

**Incivility and Gender: Considering Instigator/Target Gender Interactions**

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## ABSTRACT

In this study, I examine gender dyads, especially considering gender minorities, and how uncivil behaviour would effect negative and positive affect, interactional justice, affective commitment, and turnover intentions. In particular, I use the Dysempowerment Model (Kane & Montgomery, 1998) to explain how incivility leads to these negative outcomes. In addition, selective incivility (Cortina, 2008) is incorporated to illustrate how gender of the target may result in higher rates of polluters, thus different (more significant) outcomes for female and gender minority targets. Finally, I integrate gender status literature to hypothesize gender effects based on the manager's (instigator) gender. A 2 (incivility vs. control) x 3 (manager gender: male, female, transgender) x 3 (participant/target gender: male, female, transgender) vignette-based pseudo-experiment was conducted to test the hypotheses. Data collection was done online, and participants were recruited through online means (Amazon Mechanical Turk, Social Media recruitment, and Prolific). The main effects for incivility manipulation were all significant, but the gender x incivility interaction effects were mainly nonsignificant. The significant results support that relatively common, but rude, behaviours can cause tangible changes in negative affect, interactional justice, job commitment, affective commitment, and positive affect. Some unexpected interactions were found with respect to intentions to quit. Implications for future research and practitioners are discussed.

**Keywords:** *Incivility, Gender, Workplace, Deviant Behaviour, Gender Differences, Mistreatment, Gender Minorities*

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## ABBREVIATIONS & SYMBOLS

### Abbreviation – Meaning

FTM – Female-to-male transgender individual

ICEHR – Interdisciplinary Committee on Ethics in Human Research, Memorial University of Newfoundland & Labrador’s Ethics board which provided approval for this research.

LGB – Lesbian, gay, bisexual

LGBTQ + - lesbian, gay, bisexual, transgender, queer, and questioning.

MTF – Male-to-female transgender individual

mTurk – Amazon’s Mechanical Turk – online sample pool

NAICS – North American Industry Classification System

SPSS – IBM’s Statistical Package for the Social Sciences, the data-analysis software used.

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## **Incivility and Gender: Considering Instigator/Target Gender Interactions**

A seminal article by Andersson and Pearson (1999) discussed the descent of commonplace civil behaviour in the workplace and laid the groundwork for research on workplace incivility. They define workplace incivility as “low-intensity deviant behaviour with ambiguous intent to harm the target, in violation of workplace norms for mutual respect” (Andersson & Pearson, 1999: 457). Examples of uncivil workplace behaviour include rudeness, thoughtless acts (Andersson & Pearson, 1999) and condescension (Johnson & Indvik, 2001), among other behaviours. Academics widely accept Andersson and Pearson’s (1999) premise, with few exceptions (e.g., Miner et al., 2018). While Miner and colleagues (2018) laud Andersson and Pearson’s (1999) definition of workplace incivility, they suggest that it is perhaps too narrow. They suggest that workplace incivility “may also have clear intent to harm, be functional, be norm-abiding, show various response trajectories, and be a network phenomenon” (Miner et al., 2018: 321). This work will use Andersson and Pearson’s (1999) traditional definition of uncivil workplace behaviour.

Workplace incivility has widespread ramifications. Targets (i.e., those who receive the uncivil behaviour) and observers (i.e., those who witness the uncivil behaviour) both have negative reactions to workplace incivility. Targets of uncivil workplace behaviour experience drop in job satisfaction (Lim et al., 2008), job commitment (Cortina et al., 2002; Porath & Pearson, 2012), as well as increased feelings of unfair treatment (Caza & Cortina, 2007). Uncivil workplace behaviour also has negative effects on job performance and aspects thereof. Being the target of uncivil behaviour can lead to lowered job performance and creativity (Porath & Erez, 2007), as well as higher levels of work withdrawal (i.e., neglecting required tasks) (Cortina et al.,

2001). Weiss and Croponzo (1996) also suggest that individuals focus more on an emotion-triggering event and less on job performance after experiencing an emotion-triggering event.

Previous research studied the relationship between experiencing workplace uncivil behaviour, negative affect, and attitudinal outcomes such as affective commitment. Researchers also examined the disparity between the amounts of uncivil workplace behaviour experienced between men and women and majority and minority members (Cortina et al., 2001; Cortina et al., 2002). Observer effects of uncivil workplace behaviour have also been examined, such that merely witnessing uncivil workplace behaviour can increase negative emotions in the observer, such as demoralization, anger, and fear, amongst others (Miner & Eisechild, 2012).

This study's research objective is to determine whether the gender of both instigator and target have a significant difference in target affect and attitudes of the workplace, with the consideration of gender minorities. While researchers have examined some gender relationships in terms of uncivil workplace behaviour (Miner & Cortina, 2018; Miner & Eisechild, 2012; Montgomery et al., 2004), few studies have examined the interaction of instigator and target genders (e.g., Gabriel et al., 2018). No studies found examined this interaction with the added moderator of gender minorities for instigator and target. This research gap is important to fill, as the experience of different gender identities (the gender that an individual feels that they are; Statistics Canada, 2018) may influence how individuals react to experiencing uncivil workplace behaviour. As gender identity permeates every aspect of life (gender identity is “a person’s deeply felt, inherent sense of being a [female], [male], a blend of male or female; or an alternative gender;” American Psychological Association, 2015: 384; children and adults automatically cluster people by gender regardless of context; Bennett et al., 2000) it is an important factor to consider in all (benevolent or deviant) social interactions. Gender identity

may also moderate interactions in which uncivil workplace behaviour has more negative outcomes than others.

This study will utilize the Dysempowerment Model (Kane & Montgomery, 1998) to study uncivil workplace behaviour. Furthermore, this study will incorporate selective incivility and prescriptive gender stereotypes (the overemphasis of cultural gendered characteristics; Ellemers, 2018) to illustrate how the gender of the target and the instigator may impact the outcomes for the target. The contributions to the overall literature made by this research are: (1) a focus on the lived experience of gender minorities – this study considers gender dyads with those who identify as gender minorities as both instigator and target (in combination with cisgender males and females) as an extension of the incivility research; (2) this research suggests that the gender of target and instigator does not appear to influence the outcome effects of incivility but may play a role in job attitudes in general. Furthermore, some research issues are discussed with the intent to help future researchers. Next I present the relevant literature, hypotheses, methods, results and then discuss the implications of the findings of this research.

### **Dysempowerment Model**

There are many lenses through which one can study workplace incivility. One such lens is the Dysempowerment Model posited by Kane and Montgomery (1998), which several studies have used to study workplace incivility (e.g., Lim, et al., 2008; Porath & Erez, 2007). The Dysempowerment Model (Kane & Montgomery, 1998), suggests that experiencing an affront to one's dignity leads to negative affectivity, which then causes impairment on that individual's level of empowerment. This impairment can then lead to changes in the individual's work

attitudes and behaviours, including trust and commitment, as well as motivation, cooperation, and innovation (Kane & Montgomery, 1998).

Kane and Montgomery (1998) argue that there are two outcomes of dysempowerment. The primary outcome of dysempowerment is the affective reaction or response (as discussed by Weiss & Cropanzo, 1996), and the subsequent outcome is an impairment (not negation) on psychological empowerment leading to a decrease in task motivation (Kane & Montgomery, 1998). Kane and Montgomery (1998) posit that individuals who experience an affront of dignity experience perceptions of unfairness, which leads to negative affect, which subsequently causes dysempowerment. The experience of negative affect can then lead to poor behavioural outcomes (i.e., a decrease in empowerment - dysempowerment), such as withholding effort and deviance (Kane & Montgomery, 1998).

Kane and Montgomery describe dysempowerment as having the “potential to impair... the motivation of empowerment” (Kane & Montgomery, 1998: 264); however, dysempowerment and empowerment can co-exist at the same time (Kane & Montgomery, 1998). Kane and Montgomery (1998) suggest that dysempowerment does not completely negate empowerment, and thus, dysempowerment differs from disempowerment, which is the lack of motivation (Blauner, 1964). According to Kane and Montgomery (1998), an individual can feel empowered through an energizer (a cognition with the potential to enhance motivation) and dysempowerment through a polluter simultaneously. Therefore, to fully understand the scope of the experience of dysempowerment, one must also examine empowerment.

