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The Influence of Sex on Incivility in Work-Related Email Communication

by

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A Thesis Submitted to  
Saint Mary's University, Halifax, Nova Scotia  
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The Influence of Sex on Incivility in Work-Related Email Communication

By Jennifer Martinell

Abstract

Incivility is low intensity, discourteous behaviour with ambiguous intentions to harm the target that is in violation of the workplace norms of respect (Andersson & Pearson, 1999). Incivility is a common organizational problem that has been linked to negative organizational and personal outcomes (Johnson & Indvik, 2001; Pearson et al., 2001). Using an experimental design, I investigated the influence of sex of the instigator and of the target participant in perceiving and responding to email incivility in a simulated workplace setting. Both participants and independent raters assessed the participants' responses on measures of incivility. I expected female participants would perceive more incivility in the uncivil stimulus emails than would male participants. I also expected participants would perceive more incivility in the uncivil email from a female sender than a male sender. I expected males to reciprocate more incivility than females, particularly when responding to females. The hypotheses pertaining to participant and sender sex were largely unsupported. Furthermore, unexpectedly, due to lack of agreement raters' assessments had to be treated separately for the analyses, which limited the interpretation of the findings on participants' perpetration of incivility. The results and limitations of the current study are discussed in terms of how to proceed with further investigations of the current variables of interest. Additionally, implications and potential directions for future research are discussed.

August 27, 2010

### The Influence of Sex on Incivility in Work-Related Email Communication

Incivility has been defined as low intensity, discourteous or rude behaviour with ambiguous intentions to harm the target that is in violation of the workplace norms of respect (Andersson & Pearson, 1999; Pearson, Andersson & Wegner, 2001). Incivility is a common problem in all types of organizations (Cortina, Magley, Williams & Langhout, 2001). Further, experiencing these uncivil behaviours has been linked to negative organizational and personal outcomes, such as increased absenteeism and impaired concentration (Johnson & Indvik, 2001; Pearson et al., 2001).

Organizational scholars want to understand what leads to incivility and ultimately create interventions for organizations to reduce workplace incivility. In this study I will examine the influence of sex of the perpetrator and sex of the target in a common type of organizational exchange, email communication. Most research to date focuses on sex differences in self-reported frequency of experienced incivility or related negative behaviours and suggests that females report more experienced incivility. The present study, however, looks at sex differences in perceptions of incivility in the same situation, with male and female participants receiving the same stimulus emails. This experimental investigation will allow me to identify whether the same behaviour is perceived and responded to differently by male and female targets. Furthermore, the study will allow me to ascertain whether potential sex differences in perceived incivility and retaliated incivility is moderated by the sex of the initial perpetrator and the civility of the initial treatment.

### **Background on Incivility**

Incivility differs from other similar behaviours, such as aggression, in that the intent of the uncivil behaviour is ambiguous. That is, the target of the uncivil act may perceive the behaviour as rude although it is unclear whether or not the instigator intended it to be (Pearson et al., 2001). Uncivil behaviours also violate the norms of respect in an organization (Pearson et al., 2001). There are shared norms in an organization that shape the acceptable social behaviour in a workplace, such as traditions and policies (Pearson et al., 2000). These social norms develop from shared understandings of traditions and policies that guide the behaviours of the employees and violations of these norms are commonly interpreted as rude (Johnson & Indvik, 2001). For instance, leaving the water cooler empty for someone else to replace or leaving the photocopier jammed for the next person to deal with it can be considered violations of norms of respect in an organization.

There appears to be an increasing trend in incivility in workplaces. Porath and Pearson (2009) collected separate cross-sectional incidence rates in 1998 and 2005. In the 1998 samples, approximately one-quarter of participants reported being treated rudely at work one or more times a week. In the 2005 samples nearly half of the individuals reported experiencing incivility at this rate. Furthermore, 96% of these employees polled in various studies across the years reported having experienced uncivil behaviours at work and 99% of all the employees witnessed it (Porath & Pearson, 2009).

Experiencing incivility can have detrimental outcomes. Exposure to uncivil treatment in workplaces, either as a target or an observer, is associated with a number of

negative behavioural, psychological, and somatic outcomes, including impaired concentration, productivity decline, increased absenteeism, reduced organizational citizenship behaviour and lower levels of psychological well-being and health satisfaction (Johnson & Indvik, 2001; Martin & Hine, 2005; Pearson et al., 2001). It is clear that these harmful effects are realized in both the targets of the behaviour as well as those who witness it. A recent survey of a diverse sample of managers and employees in the United States provides evidence of the costs associated with incivility (Porath & Pearson, 2009). For instance, of those who reported experiencing incivility, 63% lost work time because they were avoiding an offender, 47% reduced the amount of time they spent at work, 66% reported their performance declined, and 78% said they had lower organizational commitment as a result of their uncivil treatment.

Uncivil behaviours may beget further acts of incivility. Andersson and Pearson (1999) suggest that when an individual violates a social norm, the target of the behaviour may have feelings of injustice and hostility, thus prompting reciprocation of the incivility, creating a “tit-for-tat” social exchange. Importantly, although tit-for-tat exchanges may still be low intensity, they can still be harmful to those involved in and witnessing the behaviours and to the organization (Pearson et al., 2000). Porath and Pearson (2009) drove the point home when they evaluated studies conducted in the past 10 years and found 94% victims of incivility “got even” with the perpetrator, and likewise, 88% of targets “got even” with their organizations. There is also a potential for the uncivil exchanges to escalate into workplace aggression (Andersson & Pearson, 1999). The initial uncivil behaviours may elicit a more intense reaction by the target prompting an

incivility spiral, whereby the target of the uncivil behaviour retaliates with an action against the perpetrator that is of greater intensity than the initial behaviour. Individuals may retaliate with increased intensity to ensure their response is effective (Helm, Bonoma & Tedeschi, 1972; Youngs, 1986).

### **The Current Study**

Although the prevalence of incivility and its outcomes are relatively well-established, few studies have examined the precursors of this phenomenon using experimental methods. The current study examined the influence of the sex of the instigator and the sex of the target on perceptions and reciprocation of incivility in email communication using an experimental approach. In particular I examined male and female targets' perceptions of and responses to civil and uncivil emails sent by male and female senders. Looking at this exchange of communication allowed me to examine the "tit for tat" notion of incivility. By using an experimental method, I was able to control for extraneous variables, such as preexisting relationships between individuals, allowing me to attribute significant findings to a sex differences in the instigator and the target of incivility, and not to other variables that can influence the way an individual perceives and responds to email incivility.

### **Email Incivility in the Workplace**

Email is a valuable communication medium in the workplace, however it is one in which uncivil exchanges may flourish. Pressure to incorporate large amounts of email correspondence into already busy workdays can prompt people to take shortcuts in their communication resulting in curt or vague messages. Given the lack of social and nonverbal

cues from senders, recipients make several inferences about the tone and intent of emails they receive (Weatherbee & Kelloway, 2006). As the literature has indicated over the past decade, there are negative consequences for both the employee and the organization resulting from incivility in the workplace (Porath & Pearson, 2009) and recent research has indicated that incivility via the internet is just as damaging as face to face uncivil interactions with employees experiencing lower job satisfaction and organizational commitment and increasing their likelihood to engage in deviant workplace behaviours (Lim & Teo, 2009).

At this point it is important to explicate what elements of an email could be interpreted as uncivil. As previously mentioned, electronic communication lacks the social cues one would generally use to interpret an individual's tone and intention of a message in verbal discourse, therefore the recipient of an email must interpret the tone and meaning of the message. In this work I label characteristics relating to the physical aspects of the email, in other words the actual text of the message, as specific elements of incivility. These elements include lack of proper spelling, grammar, or punctuation, and a negative tone, which could be perceived as rude to the extent that the reader may feel that the sender did not have the courtesy to write a message appropriately. I label the overall perceptions of and feelings about the message that the recipient has after reading the email as the global elements of incivility. For instance, the reader might conclude that the email was offensive, insulting, or rude. The current study uses existing measures of specific and global elements of incivility (Francis, Holmval, Black, & Martinell, 2008) to provide a comprehensive measurement of email incivility.

Earlier literature described spiralling and “tit-for-tat” effects of incivility (Andersson & Pearson, 1999; Pearson et al., 2000), whereby reciprocating uncivil behaviours can either remain at an equal level of intensity or escalate into more serious forms of aggressive behaviour. Recent research has indicated that the perceived level of incivility in received emails influences participants’ perpetration of incivility in response emails, with perceived incivility begetting further incivility (Francis, et al., 2008). In other words, if you feel you were treated in an uncivil way you are more likely to respond similarly. This recent research illustrates that “tit-for-tat” pattern of exchanges can occur not only in face to face interactions, but also in email communication.

Recent experimental research on email incivility has found that various social and contextual factors can influence one’s perception of incivility. Firstly, organizational culture influences the level of perceived incivility in emails. In an organization simulation, individuals who were led to believe the organization in question had a formal culture perceived more incivility in the very same set of emails than those led to believe the organization had an informal culture (Holmvall, Francis & Thompson, 2008). This observed pattern likely reflects the fact that in a formal culture, there is generally more structure and clear guidelines of what behaviour is acceptable in the workplace, giving employees clearer boundaries of what is socially acceptable in comparison to an informal culture (Andersson & Pearson, 1999).

Furthermore, contextual situations within an organization can affect the level of incivility a person perpetrates in emails. For instance, individuals with high workloads appear to perpetrate more incivility in emails than those with lower workloads (Francis et

al., 2008). In previous work, I explored another situational precursor to incivility, namely organizational hierarchy. I found that the hierarchical relationship individuals have with the sender of an email affects their perception and reciprocation of incivility. Individuals perceived more incivility in emails from subordinates than in those from peers or supervisors and reciprocated more incivility in emails to peers and subordinates than in those to supervisors (Martinell, 2007). Perhaps individuals perceive more incivility in emails from subordinates because the behaviours are seen as less justifiable from someone of lower status. In other words, the uncivil behaviours may be perceived as more of a challenge of one's status when perpetrated by a subordinate (Porath, Overbeck & Pearson, 2008) compared to a peer or supervisor. Also, in reciprocating incivility towards peers, the individuals may feel that this type of exchange is acceptable coming from someone of the same status and not view their own behaviour as uncivil. However, the target may not feel the same way and respond with an equal or intensified incivility, prompting a tit for tat exchange or an incivility spiral.

The current study allowed me to replicate and extend some of the previous work on incivility (e.g., Francis et al., 2008; Martinell, 2007). In this study male and female participants who believed they were taking part in a broad-based managerial assessment task received and responded to a set of four emails, one civil and one uncivil from male senders, and one civil and one uncivil from female senders. Participants rated the stimulus emails for specific and global elements of incivility, and their replies for specific elements of incivility (e.g., punctuation, grammar). Furthermore, two individuals who



were blind to condition rated the participants' replies to the stimulus emails for specific and global indicators of incivility.

Considering little is known about how to investigate and assess communication via the internet (Menchik & Tian, 2008), the social information processing model (Crick & Dodge, 1994) provides a rationale as to why contextual cues, including the sex of the target and the sex of the instigator may influence one's perceptions of and responses to email incivility. This model describes a cyclical process of how individuals attribute behaviours based on the interpretation of social and contextual cues in a situation. The process involves acquiring information about a social situation, processing the information, and finally enacting a behavioural response. These steps in the process and ultimate decision about an appropriate behaviour response are driven by pertinent knowledge acquired through experiences. Although this model is most often examined in the context of understanding children's behaviour, its foundation in an individual's experience base allows us to see how adults might also use situational cues to determine their responses in various situations. The interpretation of the situation may be guided by stored memories, social schemata, social knowledge, and the social context. On the basis of this interpretational process, individuals behave in a manner that they expect will elicit a desired outcome. Taking into consideration that email communication limits many social cues, contextual cues would also guide the attributed meaning of the communication. In attributing the information to the contextual cues, social knowledge or schemata would guide an individual's perceptions of incivility and the way they would respond.

The social information-processing model explicates that behaviour is based on previous experience, where responding to situations, including social exchanges, is led by how one has learned to respond in similar situations in the past. In the current scenario, social norms might dictate that participants would expect civil email messages. In that case, receiving an uncivil message may seem inappropriate and elicit a response in-kind. It is possible that participants would select a less appropriate behaviour in responding to the perceived uncivil act because past experiences of being treated rudely have likely elicited negative behaviours in response. Based on previous research (e.g., Francis et al., 2008; Martinell, 2007) and the social information-processing model of behaviour, I offered the following hypotheses.

