Therefore, as the frequency of incivility increases, individuals should experience higher levels of ill-being (see Figure 1; e.g., stress, emotional exhaustion, and somatic symptoms).

**Proposition 1a:** Based on the mechanism of the transactional model of stress (negative appraisal), experienced incivility should lead to psychological and physical ill-being (e.g., stress, emotional exhaustion, somatic symptoms).

**Conservation of resources theory.** Although incivility may exert its effects on well-being through the cognitive appraisal process, the cumulative effect of uncivil experiences on internal resources may also contribute to psychological ill-being. Therefore, to further explain the relationship between incivility and ill-being outcomes, I draw on conservation of resources theory (Hobfoll, 1989; see Figure 1), which states that resource loss is the primary ingredient in the stress process. This theory provides an alternative to appraisal-based theories because it focuses more on the objective nature of the environment and individuals’ personal resources in predicting the stress process, as opposed to individuals’ personal construal (Hobfoll, 2001).

According to conservation of resources theory, individuals strive to obtain, build, and protect their resources against future loss. Individuals possess different kinds of resources including objects (e.g., computer), conditions (e.g., job stability), personality characteristics (e.g.,
positive affect), and energies (e.g., vigour; Hobfoll & Shirom, 1993). However, these resources are limited, and the environment can affect the quantity and strength of these resources. When individuals’ resources are threatened, lost, or there is a failure to gain further resources after having invested significant resources, individuals experience stress (Hobfoll, 2001; Hobfoll, Freedy, Lane, & Geller, 1990) and they are prone to further resource loss and burnout (Hobfoll, 1989). Conservation of resources theory (Hobfoll, 1989) is particularly relevant for understanding why incivility should be related to ill-being.

Specifically, the experience of incivility should result in a depletion of various resources. For example, individuals may attempt to control their emotional response, thus leading to a depletion of emotional resources (Sliter et al., 2010). They may ruminate over the event or focus on strategies for avoiding people who have treated them uncivilly, which would result in a depletion of cognitive resources. Individuals may also perceive a threat to their social resources when experiencing incivility from coworkers or supervisors. Finally, they may experience lower levels of self-esteem, an important personal resource. Thus, incivility should result in a significant and continued drain on resources.

Resource depletion should in turn lead to ill-being including stress and eventually burnout, when individuals feel that they no longer have adequate emotional resources (Maslach et al., 2001) to handle repeated episodes of incivility. Burnout is an extreme manifestation of stress (Hobfoll & Shirom, 2001) and is defined as “a prolonged response to chronic emotional and interpersonal stressors on the job” (Maslach, Schaufeli, & Leiter, 2001, p. 397). It occurs when individuals perceive a continuous net loss of physical, emotional, or cognitive resources that cannot be replenished. Individuals who are burned out typically refer to the experience of emotional exhaustion: “feelings of being overextended and depleted of one’s emotional and
physical resources” (Maslach et al., 2001, p. 399). Indeed, empirical research has shown that interpersonal demands, such as workplace mistreatment, predict burnout (Deery, Walsh, & Guest, 2011; Dormann & Zapf, 2004). Therefore, the proposed conceptual model (see Figure 1) includes conservation of resources theory (Hobfoll, 1989) to suggest that as incivility frequency increases, individuals’ resources should become depleted, resulting in higher levels of psychological and physical ill-being (e.g., stress, emotional exhaustion, and somatic symptoms).

**Proposition 1b:** Based on the mechanism of conservations of resources theory (resource depletion), experienced incivility should lead to higher levels of psychological and physical ill-being (e.g., stress, emotional exhaustion, and somatic symptoms).

**Job Attitudes and Behaviours**

Just as incivility should lead to ill-being, it should have a negative impact on job attitudes and behaviours (see Figure 1). I draw on organizational behaviour theories to elucidate the mechanisms through which incivility should affect job attitudes (e.g., job satisfaction, turnover intentions) and behaviours (e.g., enacted incivility).

**Social exchange theory and organizational support theory.** Social exchange theory (Blau, 1964) was developed to explain how interpersonal relationships are initiated, strengthened, and maintained. Social exchange refers to an exchange between parties who make mutual investments, typically without a formal contract (Blau, 1964). Central to this theory is the norm of reciprocity, which is the expectation that people will respond positively to positive treatment and negatively to negative treatment (Blau, 1964; Gouldner, 1960). In work settings, employees can form social exchange relationships with their immediate supervisor, coworkers, employing organizations, customers, and suppliers (Cropanzano & Mitchell, 2005).
Social exchange theory and the norm of reciprocity (Blau, 1964) are directly applicable to the relationship between experienced and enacted incivility. In fact, Andersson and Pearson’s (1999) seminal paper on the incivility spiral draws on the negative norm of reciprocity to describe the reciprocal nature of incivility. According to the incivility spiral, uncivil treatment should lead to perceptions of interactional injustice (i.e., unfairness concerning interpersonal treatment) and feelings of negative affect, which should in turn spark a desire to reciprocate. Although Andersson and Pearson (1999) did not draw on social exchange theory (Blau, 1964) specifically, they refer to the negative norm of reciprocity to describe a cycle of injustice that can spiral into more severe aggressive behaviours. Therefore, based on the norm of reciprocity and social exchange theory, when individuals experience incivility, they should be inclined to reciprocate (see Figure 1).

Stemming from social exchange theory is organizational support theory (Eisenberger et al., 1986), which applies the norm of reciprocity to the relationship between employees and organizations. According to organizational support theory (Eisenberger et al., 1986), employees develop global beliefs regarding the degree to which their organization values their work and cares about their well-being (i.e., perceived organizational support; Eisenberger et al., 1986; Einsenberger, Cummings, Aemeli, & Lynch, 1997). To the extent that organizations provide a favourable work environment, employees perceive higher levels of organizational support and experience feelings of gratitude and trust. Based on the norm of reciprocity, perceived organizational support motivates employees to reciprocate in the form of positive job attitudes or organizational behaviours (Aselage & Eisenberger, 2003; Rhoades & Eisenberger, 2002). When organizations do not provide the expected conditions, employees experience feelings of resentment and unfairness, and perceive lower levels of organizational support, which ultimately
reduces their perceived obligations to the organization. This theory is particularly relevant for understanding the mechanisms through which incivility leads to negative job attitudes and behaviours.

Specifically, experiencing incivility may induce feelings that the organization does not protect and care for the well-being of their employees (i.e., lack of organizational support), which should directly impact employees’ overall job satisfaction and intentions to turnover. In fact, meta-analytic research found a strong positive correlation between perceived organizational support and job satisfaction ($r = .59$), as well as a moderate negative correlation with turnover intentions ($r = -.45$; Rhoades & Eisenberger, 2002). Furthermore, based on the norm of reciprocity and organizational support theory, when employees perceive a lack of organizational support, they should feel less obligated to help the organization reach its goals. Consequently, they may be inclined to reduce their commitment and look for alternative employment with the intention to turn over (Eisenberger et al., 1997). They may also choose to reciprocate by engaging in uncivil behaviours towards agents of the organization. Thus, the experience of incivility should lead employees to perceive low levels of organizational support, thereby leading to negative job attitudes and behaviours.

**Proposition 2a:** Based on the mechanisms of social exchange theory and organizational support theory (i.e., the norm of reciprocity and perceived lack of organizational support), experienced incivility should lead to negative job attitudes and behaviours (e.g., job dissatisfaction, turnover intentions, enacted incivility).

**Affective Events Theory.** In addition to perceptions of organizational support, the relationship between workplace events and job-related outcomes can also be viewed through the lens of affective reactions (Weiss & Cropanzano, 1996). Therefore, I draw on affective events
theory (Weiss & Cropanzano, 1996) to explicate the link between experienced incivility and attitudinal and behavioural outcomes (see Figure 1). Affective events theory suggests that workplace events trigger affective reactions, which influence overall feelings about one’s job as well as discrete work behaviours (Weiss & Cropanzano, 1996). The theory distinguishes between affect-driven behaviours and judgment-driven behaviours. Affect-driven behaviours occur directly after an affective experience, they are not influenced by overall attitudes, and they are more likely to reflect immediate affect levels. On the other hand, judgment-driven behaviours are mediated by evaluative judgments and work attitudes, such as satisfaction, and result from well-considered decisions (Brief & Weiss, 2002).

Consistent with affective events theory, the negative emotions associated with experienced incivility should influence affect-driven behaviours, such as enacted incivility. In fact, Andersson and Pearson (1999) proposed that after experiencing incivility, individuals are likely to reciprocate directly against uncivil actors as a way of releasing negative affect. This theoretical proposition has been supported empirically. For example, Bunk and Magley (2013) found that negative emotional responses (i.e., state anger, guilt, fear/anxiety, disgust) mediated the relationships between experienced incivility and reciprocation. Although these results suggest that negative emotions may lead people to reciprocate with incivility, it may also be the case that individuals are inclined to displace their negative emotions and engage in incivility towards other organizational members. This too, is a form of affect-driven behaviour. Indeed, Porath and Pearson (2012) found that perceived rudeness was related to negative emotions, which in turn affected behavioural responses including aggression against not only instigators, but also others in the organization. In line with affective events theory, preliminary evidence
suggests that experiencing incivility leads to affect-driven behaviours, including enacted mistreatment.

Experienced incivility should not only lead to affect-driven behaviour, but also to job attitudes, which should in turn predict judgment-driven behaviours. According to affective events theory (Weiss & Cropanzano, 1996), affective experiences collectively contribute to the affective component of attitudes, such as job satisfaction, and eventually to judgment driven-behaviours (Fisher & Ashkanasy, 2000). In line with this theory, negative affective experiences that result from incivility should accumulate to contribute to negative job attitudes, such as decreased job satisfaction and turnover intentions. Indeed, Bunk and Magley (2013) provided support for the link between experienced incivility, affect, and job attitudes: a negative emotional response mediated the relationships between experienced incivility and work satisfaction and general job satisfaction. Therefore, there is also preliminary empirical research to suggest that experienced incivility leads to job attitudes.

**Proposition 2b:** Based on the mechanisms of affective events theory (negative emotions), experienced incivility should lead to negative job attitudes and behaviours (e.g., job dissatisfaction, turnover intentions, enacted incivility).

**Antecedents of Experienced Incivility**

Thus far, I have proposed that psychological and physical ill-being, work attitudes, and work behaviours are consequences of experienced incivility. This is consistent with the literature, which treats these broad categories of variables as outcomes of experienced incivility (Caza & Cortina, 2007; Cortina et al., 2001; Giumetti et al., 2013; Lim et al., 2008; Sliter et al., 2012). However, I also argue that these variable categories, in addition to individual differences, may predict uncivil experiences or perceptions. I draw on theory and research related to perceptual
biases (Lazarus & Folkman, 1984), as well as perpetrator predation (Cortina, 2017; Cortina, Rabelo, & Holland, 2017) and target selection paradigms to explain how individual differences, job attitudes, behaviours, and ill-being may contribute to perceived/experienced incivility (see Figure 1).

**Perceptions of Incivility**

**Interpretation bias.** Incivility is unique because the intentions of an uncivil enactor are ambiguous to the enactor, the target, or the observer (Andersson and Pearson, 1999; Pearson et al., 2001). In contrast to other forms of mistreatment, when people act uncivilly, they can attribute their behaviour to factors such as ignorance or oversight (Lim et al., 2008). Given that the intentions behind an uncivil action are ambiguous, an experience of incivility and its associated outcomes are rooted in one’s perception. Interestingly, when individuals experience/perceive incivility, they do not need to assume that the enactor was clearly intending to harm them; the ambiguity of the intention is enough.

Further contributing to incivility’s ambiguity is the fact that individuals differ in what they consider a violation of workplace norms for respect. Organizations often do not have explicit norms for respect. Rather, they often have norms that are “weak and unshared” and open to interpretation (Kohler et al., 2018, p. 123). In fact, Pearson et al. (2001) stated that “what is considered uncivil in one organization may not be universally uncivil” (p. 1399). As a result, it may be unclear whether a social interaction violates norms for respect, thereby creating ambiguity around whether or not an interaction or behaviour is uncivil. The same behaviour may be perceived as uncivil by one employee but completely neutral by another. Therefore, it is necessary to acknowledge the factors that predispose people to interpret behaviours as uncivil.
According to Lazarus and Folkman (1984), “whenever there is ambiguity, person factors shape the understanding of the situation, thereby making the interpretation of the situation more a function of the person than of objective stimulus constraints” (p. 104). They emphasized the role of person factors including values, commitments, goals, and beliefs about oneself and the world in determining the attributions people make (Folkman, Lazarus, Gruen, & DeLongis, 1986). Beliefs are personally formed or culturally shared cognitive configurations, which act as a perceptual lens through which individuals view the world (Lazarus & Folkman, 1984). Therefore, the construal of events as uncivil may be linked to individual differences, such as trait negative affect, that influence one’s beliefs and views about violations of social norms and intention to harm.

Negative affect represents a general factor of subjective distress and comprises a variety of negative mood states including feelings of nervousness, anger, fear, tension, worry, and anxiety (Watson & Clark, 1984; Watson, Clark, & Carey, 1988). At the trait level, negative affect is a stable individual difference in mood and self-concept (Watson & Clark, 1984). Individuals high in trait negative affect generally have pessimistic views of themselves and their surroundings (Douglas & Martinko, 2001) and therefore they focus more on the negative aspects of themselves, their jobs, and the world in general (Watson & Clark, 1984). These beliefs should serve as a perceptual set that shape the meaning of events (Lazarus & Folkman, 1984).

Given that individuals high in trait negative affect view ambiguous events through a negative lens, they should be more likely to appraise ambiguous social interactions as violations of norms for respect. As a result, they should perceive and report more incivility than individuals who have lower levels of trait negative affect. For example, consider two employees who are not invited to lunch by their coworkers. Employee A, who is high in trait negative affect, is worried
that his colleagues do not like him and therefore made a conscious decision to exclude him. Although he is unsure if they intentionally wanted to harm him (ambiguous intent), he is hurt by their actions. He feels that they could have invited him or provided an explanation for their behaviour. He views their behaviour as a violation of norms for respect and therefore considers their behaviour uncivil. On the other hand, employee B experiences low trait negative affect. She is aware her colleagues went for lunch, but she does not view the world through a negative lens. As a result, it does not occur to her that they might have consciously excluded her. In fact, she assumes they had work-related matters to discuss, and therefore, she does not appraise the event to be personally relevant, threatening or harmful. Based on this interpretation, she does not view their behaviour as a violation of norms for respect and therefore does not report incivility.

In the example above, employee A’s trait negative affect predisposes him to view his colleagues’ behaviour through a negative lens, leading to a conclusion that the behaviour was uncivil. Indeed, research has shown that individuals high in trait-anxiety, which is a central feature of trait negative affect\(^3\) (Watson & Clark, 1984), interpret ambiguous stimuli more negatively (Goodstein, 1954; Haney, 1973; Lee, Mathews, Shergill, & Yiend, 2016; Mathews & MacLeod, 2005). For example, Eysenck, MacLeod, and Mathews (1987) found that high-trait anxious participants who heard a series of threat-neutral homophones (e.g., die/dye; foul/fowl; weak/week), were more likely than non-anxious controls to write down the word with the threatening meaning. Most recently, Lee et al. (2016) found that depression severity was associated with the degree of negative interpretive biases, whether measured by semantic ambiguity represented in text passages, nonverbal ambiguity represented by morphing facial

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\(^3\) Trait negative affect is common to various anxiety and mood disorders and is a vulnerability factor for developing emotional disorders. High rates of comorbidity among anxiety and depression stem from the fact that they are both influenced by the same, underlying causal factor (Brown, Chorpita, & Barlow, 1998).
expressions, or situational ambiguity represented by an imagined speech giving situation. In summary, individuals high in trait negative affect should be more likely to see the world through a negative perceptual set, and therefore, they should appraise ambiguous events as negative, harmful, or threatening and therefore, uncivil.

**Threat-related attentional biases.** Not only are certain people more likely to perceive ambiguous information negatively, they are also more likely to detect and selectively process threat cues in the environment. Empirical research has demonstrated that the attentional system of anxious individuals is specifically sensitive to and biased towards threat-related information. This attentional bias occurs rapidly in anxious individuals and not necessarily in conscious awareness (Bar-Haim et al., 2007). A meta-analysis (Bar-Haim et al., 2007) found that a threat-related attentional bias is reliably demonstrated with different experimental paradigms (e.g., Stroop Test, visual probe tasks, and eye-movement monitoring) both in clinically anxious patients displaying a variety of anxiety disorders as well as in nonclinical individuals with high levels of anxiety. Evidently, individuals who experience anxiety are predisposed to process threat cues in their environment.

Although most of the research on attentional biases focuses specifically on the role of anxiety or depression, Oehlberg, Revelle, and Mineka (2012) examined whether attentional biases for emotionally valanced material is associated with a general factor of negative affect rather than anxiety or depression, specifically. They found that a bias for threat cues in non-clinical participants was associated with the broad, higher-order factor of negative affect, as opposed to being specific to anxiety (Oehlberg et al., 2012). Therefore, attentional biases towards threat cues may predispose individuals high in trait negative affect to perceive incivility in their environments.
Proposition 3: Individual differences, such as trait negative affect, should be associated with negative perceptual biases. As a result, certain individuals should be more inclined to perceive incivility.

Targeted Experiences

Although some individuals are likely to perceive and recognize incivility, others are also more likely to become targets of incivility. The idea that certain individuals are more prone to mistreatment than others has been viewed through various lenses. Victim precipitation is a model borrowed from criminology that suggests that individuals with specific characteristics are more likely to be victimized because they invite mistreatment from others (Aquino & Bradfield, 2000; Olweus, 1978). Perpetrator predation, on the other hand, acknowledges that although certain individuals are more likely to be mistreated than others, the focus and onus for change should solely be on the perpetrator (Cortina et al., 2017).

Recently, Kohler et al. (2018) argued that blindly adopting either a victim precipitation or perpetrator predation paradigm may actually be counterproductive for studying and understanding the incivility phenomenon. They propose a more nuanced approach to incivility where they integrate the role of the organization. I concur with their arguments and also add that because of the nature of incivility (i.e., incivility is low-intensity, ambiguous, and individuals can be both targets and enactors), scholars should apply what we could label a target selection framework, which acknowledges the roles of all involved parties. Furthermore, I argue that when incivility contains intention to harm, the perpetrator predation paradigm is indeed the right paradigm to guide research and practice.
Target selection: Acknowledging the situational context, the dynamic and changing nature of the roles, and target empowerment. The definition of incivility suggests that incivility is not committed by “serial perpetrators – evil employees who prey on others for the sole benefit of deviant satisfaction” (Kohler et al., 2018, p. 123). People may unintentionally be uncivil towards individuals who are difficult to work with, such as those who display high trait negative affect, communicate negative job attitudes, engage in negative behaviours, or convey ill-being. According to conservation of resources theory (Hobfoll, 1989), individuals strive to obtain, conserve and build resources. In fact, when resources are depleted, individuals are prone to further resource loss. When employees feel depleted, they may perceive certain coworkers (i.e., those who convey trait negative affect and express negative job attitudes) as sources of relational energy depletion (Baker, 2019). Therefore, employees may choose to avoid colleagues who drain their relational energy (Patterson, Chris, & Gonzalez-Morales, 2017). For example, employee A may go for lunch with a colleague, but fail to invite employee B, who is stressed and irritable. Employee B may consider the behaviour of employee A to be uncivil because it is ambiguous and appears to violate norms for respect. However, employee A may need time to recover resources. In this scenario, employee A’s decision may be conscious; however, it does not imply that she had any intention to be uncivil or to harm the well-being of employee B. Rather, employee A was likely focused on protecting her own well-being and replenishing resources. Thus, individuals with certain characteristics, attitudes, or behaviours may be susceptible to unintentional uncivil treatment. When individuals omit behaviours (e.g., not inviting a colleague for lunch) or engage in behaviours that involve private personal decisions (e.g., the need to recover) with unknown information about intent to harm, I would argue that it is extreme to use terminology such as perpetrator and victim.
Although certain individuals may be targeted because they are difficult to work with and drain the resources of their colleagues, they may also become targets because they are perceived to be uncivil themselves (Kohler et al., 2018). For example, individuals high in trait negative affect are more likely to argue with others and irritate others, which may be perceived as uncivil (Milam et al., 2009). Those who are highly stressed may violate rules of social interaction given that their social abilities are often hindered (Johnson & Indvik, 2001). Finally, individuals who are unsatisfied and intend to turn over may complain or make negative comments about their work or the organization. These behaviours could very well be perceived as uncivil, thereby triggering an uncivil response from colleagues.

There is a need to consider that incivility occurs within dynamic relationships, often involving multiple uncivil actors, and that individuals may engage in back and forth incivilities. Thus, a perpetrator predation lens, which assumes there is one perpetrator and one victim, may not be entirely applicable to incivility, where individuals may be actors and targets in ongoing interactions (Kohler et al., 2018). This viewpoint has been shared by other scholars. For example, Jensen and Raver (2018) argued that overemphasizing the role of the perpetrator and minimally acknowledging the role of victim masks the potentially dynamic relationship between parties. Similarly, Thornton-Lugo and Munjal (2018) argued that assigning the perpetrator and victim roles ignores the potential for victims to later become perpetrators. Finally, Oliveira, et al. (2018), argued that in reality, small incidents may add up over time across both parties, resulting in “two true perpetrators (and two victims in a sense)” (p. 132). Given that incivility may be reciprocal as opposed to isolated events, a perpetrator predation approach needs to be more nuanced. However, the perpetrator predation paradigm can be used to explain intentional forms of incivility that contain intent to harm.
Applying a perpetrator predation or target selection lens. In some cases, employees with “negative” features may be targeted unintentionally, but in other cases they may be selectively targeted by hostile employees intending to harm. Individuals who demonstrate trait negative affect, emotional insecurity, physical weakness, distress, and dissatisfaction are more likely to be viewed as vulnerable and unpleasant (Aquino & Bradfield, 2000). Hostile colleagues may be more likely to select individuals who are high in trait negative affect or who complain of ill health (Cortina et al., 2017) because they appear submissive, unable to defend themselves, and deserving of mistreatment (Aquino & Bradfield, 2000). This form of behaviour is similar to selective incivility, which “represents a covert manifestation of gender and racial bias when women and people of colour are selectively targeted” (Cortina et al., 2013, p. 1581). When hostile employees have a desire to harm colleagues who possess certain features, they may engage in incivility because they can easily disguise their hostile intentions.4

When incivility is intentional and contains intent to harm, the perpetrator predation paradigm is the most applicable paradigm to guide research and practice. It is necessary to note that perpetrator predation acknowledges that perpetrators may not “always be aware of the selective or abusive nature of their actions” and that implicit biases may lead people to unknowingly mistreat others (Cortina, 2017, p. 11). However, because it “imparts agency unambiguously on the aggressor” (Cortina 2017, p. 11), I argue that this paradigm is still too extreme to apply to unintentional forms of incivility. Thus, we recommend applying a target selection framework to study and understand incivility that does not contain intent to harm.