Employee empowerment is a multi-dimensional construct of internal motivation and self-efficacy, in which an individual employee can define their work role (Spreitzer, 1995). The four dimensions of empowerment discussed by Spreitzer (1995) are meaning, competence, self-

determination, and impact. Employee empowerment develops through employee involvement in and responsibility for workplace decisions, as well as the existence of fair reward systems for employees (Herrenkohl et al., 1999). Employee empowerment has several outcomes in the workplace, ranging from innovativeness, job satisfaction, and performance (Fernandez & Moldogaziev, 2013).

Kane and Montgomery (1998) differentiate between energizers and polluters; energizers are “task-related cognitions” (p. 264), that can enhance motivation. In contrast, polluters are affective responses to events that can impair empowerment’s motivation (Kane & Montgomery, 1998).

The following discusses the Dysempowerment Model in relation to this study’s dependent variables; negative affect, interactional justice, job commitment, and affective commitment. While Kane and Montgomery (1998) outlined how the dysempowerment model affects these variables, I include further discussion on how dysempowerment might interact with the variables, with support from the literature.

### **Workplace Incivility and Negative Affect**

Negative affect refers to the psychological states of “anger, contempt, disgust, fear, and nervousness” (Watson et al., 1988) as well as hostility (Scott et al., 2001). Considering dysempowerment, the event leading to the affront to one’s dignity can include uncivil behaviour such as rudeness, and the source can be either from an individual, workgroup, or organizational level (Kane & Montgomery, 1998). This affront to dignity then leads to affective responses, such as anger or humiliation (Kane & Montgomery, 1998). These affronts are called “polluters” (Kane

& Montgomery, 1998: 264) due to their impairment (not negation) of psychological empowerment. Andersson and Pearson (1999) also suggest that negative affect is a consequence of being targeted by uncivil workplace behaviour, after experiencing interactional injustice. Miner et al. (2005) found that when an individual experiences a negative event, the change in affect was five times as strong as that for a positive event. As negative events led to negative affect, and positive events to positive affect (Miner, et al., 2005), incivility (a negative event) should, therefore, lead to negative affect.

Porath and Pearson (2012) found that most targets of uncivil behaviour report experiencing negative affect. Most participants reported experiencing anger (86%), and about half reported experiencing sadness (56%) and fear (46%) (Porath & Pearson, 2012). Those who experienced anger acted aggressively, either direct or displaced, those who experienced fear were more likely to quit, and those who experienced sadness engaged in more absenteeism (Porath & Pearson, 2012). Further research also suggests that uncivil workplace behaviour leads to negative affect (e.g., Giumetti et al., 2013), as well as increased stress (e.g., Adams & Webster, 2013; Cortina et al., 2001).

Hypothesis 1: Incivility will be positively related to negative affect.

### **Workplace Incivility and Interactional Injustice**

Interactional justice refers to the level of “interpersonal treatment people receive as procedures are enacted” (Colquitt, 2001: 386; Bies & Moag, 1986). In the Dysempowerment Model, Kane and Montgomery (1998) posit that after a polluting event (i.e., an uncivil interaction), an individual may perceive unfairness. Kane and Montgomery (1998) base this

assumption on the organizational justice body of literature, which suggests that interpersonal respect is an important component for perceptions of fairness within a group (Lind & Tyler, 1988). They further suggest that polluters that specifically promote a “lack of consideration or respect for [an individual’s] dignity” (Kane & Montgomery, 1998: 266) will lead to an increase in perception of unfairness. This lack of consideration or respect fits Andersson and Pearson’s (1999) definition of uncivil workplace behaviour; therefore, uncivil workplace behaviour should lead to a decrease of feelings of interactional justice. Furthermore, Andersson and Pearson (1999) suggest that experiencing uncivil workplace behaviour will lead to an experience of interactional injustice.

In support of this theory, Caza and Cortina (2007) found that male and female students who reported higher levels of perceived incivility also reported lower levels of interactional justice. Interactional justice describes the level of respect offered in interpersonal treatment (Colquitt, 2001; Bies & Moag, 1986). The relationship between uncivil behaviour and low interactional justice was present in Caza and Cortina’s (2007) study. This effect was regardless of whether the incivility was lateral (i.e., the instigators were the same status as the target) or top-down (i.e., the instigators had a higher status than the target; Caza & Cortina, 2007).

Hypothesis 2: Incivility will be positively related to interactional injustice.

## **Workplace Incivility and Job Commitment**

Kane and Montgomery (1998) suggest that dysempowerment, or the experience of polluters, may lower job commitment. They based this preposition on several studies involving justice and job commitment. A study by Parasuraman and Alutto (1984), which operationalized

job commitment through turnover intention, asked participants whether they would take on a new job under certain conditions (Alutto et al., 1973). Parasuraman and Alutto's (1984) study suggests a model in which felt stress mediates a relationship between job stressors and organizational commitment, which leads to turnover. The job stressors discussed in Parasuraman and Alutto's (1984) model are situations in which an individual perceives as stressful. Parasuraman and Alutto (1984) operationalized this partly through interunit conflict, which includes poor cooperation and communication difficulties. Parasuraman and Alutto's (1984) definition and operationalization of stressor, especially that of poor cooperation, fits Andersson and Pearson's (1999) definition of uncivil workplace behaviour.

Furthermore, using the Unfolding Model of Voluntary Turnover, Lee and colleagues (1999) and Holtom and colleagues (2005) suggest that turnover intention may be induced by the experience of a "precipitating event" (Holtom et al., 2005: 337) or a "shock to the system" (337) (i.e., a shock). A shock is a particular, positive, neutral, or negative "jarring event that instigates the psychological analyses involved in quitting" (Holtom et al., 2005: 339; Lee et al., 1999). In Lee and colleague's (1999) Path 2, a negative shock can cause an image violation (i.e., "an individual's values... do not fit with those implied by the shock"; Sumner & Niederman, 2004: 33) which causes job satisfaction to fall quite rapidly after the experience, leading to turnover intentions which are quickly enacted. The term shock may apply to uncivil workplace behaviour. Uncivil workplace behaviour is a negative action considered in violation of norms and mutual respect (Andersson & Pearson, 1999), fitting under negative, jarring, and in image violation (Lee et al., 1999). Hence, the experience of being the target of uncivil workplace behaviour could lead an individual through Path 2, which includes a sharp drop in job satisfaction, an increase in turnover intentions, which are acted quickly upon (Holtom et al., 2005).



While Parasuraman and Alutto's (1984) study uses a stressor in their model, other studies that Kane and Montgomery (1998) reference in the Dysempowerment Model suggest a more general relationship between organizational justice and job commitment. Indeed, Kane and Montgomery (1998) suggest that the experience of polluters (e.g., uncivil behaviour) will increase not only feelings of stress, but also feelings of unfairness. Alexander and Ruderman (1987) suggest a relationship between distributive justice and job commitment, in which lower distributive justice led to lower job commitment. They suggest, based on their results, that distributive justice affects behaviours, whereas procedural justice affects feelings and attitudes (Alexander & Ruderman, 1987). Therefore, a lack of distributive justice (on account of the experience of polluters) may lead an individual to leave their current organization.

The Dysempowerment Model suggests that polluters will lead to a diminished job commitment (Kane & Montgomery, 1998). This links to uncivil workplace behaviour as uncivil workplace behaviour can be considered a polluter. Furthermore, uncivil workplace behaviour could also be considered a shock on account of image violations (The Unfolding Model of Turnover: Path 2; Lee et al., 1999; Holtom et al., 2005), and the jarring nature of incivility through norm violations (Andersson & Pearson, 1999). Therefore, if uncivil workplace behaviour is interpreted as a severe enough polluter to the target, this could result in a shock, which could lead to a significant change in job commitment (i.e., turnover intentions).

Uncivil workplace behaviour leading to a lowered job commitment has received some support in the literature to date. In their 2012 study, Porath and Pearson operationalize the likelihood to quit through measuring whether their participants moved to another job. This moving to a new job included changing positions in an organization. Many studies have significant results on the relationship between experiencing uncivil workplace behaviour and job

commitment and intention to quit. Cortina and colleagues (2001) found that those who had experienced more frequent incivility also had more thoughts about quitting and a higher intention to do so. Kabat-Farr et al.'s (2018) study also found that those who experience incivility-driven negative affect are more likely to experience job withdrawal (as operationalized through turnover intention). This relationship described by Kabat-Farr, et al. (2018) was an indirect relationship, in which incivility-driven negative affect positively affected job withdrawal through both a decrease in empowerment and an increase in work withdrawal. The decrease in empowerment found by Kabat-Farr and colleagues (2018) suggests that dysempowerment due to experiencing negative affect from a polluting event caused a decrease in job commitment. Sharma and Singh (2016) also found a weak positive correlation between the experience of incivility and turnover intentions.