***Hypothesis 1<sub>a</sub>:*** Participants will self-report more specific elements of incivility in their replies to the uncivil stimulus emails than in their replies to the civil stimulus emails.

***Hypothesis 1<sub>b</sub>:*** Independent raters will assess participants' responses as displaying more specific and global elements of incivility when responding to the uncivil stimulus emails than when responding to the civil stimulus emails.

### **Sex Differences in Perceiving Email Incivility**

Drawing again on the social information-processing model, I developed hypotheses regarding the influence of sex of the target and sex of the instigator on email incivility. Males and females may behave in inherently different ways in response to mistreatment because of differences in social experiences and in processing patterns of information (Crick & Dodge, 1994). Past experiences influence how individuals interpret and respond to situations, thus people develop notions of appropriate behaviour of same

and cross sex dyadic interactions based on those experiences. Hence, interpreting whether a behaviour is appropriate potentially differs depending on the sex of the instigator and of the target. Further, since emailing provides limited cues in interpreting the message, an individual may be more inclined to process the information with the available cues, such as the sex of the email sender. The sex differences in experiences and developed notions of appropriate behaviour based on sex, leads us to investigate whether the sex of the target and sex of the instigator influences perceptions of incivility.

Most research on sex differences and workplace mistreatment are based on self-report survey studies (e.g., Miner-Robino & Cortina, 2004; Porath et al., 2008). Females tend to report experiencing incivility more frequently than do males (e.g., Cortina et al., 2001; Cortina, 2008). This difference in reported frequency may be taken to imply that females are more likely to be victims of rude or discourteous behaviour than males (Andersson & Pearson, 1999; Pearson, Andersson & Porath, 2000). However, it is unclear whether the increased frequency is due to females actually being targets of incivility more often than males or if females perceive more incivility in the same situation than do males. This question of the influence of an individual's sex in perceiving incivility in a situation was explored in the current study.

A violation of norms of mutual respect is a key characteristic in perceiving incivility. Recent research suggests there are sex differences in the extent to which males and females perceive violations of their norms of mutual respect (Montgomery, Kane & Vance, 2004). When males and females observed a confrontational exchange on videos, females consistently rated the behaviours as more uncivil than males (Montgomery et al.,

2004). Further, another study, which measured perceived incivility by having males and females read and rate uncivil scenarios, found that females rated the same scenarios more negatively than males (Brady, 2007). Similarly, within the sexual harassment literature, females have a broader scope of what behaviours they perceive as harassing in comparison to males (Welsh, 1999; Rotundo et al., 2001; Willness et al., 2007). Moreover, females commonly rate sexual harassment behaviours as more inappropriate, severe, and offensive than males (Rotundo et al., 2001). This difference is even more clear when the sexually harassing behaviours are ambiguous (i.e., subtle; hostile work environment; Rotundo et al., 2001).

The sex differences noted above may reflect the fact that females tend to be more relationship-oriented than males (Cross & Madson, 1997; Gabriel & Gardner, 1999). Female are more concerned with maintaining relationships than are males, and therefore may be more sensitive to threats to the harmony of those relationships (Cross & Madson, 1997; Gabriel & Gardner, 1999). Being more relationally oriented, females may be more likely to perceive and be bothered by violations of norms of respect because they fear it signals a damaged relationship or presents a risk of damaging the relationship. Males, being more independent and less relationally oriented than females, may not be as sensitive to uncivil behaviours for these reasons.

The aforementioned studies, the developed notions of appropriate behaviour based on the social information-processing model, and sex differences in relationship orientation suggest that females may be more sensitive to the violations of norms of respect and as such, see more incivility in the same norm violation situation than do males. Given the

perceptions of the same situation may differ for males than females; I expected females would perceive more incivility in the uncivil emails than males in the current study.

***Hypothesis 2:*** Female participants will perceive more specific and global elements of incivility in the uncivil stimulus emails than male participants.

### **Sex Differences in Responding to Email Incivility**

Males and females may also inherently behave differently in response to mistreatment because of sex differences in social experience, social schemata and processing patterns of information (Crick & Dodge, 1994). Based on previous experiences in responding to same sex and different sex instigators, a male and female might reach different conclusions about the most appropriate behavioural response when interacting with males versus females.

When aggression is provoked, males tend to respond more overtly more often than do females, particularly in male-male dyads (Porath et al., 2008), whereas females tend to avoid engaging in a dispute with an instigator (Tannen, 1999; Porath et al., 2008). Females are also more likely to avoid conflict than retaliate as they are motivated by maintaining relationships, while males are motivated by competition and status (Tannen, 1990). Further, females are more concerned with the perceived costs of conflict, for instance, concern of further retaliation towards them (Andersson & Pearson, 1999; Lim & Cortina, 2004), feeling guilty, and worrying about harming someone, whereas males use aggression more instrumentally with the objective of obtaining something of value and are less cost focused (Baron et al., 1999). For instance, a recent incivility survey found male supervisors expressed more active forms of incivility (e.g., put them down in some way) and female

supervisors expressed passive forms of incivility such as not replying to an email (Lim & Teo, 2009). The difference in the way male and female supervisors participate in uncivil acts, the researchers argue, could be attributed to the fact that females are socialized to be less self-assertive and less aggressive and males are socialized to be assertive and aggressive.

Thus, regardless of the perceived incivility of the initial treatment, female participants might not respond with incivility because of their relationship motivation and fear of negative consequences. Males however may be more likely to respond with incivility. It is possible that in the current experimental setting female participants may not be as concerned with consequences from the instigator. However all participants were told they were participating in an assessment of managerial tasks. Therefore they were aware that their email responses would still be viewed and assessed by an experimenter with whom they have interacted, thus females may have still perceived that there were relationship based consequences of their responses. Consequently, I proposed the following hypotheses.

***Hypothesis 3<sub>a</sub>:*** Male participants will assess their own responses to the uncivil emails as having more specific elements of incivility than female participants.

***Hypothesis 3<sub>b</sub>:*** Independent raters will assess male participants' replies to the uncivil emails as containing more specific and global elements of incivility than replies from female participants.

**Sex of the Instigator and Perceiving and Responding to Email Incivility.** The literature thus far indicates that females may be more likely to perceive incivility due to their higher

sensitivity to violations of shared norms of respect. However, taking into consideration the social information-processing, it is also likely that the sex of the instigator of incivility will influence how targets perceive incivility. Recent work in the sexual harassment literature suggests that outspoken females who do not comply with gender stereotypes are the most frequent victims of sexual harassment (Berdahl, 2007). Stereotypically, females are expected to behave in a way that aligns with traditional social roles of females, such as being modest, agreeable and warm (Bem, 1974; Eagley & Steffan, 1986; Prentice & Carranza, 2002). In comparison, males are stereotypically expected to be more assertive, independent, and dominant (Bem, 1974; Prentice & Carranza, 2002). Research indicates that when females behave in a stereotypically incongruent manner (e.g. attending an auto show) people perceive them as more stereotypically inconsistent than if males behave in a stereotypically incongruent way (e.g., babysitting a neighbour's children) (Sekaquaptewa & Espinoza, 2004). In other words, it is more noticeable when a female behaves in ways that are generally regarded as more masculine, than when a male behaves in typically feminine ways. Furthermore, since females are expected to display more interpersonal sensitivity, or niceness, than males, females are therefore more likely criticized and treated with hostility if they violate this expectation than males (Burgess & Borgida, 1999; Prentice & Carranza, 2002). To the extent that respectful communication, social graces, and adherence to civility norms are considered hallmarks for female behaviour, female instigators of incivility may be more likely to be viewed as uncivil than males who perpetrate the same behaviours.

Males reportedly engage in workplace aggression (Baron, Neuman & Geddes, 1999) and incivility (Pearson et al., 2000) significantly more often than do females.

Generally speaking, aggressive (Eagley & Steffan, 1986) and uncivil (Porath et al., 2008) behaviour is more readily accepted when enacted by males than by females. Uncivil behaviours enacted by a female may be viewed as more uncivil than the same behaviours enacted by a male because the actions are incongruent to stereotypical female behaviour and because negative behaviours perpetrated by males are seen as less severe (Eagley & Steffan, 1986; Porath et al., 2008). Thus, I proposed the following hypothesis.

***Hypothesis 4<sub>a</sub>:*** Participants will perceive more specific and global elements of incivility in the uncivil stimulus email from a female sender than from a male sender.

Building upon hypothesis 2, that female participants would perceive more incivility in uncivil stimulus emails than male participants, and taking into consideration the prediction that a female instigator would be perceived as more uncivil than a male instigator, I further hypothesized an interaction between sex of the participant and sex of the sender.

***Hypothesis 4<sub>b</sub>:*** Female participants will perceive more incivility in the uncivil email sent from a female sender than male participants. I do not expect a participant sex difference for uncivil emails from male stimulus email senders or a participant sex by sender sex interaction to emerge for the civil stimulus emails.

In terms of responding to the uncivil emails, I hypothesized that participants would respond with more incivility to the uncivil female instigator than to the uncivil male instigator.



**Hypothesis 5<sub>a</sub>:** Participants will rate their responses as having more specific elements of incivility in reply to the uncivil female stimulus email sender than to the male sender.

**Hypothesis 5<sub>b</sub>:** Participants' responses will be independently assessed as containing more specific and global elements of incivility in reply to the uncivil female stimulus email sender than to the male sender.

Further, in terms of responding to incivility, because females are more concerned about the consequences of their uncivil actions than males (Porath et al., 2008), they may be less likely than males to respond uncivilly to an instigator. Studies also indicate that individuals are more likely to avoid reciprocating incivility towards male instigators (Porath et al., 2008) because males are perceived as more of a threat than females. Thus, if the target reciprocates the perceived incivility they are potentially opening a door for more serious forms of aggressive behaviour from the male instigator (Andersson & Pearson, 1999; Lim & Cortina, 2004). Additionally, males are more likely to retaliate when they experience mistreatment (Porath et al., 2008). Given that males are more likely to respond to incivility than females, and that female instigators are likely to be perceived as more uncivil than male instigators, males may reciprocate more incivility to a female versus a male instigator. Thus, my final hypotheses were as follows:

**Hypothesis 6<sub>a</sub>:** Male participants' self-rated responses will reflect more specific elements of incivility in reply to the uncivil female sender than will female participants' self-rated responses. I do not expect this same pattern to emerge for male stimulus email senders nor for the civil stimulus emails.

**Hypothesis 6<sub>b</sub>:** Independent raters will assess male participants' responses as containing more specific and global elements of incivility in reply to the uncivil female sender, than will female participants' responses. I do not expect this same pattern to emerge for male stimulus email senders nor for the civil stimulus emails.

The findings in the current research will contribute to the growing research on email incivility and could provide a potential direction for an intervention. Investigating whether sex of the target and sex of the instigator play a role in perceiving and perpetrating uncivil behaviour in emails provides researchers and practitioners with further insight into the precursors of perceived and enacted incivility. Realizing that males and females may perceive incivility differently and in turn reciprocate differently provides important information to organizations on what factors to consider when creating email communication policies.

## Method

### Participants

Sixty-nine undergraduate students enrolled in psychology courses at a Canadian university participated in the study. Participants were recruited through an on-line bonus system, and received two course credits for their participation. Due to issues at the time of some of the study sessions, thirteen cases were dropped from the sample prior to data entry<sup>1</sup>. Another six participants were omitted because they answered at least one of the manipulation check questions incorrectly. The final sample size was 50 (25 males and 25 females). All participants were fluent in English. The majority of participants were aged 24 and younger (90%) and the average age was 22.14 ( $SD = 6.31$ ). The majority of

participants also had 1-5 years of work experience (52%) or 6-10 years work experience (38%), and were presently employed (66%), but most did not have managerial experience (74%)<sup>2</sup>.