4 According to Andersson and Pearson’s (1999) definition, incivility contains ambiguous intent to harm. In congruence with this definition, I suggest that scholars should apply a perpetrator predation lens to understand incivility that contains intent to harm. One may argue that if mistreatment contains to intent to harm, it is no longer incivility, but something more intense. I acknowledge this perspective in the discussion of this dissertation.
Target selection is based on discussions held in the Occupational Health and Positive Psychology Lab as well as the work of other incivility scholars (e.g., Fiset & Robinson, 2018; Jensen & Raver, 2018; Kohler et al., 2018; North & Smith, 2018; Oliveira et al., 2018; Thornton-Lugo & Munjal, 2018). It differs from perpetrator predation in two important ways. First, target selection refers to *enactors* and *targets*, instead of victims and perpetrators. Use of the words “perpetrator” and “predation” highlights the idea of predation (i.e., attacking or plundering), which is not precisely applicable to many forms of incivility, such as when incivility is unintentional, omissive\(^5\) (Fiset & Robinson, 2018), or reciprocal. Therefore, target selection recommends discussing the role of enactors and targets (Patterson et al., 2017), instead of perpetrators and victims, who are actors in a broader organizational context and culture. This perspective was also offered by Thornton-Lugo and Munjal (2018) who proposed that it may be useful to abandon “the language of victim and perpetrator all together” and use “different language that better captures the experience and role of employees in these phenomena” (p. 117).

Target selection also differs from perpetrator predation in that it *considers* the behaviour of all individuals involved in uncivil exchanges, as opposed to just the perpetrator\(^6\). Although perpetrator predation acknowledges that certain people may become targets of mistreatment because of their characteristics, it “puts agency and control clearly into the hands of perpetrators” (Cortina et al., 2018, p. 19). This is where target selection and other scholarly viewpoints (e.g., Jensen & Raver, 2018; Kohler et al., 2018; North & Smith, 2018; Oliveira et al., 2018; Thornton-Lugo & Munjal, 2018) differ. Target selection focuses on the characteristics and behaviours of

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\(^5\) Examples of omissive uncivil behaviours include the following: failing to invite a colleague to lunch, forgetting to respond to an email, failing to provide feedback, failing to inform a colleague of a meeting.

\(^6\) This viewpoint is consistent with ideas put forth by other scholars (e.g., Jensen & Raver, 2018; Kohler et al., 2018; Oliveira et al., 2018; Thornton-Lugo & Munjal, 2018).
targets that may precipitate incivility (e.g., trait negative affect, poor performance, complaints, negativity) and places responsibility on the enactor. However, it also places agency and control in the hands of targets. Target selection certainly does not suggest that victims are responsible for the uncivil treatment they experience. On the contrary, acknowledging the role of targets (in addition to the role of enactors), empowers them to change their behavior (Oliveira et al., 2018), so that they are less likely to be treated uncivilly in the future. Thus, instead of encouraging victim blaming, a target selection paradigm promotes victim empowerment, in line with similar viewpoints expressed by other scholars, including Jensen and Raver (2018), Oliveira et al. (2018), and North and Smith (2018).

**Proposition 4:** Psychological and physical ill-being (e.g., stress, emotional exhaustion, somatic symptoms) should lead to targeted experiences of incivility.

**Proposition 5:** Negative work attitudes and behaviours (e.g., job satisfaction, turnover intentions, enacted incivility) should lead to targeted experiences of incivility.

**Proposition 6:** Individual differences, such as trait negative affect, should lead to targeted experiences of incivility.

**The Present Study: A Meta-Analysis**

The second goal of this dissertation was to examine the meta-analytic relations between experienced incivility and psychological ill-being, physical ill-being, job attitudes, work behaviours, and individual differences. To date, there has been one published paper by Hershcovis (2011) and one conference presentation by Yao, Guo, Ng, Lim and Ou (2017) that examined the meta-analytic correlates of incivility. The present study builds on previous meta-analytic work. Hershcovis’ (2011) meta-analysis of incivility was based on six to twelve studies at most, and all of the included studies were published and assessed incivility using the
Workplace Incivility Scale (Cortina et al., 2001), although other incivility scales exist. Thus, the meta-analytic correlations provided by Hershcovis (2011) may be biased due to the absence of unpublished “file drawer” studies and studies that use other measures of incivility. Yao et al. (2017) conducted a meta-analysis more recently and addressed some of the limitations of Hershcovis (2011); however, their meta-analysis exclusively examined bivariate relations without accounting for moderators.

The present meta-analysis builds on Hershcovis (2011) and Yao et al. (2017). It includes all available published and unpublished research until June 2018, thereby providing updated, more reliable estimates. Specifically, the present study examined the relationships between incivility and stress, emotional exhaustion, somatic symptoms, job satisfaction, turnover intentions, enacted incivility, trait negative affect, and gender. Additionally, it examined moderating variables which is useful for understanding why effect sizes vary from study to study. Primary incivility studies have reported effect sizes that range in magnitude, demonstrating the need to test for moderators. For example, Lim and Cortina (2005; study 2) reported a correlation of $r = .09$ with turnover intentions, whereas Lim, Cortina, and Magley (2008; study 2) reported a correlation of $r = .50$. Sulea et al. (2012) reported a correlation of $r = .21$ with emotional exhaustion, whereas Adams and Buck (2010) reported a correlation of $r = .58$. DeSouza (2011) reported a correlation of $r = -.18$ with job satisfaction, and Penney and Spector (2005) reported a correlation of $r = -.46$. Evidently, a meta-analysis examining moderators is needed to explain the observed variation in study findings.

**Hypotheses**

In the first section of this dissertation, I presented theory and empirical evidence to describe the mechanisms underlying the relationships between experienced incivility and well-
being, job attitudes, job behaviours, and individual differences. I proposed that ill-being, job attitudes, and job behaviours should not only be outcomes of incivility but should also contribute to targeted experiences of incivility. I also proposed that individual differences, such as trait negative affect, should contribute to perceptions and targeted experiences of incivility. Unfortunately, empirical research has primarily been correlational, and there is minimal research examining the underlying theoretical mechanisms of the proposed conceptual model. Therefore, I was unable to test the proposed conceptual model (see Figure 1) using meta-analytic procedures. However, I was able to examine ill-being variables, job attitudes, job behaviours, and individual differences as correlates of incivility.

In order to understand the relationship between incivility and ill-being variables, I examined stress, which is the most frequently measured correlate in occupational health psychology; emotional exhaustion, which represents the core dimension of burnout (Maslach et al., 2001); and somatic symptoms, in order to capture the physical aspects of ill-being. Additionally, to clarify the relationships between incivility and job attitudes and behaviours, I examined job satisfaction, which is the most frequently measured job attitude in organizational behaviour research; turnover intentions, which is used as a proxy of turnover; and enacted incivility to explore the reciprocal nature of incivility. Finally, I chose to examine trait negative affect, not only because it is frequently measured in organizational behaviour research, but also because theory suggests it should predict perceptions of incivility.

Thus, the present study examined the meta-analytic relations between experienced incivility and stress, emotional exhaustion, somatic symptoms, job satisfaction, turnover intentions, enacted incivility, and trait negative affect (See Figure 2). I draw on the proposed conceptual model and the propositions presented earlier, to propose the following hypotheses:
Based on propositions 1a and b, which state that ill-being (e.g., stress, emotional exhaustion, somatic symptoms) should be an outcome of incivility, and proposition 4, which states the ill-being should be a predictor of incivility, I hypothesized the following:

**Hypothesis 1:** Stress and experienced incivility will be positively related.

**Hypothesis 2:** Emotional exhaustion and experienced incivility will be positively related.

**Hypothesis 3:** Somatic symptoms (physical ill-being) and experienced incivility will be positively related.

Based on propositions 2a and b, which state that job attitudes and behaviours (e.g., job dissatisfaction, turnover intentions, enacted incivility) will be outcomes of incivility, and proposition 5, which states that job attitudes and behaviours will be predictors of incivility, I hypothesized the following:

**Hypothesis 4:** Job satisfaction and experienced incivility will be negatively related.

**Hypothesis 5:** Turnover intentions and experienced incivility will be positively related.

**Hypothesis 6:** Enacted incivility and experienced incivility will be positively related.

Based on propositions 3 and 6, which state that individual differences, such as trait negative affect, will lead to perceptions (proposition 3) and targeted experiences (proposition 6) of incivility, I hypothesized:

**Hypothesis 7:** Trait negative affect and experienced incivility will be positively related.

**Moderators**

In addition to examining bivariate relationships, which provide a broad general understanding of the relations between incivility and its correlates, the present study included moderators, which provide insight into the nuances of incivility. Specifically, I examined whether occupation type (human service versus indirect person-related), source of incivility (e.g.,
supervisor, coworker, outsider), incivility measure (e.g., incivility measure, reference period) and individual difference variables (sample mean trait negative affect, and percentage of females) moderated relations between incivility and its correlates (see Figure 2). Identifying whether differences exist across occupational categories, sources of incivility, and individual difference variables is important for developing effective interventions and guiding future theoretical and empirical work. Similarly, examining whether differences exist across incivility measures is necessary for guiding incivility measurement moving forward.

Although I previously argued that ill-being, job attitudes, and work behaviours may contribute to perceptions or experiences of incivility, when proposing hypotheses related to moderators, I treat these variable categories as outcomes for the sake of clarity and simplicity and to be consistent with the way previous literature has treated these constructs in terms of direction of effects.

The Moderating Role of Occupation Type

Aggression is highly prevalent in human service occupations (e.g., Felblinger, 2008; Oyeleye, Hanson, O’Connor, & Dunn, 2013), such as health care, social service, and teaching, where the core of the job is based on the relationship between provider and recipients (Maslach et al., 2001). Human service occupations are sometimes referred to as direct person-related jobs (Dollard, Dormann, Boyd, Winefield, & Winefield, 2003; Mills, 1986) and can be distinguished from other kinds of service jobs, which have been referred to as “indirect person-related jobs” (Dollard et al., 2003), as well as non-service jobs. The goal of human service providers is to protect, maintain, or enhance the welfare of their direct recipients of care (de Jonge & Dormann, 2003). On the other hand, in indirect-person related jobs, “it is only a secondary task to make the customer feel good” (Dollard et al., 2003, p. 84). The demands associated with human service
jobs are different from the demands associated with indirect person-related jobs and may have implications for the effects of incivility from colleagues on well-being, work attitudes, and behaviours. Understanding whether differences exist across occupations has implications for future theoretical and practical work.

Research has shown that provision of care and the central focus on relationships in human service work can be emotionally demanding and draining (Maslach et al., 2001). This occurs because human service providers often become emotionally invested in the well-being or personal growth of their service recipients (Dollard et al., 2003). In some cases, human service providers even develop long-lasting relationships with their service recipients (Dollard et al., 2003). Given the emotional demands associated with human service work, human service providers may feel they have inadequate emotional resources to cope with further interpersonal stressors, such as incivility from colleagues⁷ (Hobfoll, 1989; Maslach, 1982). Additionally, they may rely on their colleagues as sources of emotional support, and thus when their colleagues treat them uncivilly, the effects may be particularly damaging. In sum, when confronted with incivility from colleagues, human service providers should experience greater consequences than indirect-person related employees.

Additionally, human service providers use a unique coping mechanism to deal with emotional stresses of work, which may impact the relationship between experienced and enacted incivility. This coping mechanism is referred to as depersonalization and it represents the act of putting distance between oneself and one’s service recipients. It allows service providers to moderate their compassion for their service recipients by ignoring their unique and interesting

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⁷ This moderator analysis exclusively examined whether the occupation type moderated the relations between incivility from colleagues and its correlates. Studies assessing experienced incivility from service recipients were not included in this analysis.
qualities (Maslach et al., 2001). Research has shown that excessive detachment often leads employees to treat their service recipients in negative, callous, and dehumanized ways (Maslach et al., 2001), which are in fact manifestations of uncivil behaviour.

Although in burnout research, depersonalization is directed towards service recipients, it may in fact be a coping mechanism that employees use more generally. For example, when employees experience incivility from colleagues, they may cope with it by detaching from their colleagues, which may be perceived as uncivil. Additionally, a callous style of interacting with service recipients may spill over and influence the way employees treat their colleagues. Consequently, it is expected that the relationship between experienced and enacted incivility should be stronger in human service occupations than in non-service or indirect-person related jobs. In non-service or indirect-person related jobs, depersonalization has been described as cognitive distancing, whereby individuals develop an indifference or cynical attitude towards their work but not necessarily the people with whom they work (Maslach et al., 2001; Schaufeli & Bakker, 2004). Therefore, this style of coping, should not contribute to enacted incivility in indirect-personal related jobs.

**Hypotheses 8a-f:** The relationship between incivility and the following correlates will be strongest in human service samples, followed by mixed samples, with the weakest effects emerging in indirect person-related samples.

- a) stress
- b) emotional exhaustion
- c) somatic symptoms
- d) job satisfaction
- e) turnover intentions
f) enacted incivility

The Moderating Role of Source of Incivility

Some researchers assess participants’ experiences of incivility from a specific source (e.g., supervisors, coworkers, outsiders), whereas others collapse across sources by simply asking participants to reflect on incivility from the people they work with. Collapsing across sources can result in overestimation or underestimation of the true population effect size by ignoring the potentially distinct impact of each source (Hercovis & Barling, 2010; Schilpzand et al., 2016). This is problematic because it can negatively affect the development of accurate theoretical models as well as the development of appropriate organizational interventions (Frone, 2000). Currently, researchers lack a thorough understanding of the differences in effect sizes when the source of the uncivil behaviour varies. Therefore, I examined the moderating role of source on the relationship between experienced incivility and its correlates. More specifically, I examined whether the effect sizes differed depending on whether the source of incivility was a supervisor, a coworker, or an organizational outsider. I present theory and empirical evidence to make predictions about the moderating role of incivility source. Specifically, I draw on arguments presented by Hercovis and Barling (2010) who similarly conducted a meta-analysis examining how attitudinal, behavioural, and health outcomes differ in magnitude by source of aggression.

Hercovis and Barling (2010) hypothesized that supervisor aggression would have the strongest negative relationships with attitudinal, behavioural and health outcomes, followed by

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8 Twenty-three studies assessed incivility from outsiders. Two of these studies (9%) consisted of human service employees only, and five of these studies consisted of a variety of occupations including some human service (21%). The remaining 16 studies (70%) included employees in indirect person-related jobs (e.g., customer service, retail, hospitality). Therefore, this subgroup is not comparable to the human service subgroup discussed in the previous section.
coworker aggression, with the weakest effects resulting from outsider aggression. Many of the arguments I propose here were initially offered by Hershcovis and Barling (2010). However, consistent with the conceptual model I presented earlier, I also incorporate organizational support theory (Eisenberger et al., 2002) and the transactional model of stress (Lazarus & Folkman, 1984).

**Power.** Hershcovis and Barling (2010) drew on theory related to power to hypothesize that the effects of workplace aggression would be strongest when perpetrated by supervisors. Supervisors possess formal power and therefore pose a greater threat to organizational resources such as pay allocation, promotions and work assignments (Rupp & Cropanzano, 2002). Aggression from supervisors may indicate that important organizational resources are in jeopardy and that an employee’s position is not secure (Kivimaki et al., 2005). Given that supervisor aggression affects a target’s potential access to organizational resources, Hershcovis and Barling (2010) argued that supervisor-enacted aggression should have the most detrimental effects on *job attitudes and behaviours*. Although Hershcovis and Barling (2010) examined workplace aggression broadly, the same arguments can be applied to incivility.

**Organizational support theory.** Hershcovis and Barling (2010) further proposed that when supervisors behave aggressively, employees might feel that they matter less (Kivimaki et al., 2005). I expand on this argument by drawing on organizational support theory (Eisenberger et al., 1986). If employees are treated uncivilly, they may feel that their supervisors are unsupportive, which should in turn influence their perceptions of organizational support. Because supervisors are agents of the organization, employees often perceive the actions of their supervisors to be indicative of the extent to which their organization cares for their well-being (Eisenberger et al., 2002). Therefore, supervisor incivility should have stronger effects than
coworker incivility on perceived organizational support and other consequential *job attitudes and behaviours*. In fact, Eisenberger et al. (2002) found that the positive relationship between supervisor support and perceived organizational support increased as supervisors’ perceived organizational status increased. Finally, because organizational outsiders are not agents or members of the organization, employees should be less likely to hold the organization responsible for outsider incivility. As a result, outsider-enacted incivility should have the weakest effects on *job attitudes and behaviours*.

**Transactional model of stress.** Based on the transactional model of stress (Lazarus & Folkman, 1984), incivility from supervisors should have the strongest effects on well-being, followed by coworkers, and finally outsiders. As described above, when individuals experience a stressor, they engage in a primary appraisal where they evaluate its level of threat (Lazarus & Folkman, 1984). Supervisor incivility should be perceived as most threatening because supervisors possess the most power. Specifically, they possess both formal and social power; they have control over employees’ organizational resources, and they have power to influence the extent to which employees feel they belong to their work group (Hershcovis & Barling, 2010). Although coworkers possess social power as well, they do not possess the same formal power as supervisors (Hershcovis & Barling, 2010). Additionally, employees may perceive supervisor incivility as more threatening given that it could escalate into more serious forms of aggression, such as abusive supervision (Cortina & Magley, 2009). Thus, supervisor incivility should have a stronger negative impact on well-being than coworker incivility.

Although supervisor incivility should be perceived as more threatening than coworker incivility, they should both be perceived as more threatening than outsider incivility. Outsiders have far less influence over valued outcomes and employees may only have single brief
interactions with organizational outsiders (e.g., customers; Henschovis & Barling, 2010). As a result, employees should be less concerned about re-encountering uncivil outsiders, thereby minimizing perceptions of threat (Henschovis & Barling, 2010). Therefore, the effects of outsider-enacted incivility on health and well-being should be weakest⁹.

In addition to the primary appraisal process, the secondary appraisal process (Lazarus & Folkman, 1984) can help to explain why supervisor-enacted incivility should have the strongest effects on health and well-being outcomes. During the secondary appraisal, employees evaluate their available coping options. Employees may feel that they have fewer coping options when experiencing incivility by a supervisor because they are unable to resist or protest poor treatment (Cortina & Magley, 2009). On the other hand, employees may feel it is easier to confront coworkers who are on the same level and even easier to respond to incivility experienced by outsiders. They may feel more comfortable confronting an outsider than a supervisor or coworker and there also may be more opportunity to exit the interaction (e.g., by directing the outsider to a manager; Henschovis & Barling, 2010). Thus, perceptions of available coping options should differ depending on the source of incivility, thereby leading to differential effects on well-being¹⁰.

**Previous empirical research.** Although Henschovis and Barling (2010) predicted that supervisor aggression would have the strongest effect and outsider aggression would have the weakest effects, their hypotheses were only partially supported. They found that the effect of

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⁹ It is necessary to note that this prediction is more applicable to jobs where interactions with organizational outsiders, such as customers or service recipients, are not ongoing. In the current study, 70% to 91% of the outsider incivility studies assessed incivility stemming from customers or service recipients, with whom employees do not develop relationships.

¹⁰ Although many of the arguments I present here are based on Henschovis and Barling (2010), reference to the transactional model of stress and organizational support theory is unique to this dissertation.
aggression on work attitudes and behaviours was strongest for supervisors and weakest for outsiders, but the effect on health outcomes did not vary by perpetrator. In order to explain their findings, they conceptualized work attitudes and behaviours as organizational-related strains, and well-being variables as personal strains. They argued that aggression perpetrated by organizational insiders should have stronger effects on organizational-related strains (e.g., job satisfaction, commitment, and deviance) than aggression perpetrated by outsiders. In other words, outcomes that are organizationally relevant should be especially impacted when aggression is perpetrated by individuals who are closely aligned with the organization. However, the source of aggression should be less relevant when outcomes are personally relevant (e.g., well-being variables). Aggressive behaviour is considered a stressor regardless of the source and research suggests that stressors result in strain. Therefore, they argued that the source of aggression should be less important when examining outcome variables that are personally relevant (Hershcovis & Barling, 2010).

The explanation provided by Hershcovis and Barling (2010) certainly makes sense; however, it may be more applicable to high intensity aggressive behaviours as opposed to low intensity deviant behaviours, such as incivility. When individuals experience high intensity aggressive behaviours such as bullying, mobbing, or undermining, the perpetrator may be less relevant. Hershcovis and Barling (2010) argued that aggression is a stressor that results in a variety of strains and thus the source should not matter. I argue that when mistreatment is of high-intensity, perceptions of threat will be severe regardless of the perpetrator. Additionally, victims should be more likely to focus on the mistreatment they experienced as opposed to the source. Therefore, high intensity forms of aggression should be equally consequential for well-being regardless of who perpetrates it. However, when mistreatment is of low-intensity, in the
form of incivility, perceptions of threat should be greatest when enacted by supervisors and weakest when enacted by outsiders, thereby having differential effects on well-being.

**Hypotheses 9a-f:** The relationship between incivility and the following correlates will be strongest when the enactor is a supervisor, followed by a coworker, with the weakest effects resulting from outsiders.