Social cognitive theory suggests that individuals will either mimic rude behaviour or escape it (Bandura, 1973). The mimicking of rude behaviour suggested by Bandura (1973) is similar to the “tit-for-tat” (p. 452) aspect of uncivil workplace behaviour discussed by Andersson and Pearson (1999). Huang and Lin (2019) suggest that the escape discussed by Bandura (1973) is akin to a loss of job commitment through intention to quit.

Hypothesis 3: Incivility will be positively related to turnover intention.

### **Workplace Incivility and Affective Organizational Commitment**

The final outcome variable of interest in this study is organizational commitment. Organizational commitment is a multi-dimensional construct that refers to “[the] psychological link between the employee and [their] organization” (Allen & Meyer, 1996: 252). The strength

of this psychological link determines how likely or unlikely an individual is to leave their current job. The three dimensions of organizational commitment are affective, normative, and continuance (Allen & Meyer, 1990; Meyer & Allen, 1991). Meyer and Allen (1991) describe affective organizational commitment as an employee's emotional attachment to their organization, as well as their identification with the organization and their involvement with it. Put simply, affective commitment refers to an individual's desire to remain employed with their current organization (Meyer & Allen, 1991).

Allen and Meyer suggest that a relationship exists between affective commitment and turnover intention, in which a decrease in affective commitment (i.e., a decrease in desire to remain employed) will lead to higher turnover intentions (Allen & Meyer, 1996; Meyer & Allen, 1991). They also suggest that a decrease in affective commitment will also lead to poor work behaviours, such as absenteeism (Meyer & Allen, 1991). Barling (1996) suggests that workplace harassment or violence should lead to a decrease in affective commitment. This relationship discussed by Barling (1996) suggests that workplace harassment (e.g., uncivil workplace behaviour) leads to fear (i.e., negative affect), reducing the target's desire to continue to work in their position.

Furthermore, as affective organizational commitment refers to the emotional attachment that an employee feels for their organization (Allen & Meyer, 1990; Meyer & Allen, 1991), it may be affected by the (negative) changes in affect suggested by the Dysempowerment Model and affective events theory. Many studies have examined affective commitment through an empowerment perspective. As discussed earlier, dysempowerment impairs empowerment. Thus, an individual experiencing a polluter (i.e., uncivil behaviour) may experience impairment

in empowerment (Kane & Montgomery, 1998), and, in turn, a decrease in affective commitment toward their organization.

Supporting this argument, Taylor, Bedeian, and Kluemper (2012) found that affective organizational commitment mediates the relationship between experiencing uncivil behaviour and citizenship performance, in that experience of uncivil workplace behaviour lowered affective commitment and thus, lowers the individual's citizenship behaviours.

Hypothesis 4: Incivility will be negatively related to affective commitment.

## **Workplace Incivility and Gender**

Before discussing gender in the workplace, one must understand what gender is. Statistics Canada (2018) defines the use of the word *gender* to define what gender an individual feels that they are (i.e., gender identity) and their public expression of gender (i.e., gender expression). Furthermore, gender and sex may differ (i.e., an individual's gender does not necessarily align with their birth-assigned sex), and gender can change over time (Statistics Canada, 2018).

Contemporary social science considers gender to be a social structure based upon the sex dichotomy between males and females (Epstein, 1988; Risman, 2004). One can consider gender as a "primary cultural frame for defining self and others" (Ridgeway, 2009: 149) in which individuals may freely choose or are coerced into (Risman, 2004) by their culture or family. From gender, there are several related constructs - gender identity, gender roles, and gender stereotypes - all of which permeate every aspect of life.

Research suggests that gender is an important factor when considering uncivil workplace behaviour. Both the predictive factors and outcomes of uncivil workplace behaviour may depend on the gender of both the instigator and target involved.

The following discussion includes other theories, which, when combined with the dysempowerment model, suggest that there will be gendered differences between the experience of uncivil workplace behaviour.

### ***Selective Incivility***

Cortina (2008) posits that uncivil behaviour directed at women and racial minorities is a form of bias stemming from mandated inclusivity. As individuals are no longer allowed to “blatant[ly]... alienate women and minorities” (Cortina, 2008: 55), they turn to more ambiguous forms of discrimination such as uncivil behaviour. Cortina (2008) refers to this as selective incivility, in which individuals (e.g., men or racial majorities) conceal their biases towards minorities (e.g., women or visible minorities) by acting in more subtle deviant manners. Selective incivility differs from gender (or racial) harassment as the behaviour is ambiguous in its intent to harm (Cortina, 2008). Selective and general incivility differ; for selective incivility, the instigator selectively target based upon minority status (Cortina et al., 2013).

While Cortina and colleagues’ discussions of selective incivility focus on a gender divide between men and women (Cortina, 2008; Cortina et al., 2013), the premise may also apply to gender minorities such as those who identify as transgender or agender (i.e., gender non-conforming or non-binary). Previous research has considered selective incivility in the contexts of gender and race (Cortina et al., 2013) as well as gender and sexual identity (i.e., sexual

minorities such as those identified as lesbian, gay, or bisexual) (Zurbrügg & Miner, 2016).

Therefore, it is sensible to examine Cortina's (2008) premise of selective incivility in the context of gender minorities. Combining Cortina's (2008) premise of selective incivility with other premises and models such as minority stress and victim-precipitated models is a lens through which researchers can further study workplace uncivil behaviour and its targets.

### ***Minority Stress and Gender Minority Stress***

Individuals who identify with a minority group may experience minority stress (Meyer, 1995; 2003). Meyer's minority stress model (2003) suggests that minorities and stigmatized people experience unique stress on top of normal, so-called everyday stress, that is chronic and socially based. Meyer (1995) suggests that minority stress leads to a higher risk for high psychological distress experienced by these individuals. Meyer's (1995; 2003) minority stress is based on Brook's (1981) book *Minority Stress and Lesbian Women* and surveys with gay men (Meyer, 1995) and discusses minority stress in the context of lesbian, gay, and bisexual individuals. However, other researchers have used this model to examine stress in transgender and agender individuals (e.g., Testa et al., 2015) among other minorities and stigmatized groups.

Testa (2015) and colleagues suggest the Gender Minority stress and Resilience Model, which is a further conceptualization of Meyer's (1995; 2003) minority stress model, which includes gender minorities (i.e., transgender and agender individuals, among other gender identities). They outline further ways in which gender minorities experience minority stress, such as "nonaffirmation" (Testa et al., 2015: 66), in which others address transgender or agender individuals with the wrong names or pronouns, and internalized transphobia (Testa et al., 2015).

Testa and colleagues (2015) suggest that those who are gender minorities experience even more discrimination (and therefore, stress) than those who are sexual minorities, due to their unique complexities involved in healthcare, safe bathroom usage, as well as issues involving nonaffirmation and disclosure. Furthermore, in their study, Testa and colleagues (2015) found that most of their participants (a mixture of cisgender and transgender men and women, as well as genderqueer individuals; gender minorities made up 68.1% of their sample) answered that they had “heard negative statements about transgender or gender-nonconforming people,” (Testa et al., 2015: 73) suggesting that there is a pervasiveness of gender minority stress.

Both Meyer (2003) and Testa and colleagues (2015) suggest that the stress factors experienced by minorities lead to outcomes in mental and physical health. They both also suggest that a sense of community can protect minority individuals from their unique stressors (Meyer, 2003; Testa et al., 2015). Meyer (1995; 2003) posits that those experiencing minority stress may also experience higher levels of distress. However, researchers who study uncivil workplace behaviour differ in how they operationalize distress. Some researchers operationalize distress through burnout (Leiter et al., 2012), anxiety and depression (Caza & Cortina, 2007), and anxiety-depression, social dysfunction, and confidence loss (Abubakar, 2018).