### **Procedure**

Once participants arrived at the laboratory, the experimenter informed them that they would be completing a set of managerial in-basket tasks. Participants were informed that the objective of the study was to evaluate the ability of assessment centres to assess managerial ability. Participants had 30 minutes to complete the tasks in their in-basket and were reminded to complete the tasks in the order that they were presented. Once the experimenter exited the room, participants read an organization and managerial position description. Embedded among the other tasks, participants received and replied to four emails, which were the true focus of the study. The ordering of the tasks was to ensure the email task was completed within the set time frame. Participants received two civil and two uncivil emails. The civil emails were included in the study to avoid participants attributing the incivility in the emails to the organizational culture rather than to the sender of the email. Including civil emails also allowed the researcher to test for a main effect of civility, which served as a civility manipulation check in the stimulus emails. The other tasks they were asked to complete were to revise a phone script and to choose a slogan for the company, which were used to mask the true focus of the study. The order of the tasks remained constant across participants. The laboratory room conditions were also constant across participants, including lighting, the computer and the experimenter. Participants were run through this study one at a time.

After the 30 minutes allotted to complete the in-basket tasks, the experimenter administered a questionnaire to the participant. The questionnaire included an assessment of the in-basket tasks including an assessment of incivility in the emails the participants received and wrote. Once the participant completed the questionnaire, a verbal debriefing of the study was given by the experimenter. In addition to participant study sessions, two independent raters assessed the level of incivility in the participants' responses to the stimulus emails using measures of specific and global elements of incivility.

## **Materials**

**Stimulus Emails & Sender Names.** A participant email account was created specifically for this study. Eight other email accounts were created, one for each stimulus email sender's name. The stimulus emails were sent from these separate email accounts and arrived in the participant's email account as emails coming from their subordinates' email accounts (See Appendix A for stimulus emails). Subordinates were chosen as senders of the stimulus emails based on previous research that individuals perceive more email incivility from their subordinates than from their peers or supervisors (Martinell, 2007). Participants were provided with instructions for checking their emails and sending replies. The email task was embedded in the other in-basket tasks. The uncivil emails included specific and global characteristics of incivility, such as lack of proper spelling and grammar, rudeness and appropriateness (reverse-coded) (Christiansen, 2003; Francis et al., 2008; Rutgers, The State University of New Jersey, 2006; Shea, 1997; Tuffley, 2004; Weinstock, 2004). The content of the emails were used in a previous study (Martinell, 2007), with minor revisions to one of the uncivil emails.

Participants received two uncivil stimulus emails, one from a male and one from a female, and two civil stimulus emails, one from a male and one from a female. The order of the two civil and two uncivil emails, as well as the overall order of the emails were fully randomized before the emails were sent to each participant to avoid order effects. For instance, participant A would receive the first uncivil email from a male and the second uncivil email from a female, and participant B would receive the same uncivil emails but the sex of the email sender would reverse. The manipulation was also applied to the two civil emails. The participants' replies to the emails were printed and coded with the participant number, a code identifying the order that the stimulus emails were sent, and a code for the sex of the stimulus email sender for each email.

The sex of the stimulus email sender was identified by the sender's name. The names were equally common for the decades in which the majority of participants were born, so that the participants would be equally familiar with the names. Furthermore, names were chosen to be gender specific, meaning no unisex names were chosen. A website on baby names provided ranked frequency per million babies from which the selected names were chosen (Name Voyager, 2009). The names were within the rankings of the 100 most common baby names for the 1980s and 1990s. The names for the male senders were: Adam, Ryan, Kyle, Brandon, and for the female senders: Amanda, Meghan, Kate, Lauren.

The sender name alternated through the study. For instance, where participant A received emails from Amanda, Meghan, Ryan and Brandon, participant B received the emails from the remaining names. The names alternated between the civil and uncivil

emails as well. Alternating the names throughout the study was aimed at reducing a particular name masking or creating effects.

### **Incivility Measures**

Participants used existing scales of incivility in organizational emails (Francis et al., 2008) to rate the level of appropriateness for the emails they received and their replies to those emails. An 8-item specific elements measure of email incivility (1= Very Inappropriate, 7= Very Appropriate; e.g., lack of proper spelling) and a 7-item global elements measure of incivility (1= Strongly Disagree, 7= Strongly Agree; e.g., this email was rude) were used (see Appendix B). Responses were reverse-coded on the specific elements measure, and responses were reverse-coded on four of the seven items on the global elements measure, such that higher scores indicate a higher level of incivility. Coefficient alphas were calculated for each of the stimulus emails coming from each sender sex. Since some participants received uncivil email 1 from a male sender and others received uncivil email 2 from a male sender, each stimulus email and sender sex combination has 2 coefficient alphas. The “Use of acronyms” item on the specific elements of incivility measure was omitted from the composites because the coefficient alpha for the civil email, male sender on email 2 was .58 with the item, but increased to .73 without the item. This item was also omitted from the remaining alphas to maintain consistency, thus all the alphas for this measure are based on the remaining 7 items. Analyses were conducted with and without this item and the pattern of results did not change. The coefficient alphas for both scales are presented in Table 1 and indicate an acceptable level of reliability.

There is some discrepancy in the coefficient alphas for the participants' perceptions of specific elements of incivility measure for the civil stimulus emails. This may relate to the nature of the measure. The civil stimulus emails were constructed so as not to contain the uncivil elements that are present in the uncivil emails; however some participants may have viewed one or two of the eight specific elements of incivility, for instance thinking a word was spelled incorrectly or that the tone was inappropriate, in the civil emails, thereby decreasing alpha.

When rating their own replies, participants only completed 7 of the 8 items for the specific elements of incivility measure. The item, "Entry in 'Subject' line," was omitted from the scale because participants selected 'Reply' in the email inbox program, which automatically added the original message's subject line to the email response, hence this item was not appropriate to include for response ratings. As will be discussed in the rater section for the measures, participants did not use acronyms in their responses therefore the "Use of acronyms" item was omitted for analyses. The coefficient alphas for participants' assessment of their email responses on the specific elements of incivility measure, presented in Table 1, indicate an acceptable level of reliability.

Table 1

*Coefficient Alphas of Perceptions on Incivility Measures*

Stimulus Email	Specific elements of incivility	Global elements of incivility
Civil email, male sender	.90, .73	.74, .86
Civil email, female sender	.79, .92	.72, .72
Uncivil email, male sender	.81, .82	.93, .90
Uncivil email, female sender	.92, .83	.85, .92
Self- rated responses to stimulus emails		
Civil email, male sender	.83, .78	
Civil email, female sender	.89, .87	
Uncivil email, male sender	.91, .86	
Uncivil email, female sender	.92, .89	

Note. Each participant received two civil emails and two uncivil emails. Half of the participants received uncivil email 1 from a male and uncivil email 2 from a female, and the remaining participants received uncivil email 1 from a female and uncivil email 2 from a male, thus the two coefficients in each cell reflect the two stimulus emails (email 1 and email 2).

**Email Raters.** The civility level of the email responses the participants wrote during the study were coded using research assistants, one male and one female, enrolled in an honours psychology undergraduate program as raters. The raters were each provided with the definition of incivility (i.e., Andersson & Pearson, 1999; Pearson,



Anderson, & Porath, 2000), including a list of indicators often characterized as uncivil behaviour in workplace emails and a summary of each stimulus email. Raters were blind to the civility level of the stimulus email, the sex of the stimulus email sender, and the participants' sex. The raters were asked to rate independently the participants' replies (See Appendix C for Rater Package). The raters also used the 7 item version of the specific elements of incivility measure and the 7 item global elements of incivility measure. For the specific elements measure for the raters' ratings, the 7-point likert scale used anchors of "very uncivil" to "very civil", rather than "very inappropriate" to "very appropriate". The anchors for the global elements of incivility measure remained the same as the participants' version. After rating a small set of emails, raters compared their results to address any inter-rater reliability issues with understanding items or characteristics of the emails with the assistance of the researcher. In total, raters compared 10 sets of ratings and appeared at that time to be converging in their use of the ratings scales. The item "Use of Acronyms" in the specific elements of incivility measure was dropped due to this item consistently being scored as 'Not Applicable' by the raters, resulting in a 6 item version of the measure.

In other studies using this methodological setup, composites of raters' scores were used as an overall rating of participants' responses. At the outset of this study we intended also to use composites, however despite efforts to increase inter-rater reliability, the Kappa coefficients and intra-class correlations, measures of agreement, and Pearson correlations were low<sup>3</sup>. Thus, an individual difference existed between the raters and use of composites of the raters' scores would not be appropriate. Therefore I incorporated

rater as a variable in the analysis. As my focus in this study is on sex differences in perceptions of incivility, I acknowledge that this individual difference may reflect the sex difference between the raters. However, the true nature of the individual difference between the raters cannot be determined with certainty and may in fact reflect differences in other factors such as personality.

The coefficient alphas for the rater assessments of the participants' email responses are presented in Table 2. Some alphas are lower than desired, however after examining the alpha levels if an item was removed, there was no substantial increase in reliability and therefore all items were maintained for the analyses. The alphas for the specific elements of incivility in participants' replies could be low because the participants may not have used all the specific characteristics of incivility in their replies, resulting in low consistency of rating the same item across participants. In contrast, the uncivil stimulus emails, which tended to have higher alphas, were constructed to include all the specific elements of incivility therefore participants' perceptions of specific elements would be more consistent. It is possible that internal consistency may not be appropriate as a measure of reliability for this measure because the items may all relate to the construct of specific elements of incivility, but each item does not strongly correlate with the other items, indicating that this is a formative measure (MacKenzie et al., 2005). For instance, spelling errors and poor grammar in an email may be perceived as uncivil, rendering a high incivility rating on those items, but the introduction and the ending of the same message may have been appropriate, thus rendering a low incivility rating on those items. We can see here that across participants' responses, specific elements of

incivility would vary on the level of incivility, with some items being rated as uncivil and others being rated as civil within each response.

Table 2

*Coefficient Alphas of Incivility Measures for Raters' Assessments of Email Responses*

Response to Stimulus Email	Rated specific elements of incivility		Rated global elements of incivility	
	Rater 1 (male)	Rater 2 (female)	Rater 1 (male)	Rater 2 (female)
Civil email, male sender	.58, .55	.73, .55	.90, .91	.90, .87
Civil email, female sender	.79, .72	.74, .69	.92, .90	.86, .86
Uncivil email, male sender	.59, .79	.78, .67	.93, .97	.93, .96
Uncivil email, female sender	.63, .42	.76, .67	.97, .93	.94, .88

## Results

Descriptive statistics of the measures used in the study are presented in Tables 3 and 4. Data were screened to identify outliers or violations of assumptions. One case was identified as an outlier with a score of 4.33 standard deviations from the mean on the specific elements of incivility measure for participants' perceptions of one of the civil

stimulus emails. No differences were found in the main analyses results when conducted with and without this outlier, therefore this case was maintained for the analyses.

Skewness was within acceptable levels on all variables. Kurtosis was within acceptable levels on the variables except for three variables in the participants' data and two variables in the rater data, which had leptokurtic distributions<sup>4</sup>. The planned analyses are robust to violations of normality and therefore transformations of the leptokurtic variables were not transformed (Howell, 2007). All other assumptions were met.