- a) stress
- b) emotional exhaustion
- c) somatic symptoms
- d) job satisfaction
- e) turnover intentions
- f) enacted incivility

**The Moderating Role of Trait Negative Affect**

Individuals who experience high levels of trait negative affect are more likely to appraise ambiguous events as harmful or threatening and they typically have pessimistic views of themselves and the people around them (Douglas & Martinko, 2001; Watson & Clark, 1984). Given that incivility is ambiguous, incivility may be more harmful for individuals with negative perceptual biases. Therefore, I examined the moderating role of trait negative affect to examine whether incivility is more consequential in samples containing higher levels of mean trait negative affect. When individuals high in trait negative affect experience incivility they should perceive greater threat or harm and they may feel that their ability to cope is limited (Lazarus & Folkman, 1984), which should exacerbate the effects of incivility on ill-being. Additionally, given that individuals high in trait negative affect tend to experience negative mood states, they may be more inclined to experience state negative affect immediately after an uncivil interaction.
Based on affective events theory (Weiss & Cropanzano, 1996), the negative emotions associated with incivility should influence affect driven behaviours as well as work attitudes and judgment-driven behaviours. Thus, the effects of incivility on ill-being, job attitudes, and behaviours are more likely to be exacerbated in samples containing higher levels of mean trait negative affect.

**Hypotheses 10a-f:** The relationship between incivility and the following correlates will be stronger for samples with higher mean trait negative affect.

a) stress  
b) emotional exhaustion  
c) somatic symptoms  
d) job satisfaction  
e) turnover intentions  
f) enacted incivility

**Exploratory Research Questions**

**The Relationship Between Experienced Incivility and Gender**

The present study examined the magnitude of the relationship between incivility and gender. Clarifying the magnitude of the relationship can help inform researchers and practitioners of the extent to which men and women report similar or disproportionate amounts of incivility. Although theory (e.g., selective incivility theory; Cortina et al., 2008) would suggest that women should experience more mistreatment than men, empirical evidence has been mixed. According to selective incivility theory (Cortina et al., 2008), women should experience more incivility than men because enactors can easily disguise their negative stereotypes and sexist beliefs by providing excuses that are unrelated to gender. Primary studies have indeed provided evidence to suggest that women experience higher rates of incivility than men (e.g.,
Cortina et al., 2001; Lim, Cortina, & Magley, 2008). Similarly, Montgomery, Kane and Vance (2004) found that women tend to have lower thresholds for perceiving violations of norms for respect\textsuperscript{11}, which should lead to higher perceptions of incivility among women. Although some primary research suggests that women experience more incivility than men, a recent meta-analysis examining gender differences in workplace mistreatment found that women and men reported similar levels of non-sex-based mistreatment. Although women perceived significantly more incivility than men, the magnitude of the difference was small (\( \delta = .06; \) McCord, Joseph, Dhanani, & Beus, 2018). Therefore, I proposed an exploratory research question.

**Research question 1:** Will gender be related to experienced incivility?

**The Moderating Role of Percentage of Females in the Sample**

In addition to examining the relationship between incivility and gender, I examined the moderating role of percentage of females in the sample, which is often used in meta-analysis as a proxy for understanding gender differences (e.g., Shockley et al., 2017). An understanding of incivility’s impact for men and women is needed before we can uncover the differential mechanisms that may explain the relationships between incivility and its correlates depending on gender.

Lim et al. (2008) drew on a process referred to as dysempowerment (Kane & Montgomery, 1998) to suggest that the effects of incivility may be more consequential for women. Dysempowerment occurs when a work event is experienced as an offense to one’s dignity, resulting in feelings of anger and belittlement and loss of competence and self-efficacy. Expectations and norms regarding consideration and respect for others influence the

\textsuperscript{11} Participants viewed controversial video segments of behaviour and females gave higher inappropriate ratings than males for every segment.
dysempowerment process (Kane & Montgomery, 1998). When individuals possess strong norms of consideration for others and that norm is then violated, they are more likely to experience dysempowerment (Kane & Montgomery, 1998). Women have higher standards for what is considered respectful and appropriate (Montgomery et al., 2004); therefore, they are more likely to feel disempowered after experiencing uncivil treatment. Furthermore, research on interpersonal sensitivity has shown that in comparison to men, women are more sensitive to the nuances of social behaviour (e.g., Hall, 1987; Maccoby, 1990; Tannen, 1990) and are more empathetic and aware of people’s feelings (e.g., Basow, 1986; Bem, 1974; Eagly, 1987). Given that women are more in tune with their personal environments, women may be more likely to notice incivility, to attend to it, and to become distressed by it (Lim et al., 2008).

Although dysempowerment theory would suggest that the effects of incivility should be stronger for women, empirical findings on various forms of mistreatment have been mixed (as discussed by Lim et al. 2008). Some research has found that women are more likely to rate behaviour that is potentially aggressive or uncivil as inappropriate or offensive (e.g., Berdahl & Moore, 2006; Konrad & Gutek, 1986; Montgomery et al., 2004). Additionally, research on sexual harassment has found that women are more likely to experience negative effects and report adverse outcomes than are men (e.g., Gutek, 1985; Magley, Cortina, & Kath, 2005). However, other research has found non-significant differences between men and women after experiencing various forms of aggression (e.g., Cortina et al., 2002; Lim et al., 2008, Magley, Waldo, Drasgow, & Fitzgerald, 1999; Richman, Shinsako, Rospenda, Flaherty, & Freels, 2002; Rospenda, Richman, Wislar, & Flaherty, 2000). Furthermore, one study found that the relationship between experienced workplace aggression and subjective well-being was stronger among male employees (Kaukiainen et al., 2001). Due to the discrepancy between
dysempowerment theory (Kane & Montgomery, 1998) and empirical research, this research question was exploratory.

**Research questions 2a-g:** Does the relation between incivility and each of the following correlates strengthen or weaken as the percentage of females in the sample increases?

- a) stress
- b) emotional exhaustion
- c) somatic symptoms
- d) job satisfaction
- e) turnover intentions
- f) enacted incivility
- g) trait negative affect

**The Moderating Role of Incivility Scale**

The majority of the incivility research has examined incivility using the Workplace Incivility Scale (Cortina et al., 2001), a seven-item scale that asks participants to indicate the frequency with which they have experienced discrete uncivil behaviours (e.g., made demeaning or derogatory remarks to them, ignored or excluded them from professional camaraderie) from their supervisors or coworkers over a specific period of time. However, researchers have also utilized other scales. Similar to the Workplace Incivility Scale, the Uncivil Workplace Behaviour questionnaire (UWBQ; Martin & Hine, 2005) is comprised of 20 items with frequency response scales related to hostility, privacy invasion, exclusionary behaviour, and gossiping. Additionally, Leiter, Day and Laschinger’s (2013) Straightforward Incivility Scale (SIS) consists of five general uncivil behaviours (e.g., ignored, excluded, spoken rudely) to be responded to on a frequency scale. Researchers have also adapted more overt mistreatment scales such as the
Interpersonal Conflict at Work scale (Spector & Jex, 1998). Evidently, a variety of measures have been developed to assess workplace incivility.

Although most of the research has utilized Cortina et al.’s (2001) Workplace Incivility Scale, other measures have been used, which has contributed to the fragmented body of literature (Schilpzand et al., 2016). It is unclear whether various incivility scales are indeed capturing the same underlying construct. This information is necessary to guide the way in which researchers measure incivility moving forward. Therefore, I compared effect sizes calculated from a subgroup of studies using Cortina et al.’s (2001) Workplace Incivility Scale to a subgroup of studies using other measures of incivility.

**Research questions 3a-g:** *Does the relation between incivility and the following correlates differ depending on the scale used?*

- a) stress
- b) emotional exhaustion
- c) somatic symptoms
- d) job satisfaction
- e) turnover intentions
- f) enacted incivility
- g) trait negative affect

**The Moderating Role of Reference Period**

As described above, most research has examined incivility using the Workplace Incivility Scale (Cortina et al., 2001), which requires participants to indicate the frequency of their uncivil experiences over a specific period of time. Although the Workplace Incivility Scale (Cortina et al., 2001) was originally developed with a 5-year reference period, scholars have used a wide
variety of reference periods that range from the past day to the past five years (Schilpzand et al., 2016). This is potentially problematic because the reference period can impact the way participants interpret questions, thereby affecting the underlying construct being studied (Schilpzand et al., 2016).

Typically, shorter reference periods are used for frequent events and longer reference periods are used for less frequent events (e.g., sexual harassment) in order to reduce reports of non-occurrence (Igou, Bless, & Schwarz, 2002; Schaeffer & Presser, 2003). As a result, shorter reference periods tend to prime participants to think of mundane everyday experiences, while longer reference periods prime events that are more severe (Igou et al., 2002). There is an assumption that researchers would not ask how often participants experienced an event on a given day if it is an event that happens infrequently. In relation to incivility, when participants are asked to report how often they have experienced incivility over the past day, they should be primed to think of more ordinary experiences. Conversely, when participants are asked to report how often they have experienced incivility over the past five years, they should be more likely to think of severe instances. It would not make sense to ask about everyday frequent experiences over such a long time period (Igou et al., 2002). Evidently, the reference period that scholars use can influence the underlying construct being studied.

Therefore, I examined whether the reference period moderates the relationships between experienced incivility and its correlates. On one hand, when researchers ask participants to report the frequency with which they have experienced incivility over longer reference periods, participants may be primed to think of uncivil interactions that are more severe but less frequent, which would result in stronger effects. However, it can also be argued that longer reference periods prime more distal uncivil experiences and shorter reference periods prime more recent
experiences that may not be cognitively understood or affectively resolved (Schilpzand et al., 2016). This perspective would suggest that shorter reference periods should produce strong effects. Given the aforementioned arguments, this investigation was exploratory. Differences in effect sizes may suggest the need to modify the measures researchers are currently using.

**Research questions 4a-f:** Does the relation between incivility and each of the following correlates strengthen or weaken as the reference period increases?

- a) stress
- b) emotional exhaustion
- c) somatic symptoms
- d) job satisfaction
- e) turnover intentions
- f) enacted incivility

**Method**

The methods and analyses are consistent with Meta-Analysis Reporting Standards (MARS) of the American Psychological Association (APA 2008; Appelbaum, 2018). I pre-registered the hypotheses, method and planned analyses using aspredicted.org in order to ensure that the process would be transparent, open, and reproducible (Nosek et al., 2015).

**Literature Search**

I conducted a literature search on October 31, 2017 in PsycINFO and ProQuest Dissertations and Theses. I searched for studies that assessed experienced incivility but did not search for studies that assessed civility. This decision was based on two factors. Within the management and organizational literature, incivility has been operationalized at the individual-level (frequency of uncivil experiences), whereas civility has been operationalized at the group-
level (perceptions of civil norms within teams or groups). Additionally, qualititative research has shown that civility is not simply the lack of incivility (Patterson, 2016). Given the methodological and conceptual differences between incivility and civility, I made an apriori decision not to include studies assessing civility within this meta-analysis.

In order to search for studies assessing experienced incivility, I utilized two key words: incivility and uncivil. In PsycINFO I searched anywhere (i.e., title, abstract, keywords) and in Proquest Dissertations and Theses I searched in abstracts. On June 5, 2018, I conducted another literature search using Google Scholar. I searched for records using the term workplace incivility measure. In total, 1551 records were identified. Of the 1551 records identified, 147 were relevant. Given that some studies contain more than one sample, 168 samples were coded. See Figure 3 for a flow chart of the search process.

In addition to examining library databases, trained research assistants examined conference programs from the Society of Industrial-Organizational Psychology (SIOP) and Academy of Management (AOM) since 1999 for unpublished work that assessed incivility. They searched for the words uncivil and incivility in titles or abstracts and contacted authors to request their work. We identified 172 potentially relevant conference presentations through SIOP. We received 95 papers from authors and coded 22 relevant studies. (See Figure 4 for a flow chart of the search process). We also identified 67 potentially relevant conference presentations through the Academy of Management. We received 28 papers from authors and coded 2 relevant studies. (See Figure 5 for a flow chart of the search process). In total, we coded 192 samples (N = 127, 660) that came from 168 published papers, theses, dissertations, and conference presentations. (The reference list includes an asterisk beside studies that were included in the meta-analysis. For a complete reference list of studies included in the meta-analysis, see the supplemental
Inclusion and Exclusion Criteria

Studies were eligible for inclusion if they examined employee experiences of workplace incivility and reported zero-order correlations with relevant variables including trait negative affect, stress, emotional exhaustion, somatic symptoms, job satisfaction, turnover intentions, enacted incivility and gender. (See Appendix A of the supplemental materials for a list of studies that assessed experienced incivility but did not assess a relevant correlate and Appendix B for a list of studies that assessed experienced incivility and a relevant correlate but did not provide correlational data).

The research on workplace incivility uses a variety of methods and thus there were a number of specific inclusion/exclusion criteria.

**Frequency of experienced incivility.** Omnibus analyses were limited to studies that assessed the frequency of experienced incivility from coworkers, supervisors, or an unspecified colleague. Therefore, omnibus analyses did not include studies (k = 26) that assessed incivility from outsiders. Additionally, given that the goal of this meta-analysis was to examine the relationships between frequency of experienced incivility and its correlates, studies (k = 3) that used agreement scales to assess incivility from coworkers or supervisors were excluded (see Appendix C of the supplemental materials for a list of these studies). Agreement scales often capture the extent to which the organizational climate is uncivil. For example, Huang and Lin (2017) asked respondents to rate their agreement on an item stating: “Superior employees seldom condescend others” (p. 39). This item captures the extent to which incivility takes place in organizations as opposed to the frequency of personal uncivil experiences.

**Outsider incivility.** In order to examine the moderating role of source of incivility, I
created an independent subgroup of studies that assessed incivility from organizational outsiders. These studies were not grouped with studies assessing incivility from colleagues and were not included in the omnibus analyses. Unlike studies assessing coworker and supervisor incivility, researchers more commonly use agreement scales (e.g., Customer Incivility Scale by Burnfield, Clark, Devendorf and Jex, 2004) to assess customer incivility. Therefore, the decision was made to include outsider incivility studies regardless if they used an agreement or frequency scale.

I included studies in this subgroup if they assessed incivility from customers and service recipients but excluded studies that assessed incivility from students (k=3; see Appendix D of the supplemental materials for a list of these studies). The teacher-student relationship is qualitatively different from the relationship between employees and service recipients/customers. For example, teachers and professors may have daily or weekly interactions with their students and therefore may experience repeated episodes of incivility from the same individuals. Therefore, I opted not to include studies that assessed incivility from students.

**Scales that included items of higher intensity than incivility.** Studies were excluded if researchers claimed to measure incivility but were in fact measuring a construct of higher intensity (k = 52; see Appendix E of the supplemental materials for a list of these studies). For example, in some studies, authors stated that they measured incivility, but their methods section indicated that they used measures that assessed higher intensity form of mistreatment, such as the Negative Acts Questionnaire-Revised (Einarsen, S., Hoel, H., & Notelaers, 2009), the Workplace Aggression Research Questionnaire (WAR-Q; Neuman & Keashley, 2002), or the original Interpersonal Conflict at Work Scale (Spector & Jex, 1998). Additionally, specific scales, such as the Incivility in Nursing Education Survey (Clark, Farnsworth & Landrum, 2009) and the Faculty-to-Faulty Incivility Scale (Clark, Olender, Kenski, & Cardoni, 2013) were excluded for
including items of higher intensity (e.g., made personal attacks or threatening comments, made physical threats against another faculty member, made discriminating comments) and failing to differentiate between experienced and witnessed incivility (see Appendix A for descriptions of these measures). Similarly, the Nursing Incivility Scale (Guidroz, Burnfield-Geimer, Clark, Schwetchenau, & Jex, 2010) was excluded because it includes higher-intensity items (e.g., is verbally abusive, shouts or yells at me for making mistakes) and assesses incivility from physicians, other nurses, and direct supervisors using an agreement scale.

**Daily diary or longitudinal studies.** The present study exclusively examined cross-sectional data\(^{12}\). Therefore, I did not code daily diary studies (k = 15) or longitudinal studies (k = 2) unless the authors provided baseline data or data collected at one point in time. A list of excluded daily diary and longitudinal studies can be found in Appendix F of the supplemental materials.

**Additional exclusion criteria.** Studies were also excluded if they (a) included participants who were not employed (e.g., students, players on a sports team) or examined incivility in a non-work setting (e.g., conference; k = 6; see Appendix G of the supplemental materials); (b) examined the effects of incivility from one specific coworker or one episode of incivility (k = 8; see Appendix H of the supplemental materials); (c) measured cyber incivility exclusively (k = 4; see Appendix I of the supplemental materials); (d) required participants to attribute incivility to a specific cause (e.g., participants were asked to report the frequency of experiencing incivility because of their romantic relationship with a coworker or their political orientation; k = 2; see Appendix J of the supplemental materials). Finally, additional studies were excluded because the incivility measure did not assess incivility exclusively or assessed a

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\(^{12}\) This decision was made in order to control the scope of the dissertation.
construct that appeared to be something other than incivility; \(k = 10\); see Appendix K of the supplemental materials.

**Study quality.** There were no specific guidelines regarding study quality. However, one study (Battaglia, 2014) reported data that appeared to be incorrect. Specifically, correlations presented were not in the expected direction and I was unable to obtain confirmation regarding accuracy of the data from the author. Therefore, this study was not included (see Appendix L of the supplemental materials). Furthermore, studies were only included if they reported a correlation between experienced incivility and a relevant correlate and assessed constructs using valid and reliable measures. If studies failed to include integral information, such as a correlation table, the study was typically of lower quality. Thus, lower quality studies were weeded out.

**Coder Training and Process**

**Identification and categorization.** I worked with a team of seven highly qualified research assistants to identify and code relevant articles. I trained five of these research assistants to identify relevant articles. Before I began training, they read Andersson and Pearson’s (2001) seminal paper on workplace incivility as well as studies that met the inclusion criteria in order to become familiar with the literature. In our first meeting, we had a discussion about incivility and the purpose of the meta-analysis. In our second meeting, I provided my research assistants with a detailed manual for categorizing articles as relevant or irrelevant for the meta-analysis. We examined ten articles as a group, and using the manual, we discussed whether the articles met the inclusion criteria for the meta-analysis. During this meeting, we created an excel database for categorizing articles as relevant or irrelevant. We refer to this file as the “Record of Articles\(^{13}\).”

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\(^{13}\) The Record of Articles contains columns including detailed information (e.g., name of incivility measure, study design, study context [workplace, neighbourhood, classroom]). This
After this meeting, my research assistants independently categorized fifteen articles in the Record of Articles. In our third meeting, we took up their work, discussed the articles as a group, and we ensured that the inclusion criteria and categorization rules were clear.

After the third meeting, my research assistants began assessing studies for relevancy. We continued to meet weekly as a group where we discussed difficult papers that had odd study features and I explained why or why not each study should be included/excluded. This process was important for solidifying their learning. During this process, we became familiar with study idiosyncrasies and thus I continued to update the inclusion/exclusion criteria with the input of my research assistants. At a later date, I hired two additional research assistants to review SIOP and Academy of Management conference programs and to email authors requesting their work.

**Study coding.** Five of my research assistants who were involved in earlier phases of the project were trained to code articles. I created a comprehensive coding manual for my research assistants. Similar to the previous training, we coded several articles as a group. We examined the methods section of each article and I demonstrated how to code the data in an excel database. My research assistants then coded ten articles independently, which we later took up as a group. We discussed discrepancies and ambiguities.

Following training, my research assistants coded 5-10 articles per week. For the first three weeks, I checked their work. I instructed my research assistants to email me every time they required clarification or were unsure how to code a study. We continued to meet weekly where we reviewed papers that were difficult to code and clarified coding rules. During this process, I continued to update the coding manual as I became familiar with study idiosyncrasies. Information clearly identifies why a study was categorized as irrelevant or relevant for the meta-analysis.
My research assistants did not code an equivalent number of studies. One research assistant
coded twenty studies, while all the other research assistants coded thirty to forty-five studies.

**Study coding phase two.** After all the articles were coded once, I recoded the data with
one research assistant who was involved in the first round of coding. She did not recode any
studies she had previously coded.

**Discrepancy checking.** I worked with my research assistant to check for errors. We used
an excel formula to identify discrepancies between the two datasets. Discrepancies were resolved
through discussion and re-examination of original studies.

**Study Coding**

Each sample was coded in a separate tab in excel. (For a list of all information that was
coded, see Appendix B.) In some cases, the literature search identified a dissertation as well as
the published version of the dissertation. In order to ensure we did not code the same sample
twice, we coded the dissertation, which is typically less biased\(^\text{14}\). When multiple publications
used the same dataset and reported identical results, we coded the study that was published first
and considered the second a duplicate. If the two publications reported effect sizes with unique
variables (e.g. stress in the first publication and emotional exhaustion in the second publication),
we coded the effect sizes reported in each publication but only coded the sample information
once\(^\text{15}\). This was done to ensure that we coded all available effect sizes without double coding
sample information.

**Main effect coding.** We coded correlations between experienced incivility and eight

\(^{14}\) I made one exception when the published version (Wilson, 2013) included a significantly
larger sample size than the dissertation as well as additional effect sizes.

\(^{15}\) If the number of participants was not the same in each publication, I used the lower N to be
conservative. This only occurred when merging the results from Leiter (2011) and Leiter (2012).
Leiter (2011) included 1107 participants and Leiter (2012) included 1136 participants. Therefore,
I coded the smaller N.
correlates (gender, trait negative affect, stress, emotional exhaustion, somatic symptoms, job satisfaction, turnover intentions, enacted incivility) as well as the name of the measure and the Cronbach’s alpha of the measure as reported in the study. It was not essential that studies assessed the same construct with the same measure. For example, we coded all correlations between incivility and stress regardless if the studies utilized the same measure of stress. However, coders were trained to examine the operationalization of constructs and to ensure that measures were indeed assessing the construct the authors claimed they were measuring. For example, some authors may indicate that they have measured stress, when in fact they have assessed stressors. After all the data was coded, a second group of trained research assistants, who were not involved in the original study coding, double-checked that the operationalization of the variable was consistent with the way in which I defined the variable in the present study.