### ***Victim-Precipitated Model***

Victim-precipitated models of workplace harassment (e.g., Aquino, 2000) may also pertain to uncivil workplace behaviour, especially when considering the relationships between target and instigator gender. Before discussing the particulars of such models, one should consider that the victim-precipitated model and its name may offend readers. While researchers

and academics no longer use the term “victim” (but rather, “target”) to discuss those who are targeted by uncivil workplace behaviour or harassment, the name may invoke the idea of victim-blaming. Popular and social media (rightly) condemn those who blame victims of crime (instead of perpetrators) for being targeted by unsavoury behaviours such as robbery or sexual assault (e.g., the condemnation of Brock Turner and the Steubenville High School rape case).

While some researchers (e.g., Cortina et al., 2018) suggest that these models are inappropriate and akin to victim-blaming, victim-precipitated models discuss the factors or traits of targets that make them more likely to be targeted by instigators. That is not, however, placing targets’ suffering as their fault, but instead giving insight as to why instigators target specific people or groups of people more often than others. North and Smith (2018) make an important point in their defence of victim-precipitated models: that academics abused these models in the past in order to engage in academic victim-blaming. To remedy this, North and Smith (2018) suggest denouncing the use of victim-precipitated models as scientific victim-blaming preemptively. The differentiation between groups that are targeted by uncivil behaviour or harassment more often and those that are not is essential to research on harassment, and uncivil behaviour for several reasons, including the further understanding of instigator/target relationships and the results on the target.

Aquino and colleagues (1999) studied traits that may be related to an individual being more likely to be targeted by aggressive actions. The traits chosen by Aquino and colleagues (1999) are those discussed by Olweus’ (1978) book on aggression and bullies in schools. These traits include negative affectivity, self-determination, and hierarchical status (Aquino et al., 1999; Olweus, 1978). Negative affectivity refers to a personality trait in which is characterized by experiences of heightened levels of distressing emotions (Watson & Clark, 1984). The results



of Aquino and colleagues' (1999) study were that negative affectivity and self-determination were related both indirect victimization (i.e., actions with the intent to harm without detection) and direct victimization (i.e., overtly aggressive actions). Some of the items considered indirect victimization may fall under the incivility label, including "*sabotaged your work*," and "*did something to make you look bad*" (Aquino et al., 1999: 265).

According to Meyer (1995; 2003), those who experience minority stress also are at risk of experiencing higher levels of distress. Aquino and colleagues (1999), however, found that hierarchical status had a moderating effect on negative affectivity. Instigators target those with high negative affectivity and high status less than those with high negative affectivity and low status (Aquino et al., 1999). As those who identify as transgender or agender are considered gender minorities, they may have a lower hierarchical status than, for example, cisgender men (i.e., those who identify as men and are biologically male). Considering Aquino and colleagues' (1999) model, those who are gender minorities are likely to be targeted more by instigators due to their likelihood to experience higher levels of distress (Meyer, 1995; 2003) and through being a gender minority and therefore having lower status.

By considering Cortina's (2008) selective incivility premise, the aggressive actions, as discussed in Aquino and colleagues' (1999) study, may be able to be replaced with uncivil workplace behaviour in such models, as according to Andersson and Pearson (1999), incivility and violence fall under the category of aggression ("deviant behaviour with intent to harm;" 456) on their figure describing antisocial behaviour ("behaviour that harms organization[s] and/or members;" 456). While this definition may be contentious, this work is continuing with the definitions provided by Andersson and Pearson's (1999) article. This replacement or perhaps, downgrading, of aggressive actions to uncivil workplace behaviour, can work as selective

incivility is a more subtle form of discrimination that is adopted by majority members due to legislation and organizational views (Cortina, 2008). The implication of selective incivility and the victim-precipitated model is that certain individuals will be at higher risk of a higher volume of polluters, as per the Dysempowerment Model.

### ***Volume of Polluters – Gender Effect for the Target***

Kane and Montgomery (1998) posit that the volume of polluters has an effect on the strength of dysempowerment experienced. According to Kane and Montgomery's (1998) model, those who experience more polluting events (in this case, more uncivil workplace behaviour) should also experience higher levels of dysempowerment. Therefore, those who are more likely to be targeted may also experience higher levels of dysempowerment due to the volume of polluting events that they experience.

The volume of polluters (i.e., uncivil workplace behaviour) may be higher for both gender minorities and women when compared to men. According to Meyer (1995; 2003), minorities experience higher levels of distress compared to majority members. The unique stresses experienced by sexual and gender minorities (Meyer, 1995; Testa et al., 2015) may be considered polluters in Kane and Montgomery's (1998) Dysempowerment Model. This volume of polluters experienced by gender minorities suggests that gender minorities may experience more dysempowerment than do cisgender men or women (i.e., those who identify their gender the same as their biological sex).

According to minority stress (Meyer, 1995; 2003) and gender minority stress (Testa et al., 2015), gender minorities will experience more stressors than majority members (i.e.,

heterosexual, cisgender individuals). Cortina (2008) also supports this interaction as she posits that minorities experience higher levels of (selective) incivility. Therefore, gender minorities should experience higher levels of dysempowerment (Kane & Montgomery, 1998) and the dysempowerment experienced by gender minorities is on account of the larger volume of stressors experienced (as compared to their ability to handle stress).

Furthermore, incivility research suggests that women experience higher levels of uncivil workplace behaviour than do men (Cortina, 2008; Cortina et al., 2001; 2002). Considering the higher levels of uncivil workplace behaviour (polluters) experienced by women (as compared to men), women should then experience higher levels of dysempowerment than should men.

Moreover, evidence and theory suggest that the more uncivil workplace behaviour an individual experiences, the lower their commitment to the organization (Cortina et al., 2001; Lim, et al., 2008). Kabat-Farr and colleagues' (2018) study suggests that incivility-driven negative affect affects job commitment (i.e., an increase in intention to quit) through a decrease in empowerment. This decrease in empowerment may be due to an increase of uncivil workplace behaviour (i.e., polluting events, as discussed in Kane & Montgomery, 1998) experienced by the individual.

Considering the theories discussed above, those who experience a higher volume of polluters in their everyday jobs and lives should also, therefore, experience higher levels of dysempowerment in response to a single incidence of uncivil workplace behaviour. While this single incidence of uncivil workplace behaviour may not have a gendered or minority effect (i.e. gender might not have a moderated effect for a single incident), prior experiences may cause a spillover effect. This spillover effect may lead to a buildup of dysempowerment, leading to an increase in negative affect, and a decrease in interactional justice perceptions and affective

commitment, as well as an increase in turnover intentions. Since particular gender identities (i.e., gender minorities and women) may experience more uncivil workplace behaviour, it is possible these individuals are more likely to experience a spillover effect.

Thus, I hypothesize the following based on the volume of polluters associated with selective incivility, minority stress, and spillover effects:

Hypothesis 5: There is a positive relationship between incivility and negative affect moderated by gender;

Hypothesis 5a: whereby gender minority employees will experience significantly higher levels of negative affect than cisgender employees,

Hypothesis 5b: and cisgender women will experience higher levels of negative affect than cisgender male employees.

Hypothesis 6: There is a positive relationship between incivility and interactional injustice moderated by gender;

Hypothesis 6a: whereby gender minority employees will experience significantly higher levels of interactional injustice than cisgender employees,

Hypothesis 6b: and cisgender women will experience higher levels of interactional injustice than cisgender male employees

Hypothesis 7: There is a positive relationship between incivility and intention to quit moderated by gender;

Hypothesis 7a: whereby gender minority employees will experience significantly higher intention to quit than cisgender employees,

Hypothesis 7b: and cisgender women will experience higher intentions to quit than cisgender male employees

Hypothesis 8: There is a negative relationship between incivility and affective commitment moderated by gender;

Hypothesis 8a: whereby gender minority employees will experience significantly lower affective commitment than cisgender employees,

Hypothesis 8b: and cisgender women will experience lower affective commitment than cisgender male employees

### ***Gender and Status – Gender Effect for Instigators***

Research suggests that power and status can moderate the effects of workplace uncivil behaviour. Researchers have found that participants perceive more workplace incivility from their superiors than from co-workers (Lim & Lee, 2011). This incivility from supervisors has stronger negative effects than from co-workers (Hershcovis & Barling, 2010a). Furthermore, when experiencing uncivil behaviour from superiors, individuals experience higher levels of embarrassment, which Hershcovis and colleagues (2017) suggest leads to somatic health complaints and job security issues. The difference between incivility from co-workers and superiors is that mistreatment from superiors falls under interactional injustice (Bies & Moag, 1986, as discussed in Cortina et al., 2001). While interactional justice research suggests that justice perceptions can change through coworker actions as well, the focus of this study is on supervisor-worker interactions.