Table 3

*Means and Standard Deviations of Participants' Perceptions of Incivility in Stimulus Emails & Participants' Rating of Incivility in their Response Emails.*

	Sex and civility of stimulus email sender			
	Uncivil male	Uncivil female	Civil male	Civil female
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
Participant sex				
	Specific elements of incivility perceived in stimulus emails			
Male	4.45(1.36)	4.19(1.36)	1.55(0.77)	1.66(0.91)
Female	4.85(1.35)	4.96(1.34)	1.74(0.55)	1.57(0.53)
Total	4.65(1.36)	4.57(1.39)	1.64(0.67)	1.62(0.74)
	Global elements of incivility perceived in stimulus emails			
Male	3.83(1.25)	3.58(1.38)	1.58(0.72)	1.58(0.68)
Female	4.26(1.75)	4.69(1.31)	1.62(0.74)	1.50(0.56)
Total	4.04(1.52)	4.13(1.44)	1.60(0.72)	1.54(0.62)
	Self-rated responses to stimulus emails: Specific elements of incivility			
Male	2.38(1.40)	2.45(1.49)	1.82(0.95)	2.16(1.33)
Female	2.27(0.99)	2.41(1.08)	1.89(0.70)	1.72(0.62)
Total	2.33(1.20)	2.43(1.29)	1.85(0.83)	1.94(1.05)

Table 4

*Means and Standard Deviations of Rater Ratings of Participants' Email Responses on Email Incivility Measures*

Participant Sex	Rater 1 (male)				Rater 2 (female)			
	Uncivil stimulus email		Civil stimulus email		Uncivil stimulus email		Civil stimulus email	
	Male	Female	Male	Female	Male	Female	Male	Female
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
Specific elements of incivility ratings of participant responses								
Male	2.85(0.83)	2.81(0.61)	2.65(0.66)	2.51(0.59)	2.47(0.96)	2.30(0.76)	2.33(0.82)	2.38(0.84)
Female	2.85(0.72)	2.80(0.64)	2.43(0.54)	2.36(0.67)	2.63(0.88)	2.77(1.04)	2.40(0.74)	2.29(0.83)
Total	2.85(0.76)	2.80(0.62)	2.54(0.61)	2.44(0.63)	2.55(0.92)	2.54(0.93)	2.37(0.78)	2.34(0.83)
Global elements of incivility ratings of participant responses								
Male	2.61(0.97)	2.79(1.02)	2.52(0.86)	2.26(0.50)	2.26(1.02)	2.26(0.96)	2.18(0.81)	1.93(0.46)
Female	3.02(1.20)	2.70(0.92)	2.29(0.51)	2.14(0.61)	2.59(1.16)	2.62(1.12)	1.95(0.60)	1.85(0.57)
Total	2.82(1.10)	2.74(0.96)	2.40(0.71)	2.20(0.55)	2.43(1.10)	2.45(1.05)	2.06(0.72)	1.89(0.52)

### Order Effects and Manipulation Checks

Multiple order effects were tested. No order effects for the civil and uncivil stimulus emails were detected, with non-significant effects ranging from  $F(7,47) = 0.19$ ,  $p = .99$  to  $F(7,47) = 1.77$ ,  $p = .12$ . Similarly, no order effects of sex of stimulus sender were detected, with non-significant effects ranging from  $F(3, 47) = 0.02$ ,  $p = .99$  to  $F(3,47) = 2.05$ ,  $p = .12$ . Furthermore, as four names for male and female stimulus email senders were used in the study, one-way analyses of variance were conducted for the sets of names to check for differences in perceptions of incivility within the female names and within the male names. Results indicated no significant differences among the female names, with non-significant effects ranging from  $F(3,23) = 0.36$ ,  $p = .78$  to  $F(3,24) = 2.23$ ,  $p = .11$ , or among the male names, with non-significant effects ranging from  $F(3,23) = 0.21$ ,  $p = .89$  to  $F(3,23) = 1.97$ ,  $p = .15$ , suggesting that any perceptions of incivility in the emails were not attributed to a specific name for the female or male stimulus email sender.

A manipulation check was embedded in the questionnaire to identify if the participant correctly noted the sex of the sender of the stimulus email. For each stimulus email, participants were asked to indicate the sex of the sender. Fifty-six cases were examined to see if all manipulation check questions were correctly answered. As the manipulation of sender sex was a main component of the study, six cases with incorrect responses on at least one manipulation check question were omitted from the sample. Looking at the remaining 50 cases, the manipulation was successful indicating that most participants correctly noted the sex of the email sender, however some data were missing

(12% missing for uncivil male sender, 2% missing for uncivil female sender, 2% missing for civil male sender and 6% missing for civil female sender). Individuals who did not respond to the manipulation checks were retained for the analyses, as the analyses were run with and without these data and no significant differences in the results emerged, suggesting that these individuals simply missed responding to this item that appeared at the very top of the page on the participant survey.

### **Participant Perceptions of Incivility in Stimulus Emails**

A 2 x 2 x 2 mixed analysis of variance with one between-subjects variable (participant sex [male, female]) and two within-subjects variables (civility level in the stimulus emails [civil, uncivil], and sex of the stimulus email senders [male, female]) was conducted on each of the dependent variables, namely participants' perceptions of the specific elements ( $N = 49$ ) and global elements ( $N = 50$ ) of incivility measures to test hypotheses 2, 4<sub>a</sub>, 4<sub>b</sub>.

**Specific Elements of Incivility.** There was a main effect of civility,  $F(1, 47) = 237.93, p < .001, \text{partial } \eta^2 = .84$ . Participants rated the uncivil stimulus emails as containing more specific elements of incivility ( $M = 4.61, SD = 1.50$ ) than the civil stimulus emails ( $M = 1.63, SD = 0.71$ ). In addition to supporting previous research findings of perceptions of incivility in uncivil emails, the main effect of civility also indicates a successful manipulation of civility in the stimulus emails.

The interaction of participant sex and stimulus email civility was not significant, thus hypothesis 2 was not supported,  $F(1, 47) = 1.96, ns$ . There was no significant difference between male ( $M = 4.32, SD = 1.36$ ) and female ( $M = 4.9, SD = 1.34$ )



participants' perceptions of specific elements of incivility in the uncivil stimulus emails. Examining the observed power indicates that there was a power of 0.28, suggesting that the low power might explain the non-significant result.

Hypothesis 4<sub>a</sub> was not supported,  $F(1, 47) = 0.05$ , *ns*, meaning there was no interaction between sender sex and civility level. Participants did not perceive significantly more specific elements of incivility in the uncivil stimulus email from a female instigator ( $M = 4.57$ ,  $SD = 1.39$ ) than from a male instigator ( $M = 4.65$ ,  $SD = 1.36$ ). Examining the observed power indicates that there was a power of 0.06, suggesting that the low power might explain the non-significant result.

In hypothesis 4<sub>b</sub>, I predicted a three-way interaction between participant sex, civility level, and sender sex. This hypothesis was not supported,  $F(1, 47) = 3.32$ , *ns*. Specifically, female participants did not perceive significantly more specific elements of incivility in the uncivil stimulus email from a female instigator ( $M = 4.96$ ,  $SD = 1.34$ ) than did male participants ( $M = 4.19$ ,  $SD = 1.36$ ), although the means are in the hypothesized direction. Again, examining the observed power indicates that there was a power of 0.06, suggesting that the low power might explain the non-significant result.

No other significant effects were found in the analysis of participants' perceptions of incivility in the stimulus emails on the specific elements of incivility measure, including the between subjects' main effect of participant sex,  $F(1, 47) = 2.70$ , *ns*. Although the observed power indicates that there was a power of 0.36, also suggesting that the low power may explain the non-significant effect.

**Global Elements of Incivility.** There was a main effect of civility,  $F(1, 48) = 166.19, p < .001, \text{partial } \eta^2 = .78$ . Participants rated the global elements of the uncivil stimulus emails as more uncivil ( $M = 4.09, SD = 1.48$ ) than the civil stimulus emails ( $M = 1.57, SD = 0.67$ ). In addition to supporting previous research findings of perceptions of incivility in uncivil emails, the main effect of civility also indicates a successful manipulation of civility in the stimulus emails.

A main effect of participant sex, which was not hypothesized, also emerged,  $F(1, 48) = 5.19, p = .027, \text{partial } \eta^2 = .10$ . Female participants rated the stimulus emails overall as more uncivil ( $M = 3.02, SD = 1.09$ ) than male participants ( $M = 2.64, SD = 1.01$ ). Recall that, hypothesis 2 predicted an interaction between participant sex and civility level of the stimulus emails such that females would perceive more incivility than males for uncivil stimulus emails but not for the civil stimulus emails. However, this interaction only approached significance,  $F(1, 48) = 4.02, p = .051$ . Though there was no significant difference between male ( $M = 3.70, SD = 1.31$ ) and female ( $M = 4.47, SD = 1.53$ ) participants' perceptions of global elements of incivility in the uncivil stimulus emails, the direction of the means reflects the pattern I predicted. Examining the observed power indicates that there was a power of 0.50, suggesting there may not have been adequate power to detect an effect, which may explain why the effect only approached significance.

I predicted an interaction between sender sex and civility level in Hypothesis 4a, however this hypothesis was not supported,  $F(1, 48) = 0.27, ns$ . Participants did not perceive significantly more global elements of incivility in the uncivil stimulus email from

a female instigator ( $M = 4.13$ ,  $SD = 1.44$ ) than from a male instigator ( $M = 4.04$ ,  $SD = 1.52$ ). The observed power indicates that there was a power of 0.08, suggesting that the low power may explain the non-significant effect.

The three-way interaction of civility level, stimulus email sender sex, and participant sex predicted in hypothesis 4<sub>b</sub> was also not significant,  $F(1, 48) = 2.00$ , *ns*. Female participants did not perceive significantly more global elements of incivility in the uncivil stimulus email from a female instigator ( $M = 4.69$ ,  $SD = 1.31$ ) than did male participants ( $M = 3.58$ ,  $SD = 1.38$ ). The observed power indicates that there was a power of 0.28, suggesting that the low power may explain the non-significant effect. No other significant effects were found in the analysis of participants' perceptions of incivility in the stimulus emails on the global elements of incivility measure.

### **Self-Rated Participant Responses to Stimulus Emails**

A  $2 \times 2 \times 2$  mixed analysis of variance was conducted to test hypotheses 1<sub>a</sub>, 3<sub>a</sub>, 5<sub>a</sub>, and 6<sub>a</sub>. Participants rated their replies to the stimulus emails on the specific elements of incivility measure ( $N = 50$ ). The only significant result was a main effect of civility,  $F(1, 48) = 13.65$ ,  $p = .001$ , *partial*  $\eta^2 = .22$ , which supports hypothesis 1<sub>a</sub>. Participants self-assessed their responses to the uncivil stimulus emails as more uncivil ( $M = 2.38$ ,  $SD = 1.24$ ) than their responses to the civil stimulus emails ( $M = 1.90$ ,  $SD = 0.94$ ). This finding suggests individuals respond with a tit for tat approach and additionally, that they are aware of their reciprocated incivility.

The predicted interaction between participant sex and civility in Hypothesis 3<sub>a</sub> was not supported,  $F(1, 48) = 0.18$ , *ns*. Male participants did not self-report that they

responded with more specific elements of incivility in response to the uncivil emails ( $M = 2.42$ ,  $SD = 1.44$ ) than female participants ( $M = 2.34$ ,  $SD = 1.04$ ). Examining the observed power indicates that there was a power of 0.07, suggesting that the low power may explain the non-significant effect. Further, hypothesis 5<sub>a</sub>, which predicted an interaction between civility and stimulus email sender sex, was not supported,  $F(1, 48) = 0.01$ , *ns*. Participants did not self-report that they responded with more specific elements of incivility to the uncivil female instigator ( $M = 2.43$ ,  $SD = 1.29$ ) than to the uncivil male instigator ( $M = 2.33$ ,  $SD = 1.20$ ). Finally, the three-way interaction between participant sex, civility, and sender sex proposed in hypothesis 6<sub>a</sub> was not supported,  $F(1, 48) = 1.39$ , *ns*. Male participants did not self-report that they responded with more specific elements of incivility towards the uncivil female instigator ( $M = 2.45$ ,  $SD = 1.49$ ) than the female participants ( $M = 2.41$ ,  $SD = 1.08$ ). Examining the observed power of these two final results indicate that there was a power of 0.05 and 0.21 respectively, which suggest that the low levels of power may explain the non-significant effects.

### **Participants' Responses Assessed by Objective Raters**

A 2 x 2 x 2 x 2 mixed analysis of variance with one between-subjects variable and three within-subjects variables was conducted on each of the dependent variables, namely the independent ratings of specific elements ( $N = 50$ ) and independent ratings of global elements ( $N = 49$ ) of incivility in the participants' email responses to test hypotheses 1<sub>b</sub>, 3<sub>b</sub>, 5<sub>b</sub>, and 6<sub>b</sub>. The between-subjects variable was participant sex (male, female) and the within-subjects variables were civility level in the stimulus emails (civil, uncivil), sex of the stimulus email sender (male, female), and rater (rater 1, rater 2). Previous studies used

composites of the rater data, however due to significant differences between the raters' ratings of the email responses, the raters' ratings were treated separately in the analyses, as a third within-subjects variable. The significant difference between raters' ratings occurred despite repeated efforts to increase inter-rater reliability by training the raters on how to assess the responses using the incivility measures and comparing ratings between raters to maintain inter-rater reliability. Therefore I opted to include rater as a variable in the analyses. Considering there is a significant difference between raters in the assessments of participants' responses, these results should be interpreted with caution.