**Moderator coding.**

**Occupation type.** We categorized job types into one of three categories: human service jobs, indirect person-related jobs, or mixed (combination of human service and indirect person-related jobs). Jobs meeting human needs were categorized as human service (e.g., nursing, medicine, psychology, counselling, teaching). Jobs that are not primarily focused on human relationships and person-care were categorized as indirect person-related jobs (e.g., hospitality, retail, finance, marketing). Samples that consisted of employees from a variety of occupations were categorized as mixed.

**Source.** We coded the source of incivility when it was specified (e.g., coworker, supervisor, customer/service recipient). If the source was not specified, we indicated that it was unspecified. A few studies examined unique sources of incivility (e.g., other healthcare professionals). In these cases, we assessed whether the unique source was a colleague or service
recipient. For example, one study by Babenko-Mould and Laschinger (2014) examined experiences of incivility among nurses completing placements. The study assessed incivility from other nurses, instructors, and other health care professionals. It was unclear if other health care professionals were colleagues; therefore, incivility from this unique source was not coded. Thus, judgement calls had to be made when unique sources of incivility were assessed.

**Percentage of females.** We coded the percentage of females in the sample as a proxy for examining the moderating role of gender.

**Incivility scale.** We coded the name of the measure used to assess incivility, the specific question stem, and the response options provided to participants. Coding information about the incivility measure was necessary given that I examined the incivility measure as a moderator. However, this information also enabled me to identify studies that used uncommon measures of incivility. If I was unfamiliar with a measure, I checked the original study and example items (if they were provided) to ensure that the scale was capturing low-intensity deviant behaviour. Furthermore, coding the question stem and response options enabled me to ensure that we did not code any studies that used an agreement scale (unless it assessed incivility from outsiders).

**Reference period.** Researchers assess the frequency of incivility by asking participants to reflect on a specific reference period ranging from the past day to the past five years. We coded the reference period in years (e.g., if a study assessed experienced incivility over the past six months, the reference period was coded as 0.5). If a study did not include the reference period and we were unable to obtain it from the author, we indicated that this information was unavailable.

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16 I examined whether there were differences between studies that used the Workplace Incivility Scale (Cortina et al., 2001) and studies that used another measure of incivility.
Data Analyses

The analyses included studies that measured and provided correlations between experienced incivility and at least one of the following variables: gender, trait negative affect, stress, emotional exhaustion, somatic symptoms, job satisfaction, turnover intentions, and enacted incivility.

Estimation Procedures

Omnibus effects. Meta-analytic estimates of incivility and its correlates were calculated in the Hunter-Schmidt (2004) tradition using an excel macro provided by Ernest O’Boyle at the Consortium for the Advancement of Research Methods and Analysis\(^\text{17}\). The results from this excel macro were cross-referenced with results provided by Frank Bosco’s multi-purpose meta-analysis spreadsheet\(^\text{18}\). Hunter-Schmidt (2004) calculations follow the random-effects model, which assumes that there is not only one underlying true effect. The Hunter-Schmidt (2004) approach corrects for statistical artifacts, such as measurement error, which attenuates observed correlations and introduces artifactual variance in observed effects.

I computed composite correlations and composite reliabilities when studies provided multiple effect sizes for the same relationship. I also created composites when authors assessed coworker incivility and supervisor incivility independently. This was required for the omnibus analysis. Composite effect sizes were calculated using Hunter and Schmidt calculations (2004) and composite alpha reliabilities were calculated using Spearman-Brown (2004). Composite correlations take into account the intercorrelation between the component variables (Schmidt &

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\(^{17}\) The meta-excel file can be obtained from Ernest O’Boyle at the Kelley School of Business.

\(^{18}\) Frank Bosco’s Multi-purpose meta-analysis spreadsheet can be obtained by emailing meta@frankbosco.com
Specifically, as the inter-item correlation decreases in strength, the composite increases.

I corrected correlations using reliability estimates reported for each sample. If reliability estimates were not reported and I was unable to obtain them from the author, I substituted missing values with the weighted average reliability (these values are listed in Tables 1 and 2). Five studies assessing incivility from coworkers, supervisors or an unspecified source were missing alpha coefficients. Each of these studies assessed incivility using the Workplace Incivility Scale (Cortina et al., 2001); therefore, I calculated the weighted average reliability using only studies that assessed incivility with the Workplace Incivility Scale (Cortina et al., 2001).

I estimated true correlations ($\rho$) by computing the average of the corrected correlations and weighting each correlation by sample size and degree of artifact correction. In order to obtain an estimate of the true variation in the estimate of the population correlation, I subtracted the expected error variance from the observed variance. I calculated 95% confidence intervals and 80% credibility intervals to provide evidence for accuracy and generalizability. Confidence intervals are calculated using standard error and quantify the accuracy of the meta-analytic effect size estimate (Borenstein, Hedges, Higgins, & Rothstein, 2009). Confidence intervals that do not include zero provide evidence that the effect size is significantly different than zero (Hunter & Schmidt, 2014). Credibility intervals, which are calculated using the standard deviation of true effects (i.e., sampling error has been removed), address the actual dispersion of effect sizes (Schmidt & Hunter, 2015). Wide credibility intervals suggest the presence of subpopulations and therefore provide justification for testing for moderators (Whitener, 1990).
**Search for moderators.** In order to explain the variance of the bivariate correlations, the next step is to search for moderators. In the present study I examined categorical and continuous moderators. In my original proposed methodology, I had proposed to use a hybrid approach of Hunter-Schmidt (2004) and Hedges-Olkin (1985). I had planned to use this hybrid approach for examining both types of moderators in order to streamline the statistical analyses. Additionally, I had hoped to run one model that included both categorical and continuous moderators due to potential multicollinearity between moderator variables. After collecting and coding studies, I realized that there were not enough studies to run one model that included each moderator. This was a piece of information that I did not have when I planned the proposed methodology.

Additionally, the other piece of information that I only became aware of after study collection and coding is the size of the between-study variance, which influences study weights in the Hedges-Olkin (1985) tradition. The size of the between study variance can lead to varying results when using a pure Hunter-Schmidt (2004) approach versus a blended Hunter-Schmidt (2004) and Hedges-Olkin (1985) approach. When I wrote my proposal, I did not have this information nor was I able to predict the size of the between-study variance. After coding and running preliminary analyses, I decided to modify the plan of analysis and conduct a pure Hunter-Schmidt (2004) subgroup analysis to examine categorical moderators\(^\text{19}\). However, consistent with my proposal, I used a hybrid approach for continuous moderators. Appendix C provides further detail and rationale for this change.

**Categorical moderators.** I conducted a subgroup analysis in the Hunter-Schmidt (2004) tradition to examine the effects of categorical moderators including occupation type, source of

\(^{19}\) This decision was also based on recommendations from my meta-analysis course instructor (E. O’Boyle, personal communication, November 2, 2018) and discussions with my dissertation advisor (Dr. Gonzalez-Morales).
incivility, and incivility measure. The goal of the subgroup analysis is to estimate the mean effect in each group and to determine if the mean effect varies by subgroup. Consistent with Shockley, Shen, DeNunzio, and Arvan (2017), recently published in the Journal of Applied Psychology, I conducted subgroup analyses when the number of studies in a subgroup was greater than or equal to 3. In order to determine whether a categorical moderator had a significant effect, I calculated weighted correlations between effect sizes across studies (e.g., the correlation between incivility and stress) and a moderator variable (e.g., occupation type). Additionally, to determine whether differences emerged between subgroups, I examined whether the confidence intervals of each subgroup overlapped. Non-overlapping confidence intervals provide evidence for significant differences. However, overlapping confidence intervals do not necessarily imply that they are not significantly different from one another. Confidence intervals can overlap, and differences may in fact be significant (Cumming & Finch, 2005; Knezevic, 2008). Making conclusions about moderation only when confidence intervals do not overlap would result in type 2 errors (M. Harari, personal communication, April 26, 2019). Therefore, I discuss the pattern of effects and indicate the extent to which the confidence intervals overlap. However, I refrain from assuming significant differences unless confidence intervals do not overlap. This is consistent with previous research published in IO Psychology outlets such as Journal of Vocational Behavior (e.g., Harari, Manapragada, Viswesvaran, 2017).

Continuous moderators. I conducted a hybrid of Hunter-Schmidt (2004) and Hedges-Olkin (1985) using the Metafor package (Viechtbauer, 2010) in R. Metafor uses Hedges and Olkin calculations, which do not correct for measurement error. Therefore, it was necessary to

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20 In the discussion, I encourage the reader to interpret results with caution when subgroup estimates are based on a limited number of studies.

21 This approach was used when categorical moderators contained more than two subgroups. When there were only two subgroups, I simply examined the overlap in confidence intervals.
correct observed correlations and weights in the Hunter-Schmidt (2004) tradition prior to bringing the data into R. Correlations were corrected by dividing the observed correlation by the square root of the product of the reliabilities. Weights were calculated by multiplying each study’s sample size by the square of its compound attenuation factor. This correction provides more weight to studies that not only have larger sample sizes, but also to studies that have higher reliabilities. Using the corrected correlations and weights, I conducted meta-regression in R. I instructed metafor to treat the effect sizes as correlations, instead of transforming correlations to Fisher’s $z$ and used the restricted maximum likelihood (REML) to estimate between study variance, which has been shown to be a robust estimator (Viechtbauer, 2005).

**Results**

Hypotheses 1-7, which refer to the omnibus relations between experienced incivility from colleagues and its correlates, were supported (see Table 3). Experienced incivility was negatively related to job satisfaction ($\rho = -.44$; 95% CI [-.47, -.40]; 80 CR [-.62, -.26]) and positively related to trait negative affect ($\rho = .33$; 95% CI [.28, .39]; 80 CR [.11, .55]), stress ($\rho = .44$; 95% CI [.39, .48]; 80 CR [.29, .58]), emotional exhaustion ($\rho = .44$; 95% CI [.38, .50]; 80 CR [.27, .61]), somatic symptoms ($\rho = .36$; 95% CI [.28, .44]; 80 CR [.12, .60]), turnover intentions ($\rho = .35$; 95% CI [.33, .38]; 80 CR [.23, .48]), and enacted incivility ($\rho = .73$; 95% CI [.68, .78]; 80 CR [.59, .87]). The confidence intervals did not include zero, providing evidence that each of the effect sizes were significantly different from zero. Additionally, the credibility intervals were wide, providing justification to test for moderators.
Outlier Diagnostics

To identify outliers, I used R Shiny (Field, Bosco, Kepes, McDaniel, & List, 2018), which is an R-powered comprehensive sensitivity analysis tool for meta-analytic reviews. This program uses outlier and influence diagnostic procedures outlined by Viechtbauer and Cheung (2010). I calculated meta-analytic mean effect sizes before outlier removal and after outlier removal (see Table 4). When outliers were excluded, meta-analytic effects changed by .00 to .04. More specifically, the meta-analytic effect changed by .00 to .02 for each variable except for stress and turnover intentions, which changed by .04.

**Trait negative affect.** One outlier was identified. The meta-analytic mean effect size before outlier removal was $\rho = .33$ (95% CI [.28, .39]) and after outlier removal was $\rho = .32$ (95% CI [.26, .37]).

**Stress.** Two outliers were identified. The meta-analytic mean effect size before outlier removal was $\rho = .44$ (95% CI [.39, .48]), and after outlier removal was $\rho = .40$ (95% CI [.37, .44]).

**Emotional exhaustion.** No outliers were identified.

**Somatic symptoms.** One outlier was identified. The meta-analytic mean effect size before outlier removal was $\rho = .36$ (95% CI [.28, .44]), and after outlier removal was $\rho = .34$ (95% CI [.27, .41]).

**Job satisfaction.** One outlier was identified. The meta-analytic mean effect size before outlier removal was $\rho = -.44$ (95% CI [-.47, -.40]) and after outlier removal was $\rho = -.44$ (95% CI [-.48, -.41]).

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22 The R Shiny website and analytical tool can be found at [https://meta-analysis.shinyapps.io/sensitivityShiny4/](https://meta-analysis.shinyapps.io/sensitivityShiny4/)
**Turnover intentions.** Three outliers were identified. The meta-analytic mean effect size before outlier removal was $r = .35$ (95% CI [.33, .38]), and after outlier removal was $r = .39$ (95% CI [.38, .41]).

**Enacted incivility.** Two outliers were identified. The meta-analytic mean effect size before outlier removal was $r = .73$ (95% CI [.68, .78]) and after outlier removal was $r = .72$ (95% CI [.66, .77]).

**One sample removed analysis.** In order to better understand the independent effect of each outlier, I conducted a one sample removed analysis, which removes each individual sample one at a time and re-computes the meta-analytic effect size with the remaining samples (Borenstein et al., 2009). This analysis evaluates the influence of an individual sample on the meta-analytically derived effect size. I present the results of the one sample removed analysis, specifically examining the meta-analytic effect when each identified outlier was removed one at a time (see Table 5).

This analysis showed that when outlier studies were independently removed, meta-analytic effects changed by .00 to .02. However, there was one exception. When Cortina et al. (2013; sample 3) was removed, the relationship between incivility and turnover intentions increased by .04 from $r = .35$ to $r = .39$ (95% CI [.37, .41]). This study involved a very large sample ($N = 15,497$) of military personnel. Given that a military sample may be qualitatively different from a civilian sample, I present the omnibus results (refer to Table 3) and moderator results with and without this sample included. This study only examined one relevant correlate (turnover intentions); therefore, it was only necessary to re-analyze the effect of moderators on the relationship between incivility and turnover intentions.
Although other outliers were identified, I decided to retain them in the analyses given that they only impacted meta-analytic effects by .02 at most and there did not appear to be substantive reason (e.g., no unusual study feature; McCord et al., 2018) to exclude them. Additionally, Schmidt and Hunter (2015) typically do not remove anything but the most extreme “outliers.” They argue that extreme values are often not true outliers and when they are removed it can result in overcorrection for sampling error and underestimation of the true variance.

**Apriori Moderator Analyses**

**Occupation type.** Hypotheses 8a-f proposed that that the relations between incivility and its correlates would be strongest in the human service subgroup, intermediate in the mixed subgroup, and weakest in the indirect person-related subgroup. Significant weighted correlations emerged between the moderator (i.e., occupation type) and the job satisfaction and enacted incivility effect sizes, providing support for moderation. An examination of confidence intervals indicated that the observed pattern of results for job satisfaction and enacted incivility was consistent with expectations (i.e., the strongest effects emerged in the human service subgroup and the weakest effects emerged in the mixed or indirect-person subgroups; see Table 6).

**Job satisfaction.** Experienced incivility was negatively related to job satisfaction ($\rho = -.44; \text{95\% CI } [-.47, -.40]; 80 \text{ CR } [-.62, -.26]$). The effect size was negatively correlated with occupation type$^{23}$ ($r = -.37, p = .00$), providing evidence for moderation. The negative relationship between incivility and job satisfaction was stronger in samples composed of human service employees than samples composed of indirect-person related employees (see Figure 10).

More specifically, the effect size observed in the human service subgroup ($\rho = -.50; \text{95\% CI } [-.56, -.44]$) was stronger than the effect size observed in the mixed subgroup ($\rho = -.40; \text{95\% CI } [-.62, -.26]$).

$^{23}$ Human service samples were coded with a 3, mixed samples were coded with a 2, and indirect person-related samples were coded with a 1.
CI [-.44 to -.35]) and the indirect person-related subgroup ($\rho = -.37; 95\% \text{ CI} [-.44, .-30]$). The confidence interval of the human service subgroup overlapped by only .01 with the confidence interval of the mixed and indirect person-related subgroups. However, the mixed and indirect person-related subgroups did not differ from one another.

*Enacted incivility.* Experienced incivility was positively related to enacted incivility ($\rho = .73; 95\% \text{ CI} [.68, .78]; 80 \text{ CR} [.59, .87]$). The effect size was positively correlated with occupation type ($r = .62, p = .01$), providing evidence for moderation. The positive relationship between experienced and enacted incivility was strongest in samples composed of human service employees (see Figure 12). More specifically, the relationship between experienced incivility and enacted incivility was significantly stronger in the human service subgroup ($\rho = .84; 95\% \text{ CI} [.79, .88]$) than in the mixed subgroup ($\rho = .72; 95\% \text{ CI} [.66, .77]$). The indirect person-related subgroup consisted of only two samples. Therefore, I did not present the meta-analytic effect size for this subgroup.\(^{24}\)

*Turnover intentions, stress, emotional exhaustion, and somatic symptoms.* The weighted correlations between the moderator (i.e., occupation type) and the effect of incivility on turnover intentions ($r = .09, p = .46$), stress ($r = .02, p = .92$), emotional exhaustion ($r = -.02, p = .94$), and somatic symptoms ($r = -.02, p = .92$) were not significant. This suggests that the occupation type did not moderate the effect of incivility on ill-being variables and turnover intentions. Consistent with the non-significant weighted correlations, confidence intervals of each subgroup (i.e., human service, mixed, and indirect-person) overlapped substantially for the *ill-being* variables. However, this was not the case for turnover intentions.

\(^{24}\) However, the studies included in the indirect-person related subgroup were used to calculate the weighted correlation between the effect size and the moderator variable, occupation type.
More specifically, experienced incivility was positively related to turnover intentions ($\rho = .35$; 95% CI [.33, .38]; 80 CR [.23, .48]). The human service subgroup ($\rho = .44$; 95% CI [.40, .48]) had a significantly stronger effect than the mixed subgroup ($\rho = .34$; 95% CI [.31, .37]); however, it did not have a stronger effect than the indirect-person subgroup ($\rho = .40$; 95% CI [.33, .47]; see Figure 11).

Given that the outlier (Cortina et al., 2013; sample 3 with 15,497 military personnel respondents) assessed turnover intentions, it was necessary to exclude the outlier and re-examine the relationship between incivility and turnover intentions within each subgroup (i.e., human services, mixed, indirect-person). This study was conducted in the US military and consisted of employees from a variety of human service and indirect-person occupations. Therefore, I categorized it as mixed sample. When this sample was excluded, the effect size in the mixed subgroup increased from $\rho = .34$ to $\rho = .38$. However, the pattern of results remained the same. Similar to the results presented above, the effect size in the human service subgroup ($\rho = .44$; 95% CI [.40, .48]) was larger than the effect size in the mixed subgroup ($\rho = .38$; 95% CI [.36, .40]; confidence intervals overlapped by only .01) but was not different from the effect size in the indirect-person subgroup ($\rho = .40$; 95% CI [.33, .47]).

**Source of incivility.** Hypotheses 9a-f proposed that the relationships between incivility and its correlates would be strongest when incivility is enacted by supervisors, intermediate when enacted by coworkers, and weakest when enacted by outsiders. These hypotheses were partially supported (See Table 7). Although confidence intervals overlapped slightly, the pattern of effects suggests that supervisor incivility has the strongest effects and outsider incivility has the weakest effects on emotional exhaustion, job satisfaction, and turnover intentions. The pattern of results differed for enacted incivility (the strongest effect emerged in the coworker
incivility subgroup).

Below, I present results for emotional exhaustion, job satisfaction, turnover intentions and enacted incivility at the omnibus and subgroup level (i.e., coworker, supervisor, and outsider incivility). The omnibus effects reported in this section are based on studies that assess incivility from all three sources including coworkers, supervisors, and outsiders. Therefore, these omnibus effects differ from the omnibus effects presented throughout the rest of the manuscript, which do not include studies assessing incivility from outsiders.

**Emotional exhaustion.** Experienced incivility from coworkers, supervisors, and outsiders was positively related to emotional exhaustion ($\rho = .35; 95\%$ CI [.31, .38]; 80 CR [.23, .46]). The effect size was positively correlated with the source of incivility ($r = .35, p = .04$), providing evidence for moderation. The positive relationship between incivility and emotional exhaustion increased in strength as the source of incivility became more powerful (e.g., supervisors are more powerful than coworkers who are more powerful than outsiders; see Figure 6).

More specifically, supervisor incivility ($\rho = .40; 95\%$ CI [.36, .44]) had a stronger effect than coworker ($\rho = .33; 95\%$ CI [.28, .37]) and outsider incivility ($\rho = .31; 95\%$ CI [.24, .38]). Confidence intervals overlapped slightly. The supervisor incivility lower bound confidence interval overlapped by .02 and .03 with the upper bound of the coworker and outsider incivility confidence intervals, respectively. Coworker and outsider incivility did not differ from one another.

**Job satisfaction.** Experienced incivility from coworkers, supervisors, and outsiders was negatively related to job satisfaction ($\rho = -.39; 95\%$ CI [-.37, -.31]; 80 CR [-.43, -.36]). The effect size was negatively correlated with the source of incivility ($r = -.41, p = .01$), providing

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25 Supervisor incivility was coded with a 3, coworker incivility was coded with a 2, and outsider incivility was coded with a 1.
evidence for moderation. The negative relationship between incivility and job satisfaction increased in strength as the source of incivility became more powerful (e.g., supervisors are more powerful than coworkers who are more powerful than outsiders; see Figure 7).

More specifically, supervisor incivility ($\rho = -0.47; \text{CI } [-0.55, -0.39]$) had a stronger effect than coworker incivility ($\rho = -0.38; \text{95% CI } [-0.42, -0.34]$), and coworker incivility had a stronger effect than outsider incivility ($\rho = -0.30; \text{95% CI } [-0.37, -0.23]$). The confidence interval for supervisor incivility overlapped by .04 with the confidence interval for coworker incivility, which overlapped by .04 with the confidence interval for outsider incivility. (The supervisor incivility confidence interval did not overlap with the outsider incivility confidence interval).

Turnover intentions. Experienced incivility from coworkers, supervisors, and outsiders was positively related to turnover intentions ($\rho = 0.35; \text{95% CI } [0.33, 0.37]; 80 \text{ CR } [0.27, 0.44]$. There was a positive correlation between the effect size and the source of incivility ($r = 0.16, p = 0.32$). Although the correlation was not significant, the positive relationship between incivility and turnover intentions increased slightly as the source of incivility became more powerful (e.g., supervisors are more powerful than coworkers who are more powerful than outsiders; see Figure 8).