While formal status (e.g., supervisory and management roles) moderate the effects of uncivil behaviour, research suggests that other forms of status, such as gender, can also moderate these effects. It has been argued that men experience a higher level of social power (i.e., status) than women (Ellemer, 2018). Similarly, men are also generally more influential than women (Carli, 2001; Lockheed, 1985), even when they are the only man in a group of women (i.e., are outnumbered by women; Craig & Sherif, 1986). Furthermore, Carli's (2001) review suggests that men resist influence from women. Therefore, uncivil workplace behaviour instigated by men may have a more negative effect on the target.

According to sexual harassment literature (i.e., a form of deviant behaviour), those who are members of certain groups (e.g., male individuals, Caucasians, and those of upper classes) carry an informal power (i.e., social power; Rospenda et al., 1998). This makes individuals who are the opposite of these power-holding roles (i.e., female individuals, visible minorities, and those of lower classes, among others) more vulnerable to harassment (Rospenda et al., 1998), even if they hold greater formal power (such as management positions) than their harassers (Chamberlain et al., 2008). According to the Dysempowerment Model (Kane & Montgomery, 1998), those who are more vulnerable to poluters (i.e., experience more poluters), may have a greater negative affect in response to them.

Men, women, and gender minority individuals can be either target or instigator in uncivil interactions. Are there differences in target response to female-instigated (i.e., female instigator) versus male-instigated (i.e., male instigator) versus gender minority-instigated uncivil behaviour on the different genders? Research suggests that the differences in status between the instigator and target may affect how the target will experience the incident (e.g., Porath & Pearson, 2012).

Contrary to status, the violation of prescriptive gender roles may also cause greater negative effects for the target. Cortina (2008) suggests that men may feel threatened by women in the workplace who are stereotypically low in warmth and feminine traits (Fiske et al., 2002), because they are “encroaching on their terrain” (Cortina, 2008: 66). Behaviours that fall under the uncivil label may be considered low in warmth or low on feminine traits (e.g., rudeness and condescension), hence having a negative impact on men who are targeted by these behaviours.

Gabriel and colleagues (2018) found that women experience a more significant decrease in job satisfaction when targeted by women rather than men. There was no similar effect for men targeting men (Gabriel et al., 2018). However, regardless of gender, those who were the targets of female-instigated incivility had lower job satisfaction and higher turnover intention (Gabriel et al., 2018). Gabriel and colleagues (2018) suggest that “female-instigated incivility may be a unique experience that differs from other forms of mistreatment” (Gabriel et al., 2018: 378). This uniqueness may stem from the gender stereotype that women are less aggressive and are more warm, wholesome, and respectable than men (Ellemers, 2018; Heilman, 2012; Prentice & Carranza, 2002).

Gender stereotypes (i.e., the overemphasis of cultural gendered characteristics; Ellemers, 2018) not only promote personality traits, but they also suggest that different genders exhibit different behaviours. One such stereotype is that women are supposed to care for others (Ellemers, 2018). Heilman (2012) suggests that due to these gender stereotypes of women, misbehaviour “is likely to be viewed as less appropriate for women than for men” (Heilman, 2012: 124). Some may also consider that misbehaviour on behalf of women a violation of gender norms, as they are expected by stereotypical behaviour to consider the feelings of others (Heilman, 2012).

Furthermore, when men commit misbehaviour, such as uncivil workplace behaviour, other men are likely to treat them more leniently than they do women (Bowles & Gelfand, 2010). This inequity of response to uncivil workplace behaviour may also be due to gender stereotypes, as gender stereotypes towards men suggest that they are more agentic and less involved in interpersonal connections (Ellemers, 2018).

Hypothesis 9: Those who are targeted by ciswomen will experience more negative affect than those targeted by other genders in the instigator role.

Hypothesis 10: Those targeted by ciswomen will experience higher levels of interactional injustice than those targeted by other genders in the instigator role.

Hypothesis 11: Those targeted by ciswomen will experience higher levels of intention to quit than those targeted by other genders in the instigator role.

Hypothesis 12: Those targeted by ciswomen will experience lower levels of affective commitment than those targeted by other genders in the instigator role.



## METHODOLOGY

### Vignette Design

Experimental vignette designs are experiments in which the researcher presents a hypothetical scenario to the participant. Furthermore, the nature of vignette designs ensures that only certain variables (i.e., gender, uncivil behaviour manipulation) differ across experimental cells, whereas enacting the behaviour leaves room for small, but perhaps quantifiable changes. As discussed by Aguinis and Bradley (2014), experimental vignette designs allow for inference of causal relationships, as the independent variables are the only aspects of the experiment that are manipulated by the researcher (e.g., incivility and manager's gender), while the other variables are held constant. In this study, the third variable of interest (target gender) is not manipulated to enhance experimental realism, thus this is a pseudo-experiment.

Aguinis and Bradley (2014) distinguish between two types of experimental vignette design: paper people studies and policy capturing and conjoint analysis studies. Paper people studies are vignettes in which the researcher presents a scenario. After reading the scenario, the participants answer questions and “make explicit decisions, judgements, and choices, or express behavioural preferences” (Aguinis & Bradley, 2014: 354) as well as attitudinal responses. Policy capturing and conjoint analysis studies involve presenting several scenarios and making the participants to choose between them in order to study the effects of the variables on participants' decision making and judgements (Aguinis & Bradley, 2014).

Experimental vignette design is an appropriate experimental design for studying uncivil workplace behaviour, as it may not be ethical to use deviant behaviour in a real-life setting towards a participant. In terms of uncivil behaviour, it would also be unethical for researchers to

manipulate in an experimental field study. Furthermore, student population laboratory study may have lower external validity even though the differences between student and adult populations are not as significant as previously assumed (Snook, 2011).

This study utilizes a between-person, paper people experimental vignette design in order to manipulate whether the participant experiences workplace incivility and the gender of the instigator of uncivil behaviour. Using this design, the actions of the instigator are identical, and the gender of the instigator and whether incivility occurs are the only differences presented. The vignettes were designed using the best practices outlined by Aguinis and Bradley (2014).

As a between-person experimental design, this study must have a baseline in order to contextualize the scenario for the participants fully. Aguinis and Bradley (2014) suggest that context may be lacking for between-person experimental vignettes, as there are no other vignette data for each participant to act as a base reference for their judgements. In contrast, a within-person design shows more evident effects of the manipulated variable (Aguinis & Bradley, 2014). Furthermore, realism is an important aspect for experimental vignette designs, as higher realism tends to make the results more generalizable (Aguinis & Bradley, 2014; Hughes & Huby, 2002).

## **Procedure**

After seeing an invitation to participate in the research, participants clicked on a provided URL link to the study, which is hosted by Qualtrics. Here, they received the letter of information and could choose whether to provide informed consent or to withdraw from the study. (See Appendix A for the letter of information. There were two formats initially developed in the case

that a different recruitment method was required.) The letter of information informed the participants that the study is to research the use of language in workplace relationships. This deception was necessary, as priming the participants for deviant behaviour could make them react differently than if they are not expecting it. At the end of the study, participants were debriefed on the full purpose of the study, and were provided the opportunity to give fully informed consent prior to submitting their responses.

After providing initial consent, participants provided their gender identity, which is used to balance gender representation in the experimental groups, and indicated whether they are employed full-time or are self-employed, as, in order to qualify for the study, they must currently be full-time or self-employed. Participants who were not employed or are part-time employed were thanked for their interest and not included in this study.

This study was 2 (incivility vs. control) x 3 (target gender: male, female, gender minority) x 3 (instigator gender: male / “he,” female / “she,” gender minority / “they”) quasi-randomized experiment, where participants were randomly assigned to the manipulated experimental groups (incivility x instigator gender), with a balanced representation of each participant (target) gender.