**Specific elements of incivility.** There was a main effect of civility in the objectively rated participant responses on the specific elements of incivility measure,  $F(1, 48) = 15.09, p < .001, \text{partial } \eta^2 = .24$ . Thus, hypothesis 1<sub>b</sub> was supported. Participants' replies were rated as more uncivil in response to the uncivil stimulus emails ( $M = 2.69, SD = 0.81$ ) than in response to the civil emails ( $M = 2.42, SD = 0.71$ ), suggesting that individuals respond with more incivility when they are treated rudely.

The interaction between civility and participant sex approached, but did not achieve, significance,  $F(1, 48) = 3.40, p = .07$ , and thus Hypothesis 3<sub>b</sub> was not supported. Objective raters did not assess male participants' responses as significantly more uncivil in reply to the uncivil messages ( $M = 2.61, SD = 0.79$ ) than female participants' responses ( $M = 2.76, SD = 0.82$ ). Examining the observed power indicates that there was a power of 0.44, suggesting that the low power may explain the non-significant effect.

Further, the proposed interaction between civility and stimulus sender sex was not significant,  $F(1, 48) = 0.08, ns$ . Raters did not assess participants' responses as more

uncivil in reply to the uncivil female instigator ( $M = 2.67$ ,  $SD = 0.77$ ), than to the uncivil male instigator ( $M = 2.70$ ,  $SD = 0.84$ ), hence hypothesis 5<sub>b</sub> was not supported.

Additionally, hypothesis 6<sub>b</sub>, which predicted a three-way interaction between participant sex, civility level and sender sex, was also not supported,  $F(1, 48) = 0.72$ , *ns*. Raters did not assess male participants' responses to the uncivil female instigator as more uncivil ( $M = 2.55$ ,  $SD = 0.79$ ) than female participants' responses to the uncivil female instigator ( $M = 2.78$ ,  $SD = 0.76$ ). Examining the observed power for these two interactions indicate that there was a power of 0.06 for both effects, suggesting that the low power may explain the non-significant effect.

With regard to differences between raters' assessments, there was a main effect of rater on the assessment of participants' responses on the specific elements of incivility measure,  $F(1, 48) = 14.67$ ,  $p < .001$ , *partial*  $\eta^2 = .23$ . Rater 1 (male) assessed participants' responses as more uncivil ( $M = 2.66$ ,  $SD = 0.65$ ) than rater 2 (female) ( $M = 2.45$ ,  $SD = 0.86$ ). As well, an interaction emerged between rater and participant sex,  $F(1, 48) = 5.04$ ,  $p = .03$ , *partial*  $\eta^2 = .10$ . The interaction is illustrated in Figure 1. Tests of simple main effects indicated that rater 1 (male) assessed male participants' responses as more uncivil ( $M = 2.71$ ,  $SD = 0.55$ ) than did rater 2 (female) ( $M = 2.37$ ,  $SD = 0.76$ ),  $F(1, 24) = 13.54$ ,  $p = .001$ , *partial*  $\eta^2 = .36$ . Conversely, there was no significant difference in the assessments of female participants' responses between rater 1 (male)  $M = 2.61$ ,  $SD = 0.52$  and rater 2 (female) ( $M = 2.53$ ,  $SD = 0.66$ ),  $F(1, 24) = 1.97$ , *ns*.

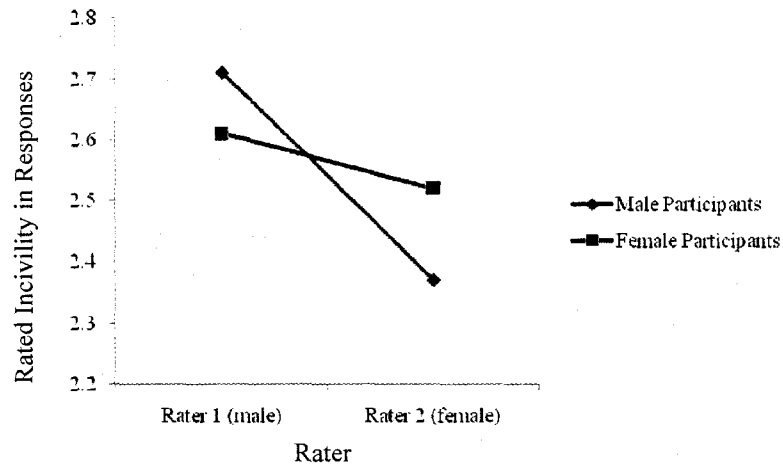


Figure 1. Interaction Between Rater and Participant Sex on Rated Responses of Specific Elements of Incivility.

A four-way interaction between rater, civility, participant sex and stimulus email sender sex emerged,  $F(1, 48) = 4.44, p = .04, \text{partial } \eta^2 = .09$ , and is illustrated in Figure 2. However, when  $2 \times 2 \times 2$  mixed analyses of variance was conducted on male and female participants separately, the three-way interactions between rater, civility, and stimulus email sender sex were not significant for male participants  $F(1, 24) = 3.10, ns$ , nor female participants  $F(1, 24) = 1.51, ns$ . The observed power for these three-way interactions indicate that there was a power of 0.39 and .22 respectively, suggesting that the low power may explain the non-significant effects. Alternatively, what could have been driving the four-way interaction was that Rater 2's (female) mean ratings change in direction between the assessment of responses to the civil stimulus emails and responses to the uncivil stimulus emails. Specifically, rater 2 assessed female participants'

responses to the uncivil female sender as more uncivil ( $M = 2.77$ ,  $SD = 1.04$ ) than responses to the uncivil male sender ( $M = 2.63$ ,  $SD = 0.88$ ) and then this difference changed direction when the responses to the civil stimulus emails were assessed, with responses to the civil female sender rated as more civil ( $M = 2.29$ ,  $SD = 0.83$ ) than responses to the male civil sender ( $M = 2.41$ ,  $SD = 0.74$ ).



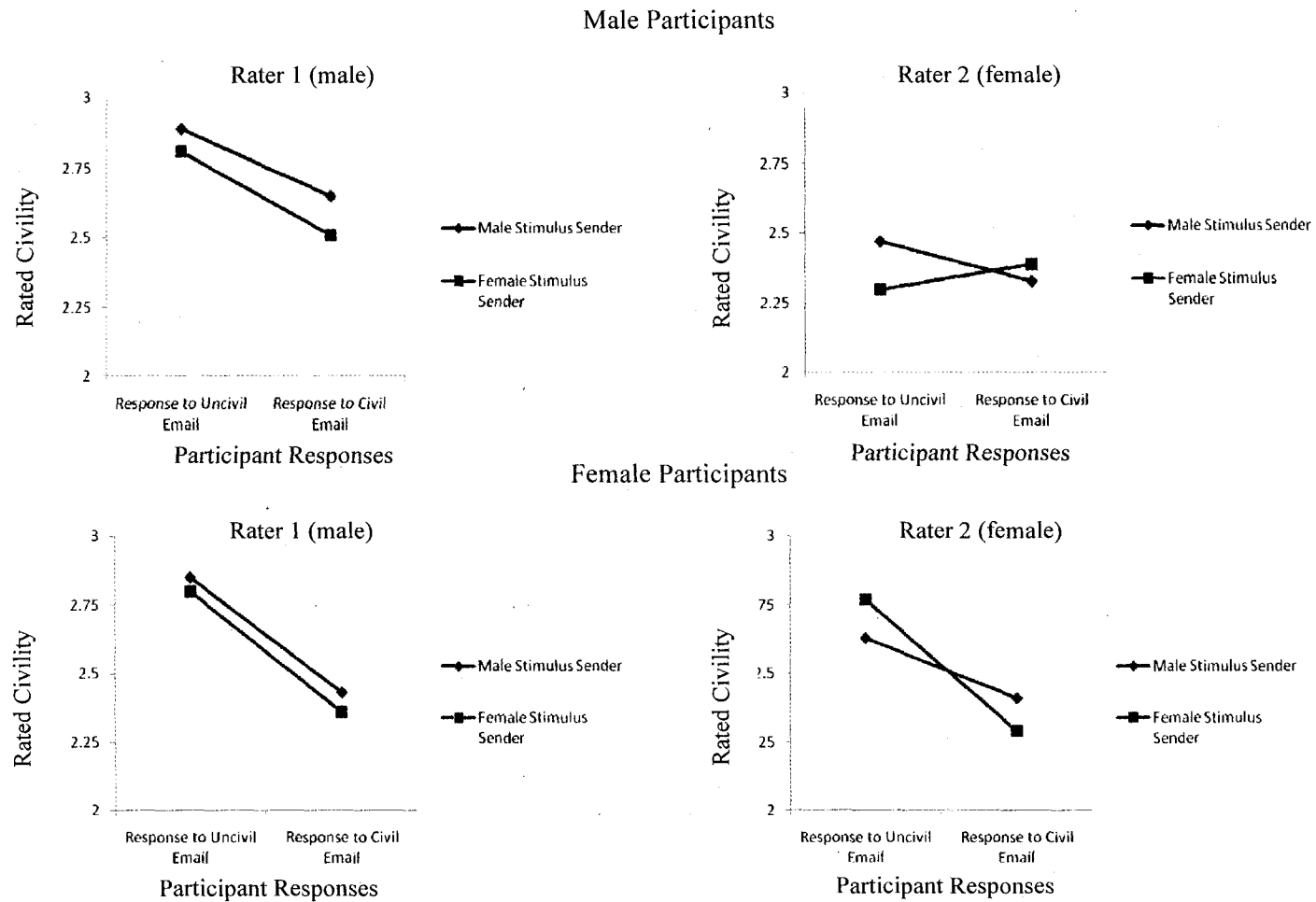


Figure 2. Four - Way Interaction Between Rater, Participant Sex, Civility and Stimulus Email Sender Sex in Rated Participant Responses of Specific Elements of Incivility.

**Global elements of incivility.** There was a main effect of civility in the objectively rated participant responses on the global elements of incivility,  $F(1, 47) = 26.06, p < .001, \text{partial } \eta^2 = .36$ . Hypothesis 1<sub>b</sub> was supported, participants' responses to the uncivil stimulus emails were assessed as more uncivil ( $M = 2.61, SD = 1.05$ ) than responses to the civil stimulus emails ( $M = 2.14, SD = 0.62$ ). This effect again suggests individuals respond with more incivility when they are treated rudely.

An interaction between civility and participant sex emerged,  $F(1, 47) = 5.18, p = .03, \text{partial } \eta^2 = .10$ , and is illustrated in Figure 3. No simple main effects were significant, however, for the ratings of responses between male ( $M = 2.48, SD = 0.84$ ) and female participants ( $M = 2.73, SD = 0.77$ ) in response to uncivil emails,  $F(1, 69) = 1.22, ns$ , or between male ( $M = 2.22, SD = 0.50$ ) and female participants ( $M = 2.06, SD = 0.44$ ) in response to civil emails,  $F(1, 55) = 1.47, ns$ . The interaction may have been driven by the change in direction between the mean ratings of male and female participants' responses to the uncivil emails and their responses to the civil emails. Specifically, female responses were rated as more uncivil in response to the uncivil stimulus emails than were male participants' responses; in contrast female participants' responses were rated as more civil than males' responses to the civil emails. Ultimately, hypothesis 3<sub>b</sub> was not supported, as I expected male participants to respond with more incivility to the uncivil emails than female participants.

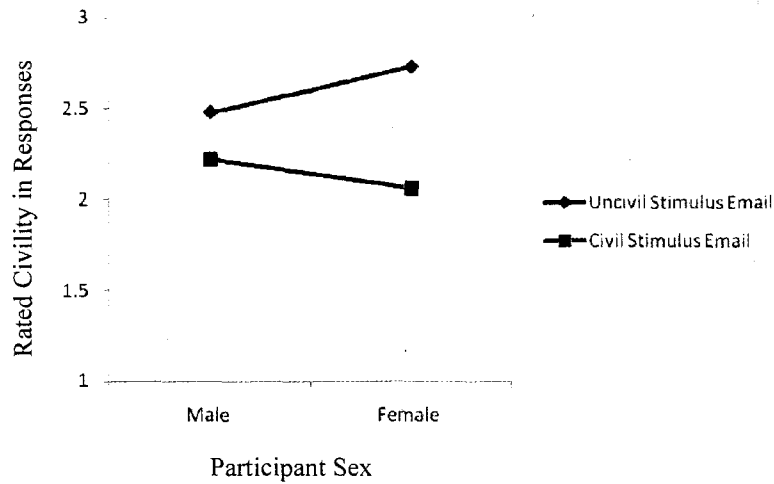


Figure 3. Interaction Between Civility and Participant Sex on Ratings of Global Elements of Incivility in Participants' Responses.