More specifically, the effect of supervisor incivility ($\rho = 0.36; \text{95% CI } [0.32, 0.39]$) was similar in magnitude to the effect of coworker incivility ($\rho = 0.35; \text{95% CI } [0.33, 0.38]$); however, supervisor and coworker incivility both had stronger effects than outsider incivility ($\rho = 0.26; \text{95% CI } [0.18, 0.34]$) and their lower bound confidence intervals overlapped with outsider incivility’s upper bound confidence interval by .03 and .02 respectively.26

26 The outlier (i.e., Cortina et al., 2013; sample 3) did not differentiate between source and therefore, did not impact this moderator analysis.
Enacted incivility. Experienced incivility from coworkers, supervisors, and outsiders was positively related to enacted incivility ($\rho = .55; 95\% \text{ CI} [.50, .59]; 80 \text{ CR} [.40, .70]$. The effect size was negatively correlated with the source of incivility ($r = -.49, p = .01$), providing evidence for moderation. However, the moderated effect was not in the expected direction. The positive relationship between experienced and enacted incivility decreased in strength as the source of incivility became more powerful (e.g., supervisors are more powerful than coworkers who are more powerful than outsiders; see Figure 9). More specifically, supervisor incivility ($\rho = .48; 95\% \text{ CI} [.42, .54]$) had a significantly weaker effect than coworker incivility ($\rho = .61; 95\% \text{ CI} [.56, .67]$). However, as expected coworker incivility had a stronger effect than outsider incivility ($\rho = .54; 95\% \text{ CI} [.49, .59];$ confidence intervals overlapped by .04).

Stress and somatic symptoms. The weighted correlations between the moderator (i.e., source of incivility) and the effect of incivility on stress ($r = .35, p = .27$), and somatic symptoms ($r = .29, p = .23$) were not significant. Similarly, confidence intervals of subgroups overlapped.

Mean trait negative affect. Hypotheses 10a-f proposed that the relationship between incivility and each correlate would strengthen as the sample mean level of trait negative affect increased. I made an a priori decision to examine trait negative affect as a continuous moderator if there were at least 10 studies that assessed trait negative affect (using the PANAS; Watson et al., 1988) in addition to the correlate (e.g., stress, turnover intentions) being examined. This criterion was not met for any variable. Therefore, I could not test this hypothesis.

Exploratory Research Questions

The relationship between experienced incivility and gender. Research question 1 explored the relationship between incivility and gender. A positive relationship emerged with women experiencing greater incivility ($\rho = .04; 95\% \text{ CI} [.02, .06]$).
**Percentage of females.** In order to examine research question 2 regarding the moderating role of percentage of females in the sample, I conducted an exploratory meta-regression. Specifically, I examined whether the variation in effect sizes could be explained by the percentage of females in the samples. None of the results were significant (see Table 8).

**Incivility scale.** To address research question 3 regarding the moderating role of incivility measure, I conducted a subgroup analysis specifically examining whether the effect size differed depending on the scale used to assess incivility (see Table 9). I created one subgroup of studies using the Workplace Incivility Scale (Cortina et al., 2001) and a second subgroup consisting of studies that used another measure of incivility, which I refer to as the “Other Measure” subgroup. Although I had proposed to create independent subgroups of studies using the Uncivil Workplace Behaviour questionnaire (UWBQ; Martin & Hine, 2005) or the Straightforward Incivility Scale (Leiter, et al., 2013), there were not enough studies that used these measures to do so. I was unable to examine the moderating role of scale on the relationship between incivility and somatic symptoms given that every study except for one used the Workplace Incivility Scale (Cortina et al., 2001).

Significant differences emerged for turnover intentions; however, this result should be interpreted with caution. The relationship between experienced incivility and turnover intentions was significantly stronger in the “Workplace Incivility Scale” subgroup (\( \rho = .39; 95\% \text{ CI} [.37, .41] \)) than in the “Other Measure” subgroup (\( \rho = .24; 95\% \text{ CI} [.19, .29] \)). However, the pattern flipped, when the outlier (i.e., Cortina et al., 2013; study 3 with 15,497 military personnel respondents) was removed, with a stronger effect emerging in the “Other Measure” subgroup (\( \rho = .44; 95\% \text{ CI} [.39, .49] \)) than in the “Workplace Incivility Scale” subgroup (\( \rho = .39; 95\% \text{ CI} [.37, .41] \)). Confidence intervals overlapped by .03.
**Reference period.** Research question 4 explored whether the length of the reference period included in the incivility measure would moderate the relations between incivility and its correlates. To address this question, I conducted an exploratory meta-regression, which examined whether variation in effect sizes could be explained by the length of the reference period. Results were only significant for somatic symptoms and job satisfaction (see Table 10). In both cases, the effect sizes weakened as the reference period increased. More specifically, for every one year increase in the reference period, the negative meta-analytic correlation between experienced incivility and job satisfaction ($r = -.44; 95\% \text{ CI} [-.47, -.40]; 80 \text{ CR} [-.62, -.26]$) weakened by $.05 (b = .05, t(3.23), p = .00, 95\% \text{ CI} [.02, .08];$ see Figure 13). In other words, it became less negative. The reference period explained $19.22\%$ of the variance in job satisfaction. Moreover, for every one year increase in the reference period, the positive meta-analytic correlation between experienced incivility and somatic symptoms ($r = .36; 95\% \text{ CI} [.28, .44]; 80 \text{ CR} [.12, .60]$) decreased by $.07 (b = -.07, t(-2.59), p = .02, 95\% \text{ CI} [-.13, -.01];$ see Figure 14). The reference period explained $32.80\%$ of the variance in somatic symptoms.

Although results showed that the reference period moderated the effect of experienced incivility on job satisfaction and somatic symptoms, it is important to note that the effects of continuous moderators can be strongly influenced by adding or deleting a small number of studies. The significance of a moderator test should not be interpreted as certainty (O’Boyle, Forsyth, Banks, & McDaniel, 2012), rather, as indication that the reference period may be influencing the effect of incivility on job satisfaction and somatic symptoms.

**Publication Bias**

Hunter and Schmit (2004) do not provide methods to test for publication bias. Therefore, I used Comprehensive Meta-Analysis (CMA) version 3 software (Borenstein, Hedges, Higgins,
which uses Hedges and Olkin formulas. I used several techniques including Begg and Mazumdar’s (1994) rank correlation test (see Table 11), Egger’s regression test (see Table 11), and Duval and Tweedie’s (2000) trim and fill technique (see Table 12). Begg and Mazumdar’s (1994) rank correlation test and Egger’s (1997) regression test are based on the premise that there is a relationship between precision (standard error) and effect size. Begg and Mazumdar’s (1994) rank correlation test computes the rank order correlations (Kendall’s tau) between the effect and the standard error and Egger’s (1997) regression test uses precision to predict the “standardized effect” (i.e. the effect size divided by standard error; Egger et al., 1997; Sterne & Egger, 2005). However, there are limitations with each of these tests. A non-significant correlation may be due to low statistical power and cannot necessarily be taken as evidence that bias is absent. Additionally, these tests have limited power, meaning, the results may not be significant if the number of samples is small, even when publication bias is operating (Borestein et al., 2009). Finally, these tests simply ask if there is evidence of publication bias, but they do not demonstrate the extent to which publication bias affects the results.

In order to address the limitations of Begg and Mazumdar’s (1994) rank correlation test and Egger’s regression test, I used Duval and Tweedie’s (2000) trim and fill technique, which estimates the effect size in the absence of bias (see Table 12). This method trims asymmetric studies to locate the unbiased effect, and then fills the plot by re-inserting the trimmed studies as well as their imputed counterparts. These analyses use Hedges-Olkin (1985) meta-analysis procedures, as opposed to psychometric meta-analysis which was used to conduct the omnibus analyses. In order to appropriately compare the effects adjusted for potential publication bias, I report naive effects using Hedges-Olkin (1985) calculations.
**Trait negative affect.** According to Begg and Mazumdar’s (1994) rank correlation test and Egger’s regression test, publication bias is not present. Consistent with the results of these analyses, Duval and Tweedie’s trim and fill technique did not identify any missing studies (see Figure 15).

**Stress.** According to Begg and Mazumdar’s (1994) rank correlation test and Egger’s regression test, publication bias is not present. Duval and Tweedie’s trim and fill technique identified 6 missing studies. After re-inserting the trimmed studies as well as their imputed counterparts, the stress meta-analytic correlation increased from .37 to .41 (see Figure 16). This represents inflation of 11%, which is not considered severe (Kepes et al., 2012).

**Emotional exhaustion.** According to Begg and Mazumdar’s (1994) rank correlation test and Egger’s regression test, publication bias is not present. Duval and Tweedie’s trim and fill technique identified 4 missing studies. After re-inserting the trimmed studies as well as their imputed counterparts, the emotional exhaustion meta-analytic correlation decreased from .38 to .36 (see Figure 17). This represents a reduction of 5%; therefore, the effect size is robust to publication bias (Kepes, Banks, McDaniel, & Whetzel, 2012).

**Somatic symptoms.** According to Begg and Mazumdar’s (1994) rank correlation test and Egger’s regression test, publication bias is not present. Similarly, Duval and Tweedie’s trim and fill technique did not find any missing studies (see Figure 18).

**Job satisfaction.** Begg and Mazumdar’s (1994) rank correlation test suggests that publication bias may be operating ($\tau = .14$, $z = 1.72$, $p = .04$). However, Egger’s regression test was not significant and according to Duval and Tweedie’s trim and fill technique, the meta-analytic correlation decreased from -.37 to -.38 after re-inserting the 2 trimmed studies as well as
their imputed counterparts (see Figure 19). This represents a reduction of 3%, suggesting that the effect size is robust to publication bias (Kepes et al., 2012).

**Turnover intentions.** Although Begg and Mazumdar’s (1994) rank correlation test was not significant, Egger’s regression test was significant ($b_0 = 1.24, t(63) = 2.26, p = .01, 95\% CI [.15, 2.34]$). Duval and Tweedie’s trim and fill technique identified 14 missing studies. After re-inserting the trimmed studies as well as their imputed counterparts, the meta-analytic correlation decreased from .35 to .30 (see Figure 20). It is necessary to note that the outlier is included in these analyses. When the outlier was excluded, Duval and Tweedie’s trim and fill technique identified only 8 studies. After re-inserting the trimmed studies as well as their imputed counterparts, the meta-analytic correlation decreased from .35 to .32 (see Table 12). This represents a reduction of 9%, which is not considered severe (Kepes et al., 2012).

**Enacted incivility.** According to Begg and Mazumdar’s (1994) rank correlation test and Egger’s regression test, publication bias is not operating. Similarly, Duval and Tweedie’s trim and fill did not find any missing studies (see Figure 21).

**Discussion**

The purpose of this meta-analysis was to provide a comprehensive quantitative review of published and unpublished empirical studies examining the correlates of experienced incivility and an integrative model to explain how and why incivility is related to ill-being, job attitudes, work behaviours, and individual differences. Consistent with hypotheses 1-7 (see Figure 22), experienced incivility was positively related to trait negative affect, stress, emotional exhaustion, somatic symptoms, turnover intentions and enacted incivility, and negatively related to job satisfaction. Confidence intervals did not include zero indicating that the effect sizes were significantly different from zero (Hunter & Schmidt, 2014).
In order to contextualize the effect sizes found in the present study, I referred to Paterson, Harms, Steel, and Credé (2016), who assessed the magnitude of reported effect sizes in organizational behaviour research by examining over 250 meta-analyses. They found that the average effect size for stress and aggression research was .24 (.29 corrected). They also provided meta-analytic corrected correlations between stress/aggression variables and job attitudes ($\rho = .35$), deviant behaviours ($\rho = .28$), individual differences ($\rho = .38$), and demographic variables ($\rho = .01$). Correlations were not provided between stress/aggression variables and well-being variables. I interpreted the magnitude of the corrected correlations between incivility and its correlates in reference to the average effect sizes reported by Paterson et al. (2016) and qualify estimates as “below-average,” “average,” and “above-average.”

Specifically, there was an average corrected correlation with turnover intentions ($\rho = .35$), a below-average corrected correlation with trait negative affect ($\rho = .33$ compared to $\rho = .38$ for individual differences reported in Paterson et al., 2016), and an above-average corrected correlation with job satisfaction ($\rho = -.44$ compared to $\rho = .35$ for job attitudes), enacted incivility ($\rho = .73$ compared to $\rho = .28$ for deviant behaviours), and gender ($\rho = .04$ compared to $\rho = .01$ for demographic variables). It is necessary to note that the meta-analytic correlation between experienced and enacted incivility is substantially larger than the average corrected correlation between stress/aggression variables and deviant behaviours ($\rho = .28$), reported by Paterson et al. (2016).

Although Paterson et al. (2016) did not report average effect sizes for relationships between stress/aggression variables and well-being variables, as indicated above, they reported a corrected correlation of $\rho = .29$ for stress/aggression research. Thus, the corrected correlations
between experienced incivility and stress (ρ = .44), emotional exhaustion (ρ = .44), and somatic symptoms (ρ = .36) are above the average effect reported by Paterson et al. (2016).

After examining the omnibus relationships between incivility and job attitudes, job behaviours, ill-being, and individual differences, I examined the role of moderators (see Figure 2). I predicted that the relationships between incivility and its correlates would be moderated by the occupation type (hypotheses 8a-f) and the source of incivility (hypotheses 9a-f). In relation to the occupation type, the effects of incivility on job satisfaction and enacted incivility were strongest in the human service subgroup. In relation to the source of incivility, supervisor incivility had the strongest effect and outsider incivility had the weakest effect on emotional exhaustion, job satisfaction, and turnover intentions. Interestingly, the relationship between experienced and enacted incivility was strongest when the source of incivility was a coworker.

I also predicted that the mean level of trait negative affect in each sample would moderate the relations between incivility and its correlates (hypotheses 10a-f). There was not enough data to perform these analyses. In terms of exploratory moderator research questions, I found an above-average relationship between experienced incivility and gender (research question 1) but failed to find support for a moderating effect of the percentage of females in the sample (research questions 2a-g). In relation to the measurement of incivility, including the scale used to assess incivility (research questions 3a-g) and the reference period (research questions 4a-f), there was only one clear finding: as the reference period increased, the positive relationship with somatic symptoms and the negative relationship with job satisfaction weakened. I summarize the results in detail and discuss their implications below. In the discussion of categorial moderators, I comment on the pattern of results and whether they are
consistent with expectations, even though confidence intervals demonstrate slight overlap for certain comparisons, and therefore I cannot describe them as significant results.

**Moderating Effects by Occupation Type**

The moderating effect of occupation type on the relationship between incivility and job satisfaction and enacted incivility was consistent with expectations. Effect sizes were strongest in the human service subgroup and weakest in the indirect person-related or mixed subgroup. An unexpected pattern of results emerged for turnover intentions and in contrast to expectations, differences did not emerge between occupation types for the ill-being variables.

**Job satisfaction.** The effect of incivility on job satisfaction was stronger in human service samples than in mixed or indirect person-related samples (with confidence interval overlap of .01). Human service work can be emotionally draining, and employees likely depend on their colleagues for emotional support. On the other hand, in indirect person-related jobs, the work may be less emotionally taxing, and therefore, employees may not be as reliant on their colleagues for support. As a result, incivility from colleagues may be more consequential for job satisfaction in human service occupations. Additionally, in some indirect-person related jobs, collaboration may not be an essential part of the role (e.g., manufacturing) and employees may find satisfaction in their work, even when treated uncivilly by colleagues. This may also explain why incivility from colleagues had a weaker effect in indirect-person related jobs.

**Enacted incivility.** As expected, the effect of experienced incivility on enacted incivility was stronger in human service samples than in mixed samples and confidence intervals did not overlap. There were not enough studies examining enacted incivility in indirect person-related samples to conduct a comparison. As discussed previously, human service providers cope with emotional stressors by depersonalizing, or distancing themselves from their service recipients.
This strategy is unique to the human services and often leads to behaviour that is negative, callous, or dehumanizing (Maslach et al., 2001). If depersonalization becomes a habitual pattern of behaviour within human service occupations, it may spill over and impact the way human service employees treat the people they work with, thereby resulting in higher levels of enacted incivility.

**Turnover intentions.** As expected, the results suggested that the effect of experienced incivility on turnover intentions was stronger in the human service subgroup than the mixed subgroup and confidence intervals did not overlap. However, the effect in the human service subgroup was not stronger than the indirect-person subgroup. This finding was surprising but may occur because human service providers recognize that leaving one organization would not necessarily change the conditions related to incivility in another organization within the human service sector. Additionally, human service providers may be able to focus on long-term levels of meaning they acquire from their work, which would prevent them from experiencing greater intentions to turnover.

Although the explanation above makes sense, it still remains unclear why the human service subgroup had a significantly stronger effect than the mixed subgroup when it did not have a stronger effect than the indirect-person subgroup. The majority of the mixed subgroup likely consisted of employees from indirect-person occupations. Thus, I combined the mixed and indirect person subgroups and conducted a supplementary analysis comparing the combined subgroup to the human service subgroup. As expected, the relationship between experienced incivility and turnover intentions was stronger in the human service subgroup than the combined subgroup. See Appendix D and Table D1 for more information.
Ill-being. Contrary to expectations, differences between the occupation types did not emerge for the ill-being variables, suggesting that incivility is equally harmful for well-being in human service and indirect person-related occupations. Research and theory highlight the importance of relationships for well-being. According to self-determination theory, individuals have three innate psychological needs, one of which is the need for relatedness – the desire for connectedness and belonging (Deci & Ryan, 2000). Basic psychological needs provide nutriments to the self, which are essential for growth and well-being. According to Deci and Ryan (2000) “the presence versus absence of environmental conditions that allow satisfaction of these basic needs … is thus a key predictor of whether or not people will display vitality and mental health” (p. 229-230). The experience of incivility should thwart satisfaction of the need for relatedness, thereby leading to ill-being. Given that this need is innate, incivility should be harmful for well-being regardless of the specific work context.

Moderating Effects by Source of Incivility

The results demonstrated that supervisor incivility had the strongest effect and outsider incivility had the weakest effect on emotional exhaustion, job satisfaction, and turnover intentions. An unexpected pattern of results emerged for enacted incivility. I discuss the specific pattern of results for each variable below.

Emotional exhaustion. Supervisor incivility had a stronger effect than both coworker and outsider incivility on emotional exhaustion (with minimal overlap in confidence intervals); however, the effects of coworker and outsider incivility did not differ from one another. Emotional exhaustion occurs when individuals perceive a threat to their resources or when they experience actual resource depletion (Hobfoll, 1989). As described earlier, supervisors have power over important organizational and social resources, whereas coworkers typically have
power over social resources (Hershcovis & Barling, 2010). Given that supervisors have control over more resources, it is not surprising that supervisor incivility was more strongly related to emotional exhaustion than coworker incivility. Unexpectedly, differences did not emerge between coworker and outsider incivility. Although coworkers pose a threat to social resources, outsiders also threaten resources. When employees experience incivility from outsiders, they are typically required to display emotions inconsistent with how they are actually feeling, which creates emotional dissonance (Dollard et al., 2003). Emotional dissonance can be particularly draining and has been shown to predict ill-health (Zapf, 2002). Thus, although the processes that impact resource depletion may differ depending on the source of incivility, the effects of coworker and customer incivility may be similar in magnitude.

**Job satisfaction.** Similar to emotional exhaustion, supervisor incivility had a stronger effect than outsider incivility on job satisfaction and confidence intervals did not overlap. This finding can be explained using organizational support theory (Eisenberger et al., 1986). Research shows that perceived organizational support is related to job satisfaction (e.g., Rhoades & Eisenberger, 2002). Incivility from supervisors should have greater consequences for perceived organizational support given that supervisors are agents of the organization. On the contrary, employees are less likely to hold the organization accountable for incivility enacted by outsiders. Therefore, outsider incivility should not impact perceptions of organizational support to the same extent as insider incivility and should consequently have a weaker effect on job satisfaction.

As expected, coworker incivility had a weaker effect than supervisor incivility and a stronger effect than outsider incivility. However, the coworker incivility confidence intervals overlapped with the confidence intervals of supervisor and outsider incivility. Therefore, more
research is needed to better understand if the effect of coworker incivility on job satisfaction is different from supervisor and/or outsider incivility.

**Turnover intentions.** Interestingly, both the supervisor and coworker incivility effect sizes were similar in magnitude but were stronger than the outsider incivility effect size (supervisor and coworker confidence intervals overlapped slightly with the outsider confidence interval). Relationships at work are deeply important for fulfilling and meeting emotional needs. Consistent with organizational support theory (Eisenberger et al., 1986), employees experience a sense of attachment to colleagues who demonstrate care and concern, which in turn creates a sense of attachment to the organization. When employees’ relationships at work are threatened or they lack support from coworkers or supervisors, they may withdraw emotionally and physically and eventually choose to leave the organization (Mossholder, Settoon, Henagan, 2005). Attachment to others in an organization is in fact one of eight distinctive motivational forces that contributes to voluntary turnover (Maertz & Griffeth, 2004). Incivility from coworkers or supervisors may threaten employees’ sense of attachment, belonging and security, thereby leading to turnover intentions. On the other hand, outsiders do not impact employees’ experiences of emotional attachment to organizational members and feelings of connectedness to the organization in the same way, which may explain why outsider incivility had a weaker effect on turnover intentions.

**Enacted incivility.** Interestingly, coworker incivility had a stronger effect than did supervisor incivility and confidence intervals did not overlap. Andersson and Pearson (1999) proposed that individuals should reciprocate directly against those who treat them uncivilly. As described earlier, research has provided evidence to suggest that people do indeed reciprocate when treated uncivilly (Bunk & Magley, 2013). Although the present study did not examine
enacted incivility towards a specific target, reports of enacted incivility likely capture instances of reciprocated incivility. Perhaps when individuals experience incivility from supervisors, they may choose not to reciprocate due to fear of consequences. On the other hand, when individuals experience incivility from coworkers, they may be more inclined to reciprocate given that the perceived consequences may be less severe. This may explain why experienced incivility from coworkers related more strongly to enacted incivility than incivility from supervisors. Interestingly, outsider incivility had a stronger effect on enacted incivility than supervisor incivility; however, the overlap in confidence intervals was more substantial and the outsider incivility effect size is based on only three studies. Therefore, this result should be interpreted with caution.