This use of a quasi-random assignment is to ensure that there were enough of each gender identity to each experimental condition. While it would be unnecessary to use a quasi-random assignment in most studies, this study uses the participant’s identified gender for the target gender variable. It is both more realistic to use the participants’ own gender and perhaps unethical or invalid to make a participant assume another gender for the sake of the experiment. Furthermore, it is difficult to randomly assign gender minorities (without using a substantial

sample) as they are a smaller subpopulation while ensuring that enough gender minorities are in each experimental condition.

Next, participants read the baseline scenario. The baseline described the industry and company that employs the participant and the type of work they do, their typical feelings about their work, and the general relationships between co-workers and management. The participant played the role of a mid-tier worker (tenure of five years) at an organization. After reading the baseline scenario, the following screens included the measures of negative affect, affective commitment, and turnover intention (i.e., the dependent variables). These dependent variables were measured both before and after to determine if there are any changes due to the manipulation presented to the participants. While this might cause a priming effect, it was consistent across all groups, so any significant differences found would not be on account of priming, but this may affect external generalization somewhat. However, a difference in the dependent variables to support any causation involves measuring both before and after (pretest-posttest designs have been used in management experimental research; An et al., 2020; Chen & Latham, 2014; Clarke et al., 2016). The interactional justice dependent variable was not measured in the baseline as there was not sufficient information to make the questions meaningful (i.e., there were no interactions with the manager in order to make a judgement on interactional justice).

Next, participants read the next part of the scenario in which the manipulation was presented. The control (i.e., no uncivil behaviour) and experimental (i.e., incivility) conditions differed based on the nature of the interaction between the participants' manager and the participants' character in the scenario. The control conditions portrayed the manager acting cordially with the participant. A manager was selected as the instigator because the sexual

harassment literature suggests that deviant behaviour is more threatening from a person in a position of power (Herscovis & Barling, 2010b). Furthermore, to measure interactional justice, a member of management must be the one to display the deviant behaviour (Colquitt, 2001).

The incivility conditions portrayed the manager acting in several uncivil manners with the participant as the target. (Please see Appendix B for scripts of all of the scenarios.) In the incivility conditions, the manager first ignored the participant in the hallway and then was rude and degraded the participant when they express concern over a particular project's timeline in their cubicle. In the control conditions, the manager smiled friendly back at the participant. In the participant's cubicle, the manager politely agreed to look into the participants' concerns.

The other experimental manipulation is the gender of the instigator/manager. The manipulation was made by using different names for the manager (use of stereotypical female/male and gender-neutral names) and the use of pronouns (he/his, her/hers, they/their). This manipulation was pre-tested with graduate students who were well versed in gender issues. Different manipulation options were presented to identify which would be most realistic, effective, and least likely to invoke additional extraneous variables (such as tokenism).

One of the options given were a straightforward approach, in which only the name and pronouns of the manager were given. In this example, the vignette description would also prompt the participant to the gender of the manager by stating, "... *and you respect [him/her/them] as a [man/woman/gender non-binary individual].*" One M.Sc. student who researches gender issues suggested that, in terms of scenarios with the gender minority manager, the phrasing may come across as "woke tokenism," or, in other words, that the participant is merely tolerant of their manager's gender identity. This implication may cause the participants to react differently to the

manager's behaviours based on how the tone could be read by different individuals. The student reviewers also suggested that this method sounded less organic.

A second option given to the student reviewers was a political option. The political option's vignette included discussing the manager's work in gendered political activism in their free time. In this scenario, the managers would be involved in an activist group for parental rights for fathers/mothers/gender minority parents (the parents' gender matched the manager's gender identity). While this option may introduce politics as a potential extraneous variable, the type of political activism (parental rights) was consistent across all conditions and may increase realism. The third option was where the scenario would mention both to make the manager's gender identity very obvious to the participants by combining the previous two methods.

According to the pre-test feedback, the best method to describe the manager's gender identity was the political route. This method allows for the manager's gender to be discussed through the use of names and pronouns. It also leaves room to indirectly state the manager's gender identity by discussing gendered parental roles.

The names given to the managers were also a subject of contention. At first, the names chosen were Steven (male), Alice (female), and Mackenzie (gender minority). However, one graduate student reviewer suggested that the difference in first initials may cause an unknown effect and should all start with the same initial as a control. The next suggestion was to name the managers Andrew (male), Alice (female), and Alex (gender minority). These names all start with the same first initial (i.e., letter A), and all have two syllables. However, the name Alex may cause a generational effect. To older individuals, the name Alex may be considered a male name instead of a gender-neutral name (i.e., short for Alexander and Alexandra/Alexandria). The final decision was to name the managers Andrew (male), Alice (female), and Ainsley (gender

minority). These three names all start with the same initial as well as have the same amount of syllables. These considerations should minimize any unknown effects due to differences in character names.

After reading the scenario, participants completed the dependent variable measures (this time including interactional justice, and presented in random order across participants), then manipulation check measures (i.e., manager gender and incivility measures), and then finally the control variables. Dependent variables were randomized so as to limit any confounds that come from the order of presentation of the questions. Furthermore, the manipulation check measures were presented after the dependent variable questions in order to prevent any priming effects.

Once participants completed these questions, they were asked a hypothesis-guessing question to ascertain whether or not participants suspected what the purpose of the study was (to test the deception and prevent threats to construct validity; Cook & Campbell, 1979). Finally, participants were debriefed fully and were provided with an opportunity to provide fully informed consent or to withdraw from the study. They were also provided an opportunity to provide open-ended feedback about this study to the researcher.

## **Participants**

To allow the assumption of normal distribution, it is recommended that the sample is 30 participants per cell (i.e., Central Limit Theorem; Tabachnik & Fidell, 2007). Thus, with the 2 x 3 x 3 design, the target sample size was 540 participants in total; with 180 males, females and gender minority individuals each. This would allow for 3-way interaction test with assumed

normal distribution. However, past research in experimental psychology permits ~12 as the minimum per experimental condition, with more recent research targeting 20/cell as a minimum.

The criteria for participating in this study are that potential participants must be employed full-time or self-employed in Canada or the United States and 19 years of age or older. The decision to only use participants located in Canada or the United States was made to ensure that any cultural differences were minimized. While both countries have distinct cultures, racial makeup and political leanings (among other differences), they are quite similar to one another in workplace culture. While the United States has less protections for LGBTQ+ individuals, including gender minorities, in the workplace, the general workplace culture for cisgender individuals is similar. If other English-speaking countries were included, there may have been distinct cultural differences. Furthermore, the inclusion of participants who were ages 19 years of age and up was to ensure that participants were above the age of majority. This means that if they are employed full-time, they were more likely to be employed for a year or longer, as well as not being in a high school setting.

Participants were recruited from the Amazon Mechanical Turk (mTurk; <https://www.mturk.com>) program, which is an “online labour market” (Chandler & Kapelner, 2013: 123) run by the online retailer Amazon. Individuals, companies, universities, and other bodies can pay individual workers a small sum of money (honorarium) to complete tasks such as surveys. A 1.00 USD honorarium will be offered to each participant for completing the survey involved with this research. This falls into the federal minimum wage in The United States, if each participant took about 12.5 minutes (the mean of 5-20 minutes suggested for survey completion) to complete the survey, which follows Rouse’s (2020) methodology.



The validity of using mTurk to conduct experiments has been debated. According to Casler et al. (2013), scientists in the 2000's discussed whether online labour markets were a viable source of research participants. Research into this area (i.e., online participant survey/research pools) has continued into the 2020's.

Chandler and Kapelner (2013) compared running laboratory experiments to running experiments over mTurk. Using Levitt and List's (2009) list of external validity issues with laboratory studies, Chandler and Kapelner (2013) suggest that experiments accessing participants from mTurk had some benefits over laboratory studies. Levitt and List (2009) suggest that a laboratory experiment's setting (i.e., where researchers are present) will increase reactions to supposed researcher scrutiny, such as exaggerating pro-social behaviour. Chandler and Kapelner (2013) suggest that due to the anonymous nature of online study participation through mTurk, participants may not feel this scrutiny after participating in an online study. Furthermore, they suggest that studies conducted through mTurk lack many "artificial restrictions" (Chandler & Kapelner, 2013: 126) that participants may experience in laboratory-conducted experiments. For example, in online surveys, participants can generally choose when and where to complete the survey or experiment.