In hypothesis 5<sub>b</sub> I predicted an interaction between civility level and sender sex, but this hypothesis was not supported,  $F(1, 47) = 1.06, ns$ . The raters did not assess participants' responses to the uncivil female instigator as significantly more uncivil ( $M = 2.60, SD = 1.00$ ) than their replies to the uncivil male instigator ( $M = 2.62, SD = 1.10$ ). Likewise, the prediction of a three-way interaction between participant sex, civility level, and sender sex in hypothesis 6<sub>b</sub> was not supported,  $F(1, 47) = 1.33, ns$ . Male participants' responses were not assessed as more uncivil in reply to the uncivil female instigator ( $M = 2.53, SD = 1.10$ ) than female participants' responses to the uncivil female instigator ( $M = 2.66, SD = 1.10$ ). The observed power for these interactions indicate that there was a power of 0.17 and .20 respectively, suggesting that the low power may explain the non-significant effects.

Additionally with regard to differences between raters, there was a main effect of rater in the assessments of global elements of incivility in participants' responses,  $F(1, 47) = 31.12, p < .001, \text{partial } \eta^2 = .40$ . Rater 1 (male) assessed participants' responses as more uncivil ( $M = 2.54, SD = 0.83$ ) than rater 2 (female) ( $M = 2.21, SD = 0.84$ ).

### Discussion

Organizational scholars want to understand what leads to incivility and ultimately create interventions to reduce workplace incivility. The growing prevalence of workplace incivility (e.g., Porath & Pearson, 2009), the prominence of email communication in all types of organizations (Cortina, Magley, Williams & Langhout, 2001), and the known consequences of experiencing incivility indicate the necessity for researchers to investigate email incivility. The current study investigated the influence of sex of the instigator and sex of the target of incivility on perceiving and responding to incivility. This appears to be the first experimental examination of these variables in email incivility research and in research on workplace incivility in general. Most of my hypotheses were not supported. I will discuss the findings and address potential reasons why most hypotheses were not supported.

### Current Findings

**Perceiving and Reciprocating Email Incivility.** I expected participants would reply with more incivility in responses to uncivil messages than to civil messages. Participants rated their own replies on specific elements of incivility as more uncivil in reply to the uncivil messages than to the civil messages. This finding suggests individuals respond to incivility with a tit for tat approach (Andersson & Pearson, 1999) and additionally, that they are at least somewhat aware of the incivility they perpetrate in their replies. Also,

objective raters assessed participants' responses on specific and global elements of incivility and rated replies to uncivil messages as more uncivil than replies to civil messages. Thus, my hypotheses that individuals reply with more incivility to uncivil message than to civil messages were supported. However, the objective rater results for the specific elements of incivility measure should be interpreted with caution due to the low reliability of the measures and lack of agreement between raters.

#### **The Influence of Target and Instigator Sex on Perceiving Email Incivility.**

With regard to sex of the participant influencing the level of perceived incivility, female participants perceived more global elements of incivility in the stimulus emails than males. This effect was not hypothesized. I had expected a participant sex by civility interaction such that females would only perceive more incivility than males in the uncivil emails, which did approach significance, but not overall in the stimulus emails. Indeed this finding does suggest that females may be more sensitive and more likely to label a variety of behaviours as uncivil.

My hypothesis that female participants would perceive more specific and global elements of incivility in the uncivil stimulus emails than would male participants was not supported for the specific elements of incivility and only approached significance for the global elements of incivility. Overall the results suggest females did not perceive more incivility in the uncivil stimulus emails. However, cautiously interpreting the findings on the global elements of incivility measure, the higher mean for females' perceptions of incivility in the uncivil messages suggests that females may have perceived more global elements of incivility in the uncivil emails than did males. Future studies should aim to investigate this marginal interaction to explore further the influence of sex of the target in

perceiving incivility, as the non-significant interaction could be influenced by a power issue.

In terms of the sex of the instigator of incivility on participants' perceptions of incivility, I expected individuals would perceive more incivility in an uncivil email from a female instigator than from a male instigator. This hypothesis was based, in sum, on the argument that uncivil behaviour violates the social expectation of stereotypical roles of females such as social graces and agreeableness (Bem, 1974; Eagley & Steffan, 1986; Prentice & Carranza, 2002) causing females who behave incongruently to these expectations to be criticized strongly (Burgess & Borgida, 1999). This hypothesis, however, was not supported. Participants did not perceive the female instigator as more uncivil than the male instigator.

Additionally, I hypothesized female participants would perceive an uncivil email from a female instigator as more uncivil than would male participants, but that this effect would not emerge for an uncivil email from a male instigator. This interaction was not significant; meaning the hypothesis in sum was not supported for either of the dependent measures.

### **The Influence of Target and Instigator Sex on Reciprocating Email Incivility.**

I hypothesized that male participants would rate their own email responses to the uncivil stimulus emails as more uncivil than would female participants. The general rationale for this hypothesis was that males are more likely to respond to negative behaviours directed towards them, whereas females are more likely to avoid responding to the instigator (Tannen, 1999; Porath et al., 2008). However, this hypothesis was not supported. I further hypothesized that participants would rate their responses to the uncivil female instigator as

more uncivil than their responses to the male instigator. Again this hypothesis was not supported. The final hypothesis for the self-rated replies by participants, that male participants would rate their responses to the uncivil female instigator as more uncivil than female participants, was not supported.

These non-significant effects may indicate that individuals do not necessarily see a difference in the way they respond to incivility based on the sex of the instigator or that the manipulation of the stimulus email sender sex used in the current study was not strong enough. As mentioned earlier, I did find that participants self-rated their responses to the uncivil stimulus emails as more uncivil than their responses to the civil messages; however there was not a significant difference between males and females in self-rated responses to uncivil emails, and specifically to a female versus a male instigator.

Recall that previous studies have used a composite of raters' objective assessments of specific and global elements of incivility in participants' responses as dependent measures with no challenges in reaching a consensus, even when mixed gender rating teams were used. Therefore, I expected independent raters in the current study also to reach a consensus on their ratings. However, the current study could not use a composite of the independent raters' assessments because, regardless of repeated efforts to obtain agreement between the raters, the assessments significantly differed on both measures of incivility. Thus, the difference in assessments of rater 1 (male) and rater 2 (female) in the current study was considered an individual difference, perhaps a difference in personality or in attitudes. Given that the study looked at sex differences it could be that the individual difference reflects a sex difference, but with only one rater of each sex we cannot conclude this. Certainly, future investigations of sex differences in the instigator and target in

perceiving and perpetrating incivility should use multiple male and female raters to examine potential sex differences in assessing email responses. In the current study I had no choice but to treat the raters' assessments separately as an independent variable in the analyses.

Objective raters assessed participants' responses on specific and global elements of incivility. In addition to the aforementioned main effect of civility in raters' assessments of participants' responses, I expected that objective raters would assess male participants' responses to the uncivil emails as more uncivil than female participants' responses to the uncivil emails. This hypothesis was not supported. Interestingly, although the interaction on global elements of incivility was significant, no simple main effects were significant. Looking at the direction of the interaction, female participants' responses to the uncivil emails were actually rated as more uncivil than male participants' responses. However, this direction changed for responses to the civil emails, with female responses assessed as more civil than rated male responses. These directions suggest females reciprocate more incivility when they see incivility in a situation, but are more civil than males in a civil situation. That said, it is possible that this pattern stems females perhaps feeling that there are few, if any, repercussions, for acting uncivilly in the current experimental context. This discussion can only be speculative, as the simple main effects were not significant.

I also hypothesized that the raters would assess participants' responses to the uncivil female instigator as more uncivil than the responses to the uncivil male instigator. This hypothesis was not supported on either dependent measure. My final hypothesis was that raters would assess male participants' responses to the uncivil female instigator as more uncivil than female participants' responses. This hypothesis was also not supported on



either dependent measure. Interestingly though, the mean of the ratings of female participants' responses to the uncivil female instigator was slightly higher than ratings of male participants' responses to the uncivil female instigator on both dependent measures. Although this interaction was not significant, the direction of the difference was not even in hypothesized direction.

As previously described, although unplanned at the outset of the study, the raters' assessments were treated as an independent variable in the study due to an individual difference between the raters' assessments. Because this decision was reached after the data were collected, there were no hypotheses stated regarding differences between raters' assessments. However, a number of effects of rater as an independent variable emerged in the study.

Firstly, and not surprisingly given the lack of rater agreement, there was a main effect of rater on both dependent measures, specifically rater 1 (male) assessed participants' responses as more uncivil than rater 2 (female). Secondly, an interaction emerged between rater and participant sex on the specific elements of incivility measure. Raters' assessments differed for male participants' responses. Rater 1 (male) assessed the male participants' responses as more uncivil than rater 2 (female). As previously mentioned, these effects can only be viewed as an individual difference between the raters that could, for example, be a sex difference but could also be a difference in personality or attitudes. Using multiple male and female raters would assist in discrediting individual differences in rating incivility in email responses

Lastly, there was a four-way interaction between rater, participant sex, civility, and stimulus email sender sex. However, follow up analyses were not significant. Without

making too many speculations about this four-way interaction, there was a change in direction of the means in the ratings of rater 2 (female) in assessing male and female participants' responses, such that male responses were rated as more uncivil in reply to the uncivil male sender than to the uncivil female sender, whereas female participants' responses were rated as more uncivil in replies to the uncivil female sender than to the uncivil male sender. Although these results are based on one individual assessing the responses, the male-male dyad of responding to incivility does replicate what Porath and colleagues' (2008) found, whereby males were more likely to respond with incivility to other males than they were to females. Further investigation into these potential interactions is warranted in order to understand any potential sex differences in the way males and females perceive and respond to incivility, and the influence of the instigator's sex on these possible differences.

**Possible Explanations for Lack of Support for the Hypotheses.** What are some possible explanations for the general lack of support for my hypotheses pertaining to participant and sender sex? Taken together in speculation, it is possible that the stereotypical social roles of males and females do not extend to email communication. Alternatively, perhaps with an ever increasing population of females in the workplace, the stereotypical social roles may be less stringent. People's perceptions of female social roles may have shifted and females in the workplace are now viewed as more masculine (e.g., aggressive and dominance; Eagley & Steffan, 1986) than before (Diekmann & Eagley, 2000), and therefore uncivil actions from females may not be perceived as any more uncivil than males. Further, because of the suggested masculine traits females have adopted in the workplace, perhaps

females would not see more incivility than males in the uncivil message from a female, as the behaviour would not be deemed inappropriate.

There could also be a difference within each sex on gender attitudes and behaviours. For instance, a female may identify herself as more androgynous or masculine, but view males and other females in terms of more social stereotypical behaviours. Likewise, a male may identify himself as having both stereotypically masculine and feminine attributes, such as dominance and loving children, but view other individuals as having more stereotypical gender roles. It may be that the difference in the way people view themselves and the way they view others could very well influence their own perceptions of uncivil behaviours instigated by a male or female and also how they would respond to the different instigators, beyond a biological sex difference. The current study only measured biological sex, not gender attitudes and identity.

Additionally, whether an individual is more individualistic or collectivistic could also influence the way individuals perceive and respond to incivility beyond their biological sex. Individualists focus on personal gains and objectives, whereas collectivists generally focus on group goals above their own goals (Triandis, 1989). Perhaps females who are more individualistic would perceive more incivility in uncivil emails than females who are collectivists because the uncivil behaviour may be viewed as a threat to the female's personal objectives, compared to female collectivists. In contrast, collectivist males may be less likely to respond with incivility because they are more focused on the group goal of completing a task and therefore would reduce the level of incivility in their response to avoid threatening the cohesion in the group, in comparison to individualist males. Advancement in the investigation of sex differences in the target

and in the instigator in perceiving and responding to incivility would benefit from taking these gender and individual difference attitudes and behaviours into consideration.

On the other hand, the non-significant effects could be influenced by the design of the study itself. I used university students as participants in the current study. Perhaps the stereotypical social roles are less well defined among this population compared to the working population in managerial roles. Also, with participants being aware that they are in a simulated work environment they may not have perpetrated the same level of incivility in their replies as they would have in a real situation as a manager who is reading and replying to uncivil messages from male and female subordinates. Further, knowing the senders were fictional, female participants may not be concerned about hurting the instigator or experiencing reciprocation of incivility from the instigator. This may have contributed to the non-significant difference between participant sex and responding to the uncivil female instigator.