**Stress and somatic symptoms.** The results for stress and somatic symptoms followed the expected pattern, with supervisor incivility having the strongest effects and outsider incivility having the weakest effects. However, it would be imprecise to suggest that differences between groups emerged given that confidence intervals overlapped substantially, and some subgroups contain as few as three to four studies. Thus, more primary research is needed.

**Exploratory Moderating Effects**

**Gender and percentage of females.** There was a positive relationship between experienced incivility and gender: in other words, higher experienced incivility tends to co-occur with being female. The size of the effect ($\rho = .04$) is consistent with previous meta-analytic research that found a difference of $\delta = .06$ between men and women in perceptions of incivility (McCord et al., 2018). Although these effect sizes appear small based on Cohen’s (1993) commonly referenced rule of thumb (i.e., a correlation of .50 is strong, .30 is moderate, and .10 is weak), they are in fact larger than the average effect size between stress/aggression variables
and demographic variables reported by Paterson et al. (2016). Therefore, these findings suggest that women are slightly more likely to experience incivility than men. Even small effect sizes have substantial practical implications; therefore, these findings should be interpreted as meaningful (McCord et al., 2018).

Although women were slightly more likely to report experienced incivility, I did not find support for the moderator effect of the percentage of females in the sample. This is consistent with some previous research, which has found that mistreatment has similar effects for men and women (e.g., Cortina et al., 2002; Lim et al., 2008; Magley et al., 1999; Richman et al., 2002; Rospenda et al., 2000). However, percentage of females in the sample was used as a proxy for gender. Therefore, these results may in fact reflect other factors such as female-dominated industries or occupations (Shockley et al. 2017). Future primary and meta-analytic research that compares male and female samples on outcomes of incivility is likely a more fruitful avenue for understanding the moderating role of gender.

Measurement scale and reference period. I compared the effect sizes of studies using the Workplace Incivility Scale (Cortina et al., 2001) to studies using a different measure of incivility; however, a clear pattern of results did not emerge. The relationship between incivility and turnover intentions was originally stronger among studies that used the Workplace Incivility Scale (Cortina et al., 2001; see Appendix E for scale items). However, the pattern flipped, when the outlier (i.e., Cortina et al., 2013; study 3) was removed from the “other measure” subgroup. It is difficult to compare a subgroup consisting of one measure to a subgroup consisting of diverse measures. Based on the inconsistent pattern of results, I explored the items in the subgroup consisting of alternate incivility measures (see Appendix F) in order to compare them to the items in Cortina et al.’s (2001) Workplace Incivility Scale. Although the items in the alternate
measures appear to represent low intensity forms of mistreatment, the items in each measure vary greatly. For example, some measures include very specific items (e.g., Martin & Hine, 2005), while other measures include items that are more general (e.g., Leiter et al., 2013). Thus, combining studies using various measures into one subgroup may not be the most reliable method for discerning whether other measures of incivility capture the same underlying construct as the Workplace Incivility Scale (Cortina et al., 2001). As further research accumulates, it would be valuable to examine whether effect sizes differ across specific scales.

In relation to the reference period of the measures, as the reference period increased, the positive relationship with somatic symptoms and the negative relationship with job satisfaction weakened. These findings suggest that when longer reference periods are used, participants may recall uncivil experiences that occurred in the more distant past. These experiences may already be resolved emotionally and therefore the consequences may not be as strong. That being said, it is necessary to highlight that there was minimal variation in the reference period across studies. All of the studies used a reference period of five years, one year, or less than one year. None of the studies used a reference period of two, three, or four years. Therefore, the results should be interpreted with caution. Additionally, unlike, omnibus relations, meta-regression results can be strongly impacted by adding or deleting a small number of studies (O’Boyle et al., 2012). Although the results suggest that the reference period explains almost one-third of the variance in the effect sizes for somatic symptoms, the model may be capitalizing on sampling error.

**Theoretical Contributions**

Schilpzand et al. (2016) note that the incivility literature has not progressed cohesively resulting in a body of literature that is difficult to integrate and understand (Schilpzand et al., 2016). This meta-analysis provides a distinct theoretical contribution by introducing an
integrative model that identifies theories, and thereby mechanisms that explain the relationships between incivility and its health, attitudinal, behavioural, and individual difference correlates (see Figure 1). Specifically, the proposed model organizes the outcomes of incivility around two theoretical backgrounds and identifies underlying mechanisms that may be linking experienced incivility to its theorized outcome variables. I drew on stress theories to argue that experienced incivility should lead to ill-being and found above-average relationships between incivility and stress, emotional exhaustion, and somatic symptoms. Additionally, I drew on theories of organizational-behaviour to argue that experienced incivility should lead to negative job attitudes and work behaviours. Average to above-average relationships emerged with turnover intentions, enacted incivility and job satisfaction, providing support for this proposition.

Given the bidirectional nature of meta-analytic correlations, these results also suggest that ill-being, job attitudes, and behaviours may influence the extent to which individuals experience incivility. As described earlier, these variables have been treated exclusively as outcomes of incivility; however, they may also be predicting targeted experiences of incivility. In the current study, I elaborated on the theoretical processes connecting these variables when experienced incivility is the outcome variable. This argument, regarding the bidirectionality of correlations is actually consistent with the incivility spiral (Andersson & Pearson, 1999), which suggests that enacted incivility should in turn predict experienced incivility. Although scholars have examined individual differences (e.g., Mazuritsky, 2018; Sliter et al., 2015) and demographic characteristics (e.g., gender, race, age; Cortina et al., 2013; Lim & Lee, 2011) as predictors of experienced incivility, researchers have rarely theorized about the predictive role of ill-being, job attitudes and behaviours.
The positive meta-analytic correlation with trait negative affect provides further evidence that incivility is not only an antecedent, but an outcome. Although the size of the effect ($\rho = .33$) is slightly below the average effect reported by Paterson et al. (2016; $\rho = .38$), an effect size of $\rho = .33$ is certainly still meaningful. Given that trait negative affect is a stable individual difference, it can only be an antecedent of incivility. Therefore, the positive relationship suggests that individuals high in trait negative affect may perceive greater incivility because they are attentive to threatening stimuli and interpret ambiguous stimuli in a threatening manner. They may also be targeted and treated uncivilly (intentionally or unintentionally) because they are perceived as difficult to work with. These two differentiated theoretical mechanisms have been largely overlooked in incivility research.

Results of the moderator analyses also have important theoretical implications. For example, I found that the effects of incivility differ by source for certain correlates, including emotional exhaustion, job satisfaction, turnover intentions, and enacted incivility. These findings suggest that the processes and mediators explaining the relationships between incivility and its correlates may differ by source. For example, power, control over organizational resources, and perceptions of threat may explain why supervisor and coworker incivility are typically more consequential than outsider incivility. However, the results also suggested that outsider incivility exerts meaningful effects on emotional exhaustion, job satisfaction, and enacted incivility. Therefore, future theorizing and empirical research should explore mediators, such as emotional dissonance, that are unique to the relationship between outsider incivility and its correlates. Further theorizing about the explanatory processes, specific to source, will provide a more comprehensive understanding of this phenomenon.
Another important theoretical implication from the current meta-analysis is that single studies often examine incivility within a wide variety of occupations, while ignoring the role of the context in which it occurs. This is problematic because similar behaviours do not necessarily have the same impact across organizations, where norms for respect vary. In the current study, incivility’s relationship with job satisfaction and enacted incivility differed in magnitude by occupation type. This finding emphasizes the importance of context and suggests that differences would likely emerge at lower levels, such as between organizations and jobs. In fact, the relationship between incivility and turnover intentions was substantially weaker in a large military sample (Cortina et al., 2013) than in civilian samples. In order to build further theory, researchers should examine how specific “uncivil” behaviours, as measured in previous research, is experienced differently depending on the organizational context (Miner et al., 2018).

Additionally, an analysis of contextual norms across organizations may help elucidate what kind of behaviours are considered uncivil in specific organizations. For example, yelling at a colleague may be perceived as bullying in female-dominated jobs, such as elementary school teaching, but may be perceived as uncivil, or even neutral, in certain male-dominated jobs, such as policing, where there is a command and control culture. Mapping out uncivil behaviours across organizations will enable researchers to measure incivility more precisely, thereby leading to better tests of theory.

**Limitations and Future Research Directions**

The proposed conceptual model provides a framework for integrating previous research and enables scholars to better understand how and why experienced incivility relates to ill-being, job attitudes, behaviours, and individual differences. Although the bivariate relationships of the conceptual model (see Figure 22) were supported, this meta-analysis was not able to determine
when incivility is an antecedent and when it is an outcome of ill-being, job attitudes and work behaviours. It was also not able to test the underlying mechanisms of the proposed theories (e.g., resource depletion, negative appraisal, perceived organizational support, negative perceptual biases) given that there has been minimal research that has actually examined these processes. In Figure 23, I present a revised version of the proposed theoretical model (Figure 1) depicting the antecedents and outcomes of incivility as well as mediating mechanisms. Future research is needed to test this theoretical model.

Primary research using longitudinal and experience sampling methods should examine the extent to which cognitive appraisals, resource depletion, perceived organizational support, and negative affective reactions mediate the effect of incivility on ill-being, job attitudes, and behaviours (see Figure 23). According to the transactional model of stress (Lazarus & Folkman, 1984), appraisals, stress, and coping vary from situation to situation (Lazarus & Folkman, 1984). Lazarus and Folkman (1987) argued that ignoring variations in coping and averaging scores over long time periods will prevent researchers from understanding what it is that people are experiencing and which strategies they are using to cope (Lazarus & Folkman, 1987). Similarly, Weiss and Cropanzo (1996) argued for the need to examine specific discrete emotions that result from workplace events. Thus, an examination of incivility at the event level will enable scholars to better understand the appraisals, emotions, physiological changes, attitudes, behaviours, and coping responses that occur during and directly after an uncivil encounter. This will provide a better understanding of the mediating mechanisms that explain the relationships between experienced incivility and theoretically derived outcome variables.

In addition to examining attitudes, behaviours, and ill-being as outcomes of experienced incivility, future research should examine these variables as antecedents of experienced incivility.
For example, longitudinal research should assess participants’ job attitudes, behaviours, and ill-being at time 1, and frequency of experienced incivility at time 2. Similarly, researchers should examine the extent to which individual differences and personality predict experiences of incivility. However, when exploring whether individual differences (and some ill-being variables such as anxiety and depression) are predictive of uncivil experiences, researchers need to investigate whether individuals more likely to become targets of incivility or whether they are simply perceiving more incivility. Experimental or policy capturing research will help disentangle perceptions from actual targeted experiences. For example, using vignette research, Sliter et al. (2015) and Mazuritsky (2018) examined whether personality characteristics predicted perceptions of incivility. Additionally, Provencher, a member of our lab, is currently conducting a policy capturing study to assess whether certain people are more likely to become targets of incivility. More specifically, this study is assessing the likelihood that participants will engage in incivility towards colleagues who display negative traits and dispositions. To better understand why certain individuals are targeted more often, a follow-up study should examine why people are more likely to select certain targets over others (e.g., frustration, the desire to retaliate, or the need to replenish resources), whether intentionally or unintentionally. In sum, future research will enable scholars to better understand the extent to which job attitudes, behaviours, ill-being, and individual differences predict experiences of incivility as well as mediating mechanisms.

Future theorizing about the predictive role of job attitudes, behaviours, ill-being, and individual differences should apply a target selection framework, which is a nuanced version of the perpetrator predation paradigm (Cortina et al., 2017). Similar to the perpetrator predation paradigm, target selection suggests that certain people may be selected as targets more often and
enactors may do so without predation intention; however, it uses more nuanced terminology and places agency and control within the target, in addition to the enactor. This framing has important practical implications. If intervention programs use labels such as perpetrator and victim, employees may feel demonized and will likely become resentful and resistant to training (Kohler et al., 2018). Thus, using milder terminology such as enactor and target (to acknowledge that uncivil actors are not necessarily “bad” people who predate on victims), will result in people being more receptive to training. Additionally, by placing agency and control in the hands of targets, targets should feel empowered to change their behaviour so that they are less likely to be treated uncivilly in the future. In sum, target selection is applicable for understanding incivility and other low-intensity ambiguous behaviours.

The present study was not only limited in its ability to examine the directionality of main effects and mediating mechanisms; it was also limited in its ability to explore moderators. In some cases, there were not enough studies to conduct all the proposed moderator analyses, or there were a limited number of studies, thereby preventing greater confidence in the moderator results. For example, I was unable to examine the moderating role of trait negative affect as there were not enough studies that examined trait negative affect using the PANAS (Watson et al., 1988) in addition to a relevant correlate. Moreover, some of the categorical moderator analyses were based on subgroups containing as few as three samples. I caution against over-interpreting results where subgroups contained few studies.

Another limitation was related to the moderating role of occupation type. There were many studies that examined incivility within a variety of occupations, which prevented me from categorizing these studies as either human service or indirect person-related occupations. Authors often provided a list of example jobs, and often the list consisted primarily of indirect
person jobs (e.g., general labor, service, education, accounting). In some cases, all of the examples fell within the indirect-person category (e.g., biomedical research, retail, transportation, accounting). Unfortunately, it was unclear if these lists were exhaustive. Thus, it may have been the case that most, if not all, employees worked in indirect person-related occupations. In order to be cautious, I included these samples in the mixed subgroup. Although, the human service and indirect person-related subgroups still contained a sufficient number of studies to conduct comparisons, the results may have been more precise had there been more information to appropriately categorize some of these “mixed” samples in the indirect person-related subgroup. As described earlier, researchers are encouraged to examine incivility within single occupations, or at the very least, they should differentiate between occupation types (e.g., white-collar versus blue-collar; Miner et al., 2018) in their analyses. This will help elucidate whether effect sizes differ depending on the occupation or occupation type.

Finally, like all other meta-analyses, this meta-analysis was limited by the methods and measures of the studies it includes. The majority of studies included in this meta-analysis used the Workplace Incivility Scale (Cortina et al., 2001) or similar measures, which consist of a series of discrete behaviours. However, the same behaviours are not necessarily considered uncivil across organizations or even within subunits of organizations (Miner et al., 2018). Additionally, researchers have assumed that they are measuring experienced incivility; however, they have not assessed whether participants actually perceive the behaviours to be uncivil. In order to measure the construct most accurately, future research should develop reflective measures or use previously existing reflective measures, such as Leiter et al.’s (2013) Straightforward Incivility Scale, which capture perceptions of uncivil treatment (Patterson et al.,
2017). As incivility research continues to accumulate, it would be worthwhile to re-examine some of the research questions in the present meta-analysis.

**Final thoughts: Rethinking the theoretical definition of incivility.** Although the present study contains limitations, it provides a much clearer picture of the research that has been conducted and where future research is needed. A final step for future research is to go back to square one: we should reassess Andersson and Pearson’s (1999) theoretical definition of workplace incivility, which has been the basis for empirical research thus far (Miner et al., 2018). Researchers have unquestionably accepted Andersson and Pearson’s definition and their theoretical propositions; however, they have neglected to actually test it (Miner et al., 2018). Thus, it is unclear whether Andersson and Pearson’s conceptualization adequately represents how incivility manifests in workplaces (Miner et al., 2018). Miner et al. (2018) recently challenged the assumptions that incivility is ambiguous in intent, dysfunctional, tit-for-tat, dyadic, and that there are uniform norms for respect. I agree with their arguments and build on two: that incivility is a violation of workplace norms for mutual respect and that incivility is ambiguous in intent to harm.

Uncivil behaviours may not actually violate organizational norms for respect (Miner et al., 2018). Norms can vary across workgroups within the same organization (Miner et al. 2018). Therefore, a behaviour that violates norms in one department of an organization may not violate norms in another department of the organization. This is especially the case in global companies, where norms for respect may vary by culture. Additionally, person norms are not necessarily consistent with organizational norms. Therefore, a behaviour that violates personal norms, but not organizational norms, could still be perceived and experienced as uncivil. For example, women have higher standards regarding what is considered respectful behaviour (Montgomery et
Therefore, they may be more likely to perceive incivility in organizations where rudeness is the norm. It would be valuable to study the extent to which employees’ perceptions of incivility are based on violations of personal and/or organizational norms. Qualitative research and focus groups may enable researchers to better understand what kinds of behaviours are considered uncivil within specific organizations and the extent to which these behaviours violate organizational, workgroup, and personal norms. This research may suggest that it is actually more accurate to define *perceived* incivility as a violation of *personal* norms as opposed to a violation of organizational norms.

Furthermore, I agree with Miner et al. (2018) that ambiguity of intent may not be an essential component of incivility; however, I add a unique perspective. First, I argue that it may in fact be inferable that intent to harm is absent. This differs from Miner et al.’s (2018) argument, that intent to harm is often clearly detectable. For example, during a work meeting, an employee may use her cell phone while her colleague is speaking. The speaker may recognize that his colleague is simply responding to emails because she is stressed and therefore has no intent to harm. However, the speaker, who is presenting an important topic may, nonetheless, perceive his colleague’s actions as uncivil and hurtful. This example demonstrates that people may perceive incivility even when it is clear an actor has no intent to cause harm. Second, I argue that intent to *harm* may not precisely represent the ambiguous component of incivility; rather, what seems to be ambiguous is whether an enactor intends to *engage* in an uncivil behaviour. For example, if Employee B is not invited for lunch by Employee A, he may wonder whether Employee A intentionally excluded him or whether it was simply an oversight. People should be more likely to perceive incivility when they think the actor intended to engage in the behaviour. Although
the definition of incivility states that an actor’s *intent to harm* is ambiguous, it may be more accurate to suggest that it is an actor’s *intent to engage* in the behaviour that is ambiguous.

Therefore, research is needed to examine employees’ experiences of incivility and their beliefs regarding intentionality. Researchers may consider using ecological momentary assessment with event-based monitoring (Shiffman, Stone, & Hufford, 2008). This will allow researchers to assess participants’ beliefs regarding an actor’s intent to harm (i.e., definitely present, definitely not present, unsure) and an actor’s intent to engage in the behaviour (i.e., purposeful versus accidental) directly after an uncivil experience. Assessing incivility in real time will provide richer information about individuals’ experiences, perceptions, and beliefs about intentionality.

Although previous research has unquestionably accepted Andersson and Pearson’s (1999) original definition of workplace incivility, the time is ripe to test their underlying assumptions. It is hoped that future research will provide a clearer, more refined definition and understanding of workplace incivility.

**Practical Implications**

Overall, the findings of this meta-analysis provide a better understanding of the nature and seriousness of incivility for employees and organizations. The magnitude of the effects suggests the necessity for organizations to implement intervention programs aimed at decreasing incivility and fostering civility. For example, organizations should consider implementing Civility, Respect, and Engagement in the Workforce (CREW), a group-level intervention that focuses on increasing the frequency and quality of civil interactions among employees (Leiter, Day, Oore, Laschinger, 2012). CREW has been empirically validated and has been shown to improve civility, respect, and the quality of social interactions.
However, there may be value in developing and testing the effectiveness of new interventions. As discussed, all people will experience incivility and all people will engage in behaviours or omit behaviours that are perceived by others as uncivil. Therefore, mindfulness training may be beneficial for reducing enacted and experienced incivility. A mindfulness practice can enable employees to become more aware of how their behaviour impacts people and why certain behaviours might be interpreted as uncivil. Additionally, it can empower employees to monitor their behaviour, and modify it when necessary, so that they are less likely to be targeted in the future.

Although mindfulness training may be an effective strategy for reducing incivility and improving civility, there is still a need to provide employees with strategies for coping with incivility when it does occur. The results of the present study suggest that that the source of incivility can have a differential impact on the outcome. Therefore, as more research on the explanatory mechanisms accumulates, it would be valuable to develop practical interventions that provide employees with different tools to cope with incivility depending on source. For example, if supervisor and coworker incivility affect outcomes due to greater perceptions of threat, employees may benefit from cognitive reappraisal training. If outsider incivility affects outcomes due to increased feelings of emotional dissonance, it may be worthwhile to provide employees with emotion regulation training.

Although it is important for employees to be mindful of their behaviour and to develop strategies for coping with incivility, organizations must also be held responsible for creating and maintaining healthy environments that promote civility and respect. Given that incivility is of low intensity, employees may feel uncomfortable communicating their concerns about incivility with their managers. Similarly, managers may feel that incivility is too minor to formally
address. Therefore, organizations have several responsibilities. First, there is a need to ensure that there are clear norms around what constitutes respectful behaviour at the organizational level as well as at the group level. Second, there should be clear policies and procedures in place and managers should be trained and equipped with tools to effectively address incivility. Third, senior leadership should model respectful behaviour and encourage discussions around civility and incivility to ensure that employees are comfortable voicing their concerns when incivility does arise. Finally, organizations should identify the structures, procedures, and processes within their organization that may be contributing to an uncivil climate (Kohler et al., 2018).

Meta-analyses allow researchers to reach stronger conclusions than narrative reviews and single studies and therefore can have a considerable impact on policy making (Hoffert, 1997; Hunter & Schmidt, 1996). The effect sizes reported in the current study demonstrate the magnitude of the issue and should be shared with policy makers, practitioners, and organizational leaders. It is hoped that these findings will encourage organizations to implement training, policies, and procedures that will ultimately improve employee and organizational well-being.