Chandler and Kapelner (2013) also discuss mTurk experiments as compared to field experiments. Following Levitt and List's (2007) critiques of field experiments, Chandler and Kapelner (2013) compare differences between field experiments and mTurk-sourced experiments. They suggest that studies using mTurk participants do not have as many issues with dealing with a third party (e.g., an employer) or with replication, as the survey/experiment can just be copied into a different participant recruitment link (Chandler & Kapelner, 2013). Furthermore, using online labour markets such as mTurk to conduct social science experiments

can also be more efficient and less expensive than conducting in-person or laboratory studies (Horton et al., 2011).

Horton, et al. (2011) tested whether online labour markets are viable alternatives for social science experiments than more traditional populations (e.g., students). They conducted three experiments, both in-person in a laboratory and over mTurk. They found that the results of both mTurk participants and in-person participants behaved similarly in a prisoner's dilemma game and that mTurk participants could be primed as could in-person participants (Horton et al., 2011). Horton and colleagues (2011) also demonstrated that mTurk user participants respond to framing in the same manner that in-person participants do. Casler and colleagues (2013) also suggest that mTurk participants can complete tasks "thought of as requiring in-person testing" (p. 2158). Furthermore, multiple studies have found that mTurk participants produce high-quality data with high internal consistency (Casler, et al., 2013; Schleider & Weisz, 2015; Shapiro et al., 2013).

In terms of representivity and inclusion, research suggests that online survey pools "are more representative of typical working adults than traditional student samples" (Porter et al., 2019: 321). Schleider and Weisz (2015) found that their study focusing on youth mental health recruited more fathers, who are generally underrepresented in that field of study. Studies suggest that mTurk samples are more racially diverse than traditional study samples (Casler et al., 2013). Casler and colleagues (2014) also found that mTurk samples were more diverse regarding participants' age. This may suggest that minorities and those who are harder to recruit may be more accessible through online labour markets such as mTurk. However, Gosling and colleagues (2004) found that internet samples are more diverse in some respects than others. They suggest that internet samples are more diverse in gender (Gosling et al., 2004); however, they only

examined men and women, not gender minorities. However, in a later study, Smith and colleagues (2015) found that recruitment of LGBTQ+ participants could be done quite easily on online platforms such as mTurk.

MTurk offers access to its best performers – those who have high levels of performance and “excellence across a wide range of HITs (human intelligence tasks)” ([mturk.com/help](https://mturk.com/help)) and continuously pass statistical monitoring programs. Loepp and Kelly (2020) found that master Workers were more likely to be older, female, and Republican as compared to the general worker population, which they claim is “somewhat more representative of the U.S. population” (Loepp & Kelly, 2020: 3). Porter and colleagues (2019) suggest that what they call “professional survey takers” (321), or those who partake in a lot of studies (this may include mTurk master Workers), may not have the naivete that researchers need for valid data, however, Loepp and Kelly (2020) also suggest that master Workers are not less naive (i.e., their experience with self-report research does not seem to effect their data quality), but may have learned responses to more commonly used psychometric measures. Loepp and Kelly (2020) suggest that using master Workers may not be necessary for research, as their use should not “dramatically effect their results... [but may] provide some quality assurances” (Loepp & Kelly, 2020: 7). Rouse (2020) also found that the use of masters Workers might not lead to better data quality, with one of his experiments finding no clear difference between master Workers’ and regular Workers’ data and another finding that the master Workers’ data was of poorer quality. Rouse (2020) calls for further replication of these experiments to determine if there are any significant effects of the use of master Workers.

Recently, Aguinis and colleagues (2021) were commissioned by the Journal of Management to review the use of mTurk and develop best practices. They found that the

popularity of use of mTurk Workers by researchers for data collection can be attributed to; a large, diverse participant population, the simplicity and speed of data collection, inexpensiveness, and flexibility of using mTurk (Aguinis et al., 2021). However, they also found issues with the use of mTurk for scientific data collection, including, inattention, self-misrepresentation, inconsistent fluency of English, non-naivete, and social desirability bias, among others (Aguinis et al., 2021). Aguinis and colleagues (2021) provide some best practices, including deciding whether mTurk is appropriate for the proposed study, deciding qualifications, establishing a required sample size, screening data, and transparency in data reporting.

However, there are limitations involved when using online labour markets for social science research. For example, any task that requires in-person measurements (e.g., blood pressure) cannot be conducted over the internet (Horton et al., 2011). Horton and colleagues (2011) also suggest that individuals may lie about their identity or personal demographics (e.g., sex, age, etc.) when answering surveys. They also suggest that concerns over internal validity are minimal. Online labour markets such as mTurk normally have strict user agreements to prevent users from having more than one account (Horton et al., 2011). Furthermore, Horton and colleagues (2011) compared I.P. addresses amongst their mTurk participants and only found few users who may have multiple accounts. Further limitations of the use of mTurk include potential overrepresentation of Caucasian and Asian/Asian-American participants (Schleider & Weisz, 2015). Rouse (2015) raised some concerns over the reliability of mTurk participant pools. Rouse's (2015) study found that mTurk Workers were less reliable when using personality scales. Aguinis and colleagues (2021) also cited some concerns over the data quality of mTurk Workers.

Given these considerations, I felt it was appropriate to use the online participant pool for this study. While it may have some limitations, it would have more external validity and better representation of the workforce than using a student sample population. Furthermore, research suggests that collection of data from LGBTQ+ members (which include gender minorities) is convenient over online platforms (Smith et al., 2015).

## **Measures**

The four dependent variables in this study are negative affect, interactional justice, turnover intention, and affective commitment. Perceived incivility and gender identification of the instigator are the measures used for manipulation checks. Participants also provided some demographic information and control variables to ensure random assignment to experimental conditions (or to act as statistical controls if that were to have failed). All measures were adopted from the literature, and have illustrated sufficient reliability and validity in previous studies. More information is provided below for each measure.

### ***Negative Affect***

Scott, et al. (2001) developed the Negative Mood checklist, which measures negative mood by rating the accuracy of adjectives in measuring how they feel. The scale consists of 19 adjectives, which the participant ranks describing their general reactions to stress. The rating used in this measure is a five-point Likert-type scale, in which a ranking of 1 suggests *never*, and a ranking of 5 suggests *always* (Scott et al., 2001). While Scott and colleagues (2001) originally developed the measure “to reflect the [participant’s] habitual pattern of emotional experience

during stress” (Scott et al., 2001: 3), they also suggest that a simple changing of the question should allow researchers to use the scale to assess how the 19 items describe a participant’s “feelings in this very moment” (Scott et al., 2001: 3). The 19 adjectives include “*angry*,” “*upset*,” and “*sad*” (Scott et al., 2001: 3). This scale uses the sum of all ratings to determine an individual’s level of negative affect. For the full measure, the highest score is 95. The original scale was developed in Swedish, but has been both translated to English and used with English participants (Scott et al., 2001). Three translators worked on translating this scale from Swedish to English (Scott et al., 2001). The scale was then back-translated to ensure it accurately reflected the original meaning of the measure’s items. The internal consistency of the scale is high in previous research,  $\alpha = 0.89$  (Scott et al., 2001).

This experiment will utilize two of the three factors: anxiety/depression and anger, while leaving out the third factor, which is time pressure (*baited*, *rushed*, and *geared up*), as time pressure does not fit the vignette design of this experiment. Brandberg & Ohman (1993) found that time pressure (e.g., feeling rushed) was a significant stressor in a case study with Type A patients and caused psychological distress. The adjectives included in this study are: *angry*, *upset*, *irritable*, *worried*, *nervous*, *sad*, *agonized*, *helpless*, *irritated*, *anxious*, *inadequate*, and *dejected*. As this is not the full scale, the highest score possible is 60.

### ***Interactional Injustice***

Colquitt’s (2001) four-item *Interpersonal Injustice Scale* measures perceived interactional injustice by asking participants to rate whether they were treated well by another. These questions intend to gauge the level of perceived respect the respondent received in an

interaction. It includes four items, such as “*Has (he/she) treated you in a polite manner?*” and “*Has (he/she) treated you with respect?*” (Colquitt, 2001: 389). Participants answer these questions on a five-point Likert-type scale from 1 (*to a small extent*) to 5 (*to a large extent*). Colquitt’s (2001) four-item measure was developed through two studies, validating the scale through both field and laboratory settings, as well as one-on-one and group settings. This experiment will replace the gender to align with the gender of the instigator in the vignette (i.e., “she” for female, “he” for male, and “they” for agender/transgender).