Moreover, the non-significant effects could be influenced by the manipulation of stimulus email sender sex not being strong enough using gender-specific names, which will be discussed later as a limitation, or that these sex differences do not exist in an email setting. Additionally, the effect of the manipulation of incivility in the stimulus emails may have in fact obscured the remaining non-significant hypothesized relationships. The large effect sizes and substantial amount of power for the main effect of civility in participants' perceptions and reciprocation of incivility, and in the raters' assessments of reciprocated incivility, could have detracted from the other hypothesized effects resulting in the substantial number of non-significant findings. It is also important to note that although I had conducted an a priori power analysis that indicated a sample size of 50 would be

adequate to detect effects, the non-significant findings had low power. Thus, the low power may have hampered the detection of effects, which resulted in the non-significant hypothesized relationships. Nevertheless, future studies should examine further how the sex of the instigator and sex of the target influences perceptions and perpetration of workplace incivility in email and in other communication domains.

### **Implications**

When incivility is perceived the target is likely to respond with incivility. Organizations should consider this reciprocity of incivility when developing training programs and policies for minimizing uncivil work behaviours. Only 40% of participants in a recent survey reported their organization had policies for email conduct and 32% did not even know if their workplace had an email conduct policy (Lim, Teo & Chin, 2008). These statistics and the research on email incivility (e.g. Francis et al., 2008; Martinell, 2007) exemplify the need for organizations to create workplace email policies and will help in defining appropriate guidelines that take into consideration the precursors to incivility and factors that influence ones' perception and perpetration of email incivility. Training on awareness of these factors and comprehension of these policies is necessary. Behaviours in email communication should be addressed and considered just as important as verbal uncivil behaviours since the current study's findings and previous research indicate people respond with incivility when they perceive they are treated rudely in emails. Unlike other forms of mistreatment (e.g., violence, sexual harassment), there are no laws to deter workplace incivility. It is up to the organization to create policies and form a climate that is conducive to minimizing incivility and email incivility.

Further, regarding sex differences in perceiving incivility in emails, overall females perceived more incivility in the stimulus emails than males on the global elements of incivility measure. Certainly, this lends support to the rationale that females see more incivility in the same situation than males regardless of the actual civility of the situation. As most hypotheses about the influence of sex of the target and sex of the instigator were not supported, the current study cannot conclude that females are more sensitive to violations of norms of respect than males nor that the sex of the instigator influence ones' perceptions or likelihood to reciprocate incivility.

### **Limitations**

All studies have limitations, and as such I will discuss the limitations of the current study. Although conducting an experimental investigation is a relative strength of the study it can elicit the question of external validity. Using a simulated office setting with undergraduate students as participants, many of whom were not real managers, may prompt questions about how well the results generalize to the working population. Further, since participants were aware they were participating in a simulated workplace study and that the emails they received were from fictional employees, they may not have put too much consideration into how they responded to the emails. However, I aimed to reduce these threats by having participants adopt the role of a manager and perform managerial-type tasks, with the understanding that the tasks would be assessed. Knowing the tasks would be assessed would hopefully motivate the participants to undertake the tasks seriously and complete the tasks as though they were a real manager. Additionally, the majority of participants had previous work experience, which makes the participant sample more representative of the working population. That said, that work experience

may not have been in an office environment making the assessment centre set up less realistic for participants. However, it is unknown whether these limitations contributed to the non-significant effects in the study.

As previously described in the discussion of results, an important limitation to the current study is the significant disagreement between raters' assessments of specific and global elements of incivility in participants' responses. As such, the differences in the assessments of incivility between raters can only be attributed as an individual difference and not necessarily a sex difference. Considering the study was looking at sex differences of the target and of the instigator in perceptions and reciprocation of incivility, it would have been appropriate to have multiple male and female raters to assess the participants' email responses and investigate whether there was a sex difference in email ratings. That potential finding would have provided further insight into a sex difference in perpetration of incivility from the point of view of males and females perceiving uncivil behaviours in responses to male and female instigators of email incivility. I strongly recommend that future studies use multiple male and female raters.

Another limitation was that only one version of each stimulus email was used. Not having a civil and an uncivil version of each stimulus email is a potential limitation of the study. It could be argued that the content or subject matter of the email, rather than the actual civility level or sex of sender, could influence the level of incivility in the email response. Using a civil and an uncivil version would have enabled a direct comparison between the two versions and possibly provided a more accurate assessment of civility; however, the topics of the emails were chosen based on situations that a manager may address as a manager in a call centre. Other studies have used civil and uncivil versions of

stimulus emails with similar content to the current study's emails and no issues were noted, indicating that the content of my emails should not have influenced the outcomes. Additionally, the stimulus emails have been used in previous studies and were effective in eliciting perceptions of incivility (and civility in the civil stimulus emails) and reciprocated uncivil behaviours in response to the uncivil emails versus the civil emails.

A potential limitation could also be that participants only assessed their replies on the specific elements of incivility measure. I did not consider adding the global elements of incivility measure to the current study's questionnaire in large part due to the length of that survey. Additionally, in a previous study that I conducted, participants only assessed their replies on the specific elements of incivility measure (Martinell, 2007). That said, one of the goals of the study was to assess the participants' replies objectively on the specific and global elements of incivility measures, which was performed by independent raters. However, because I found that participants were aware of their perpetrated specific elements of incivility in their responses to uncivil messages, it would be interesting to see if this result extends to the global elements measure. This is a question that may be addressed in future research.

Also, as noted in the methods section, some of the coefficient alphas for the reliability indices were inconsistent for participants' ratings of the stimulus emails on the specific elements of incivility measure. Additionally, the alphas were low for the independent assessments of participants' responses on the specific elements of incivility measure. However, as discussed previously internal consistency may not be the most appropriate measure on which to assess this scale. In future studies, researchers should



consider an alternative way to assess the reliability of this measure in order to provide a more meaningful assessment of reliability.

One of the characteristics of incivility is that the behaviour is a violation of the shared norms of mutual respect that are established through relationships and culture in the workplace (Pearson et al., 2001). Because the participants were in a simulated work setting, there were no established norms, which could be viewed as a limitation. By including civil emails, however, and having filler tasks to mask the focus of the study on the emails, I aimed to create a norm of civility to encourage participants to attribute the incivility in the uncivil emails to the sender rather than to the fictional organization's norms of behaving uncivilly. It is possible that participants may have reduced the level of incivility in their replies because there were no shared norms between the email senders and themselves. Also, they could have thought the experimenter unintentionally created uncivil emails and thus limited the level of incivility in their responses. This diminished level of incivility may indicate that there could actually be greater perpetrations of email incivility in a true workplace that are influenced by the instigator's sex and the target's sex.

The manipulation of sex of the stimulus email sender was achieved by changing the sender name on the email. As I have noted earlier, there is a chance participants did not notice the sender name when they read and responded to the email or when they completed the measures on their perceptions of incivility, thus perhaps the manipulation was not strong enough. This could partially explain the non-significant difference between responses to males and females. That said, I did take steps to highlight the sender sex manipulation. Firstly, the organization description provided participants with the

names and generic information about the four subordinates that the emails were sent from. Second, all the emails were signed using the employee's name with the intention that the participant would notice the sex of each sender by the use of the typical male and female names. Third, when the participants were asked to indicate their perceived level of incivility on the incivility measures the name of the stimulus email sender and the related pronouns were frequently mentioned in the measure to remind participants of the sex of the sender of each email. Fourth, a manipulation check was included in the questionnaire asking participants to indicate the sex of the stimulus email sender, in which approximately 88% to 98% of participants correctly identified the sex of the email sender (with the remaining participants having not responded to the manipulation check so we do not know whether it is because they did not notice the sex of the sender or if they missed that item in the questionnaire). Additionally, participants could view the emails they received while completing the questionnaire, which also provided the opportunity to remind the participant of the sex of the sender along with the email they received. Having the emails available to the participants while they completed the measures likely reduced the chance of not considering the sex of the email sender while completing the measures. Whether the participants noticed the sex of the email sender at the time they replied to the emails, is unknown, and this could have contributed to not finding a significant interaction of civility and sender of stimulus email in the raters' assessments of the responses.

### **Directions for Future Research**

The findings in the current study and the aforementioned limitations, such as using multiple male and female raters to assess participants' replies, using civil and

uncivil versions of the stimulus emails, having participants self-rate their replies on both incivility measures, and including measurements of gender role stereotyping, indicate several directions for future research on email incivility that have already been introduced. Additionally, including a measure of participants' perceptions of the perpetrator's intention of behaving uncivilly in the stimulus email would enable an investigation of whether the perceived intention influences the level of incivility in responses. Moreover, there are certainly other avenues that could also be pursued in future studies.

Improving realism in the experimental simulation by using confederates may assist researchers in investigating the influence of the sex of the instigator and sex of the target in perceptions and perpetration of email incivility. Having a participant meet other employees, who are confederates to the study before going into a separate office to complete work tasks and then using email to communicate with each other would promote a more realistic workplace simulation. With this experimental design, knowing that the instigators are real people may potentially have a greater influence on the way a participant perceives and responds to incivility in emails from the employees. To build upon existing experimental findings, a future study could also integrate the experimental findings on email incivility thus far and, for instance, examine organizational hierarchy in combination with the influence of sex of the instigator and sex of the target. Experimental findings indicate individuals are more likely to perceive more incivility in uncivil emails from a subordinate than from a peer or supervisor, although reciprocation of incivility is just as likely towards a subordinate and a peer (Martinell, 2007). It is appropriate to look at multiple factors that can influence one's perception and perpetration of incivility since

rarely would only one factor independently influence perceptions and perpetration of incivility in reality.

Similarly, an experimental investigation could build on the current findings by examining how sex of the instigator and sex of the perceiver moderates the perceptions and perpetration of email incivility in a formal versus an informal work culture. The culture of an organization shapes the shared norms of mutual respect which influence how an individual may perceive and respond to uncivil emails (Andersson & Pearson, 1999). Sex of the instigator and of the target could influence this relationship, either directly or indirectly. Additionally, examining how the sex of the instigator and sex of the perceiver moderates the perceptions and perpetration of email incivility for individuals in sex-typed jobs (e.g. nursing, policing) (Glick, Wilk & Perrault, 1995) would also further develop the current study's findings.

The social presence theory compares mediums of communication and suggests communication via email lacks the warmth and "personalness" that one can exert in face to face communication (Short, Williams & Christie, 1976; Rice, 1993). A study on the semiotics in email communication suggests that some of the elements I describe in the current study as specific elements in eliciting perceptions and perpetration of incivility may be used as a way of providing cues to indicate warmth and tone (Menchik & Tian, 2008). For instance, writing in capital letters, using exclamation marks or using emoticons could be used to convey the tone of the sender's message in a friendly or enthusiastic way, in comparison to the current study where these elements were included to elicit perceptions of incivility. Therefore, when an email does not include these types of potentially enthusiastic or friendly indicators, the reader may interpret the email as less warm and potentially less

civil. Future research could investigate if or how perceptions of the specific elements of incivility items may have shifted as email communication evolved to maintain measures of email incivility that accurately reflect behaviours that individuals perceive as uncivil in workplace email communication.

In future research I could conduct a similar study in a more realistic setting. Studying individuals who are employed full time could potentially yield different results. Also, examining generational differences in perceiving and responding to incivility, both with and without the relation to sex differences in the perceiver and instigator of incivility, could provide organizations with valuable knowledge about how their employees perceive and reciprocate email incivility. Considering younger workers grew up using email and cell phone texting as social communication media, their perceptions of what is rude and how they would respond may greatly differ in comparison to employees who were in organizations long before email was introduced. Younger individuals seem to be accustomed to using numerous acronyms, shorten words, multiple exclamation marks and emoticons (e.g., ☺) to convey their message through texting to reduce the length of the message and to convey the emotion in the message (Taylor & Harper, 2003; Thurlow & Brown, 2003; Smith & Williams, 2004). In the current study these elements were labeled as specific elements of incivility. However considering young adults are familiar with these elements in their daily communication, they may not view them as uncivil behaviours when they receive an email that has these elements. In contrast, older individuals who are not as familiar with these texting behaviours and who may have first started using emailing in the workplace and therefore carry over the norms exercised on other types of written communication previously used (e.g., typed memos or letters),

could still perceive the current study's specific elements of incivility as uncivil behaviours in workplace emailing. Investigating this generational difference in norms of appropriate email communication could provide valuable information in to difference in employees' perceptions and perpetration of email incivility. These directions for future research on email incivility, particularly on sex differences in the instigator and in the target in perceiving and responding to incivility, are important to pursue so as to understand what leads to incivility and ultimately to create interventions for organizations to reduce workplace incivility.