**Conclusion**

Although the research on incivility has proliferated, the literature currently lacks an integrative theoretical framework. Drawing on several theoretical backgrounds, I proposed an integrative conceptual model explaining why people are targeted by incivility, why people perceive incivility, and why incivility affects employee health, attitudes, and behaviours. The framework I present helps synthesize and explain existing research findings and serves as a guide for future theoretical and empirical research. The meta-analytic results indicate that the magnitude of the relations between incivility and its correlates are average to above-average for
almost all variables and provide a better understanding of where research is needed. It is hoped that the findings of this meta-analysis will encourage future research to advance theory by examining the links that have not yet been studied as well as the mechanisms through which incivility affects employee and organizational outcomes.
References


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### Table 1

**Reliability of Experienced Incivility**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Average N-weighted reliability</th>
<th>$k$</th>
<th>$N$</th>
<th>No. of studies missing alphas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced incivility from supervisors, coworkers, or unspecified source</td>
<td>.88</td>
<td>164$^a$</td>
<td>100 903</td>
<td>5$^b$</td>
</tr>
<tr>
<td>Experienced incivility from organizational outsiders</td>
<td>.89</td>
<td>23</td>
<td>5676</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note.* $k =$ number of studies used to compute the weighted reliability; $N =$ sample size  
$^a$ The weighted alpha was based only on studies that used the Workplace Incivility Scale (WIS; Cortina et al., 2011). Sixteen of 164 studies assessed experienced incivility using the WIS; however, they were not included in the current meta-analysis as they did not assess any correlates analyzed in the current study.  
$^b$ The five studies missing alphas for experienced incivility assessed experienced incivility using the Workplace Incivility Scale (Cortina et al., 2001).
Table 2

*Reliabilities of Incivility Correlates*

<table>
<thead>
<tr>
<th>Construct</th>
<th>Average N-weighted reliability</th>
<th>k&lt;sup&gt;a&lt;/sup&gt;</th>
<th>N</th>
<th>No. of studies missing alphas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait Negative Affect / Neuroticism</td>
<td>.86</td>
<td>43</td>
<td>14792</td>
<td>1</td>
</tr>
<tr>
<td>Stress</td>
<td>.82</td>
<td>22</td>
<td>8501</td>
<td>4</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>.90</td>
<td>26</td>
<td>10553</td>
<td>2</td>
</tr>
<tr>
<td>Somatic Symptoms</td>
<td>.81</td>
<td>18</td>
<td>9107</td>
<td>5</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>.85</td>
<td>70</td>
<td>30721</td>
<td>4</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>.85</td>
<td>58</td>
<td>73389</td>
<td>10</td>
</tr>
<tr>
<td>Enacted Incivility</td>
<td>.81</td>
<td>19</td>
<td>14187</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note.* k = number of studies used to compute the weighted reliability; N = sample size

<sup>a</sup> Includes studies assessing incivility from organizational outsiders
Table 3

*Correlates of Experienced Incivility (Coworker, Supervisor, Unspecified) in Hunter-Schmidt Tradition*

<table>
<thead>
<tr>
<th>Correlate</th>
<th>$k^a$</th>
<th>$N$</th>
<th>$r$</th>
<th>$SD_r$</th>
<th>$\rho$</th>
<th>$SD_\rho$</th>
<th>95% CI</th>
<th>80% CR</th>
<th>% var SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait Negative Affect</td>
<td>40</td>
<td>13988</td>
<td>.28</td>
<td>.15</td>
<td>.33</td>
<td>.17</td>
<td>[.28, .39]</td>
<td>[.11, .55]</td>
<td>10</td>
</tr>
<tr>
<td>Stress</td>
<td>25</td>
<td>10749</td>
<td>.37</td>
<td>.10</td>
<td>.44</td>
<td>.11</td>
<td>[.39, .48]</td>
<td>[.29, .58]</td>
<td>17</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>21</td>
<td>10644</td>
<td>.37</td>
<td>.07</td>
<td>.44</td>
<td>.13</td>
<td>[.38, .50]</td>
<td>[.27, .61]</td>
<td>11</td>
</tr>
<tr>
<td>Somatic Symptoms</td>
<td>22</td>
<td>11772</td>
<td>.28</td>
<td>.14</td>
<td>.36</td>
<td>.19</td>
<td>[.28, .44]</td>
<td>[.12, .60]</td>
<td>7</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>69</td>
<td>32369</td>
<td>-.38</td>
<td>.11</td>
<td>-.44</td>
<td>.14</td>
<td>[-.47, -.40]</td>
<td>[-.62, -.26]</td>
<td>10</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>65</td>
<td>76523</td>
<td>.30</td>
<td>.08</td>
<td>.35</td>
<td>.10</td>
<td>[.33, .38]</td>
<td>[.23, .48]</td>
<td>9</td>
</tr>
<tr>
<td>Turnover Intentions excluding outlier</td>
<td>64</td>
<td>61026</td>
<td>.33</td>
<td>.07</td>
<td>.39</td>
<td>.08</td>
<td>[.37, .41]</td>
<td>[.29, .49]</td>
<td>16</td>
</tr>
<tr>
<td>Enacted Incivility</td>
<td>18</td>
<td>15785</td>
<td>.53</td>
<td>.08</td>
<td>.73</td>
<td>.11</td>
<td>[.68, .78]</td>
<td>[.59, .87]</td>
<td>8</td>
</tr>
<tr>
<td>Gender$^b$</td>
<td>67</td>
<td>42459</td>
<td>.04</td>
<td>.07</td>
<td>.04</td>
<td>.07</td>
<td>[.02, .06]</td>
<td>[-.05, .13]</td>
<td>26</td>
</tr>
</tbody>
</table>

Note. $k^a$ = number of independent effect sizes included in each analysis; $N$ = sample size; $r$ = sample-weighted mean uncorrected correlation; $SD_r$ = standard deviation of the mean uncorrected correlation; $\rho$ = sample-weighted mean corrected correlation; $SD_\rho$ = standard deviation of the mean corrected correlation; 95% CI = 95% confidence interval around $\rho$; 80% CR = 80% credibility interval around $\rho$; % of variance explained = percentage of variance attributable to sampling error

$a$ Does not include studies assessing incivility from organizational outsiders

$^b$ Gender coded 0 = male; 1 = female
Table 4

Outlier Analysis

<table>
<thead>
<tr>
<th>Correlate</th>
<th>$k$</th>
<th>$N$</th>
<th>$\rho$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait Negative Affect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before outlier removal</td>
<td>40</td>
<td>13988</td>
<td>.33</td>
<td>[.28, .39]</td>
</tr>
<tr>
<td>After outlier removal</td>
<td>39</td>
<td>13588</td>
<td>.32</td>
<td>[.26, .37]</td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before outlier removal</td>
<td>25</td>
<td>10749</td>
<td>.44</td>
<td>[.39, .48]</td>
</tr>
<tr>
<td>After outlier removal</td>
<td>23</td>
<td>9469</td>
<td>.40</td>
<td>[.37, .44]</td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before outlier removal</td>
<td>21</td>
<td>10644</td>
<td>.44</td>
<td>[.38, .50]</td>
</tr>
<tr>
<td>After outlier removal</td>
<td>21</td>
<td>10644</td>
<td>.44</td>
<td>[.38, .50]</td>
</tr>
<tr>
<td>Somatic Symptoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before outlier removal</td>
<td>22</td>
<td>11772</td>
<td>.36</td>
<td>[.28, .44]</td>
</tr>
<tr>
<td>After outlier removal</td>
<td>21</td>
<td>11459</td>
<td>.34</td>
<td>[.27, .41]</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Before outlier removal</td>
<td>69</td>
<td>32369</td>
<td>-.44</td>
<td>[-.47, -.40]</td>
</tr>
<tr>
<td>After outlier removal</td>
<td>68</td>
<td>32216</td>
<td>-.44</td>
<td>[-.48, -.41]</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before outlier removal</td>
<td>65</td>
<td>76523</td>
<td>.35</td>
<td>[.33, .38]</td>
</tr>
<tr>
<td>After outlier removal</td>
<td>62</td>
<td>59099</td>
<td>.39</td>
<td>[.38, .41]</td>
</tr>
<tr>
<td>Enacted Incivility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before outlier removal</td>
<td>18</td>
<td>15785</td>
<td>.73</td>
<td>[.68, .78]</td>
</tr>
<tr>
<td>After outlier removal</td>
<td>16</td>
<td>14728</td>
<td>.72</td>
<td>[.66, .77]</td>
</tr>
</tbody>
</table>

Note. $k =$ number of independent effect sizes included in each analysis before and after outlier removal; $N =$ sample size before and after outlier analysis; $\rho =$ weighted mean observed correlation before and after outlier removal; 95% CI = 95% CI around weighted mean observed correlation before and after outlier removal
<table>
<thead>
<tr>
<th>Correlate</th>
<th>( N )</th>
<th>( \rho ) (original)</th>
<th>( \rho ) (one sample removed)</th>
<th>95% CI</th>
</tr>
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*Note.* \( \rho \) (original) = weighted mean observed correlation before one sample removed; \( \rho \) (one sample removed) = weighted mean observed correlation with one sample removed; 95% CI = 95% CI around weighted mean with one sample removed.

\(^a\) Samples removed were those identified as outliers.
Table 6

The Moderating Role of Occupation Type

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Note. $k =$ number of independent effect sizes included in each analysis; $N =$ sample size; $r =$ sample-weighted mean uncorrected correlation; $SD_r =$ standard deviation of the mean uncorrected correlation; $\rho =$ sample-weighted mean corrected correlation; $SD_\rho =$ standard deviation of the mean corrected correlation; $95\% CI =$ 95% confidence interval around $\rho$; $80\% CR =$ 80% credibility interval around $\rho$; $\%$ of variance explained $=$ percentage of variance attributable to sampling error; $r =$ weighted correlation between effect size and occupation type (Indirect-person $= 1$; Mixed $= 2$; Human services $= 3$); $p = p$ value.
### Table 7

**The Moderating Role of Source of Incivility**

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|                     | [.33, .37] | [.32, .39]| [.33, .38]| [.18, .34]| [.32, .38]| [.33, .38]| [.32, .38]| [.18, .34]| [.32, .38]|}

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<th>Enacted Incivility</th>
<th>Supervisor</th>
<th>Coworker</th>
<th>Outsider</th>
<th>Supervisor</th>
<th>Coworker</th>
<th>Outsider</th>
<th>Supervisor</th>
<th>Coworker</th>
<th>Outsider</th>
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<td>14303</td>
<td>938</td>
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<td>14303</td>
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<td>14303</td>
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<td>.10</td>
<td>.09</td>
<td>.10</td>
<td>.10</td>
<td>.09</td>
</tr>
</tbody>
</table>

Note. \(k\) = number of effect sizes included in each analysis; \(N\) = sample size; \(r\) = sample-weighted mean uncorrected correlation; \(SD_r\) = standard deviation of the mean uncorrected correlation; \(\rho\) = sample-weighted mean corrected correlation; \(SD_\rho\) = standard deviation of the mean corrected correlation; 95\% CI = 95\% confidence interval around \(\rho\); 80\% CR = 80\% credibility interval around \(\rho\); % of variance explained = percentage of variance attributable to sampling error; \(r\) = weighted correlation between the effect size and the source of incivility (supervisor = 3, coworkers = 2, outsiders = 1); \(p\) = \(p\) value

\(a\) Twenty-eight studies assessed incivility from both coworkers and supervisors, and nine studies assessed incivility from outsiders in addition to a colleague (i.e., coworker or supervisor). Therefore, the effect sizes presented at the omnibus and subgroup level are based on dependent data. Although it is preferable to conduct meta-analyses using independent data, Monte Carlo simulations by Tracz, Elmore, and Pohlmann (1992) provided evidence that “combining the statistics from non-independent data in a correlational meta-analysis does not have an adverse effect on the results” (Tracz et al., 1992, p. 886).

\(b\) The omnibus effects in this table include studies that assessed incivility from outsiders and therefore differ from the omnibus effects in table 3 and the rest of the manuscript.
Table 8

*The Moderating Role of Percentage of Females*

<table>
<thead>
<tr>
<th>Correlate</th>
<th>( k )</th>
<th>( R^2 )</th>
<th>( b )</th>
<th>( t )</th>
<th>( SE )</th>
<th>( p )</th>
<th>( 95% CI )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait Negative Affect</td>
<td>38</td>
<td>5.98</td>
<td>-0.0033</td>
<td>-1.72</td>
<td>0.0019</td>
<td>0.09</td>
<td>[-0.0071, 0.0006]</td>
</tr>
<tr>
<td>Stress</td>
<td>24</td>
<td>0.93</td>
<td>-0.0009</td>
<td>-0.94</td>
<td>0.0010</td>
<td>0.36</td>
<td>[-0.0029, 0.0011]</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>20</td>
<td>0.00</td>
<td>-0.0009</td>
<td>-0.58</td>
<td>0.0016</td>
<td>0.57</td>
<td>[-0.0042, 0.0024]</td>
</tr>
<tr>
<td>Somatic Symptoms</td>
<td>22</td>
<td>2.12</td>
<td>0.002</td>
<td>1.24</td>
<td>0.0016</td>
<td>0.23</td>
<td>[-0.0013, 0.0053]</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>63</td>
<td>0.00</td>
<td>-0.0004</td>
<td>-0.52</td>
<td>0.0007</td>
<td>0.60</td>
<td>[-0.0019, 0.0011]</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>58</td>
<td>1.05</td>
<td>-0.0008</td>
<td>-1.27</td>
<td>0.0006</td>
<td>0.21</td>
<td>[-0.0020, 0.0005]</td>
</tr>
<tr>
<td>Turnover Intentions excluding outlier</td>
<td>57</td>
<td>1.76</td>
<td>-0.0008</td>
<td>-1.35</td>
<td>0.0006</td>
<td>0.18</td>
<td>[-0.0020, 0.0005]</td>
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<tr>
<td>Enacted Incivility</td>
<td>16</td>
<td>12.24</td>
<td>0.0036</td>
<td>1.72</td>
<td>0.0021</td>
<td>0.11</td>
<td>[-0.0009, 0.0081]</td>
</tr>
</tbody>
</table>

*Note.* \( k \) = number of independent effect sizes included in each analysis; \( R^2 \) = percentage of variance explain by moderator; \( b \) = unstandardized coefficient; \( t \) = \( t \) value; \( SE \) = standard error of the estimate; \( p \) = \( p \) value; 95% CI = 95% confidence interval around \( b \)
### Table 9

**The Moderating Role of Measure**

<table>
<thead>
<tr>
<th>Correlate</th>
<th>k</th>
<th>N</th>
<th>r</th>
<th>SD_r</th>
<th>p</th>
<th>SD_p</th>
<th>95% CI</th>
<th>80% CR</th>
<th>% var SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trait NA</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Workplace Incivility Scale</td>
<td>40</td>
<td>13988</td>
<td>.28</td>
<td>.15</td>
<td>.33</td>
<td>.17</td>
<td>[.28, .39]</td>
<td>[.11, .55]</td>
<td>10</td>
</tr>
<tr>
<td>Other Measure</td>
<td>33</td>
<td>11929</td>
<td>.27</td>
<td>.16</td>
<td>.32</td>
<td>.17</td>
<td>[.26, .38]</td>
<td>[.10, .54]</td>
<td>10</td>
</tr>
<tr>
<td><strong>Stress</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Workplace Incivility Scale</td>
<td>25</td>
<td>10749</td>
<td>.37</td>
<td>.10</td>
<td>.44</td>
<td>.11</td>
<td>[.39, .48]</td>
<td>[.29, .58]</td>
<td>17</td>
</tr>
<tr>
<td>Other Measure</td>
<td>22</td>
<td>9847</td>
<td>.37</td>
<td>.10</td>
<td>.44</td>
<td>.11</td>
<td>[.39, .49]</td>
<td>[.29, .58]</td>
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<tr>
<td><strong>Emotional Exhaustion</strong></td>
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<tr>
<td>Workplace Incivility Scale</td>
<td>21</td>
<td>10644</td>
<td>.37</td>
<td>.07</td>
<td>.44</td>
<td>.13</td>
<td>[.38, .50]</td>
<td>[.27, .61]</td>
<td>11</td>
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<tr>
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<td>16</td>
<td>7830</td>
<td>.35</td>
<td>.07</td>
<td>.41</td>
<td>.11</td>
<td>[.35, .47]</td>
<td>[.27, .55]</td>
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<td><strong>Job Satisfaction</strong></td>
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<tr>
<td>Workplace Incivility Scale</td>
<td>69</td>
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<td>-.44</td>
<td>.14</td>
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<td>[-.62, -.26]</td>
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<td>-.38</td>
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<td>-.44</td>
<td>.15</td>
<td>[-.48, -.40]</td>
<td>[-.64, -.25]</td>
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<tr>
<td><strong>Turnover Intentions</strong></td>
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<tr>
<td>Workplace Incivility Scale</td>
<td>65</td>
<td>76523</td>
<td>.30</td>
<td>.08</td>
<td>.35</td>
<td>.10</td>
<td>[.33, .38]</td>
<td>[.23, .48]</td>
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<tr>
<td>Other Measure</td>
<td>58</td>
<td>59330</td>
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<td>.07</td>
<td>.39</td>
<td>.08</td>
<td>[.37, .41]</td>
<td>[.29, .49]</td>
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<td>Other Measure excluding outlier</td>
<td>7</td>
<td>17193</td>
<td>.21</td>
<td>.05</td>
<td>.24</td>
<td>.06</td>
<td>[.19, .29]</td>
<td>[.16, .32]</td>
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<tr>
<td>Workplace Incivility Scale</td>
<td>18</td>
<td>15785</td>
<td>.53</td>
<td>.08</td>
<td>.73</td>
<td>.11</td>
<td>[.68, .78]</td>
<td>[.59, .87]</td>
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<tr>
<td>Other Measure</td>
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<td>13300</td>
<td>.53</td>
<td>.08</td>
<td>.72</td>
<td>.10</td>
<td>[.67, .78]</td>
<td>[.59, .86]</td>
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<tr>
<td>Other Measure</td>
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<td>.00</td>
<td>.78</td>
<td>.14</td>
<td>[.62, .95]</td>
<td>[.60, .97]</td>
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</table>

*Note.* k = number of independent effect sizes included in each analysis; N = sample size; r = sample-weighted mean uncorrected correlation; SD_r = standard deviation of the mean uncorrected correlation; p = sample-weighted mean corrected correlation; SD_p = standard deviation of the mean corrected correlation; 95% CI = 95% confidence interval around p; 80% CR = 80% credibility interval around p; % of variance explained = percentage of variance attributable to sampling error.
Table 10

**The Moderating Role of Reference Period**

<table>
<thead>
<tr>
<th>Correlate</th>
<th>k</th>
<th>$R^2$</th>
<th>$b$</th>
<th>$t$</th>
<th>SE</th>
<th>$p$</th>
<th>95% CI</th>
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</thead>
<tbody>
<tr>
<td>Trait Negative Affect</td>
<td>29</td>
<td>2.42%</td>
<td>-.10</td>
<td>-1.26</td>
<td>.08</td>
<td>.22</td>
<td>[-.27, .07]</td>
</tr>
<tr>
<td>Stress</td>
<td>20</td>
<td>3.60%</td>
<td>-.02</td>
<td>-1.10</td>
<td>.01</td>
<td>.29</td>
<td>[-.05, .01]</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>14</td>
<td>3.09%</td>
<td>-.15</td>
<td>-1.24</td>
<td>.12</td>
<td>.24</td>
<td>[-.42, .12]</td>
</tr>
<tr>
<td>Somatic Symptoms</td>
<td>14</td>
<td>32.80%</td>
<td>-.07</td>
<td>-2.59</td>
<td>.03</td>
<td>.02*</td>
<td>[-.13, -.01]</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>51</td>
<td>19.22%</td>
<td>.05</td>
<td>3.23</td>
<td>.02</td>
<td>.00*</td>
<td>[.02, .08]</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>45</td>
<td>0.00%</td>
<td>-.00</td>
<td>-.10</td>
<td>.02</td>
<td>.92</td>
<td>[-.03, .03]</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>44</td>
<td>0.00%</td>
<td>-.00</td>
<td>-.17</td>
<td>.01</td>
<td>.87</td>
<td>[-.03, .03]</td>
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<td>without outlier</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enacted Incivility</td>
<td>14</td>
<td>0.00%</td>
<td>-.06</td>
<td>-.81</td>
<td>.08</td>
<td>.43</td>
<td>[-.23, .11]</td>
</tr>
</tbody>
</table>

*Note. k = number of independent effect sizes included in each analysis; $R^2 =$ percentage of variance explained by moderator; $b =$ unstandardized coefficient; $t = t$ value; $SE = $ standard error of the estimate; $p = p$ value; 95% CI = 95% confidence interval around $b$*
Table 11

Publication Bias Analyses: Begg and Mazumdar’s Rank Correlation Test and Egger’s Regression Test

<table>
<thead>
<tr>
<th>Correlate</th>
<th>k</th>
<th>N</th>
<th>B&amp;M</th>
<th>Egger</th>
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<tr>
<td></td>
<td>τ</td>
<td>z</td>
<td>p</td>
<td>B0</td>
</tr>
<tr>
<td>Trait Negative Affect</td>
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<td>1.22</td>
<td>.11</td>
<td>1.56</td>
</tr>
<tr>
<td>Stress</td>
<td>-.04</td>
<td>.26</td>
<td>.40</td>
<td>-.12</td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>.11</td>
<td>.69</td>
<td>.24</td>
<td>1.13</td>
</tr>
<tr>
<td>Somatic Symptoms</td>
<td>-.08</td>
<td>.51</td>
<td>.31</td>
<td>1.56</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>.14</td>
<td>1.72</td>
<td>.04*</td>
<td>1.00</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>-.07</td>
<td>.86</td>
<td>.20</td>
<td>1.24</td>
</tr>
<tr>
<td>Enacted Incivility</td>
<td>-.01</td>
<td>.08</td>
<td>.47</td>
<td>2.81</td>
</tr>
</tbody>
</table>

*Note. k = number of independent effect sizes included in each analysis; N = sample size; τ = Kendall’s tau, rank correlation between standard error and effect size; z = z score for Kendall’s tau; p = one-tailed p value; B0 = intercept from Egger’s test of the intercept; 95% CI = 95% confidence interval around B0; t = t value for the intercept; p = one-tailed p value
Table 12