### **Conclusion**

The current study has provided the foundation to continue examining sex differences in the target and in the instigator in perceiving and responding to incivility. Individuals who perceive incivility in an uncivil email tend to respond with incivility. Findings also indicate females may be more sensitive to perceiving incivility and therefore may be more likely to label behaviours as uncivil regardless of the level of civility in a message as males, although they are just as likely to respond with incivility as males, which also suggests that females may not be more sensitive to norm violations than males. The current study demonstrates the need for further assessment of participants' responses to incivility by multiple male and female raters before we can make more definitive conclusions on how the sex of the instigator and sex of the perceiver play a role in how individuals respond to incivility. In developing the research on these sex differences we can provide organizations with important findings on what can influence perceiving and perpetrating incivility in the workplace to create training and policies to reduce email incivility.

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## Footnotes

<sup>1</sup>In total, sixty-nine undergraduate students participated in the study. Six cases were omitted from the sample due to the individual not being fluent in written English. Fluency was necessary because some grammatical aspects in the email responses may be considered uncivil characteristics I wanted to avoid confounding perceptions of the incivility of the email with limitations on fluency in English. I opted to include only those individuals who are fluent in English. Data from two participants were omitted because the email responses were not completed. Two individuals did not report their sex therefore their data were omitted. One participant informed the researcher that they got confused when they were completing the questionnaire on which email sender they were rating, and therefore the researcher was unsure of accuracy of the participant's responses and omitted this case. One final participant was removed from the sample due to their expressed concern that research on sex differences legitimizes sexism regardless of context. Given this individual's discomfort with the topic and his right to withdraw data, his data were removed from the analysis. The final sample size before data cleaning was fifty.

<sup>2</sup>The majority of both male and female participants were aged 24 and younger (88% of males, 92% of females). The average age of male participants was 22.14 ( $SD = 6.31$ ) and for female participants was 21.24 ( $SD = 5.52$ ). The majority of male participants had 1-5 years of work experience (52%) or 6-10 years of work experience (36%), with 60% of males presently employed, although 64% did not have managerial experience. The majority of female participants had 1-5 years of work experience (52%)

or 6-10 years of work experience (40%), with 72% presently employed, however 84% did not have managerial experience.

<sup>3</sup>For the responses to the uncivil stimulus emails, most Kappa statistics were unable to be computed due to one rater not ever using one of the anchors, since all cells must have a number in order to compute a Kappa statistic. The few Kappa statistics that were calculated ranged from 0 to 0.3, which indicates extremely low agreement between the rater ratings. The majority of intra-class correlations across the stimulus emails were at 0.7 or below (88%). Pearson correlations also suggest a difference between the raters. Correlations ranged from -.01 to .94 on the measure of specific elements of incivility and on the global elements of incivility measure, correlations ranged from -.05 to .73. Multiple items on the measures had low correlations between the raters ratings, thus indicating little similarity in the ratings between the raters.

Paired samples T-tests tested the rater differences. Results found significant differences between rater 1 and rater 2 assessments. At least six of the 13 pairs of items across both measures were consistently rated significantly different ( $p < .05$ ), with significant differences in ratings on four ('respectful', 'courteous', 'offensive' and 'insulting') of the six items on the measure of global elements of incivility. 'The introduction to the message', was the only item on the measure of specific elements of incivility that was consistently significantly different across replies to the stimulus emails.

<sup>4</sup>Participants' perceptions of specific elements of incivility in the civil email from a male sender had a kurtosis of 9.73 ( $SE = 0.67$ ) and from a female sender had a kurtosis of 7.71 ( $SE = 0.66$ ). In participants' self-rated responses on the same measure, the kurtosis was 12.45 ( $SE = 0.66$ ) for responses to the civil female sender. Within the rater

data, kurtosis was 7.26 ( $SE = 0.66$ ) on rater 1's assessments of global incivility in participants' replies to the civil male sender and kurtosis was 4.59 ( $SE = 0.66$ ) on rater 2's assessment of global incivility in participants' replies to the civil male sender.



Appendix A

Stimulus Emails

**Uncivil emails** (sender names change)

**Email 1**

*Subject line:* call centre - setup  
FYI,

Quite a few csrs have been complaining bout the setup of the call centre. Someone will be coming to talk to you about it. theyre saying its too crowded, the lights are bad and some ppls equip needs replacing. im not sure how quickly these probs can be fixed, since its always busy around here, but the probs are adding to the stress and ppls tempers, so you should look @ this b4 its gets much worse

*Amanda*

**Email 2**

*Subject line:* photocopier jam  
pat

this email is wrt the photocopier. The photocopier keeps jamming when the csrs are trying to copy doublesided. this annoyance is taking up too much time and is stressing ppl out. Its also wasting lots of paper... and you know how the cc is always trying to save paper ☺. Can you get someone to look at it asap?  
- i know youre busy but this prob. needs to be cleared up quickly!

*Ryan*

**Civil emails** (sender names change)

**Email 1**

*Subject line* : Holiday Party Plans

Dear Pat,

I am planning the annual holiday party for the call centre. Thus far I have scheduled the date, time and music. I know you co-ordinated last year's holiday party therefore I thought I could ask you for a few suggestions. What sort of food do you think we should have? Perhaps a formal sit-down meal would be nice? Also, I thought a raffle would be a good idea, but I am not sure what sort of prizes to select. If you have any suggestions for the party, please feel free to send them along.

Thank you,

*Kyle Thompson*

**Email 2**

*Subject line*: Headset Order

Dear Pat,

This email is in regard to the headset order that was placed three weeks ago. A number of customer service representatives have been inquiring about the arrival date of the headsets. As you are aware, there has been a shortage of headsets since the new employees began working at the centre. Therefore, I am wondering if you happen to know when the order will be coming in.

Your attention on this matter is greatly appreciated, as I know you are very busy.

Thank you,

*Lauren Murphy*

## Appendix B

### Measures of Specific and Global Elements of Incivility– Participants (Francis et al., 2008)

Using the following rating scale, please rate the appropriateness of the email from [Stimulus Email Sender Name], keeping in mind that it originated in a work setting:

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>1 = Very Inappropriate</b>     | <b>4 = Neutral</b>              |
| <b>2 = Inappropriate</b>          | <b>5 = Somewhat Appropriate</b> |
| <b>3 = Somewhat Inappropriate</b> | <b>6 = Appropriate</b>          |
|                                   | <b>7 = Very Appropriate</b>     |

- \_\_\_\_\_ Overall impression/ tone of e-mail
- \_\_\_\_\_ Entry in “Subject” line - does it briefly summarize what the e-mail is about
- \_\_\_\_\_ Introduction to/ beginning of message (including manner used to address you –first or last name, none, etc.
- \_\_\_\_\_ Punctuation
- \_\_\_\_\_ Spelling/Grammar
- \_\_\_\_\_ Clarity
- \_\_\_\_\_ The way in which the message ended (exp: “Thank You” type-tag; manner used to identify themselves – first/last name)
- \_\_\_\_\_ Use of Acronyms/shortened words (LOL, JK, FYI, “rep.” for “representative”, etc.)

Using the following rating scale please respond to the following items.

- |                              |                           |
|------------------------------|---------------------------|
| <b>1 = Strongly Disagree</b> | <b>4 = Neutral</b>        |
| <b>2 = Disagree</b>          | <b>5 = Somewhat Agree</b> |
| <b>3 = Somewhat Disagree</b> | <b>6 = Agree</b>          |
|                              | <b>7 = Strongly Agree</b> |

- \_\_\_\_\_ This email was respectful
- \_\_\_\_\_ This email was appropriate
- \_\_\_\_\_ This email was courteous
- \_\_\_\_\_ This email was rude
- \_\_\_\_\_ This email was civil
- \_\_\_\_\_ This email was offensive
- \_\_\_\_\_ This email was insulting

## Appendix C

## Rater Package

Incivility has been defined as: “low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect. Uncivil behaviors are characteristically rude and discourteous, displaying a lack of regard for others” (Andersson & Pearson, 1999, p.457). A wide variety of behaviours can be interpreted as uncivil, such as staring, not holding a building entrance door open for another, and talking on cellular telephones while engaged in social interactions with others (Pearson, Anderson, & Porath, 2000). In the workplace, common examples of uncivil behaviours include leaving a jammed photocopier for another individual to discover and fix, ignoring or neglecting to greet another individual, borrowing supplies/materials and failing to return them, and neglecting to respond to a phone message/email (Johnson & Indvik, 2001). Uncivil or inappropriate email communication is often characterized as using the following indicators (Christiansen, 2003; Francis et al., 2008; Rutgers, The State University of New Jersey, 2006; Shea, 1997; Tuffley, 2004; Weinstock, 2004):

- Indication of importance or high priority when the email is not really urgent
- Lack of a proper introduction (the message begins without addressing recipient, first name used when addressing the recipient in a more formal manner would be more appropriate)
- The e-mail is composed entirely in upper or lower case letters
- Extreme absence or excess (!!!!) of punctuation
- Improper spelling or grammar
- Poor formatting (no paragraphs/spaces between paragraphs, etc.)
- Lack of a “Thank you”, etc., type tag at close of message
- Too many emoticons or acronyms
- Use of sarcasm or slang
- Inclusion of irrelevant information
- Lack of context: the recipient is forced to send a reply requesting clarification

Please keep this description of incivility in mind when reading and rating the civility level of the email messages in this package. The email messages and rating forms are provided on the following pages.

Each participant wrote 4 email messages while acting as **Pat Marshall**, a manager of a fictional call centre called Xpediant. These emails were responses to a variety of emails received from fictional employees in the organization.

The message with the title: Call Centre Setup, is a reply to an email addressing concerns about the set up for the call centre. Pat has been asked to look into lighting, equipment replacement, and office space arrangements.

The message with the title: Photocopier Jam, is a reply to an email seeking assistance on fixing a photocopier jam when printing double-sided, as it slows down tasks and creates stress, while the office is always trying to save paper.

The message with the title: Holiday Party Plans, is a reply to an email seeking advice on planning the holiday party. Pat was last year's party co-ordinator and has been asked to share ideas and advice.

The message with the title: Headset Order, is a reply to an email inquiring as to when new headsets, which were ordered several weeks ago, will arrive.

**Email Title / #:**

**Please rate the quality of the previous email keeping in mind that it occurred in a work setting.**

- |                     |                     |
|---------------------|---------------------|
| 1= Very Uncivil     | 5= Somewhat Civil   |
| 2= Uncivil          | 6=Civil             |
| 3= Somewhat Uncivil | 7=Very Civil        |
| 4= Neutral          | NA = Not Applicable |

- \_\_\_\_\_ Overall impression/ tone of e-mail
- \_\_\_\_\_ Introduction to/ beginning of message (including manner used to address you –first or last name, none, etc.)
- \_\_\_\_\_ Punctuation
- \_\_\_\_\_ Spelling/Grammar
- \_\_\_\_\_ Clarity
- \_\_\_\_\_ The way in which the message ended (exp: “Thank You” type-tag; manner used to identify themselves – first/last name)
- \_\_\_\_\_ Use of Acronyms/shortened words (LOL, JK, FYI, “rep.” for “representative”, etc.)

**Using the following rating scale please respond to the following items. Please keep in mind that this email occurred in a work setting.**

- |                      |                     |
|----------------------|---------------------|
| 1= Strongly Disagree | 5= Somewhat Agree   |
| 2= Disagree          | 6=Agree             |
| 3= Somewhat Disagree | 7= Strongly Agree   |
| 4 = Neutral          | NA = Not Applicable |

- \_\_\_\_\_ This email was respectful
- \_\_\_\_\_ This email was appropriate
- \_\_\_\_\_ This email was courteous
- \_\_\_\_\_ This email was rude
- \_\_\_\_\_ This email was civil
- \_\_\_\_\_ This email was offensive
- \_\_\_\_\_ This email was insulting



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