Publication Bias Analysis: Duval and Tweedie’s Trim and Fill Technique

<table>
<thead>
<tr>
<th>Correlate</th>
<th>$k$</th>
<th>$N$</th>
<th>$ik$</th>
<th>$r$</th>
<th>$t&amp;f r$</th>
<th>$t&amp;f 95% CI$</th>
<th>$\Delta r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait Negative Affect</td>
<td>40</td>
<td>13988</td>
<td>0</td>
<td>0</td>
<td>.37</td>
<td>.41</td>
<td>[.36, .46]</td>
</tr>
<tr>
<td>Stress</td>
<td>25</td>
<td>10749</td>
<td>6</td>
<td>.37</td>
<td>.41</td>
<td>[.36, .46]</td>
<td>.04</td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>21</td>
<td>10644</td>
<td>4</td>
<td>.38</td>
<td>.36</td>
<td>[.32, .39]</td>
<td>-.02</td>
</tr>
<tr>
<td>Somatic Symptoms</td>
<td>22</td>
<td>11772</td>
<td>0</td>
<td>0</td>
<td>.35</td>
<td>.32</td>
<td>.03</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>69</td>
<td>32369</td>
<td>2</td>
<td>-.37</td>
<td>-.38</td>
<td>[-.41, -.35]</td>
<td>-.01</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>65</td>
<td>76523</td>
<td>14</td>
<td>.35</td>
<td>.30</td>
<td>[.27, .33]</td>
<td>-.05</td>
</tr>
<tr>
<td>Turnover Intentions Without Outlier</td>
<td>64</td>
<td>61026</td>
<td>8</td>
<td>.35</td>
<td>.32</td>
<td>[.29, .35]</td>
<td>-.03</td>
</tr>
<tr>
<td>Enacted Incivility</td>
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<td>15785</td>
<td>0</td>
<td>0</td>
<td>.35</td>
<td>.32</td>
<td>.03</td>
</tr>
</tbody>
</table>

Note. $k$ = number of independent effect sizes included in each analysis; $N$ = sample size; $ik$ = number of trim and fill imputed samples; $r$ = weighted mean observed correlation; $t&f r$ = trim and fill adjusted observed mean; $t&f 95\% CI$ = trim and fill adjusted 95\% CI; $\Delta r$ = difference between $r$ and $t&f r$
Figure 1. An integrative conceptual model of the underlying theories used to explain the relationships between experienced incivility and its correlates. Numbers refer to propositions.
Figure 2. Proposed model of the correlates of experienced incivility and corresponding hypotheses
Figure 3. Flow chart of search process using PsycINFO, Proquest Dissertations & Theses, and Google Scholar databases
Figure 4. Flow chart of search process using SIOP conference programs
Figure 5. Flow chart of search process using AOM conference programs
Figure 6. Weighted correlation between the source of incivility (moderator) and corrected effect size (experienced incivility * emotional exhaustion)
Figure 7. Weighted correlation between the source of incivility (moderator) and corrected effect size (experienced incivility * job satisfaction)
Figure 8. Weighted correlation between the source of incivility (moderator) and corrected effect size (experienced incivility * turnover intentions)
Figure 9. Weighted correlation between the source of incivility (moderator) and corrected effect size (experienced incivility * enacted incivility)
Figure 10. Weighted correlation between the occupation type (moderator) and corrected effect size (experienced incivility * job satisfaction)
Figure 11. Weighted correlation between the occupation type (moderator) and corrected effect size (experienced incivility * turnover intentions with outlier included). When the outlier (Cortina et al., 2013; sample 3) was removed from the mixed subgroup, the graph remained almost identical. In both cases, the weighted correlation was not significant.
Figure 12. Weighted correlation between the occupation type (moderator) and corrected effect size (experienced incivility * enacted incivility)
Figure 13. Weighted correlation between the reference period (moderator) and corrected effect size (experienced incivility * job satisfaction)
Figure 14. Weighted correlation between the reference period (moderator) and corrected effect size (experienced incivility * job somatic symptoms)
Figure 15. Funnel Plot for Trait Negative Affect
**Figure 16.** Funnel Plot for Stress
Figure 17. Funnel Plot for Emotional Exhaustion
Figure 18. Funnel Plot for Somatic Symptoms
Figure 19. Funnel Plot for Job Satisfaction
Figure 20. Funnel Plot for Turnover Intentions
Figure 21. Funnel Plot for Enacted Incivility
Figure 22. Proposed model of the correlates of experienced incivility and corresponding meta-analytic results
Figure 23. A theoretical model of the antecedents and outcomes of incivility and mediating mechanisms. Straight lines represent positive relationships and dotted lines represent negative relationships. Variables that stem from the proposed theories are depicted in the grey boxes and should be tested in future research.
Appendix A: Examples of Specific Scales that were Excluded from the Meta-Analysis

**Incivility in Nursing Education Survey (Clark, Farnsworth & Landrum, 2009)**
Clark, Farnsworth, and Landrum (2009) developed the Incivility in Nursing Education Survey (INE; 2009). This scale is specific to nursing faculty members and asks faculty members to report the extent to which they have witnessed or experienced faculty incivility and student incivility. Examples of student incivility include sleeping in class, acting bored or apathetic, and making disapproving groans. Examples of faculty incivility include arriving late for scheduled activities, ineffective teaching style/methods, subjective grading, making condescending remarks or put downs. Although some items are general and could be applied to other professions (e.g., making condescending remarks or put downs), many items were very specific to the teaching profession. Furthermore, the Incivility in Nursing Education Survey assesses both experienced and witnessed incivility and this meta-analysis specifically examined experienced incivility (except for some outsider incivility studies which used agreement scales).

**Incivility in Nursing Education Survey- Revised (Clark, Barbosa-Leiker, Gill & Nguyen, 2015)**
Clark, Barbosa-Leiker, Gill, and Nguyen revised the Incivility in Nursing Education Survey (INE-R) in 2015 to include examples of workplace mistreatment that are of higher intensity. Examples of faculty behaviours include making discriminating comments and threatening statements about weapons. These items fall outside Andersson and Pearson’s (1999) definition of workplace incivility and thus we opted not to include studies that used this scale.

**Faculty-to-Faculty Incivility Survey (Clark, 2012)**
Clark (2012) developed the Faculty-to-Faculty Incivility Survey (F-FI), which includes 31 faculty behaviours that may be considered uncivil. Similar to the INE (2009) and INE-R (2015), the F-FI asks nursing faculty to report the frequency with which they have experienced and witnessed incivility in the last 12 months. Additionally, some items fall outside the realm of incivility (e.g., made personal attacks or threatening comments). For these reasons, we did not include studies that assessed incivility using the F-FI.

**The Nursing Incivility Sscale (Guidroz, Burnfield-Geimer, Clark, Schwetschenau, & Jex, 2010)**
Guidroz, Burnfield-Geimer, Clark, Schwetschenau, and Jex, (2010) developed the Nursing Incivility Scale which asks participants to rate their agreement on items related to general incivility, nurse incivility, supervisor incivility, physician incivility, and patient incivility). This scale was designed to assess hospital nurses’ experiences with incivility according to specific sources. Although, the items could in theory be applied to other professions by replacing the name of the source (e.g., physician, nurses), we opted not to include studies using this scale for several reasons. First, some items appeared to be of higher intensity than incivility. Second, the measure was developed using an agreement scale, and as mentioned previously, we did not include agreement scales when assessing coworker and supervisor incivility. Finally, the scale included a combination of items assessing both personal experiences of incivility as well as uncivil climate (e.g., patients pose unreasonable demands, nurses gossip about their supervisor at work).
Appendix B: List of Coded Information

Study information
1. Author names
2. Title
3. Year of publication/presentation
4. Publication source
5. Study design (cross-sectional, daily diary, lagged/longitudinal)

Sample information
6. Number of participants
7. Job type
8. Occupation type (human services, indirect person occupations, or mixed)
9. Country in which the study was conducted
10. Percentage of the sample that is female
11. Mean age of the sample

Incivility Measure
12. Name of incivility measure
13. Source of incivility (e.g., coworker, supervisor, service recipient)
14. Question stem to assess incivility
15. Response options
16. Mean incivility
17. If the mean is based on a response scale that starts at 0, was 1 added to the mean?
18. Standard deviation incivility
19. Reference period (e.g., last five years, last month)

Correlation, cronbach’s alpha, scale name for each of the following variables
20. Trait negative affect
21. Stress
22. Emotional Exhaustion
23. Somatic symptoms
24. Job satisfaction
25. Turnover intentions
26. Enacted incivility

Information about negative affect
27. Negative affect mean
28. If the mean is based on a response scale that starts at 0, was 1 added to the mean?
29. Negative affect number of response options
30. Negative affect standard deviation

Additional correlations
31. Correlation between incivility and age
32. Correlation between incivility and gender
33. Correlation between sources of incivility (if more than one source was examined)
Appendix C: Modified Plan of Analysis

In my proposal I indicated that I would conduct a meta-ANOVA in R using metafor to examine categorical moderators. Based on my reading, I had assumed that if I brought in Hunter-Schmidt (2004) corrected correlations and weights, the results would be similar to a Hunter-Schmidt subgroup analysis. This assumption was incorrect. Although I programmed R to analyze the data using corrected correlations and Hunter-Schmidt (2004) corrected weights ($n*A^2$), a close look at the resulting figures suggested that the final study weights are still calculated using Hedges-Olkin (1985) formulas. This led to varying results between the two methods.

Hunter-Schmidt (2004) weights each study by the sample size multiplied by the square of the attenuation factor ($n*A^2$). Therefore, a study twice as large as another is weighted twice as much, not accounting for differences in artifacts. On the other hand, in the Hedges-Olkin (1985) tradition, a study twice as large as another will not be weighted twice as much. This occurs because each study weight is not only based on the within-study variance, but also the between-study variance, which is constant across studies. The inclusion of the between study variance in the Hedges-Olkin (1985) weighting procedure has the general effect of reducing the variance in weights across studies.

The different weighting procedures in Hunter-Schmidt (2004) and Hedges-Olkin (1985) can lead to different results and is exacerbated under two conditions: first, when the meta-analysis consists of both small and large sample sizes, and second, when the between-study variance is large (E. O’Boyle, personal communication, November 2, 2018). In the present meta-analysis, the database consists of several very large studies. Additionally, the between study variance for each bivariate relationship is large (as demonstrated by high $i^2$ values), thereby creating weights that are more similar in magnitude. As a result of different weighting
procedures, the results produced in the Hunter-Schmidt (2004) tradition were inconsistent with
the results produced in the hybrid Hunter-Schmidt (2004) and Hedges-Olkin (1985) approach (E.
O’Boyle, personal communication, November 2, 2018).

After learning the role played by between-study variance in relation to the Hedges-Olkin
(1985) method, the proposed a priori approach needed to be corrected. Given that I used Hunter-
Schmidt to analyze the bivariate results (as described in my proposed method), it seemed most
accurate to explain the ‘true’ variance and test for moderators using the same meta-analytic
assumptions and calculations that were used for the bivariate meta-analyses. Additionally, meta-
analyses published in top IO journals typically run meta-analyses in the Hunter-Schmidt
tradition. Thus, based on these factors, the new information acquired during the analyses, my
conversations with one of my meta-analysis course instructors (E. O’Boyle, personal
communication, November 2, 2018) and my dissertation advisor (Dr. Gonzalez-Morales), I
decided to conduct a Hunter-Schmidt (2004) subgroup analysis to examine the effect of
categorical moderators.
Appendix D: Supplementary Analysis Combining the Mixed and Indirect-Person Related Subgroups

Experienced incivility was positively related to turnover intentions ($\rho = .35$; 95% CI [.33, .38]; 80 CR [.23, .48]). The human service subgroup ($\rho = .44$; 95% CI [.40, .48]) had a significantly stronger effect than the mixed subgroup ($\rho = .34$; 95% CI [.31, .37]); however, it did not have a stronger effect than the indirect-person subgroup ($\rho = .40$; 95% CI [.33, .47]). This finding was surprising; therefore, I combined the mixed subgroup with the indirect-person subgroup and ran a supplementary analysis comparing this new subgroup to the human service subgroup. This decision was based on the fact that the mixed subgroup may have consisted of employees primarily from indirect-person occupations. Many studies indicated that participants were from a variety of occupations and authors provided a list of examples. Often, the list of examples consisted primarily of indirect person jobs (e.g., general labor, service, education, accounting). In some cases, all of the examples fell within the indirect-person category (e.g., biomedical research, retail, transportation, accounting). It was unclear if these lists were exhaustive. Therefore, it is possible that some samples did not have any human service employees.\textsuperscript{27} Thus, I compared the effect size in the human service subgroup to the effect size in the combined group (mixed and indirect-person). As expected, the human service subgroup ($\rho = .44$; 95% CI [.40, .48]) had a significantly stronger effect than the subgroup containing mixed samples and indirect-person samples ($\rho = .35$; 95% CI [.32, .37]).

I re-ran this analysis and removed the outlier (Cortina et al., 2013, sample 3) from the combined subgroup given that it was categorized as a mixed sample. When the outlier was removed, the results did not change. The effect size in the human service subgroup ($\rho = .44$; 95% CI [.40, .48]) had a significantly stronger effect than the subgroup containing mixed samples and indirect-person samples ($\rho = .35$; 95% CI [.32, .37]).

\textsuperscript{27} I categorized these samples within the mixed subgroup in order to be cautious. Perhaps these studies would have been classified in the indirect-person subgroup had more information been provided in the original studies.
CI [.40, .48]) was larger than the effect size in the combined subgroup (ρ = .38; 95% CI [.36, .41]; confidence intervals overlapped by .02). Therefore, future research that distinguishes between occupations will enable scholars to better understand whether differences exist between human service and indirect-person occupations.
Table D1

The Moderating Role of Occupation Type with the Mixed and Indirect-Person Subgroups Combined

<table>
<thead>
<tr>
<th>Correlate</th>
<th>k</th>
<th>N</th>
<th>r</th>
<th>SD_r</th>
<th>p</th>
<th>SD_ρ</th>
<th>95% CI</th>
<th>80% CR</th>
<th>% var SE</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover Intentions</td>
<td>65</td>
<td>76523</td>
<td>.30</td>
<td>.08</td>
<td>.35</td>
<td>.10</td>
<td>[.33, .38]</td>
<td>[.23, .48]</td>
<td>9</td>
<td>.28</td>
<td>.02</td>
</tr>
<tr>
<td>Human services</td>
<td>18</td>
<td>9496</td>
<td>.34</td>
<td>.07</td>
<td>.44</td>
<td>.08</td>
<td>[.40, .48]</td>
<td>[.33, .54]</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed and indirect-person combined</td>
<td>47</td>
<td>67027</td>
<td>.30</td>
<td>.08</td>
<td>.35</td>
<td>.09</td>
<td>[.32, .37]</td>
<td>[.22, .47]</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover Intentions (outlier excluded)</td>
<td>64</td>
<td>61026</td>
<td>.33</td>
<td>.07</td>
<td>.39</td>
<td>.08</td>
<td>[.37, .41]</td>
<td>[.29, .49]</td>
<td>16</td>
<td>.13</td>
<td>.32</td>
</tr>
<tr>
<td>Human services</td>
<td>18</td>
<td>9496</td>
<td>.34</td>
<td>.07</td>
<td>.44</td>
<td>.08</td>
<td>[.40, .48]</td>
<td>[.33, .54]</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed and indirect-person combined (outlier excluded)</td>
<td>46</td>
<td>51530</td>
<td>.33</td>
<td>.07</td>
<td>.38</td>
<td>.07</td>
<td>[.36, .41]</td>
<td>[.29, .48]</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. k = number of independent effect sizes included in each analysis; N = sample size; r = sample-weighted mean uncorrected correlation; SD_r = standard deviation of the mean uncorrected correlation; ρ = sample-weighted mean corrected correlation; SD_ρ = standard deviation of the mean corrected correlation; 95% CI = 95% confidence interval around ρ; 80% CR = 80% credibility interval around ρ; % of variance explained = percentage of variance attributable to sampling error; r = weighted correlation between effect size and occupation type (Indirect-person = 1; Mixed = 2; Human services = 3); p = p value
Appendix E: Workplace Incivility Scale (Cortina et al., 2001)

During the past five years, have you been in a situation where any of your superiors or coworkers:

- Put you down or was condescending to you?
- Paid little attention to your statement or showed little interest in your opinion? Made demeaning or derogatory remarks about you?
- Addressed you in unprofessional terms, either publicly or privately?
- Ignored or excluded you from professional camaraderie?
- Doubted your judgment on a matter over which you have responsibility?
- Made unwanted attempts to draw you into a discussion of personal matters?
Appendix F: Alternate Measures of Incivility

**Modified Interpersonal Conflict at Work Scale (Sliter et al., 2012)**

How often do coworkers:
- Ignore or exclude you while at work?
- Raise their voices at you while at work?
- Rude to you at work?
- Do demeaning things to you at work?


**Studies that used this scale:**


**The Aggressive Experiences Scale (Glomb & Liao, 2003)**

How often in the past 12 months have you been in workplace situations where military personnel, civilian employees, and/or contractor employees have targeted you with behaviors such as:
- Avoiding you
- Saying offensive or crude things about you
- Insulting, criticizing you (including sarcasm)

The original scale was modified by Cortina et al. (2013)


**Studies that used this scale:**

**Straightforward Incivility Scale (Leiter et al., 2013)**

How often have your coworkers and supervisors behaved in the following ways to you?

- Ignored you
- Excluded you
- Spoke rudely to you
- Behaved rudely to you (e.g., gestures, facial expressions)
- Behaved without consideration


**Studies that used this scale:**


**Modified Rogers and Kelloway (1997)**

Please indicate how many times you have experienced the following:

- Treated with disrespect
- Subjected to nasty comments
- Have negative comments made to you about others
- Have bad things said about you to others
- Have your work judged or criticized unfairly
- The target of rude comments
- Have your opinions dismissed


**Studies that used this scale:**

Uncivil Workplace Behavior Questionnaire (Martin & Hine, 2005)

How often have you experienced the following behaviours over the past year?

**Hostility**
- Raised their voice while speaking to you.
- Used an inappropriate tone when speaking to you.
- Spoke to you in an aggressive tone of voice.
- Rolled their eyes at you

**Privacy Invasion**
- Took stationery from your desk without later returning it.
- Took items from your desk without prior permission.
- Interrupted you while you were speaking on the telephone.
- Read communications addressed to you, such as e-mails or faxes
- Opened your desk drawers without prior permission.

**Exclusionary Behaviour**
- Did not consult you in reference to a decision you should have been involved in.
- Gave unreasonably short notice when canceling or scheduling events you were required
to be present for.
- Failed to inform you of a meeting you should have been informed about.
- Avoided consulting you when they would normally be expected to do so.
- Was excessively slow in returning your phone messages or e-mails without good reason
for the delay.
- Intentionally failed to pass on information which you should have been made aware of.
- Were unreasonably slow in seeing to matters on which you were reliant on them for,
without good reason.

**Gossiping**
- Publicly discussed your confidential personal information.
- Made snide remarks about you
- Talked about you behind your back.
- Gossiped behind your back.


**Studies that used this scale:**


**Taylor Incivility Scale (Taylor, 2004)**

Report frequency of incivility experienced from supervisors and coworkers

- Spoken to me in a demeaning way
- Addressed me in an unprofessional manner
- Been abrasive toward me
- Stared at me disapprovingly
- Used sarcasm that hurt or offended me
- Been cold or aloof toward me
- Been cranky or short with me
- Been unapologetic for making a mistake
- Shunned my attempts to constructively resolve a disagreement
- Been arrogant toward me
- Been insensitive to my feelings
- Used an unpleasant tone of voice when speaking to me


**Studies that used this scale:**

SUPPLEMENTAL MATERIALS

References of Studies Included in Meta-Analysis


stress. Symposium conducted at the Society for Industrial-Organizational Psychology 32nd annual conference, Orlando, Florida.


Park, Y. Sliter, M. T. & Kim, S. (2015). Perceived control over customer incivility among customer service employees. In M. T. Sliter & B. M. Walsh (Chairs), *Personal and contextual factors in understanding workplace incivility*. Symposium conducted at the


Zurbrügg, L., & Miner, K. N. (2016). Gender, sexual orientation, and workplace incivility: who is most targeted and who is most harmed?. *Frontiers in Psychology, 7*, 1-12.
Appendix A: Excluded Studies that did not Assess a Relevant Correlate


Amos, K. S. (2013). *Nursing Faculty Members’ Perspectives of Faculty-to-Faculty Workplace Incivility among Nursing Faculty Members* (Unpublished doctoral dissertation). Capella University, Minneapolis, Minnesota.


Supplemental Materials

*International Conference on Organizational Psychology* (p. 82). Cambridge Scholars Publishing.


Appendix B: Excluded Studies that Assessed a Relevant Correlate but did not Provide Correlational Data

*Data could not be acquired from the authors


Appendix C: Excluded Studies that Assessed Incivility (from Coworkers, Supervisors, or an Unspecified source) Using an Agreement Scale


Appendix D: Excluded Studies that Assessed Incivility from Students

*There were other studies that assessed incivility from students, but they were categorized in other subgroups because they met other exclusion criteria (e.g., for example, they often included items that reflected higher intensity forms of mistreatment)


Bowling Green State University, Bowling Green, Ohio.
Appendix E: Excluded Studies that Assessed Incivility using Items of Higher Intensity than Incivility


Kisner, T. J. (2014). *Nursing Faculty and Student Perceptions of Classroom Incivility and Methods to Manage it at a Selected Public University* (Unpublished doctoral dissertation). University of South Dakota, Vermillion, South Dakota.


Texas Woman's University, Denton, Texas.


Appendix F: Excluded Studies (Longitudinal or Daily Diary) that did not Provide Cross-Sectional Data


Appendix G: Excluded Studies that Included Non-Employed Participants or Examined Incivility in a Non-Work Setting


Appendix H: Excluded Studies that Assessed Incivility from one Specific Coworker or Examined one Episode of Incivility


Appendix I: Excluded Studies that Assessed Cyber-Incivility Exclusively


Appendix J: Excluded Studies that Required Participants to Attribute Incivility to a Specific Cause

*For example, participants were asked to report the frequency of experiencing incivility because of their romantic relationship with a coworker or because of their political orientation.


Appendix K: Excluded Studies that did not Exclusively Assess Experienced Incivility or Assessed a Construct that Appeared to be Something other than Incivility


Appendix L: Excluded Study that Appeared to Report Incorrect Data