### ***Turnover Intention***

Sager et al. (1998) revised Mobley’s (1977) model of turnover, in which thinking of quitting leads to intention to quit, which leads to intention to search, which then leads to turnover. Sager and colleagues’ (1998) also tested Bluedorn’s (1982) Staying/Leaving Index, which includes four items. Sager and colleagues (1998) suggest that two of the items are redundant and suggests dropping them on account of this redundancy. This study will utilize one of the two items of Bluedorn’s (1982) Staying/Leaving Index, “*How would you rate your chances of quitting in the next six months?*” Participants rated their answer on a seven-point semantic differential scale, in which 7=*excellent*, and 1=*terrible*. Bluedorn’s (1982) original Staying/Leaving Index included three items that asked participants their “*chance of quitting...within the next three...six...twelve months?*” The other item on Bluedorn’s (1982) Staying/Leaving Index was “*chance of working for the company three...six...twelve months from now?*” This study only utilized the first question with a time period of six months as it was the median between the three timelines suggested. Furthermore, the second question was not

included as the intention is to capture the participant's intention of leaving their job in the scenario, not to measure their intention to stay at the hypothetical job.

Firth, et al. (2004) developed a two-question measure for intention to quit. The questions measure whether an individual thinks about leaving their job and how likely they would seek a new job. This study will use the second question, "*How likely are you to look for a new job within the next year?*" (Firth et al., 2004: 175). The other question was irrelevant to the situation, as the scenario is quite short and participants would not have had enough time to think about quitting their hypothetical job. Participants answer this on a five-point Likert-type scale (1 = *Very Often*, 5 = *Rarely or Never*). Firth and colleagues (2004) note that the internal consistency of this measure is  $\alpha = 0.75$ ; however, Siong, et al. (2006) found that this measure had an internal consistency of  $\alpha = 0.90$ .

These two items will be tested to see if they load onto the same factor and have appropriate internal consistency. If they do, they will be summed together to create a turnover intention score.

### ***Affective Commitment***

Allen and Meyer (1990) developed a scale to measure organizational commitment (The Organizational Commitment Scale). This scale includes three subscales; scales for affective, continuance, and normative commitment. The Affective Commitment Scale differentiates affective commitment from normative and continuance commitment (Allen & Meyer, 1990). This study uses six of the eight items on the Affective Commitment Scale (I excluded "*I enjoy discussing my organization with people outside it*" and "*this organization has a great deal of*



*personal meaning for me*” on account of poor relevancy to the vignettes). Items on this scale include “*I do not feel like ‘part of the family’ at my organization,*” and “*I do not feel a strong sense of belonging to my organization*” (Allen & Meyer, 1990: 6). Allen and Meyer (1990) developed this scale from the data collected from 256 employees. The affective commitment subscale correlates significantly with the overall organizational commitment scale, as well as the normative commitment subscale which suggests that affective and normative commitment may be meaningfully linked (Allen & Meyer, 1990).

The Affective Commitment Scale and Organizational Commitment Scale have high internal consistency across several studies, as well as high test-retest reliability, which is lower for participants who are on their first day employed in a new organization (Allen & Meyer; 1996; Vandenberg & Self, 1993).

### ***Manipulation Check Measures***

Two variables were manipulated in this experiment: (1) the nature of the interaction – specifically uncivil versus civil behaviour, and (2) the gender of the manager / instigator (male, female, or transgender/agender). To test the manipulation's validity, participants were asked manipulation checks after the dependent variable measures but before control variable measures.

*Incivility in the Scenario.* Specific items from the Cortina et al. (2001) measure, which aligned with the type of uncivil behaviours presented within the scenario, were used with the wording adjusted to “within this scenario,” instead of “in the past five years.” The items from the Workplace Incivility Scale (Cortina, et al., 2001) used for manipulation check are “*Put you down or was condescending to you,*” “*paid little attention to your statement or showed little interest in*

*your opinion,” “ignored you or excluded you from professional camaraderie,” and “doubted your judgement on a manner over which you have responsibility.”* Manipulation would be deemed successful if the the incivility group scores significantly higher than the control group on this measure.

*Gender of the Instigator.* Participants were asked to identify the gender of their supervisor in the scenario. This question was categorical data with “*male,*” “*female,*” “*transgender,*” “*agender,*” and “*I do not recall*” as options. Manipulation would be deemed successful if the chi-squared test of independence is significant with the appropriate trend in the data.

### ***Demographics and Control Variables***

**Gender Identity.** As gender minorities make up a small percentage of the overall population, participants were asked their gender identity to sort them equally into the experimental conditions. Participants were asked, “*Please choose which gender you identify with, be as specific as possible.*” Participants could choose from “*male,*” “*female,*” “*transgender: male-to-female,*” “*transgender: female-to-male,*” “*agender or gender non-binary,*” and “*prefer not to answer.*” The options *transgender: female-to-male*, *transgender: male-to-female*, and *agender or gender non-binary*, are all treated as the same option, gender minority. There are two transgender options, as transgender individuals who have transitioned or live as their preferred gender may otherwise identify as their preferred gender instead of labelling themselves as transgender. Asking participants to be as specific as possible, combined with options that

indicate gender transition, should differentiate between gender minorities and cisgender individuals for this study's purpose.

**Incivility.** Given that participants may have had differences in previous experience with incivility based on their gender identity, we measured this as a control variable. Cortina and colleagues (2001) developed the Workplace Incivility Scale to measure whether the participant perceives whether workplace incivility has occurred. This measure asks the participants whether certain events have happened to them in the past five years, including whether the instigator “*put you down or was condescending to you,*” or “*addressed you in unprofessional terms, either publicly or privately.*” This study used the wording of “*in the past five years*” (Cortina et al., 2001: 70). The internal consistency for this measure in the past was  $\alpha = 0.89$  (Cortina et al., 2001).

According to Kunkel, et al. (2015), the Workplace Incivility Scale (Cortina et al., 2001) has never been used by researchers in its original format since its premier article. Its original format was for use in a court setting and asked participants whether they experienced incivility in the past five years (Cortina et al., 2001). Kunkel, et al. (2015) noted that every use of the Workplace Incivility Scale, since Cortina and colleagues' (2001) study, had modified it in various ways, either changing the context, timeline, or wording of the questions. Neither of the papers discussed by Kunkel et al. (2015) addressed the validity or reliability of the scale nor of their modifications to it. However, this scale is the most widely used uncivil workplace behaviour measure used in management sciences between 2001 and 2015 (Kunkel, et al., 2015). Between 2001 and 2015, 84% of 55 papers examined by Kunkel and colleagues (2015) had used the Workplace Incivility Scale. In contrast, the Instigated Workplace Incivility Scale (Blau & Andersson, 2005) was only used by researchers in five percent of papers (with a reliability of  $\alpha =$

0.87), and the Uncivil Workplace Behaviour Questionnaire (Martin & Hine, 2005) was only used by researchers in one percent of papers (Kunkel, et al., 2015). The internal consistency for this measure was  $\alpha = 0.89$  (Martin & Hine, 2005).

**Ethnicity.** According to Cortina (2008), racial majority members use uncivil workplace behaviour against visible minorities due to mandated inclusivity in workplaces. As workplaces become more inclusive, those who would use discriminating behaviours instead use uncivil behaviour (Cortina, 2008). Therefore, visible minorities may experience higher levels of uncivil behaviour, and therefore may experience higher levels of dysempowerment. Participants were asked, “*Which ethnicity do you identify as?*” Participants could choose from “*European/Caucasian/White,*” “*African/African-American(Canadian)/Black,*” “*Hispanic/Latino,*” “*Aboriginal/Indigenous/Native American,*” “*Asian/Asian-American,*” or “*multiple ethnicities/other (please specify),*” or “*prefer not to answer.*” Those who selected “*multiple ethnicities/other (please specify)*” could type their personal ethnicity into a textbox. Answers in the textbox were coded by the researcher into categories.

**Age.** Age may affect the volume aspect of the Dysempowerment Model (Kane & Montgomery, 1998). As people age, they gather more experiences and, therefore, may experience more pollutants. Conversely, younger individuals would have less life experience. Participants were given the option to type their age in a text box or select “*prefer not to answer.*”

**Sexual Orientation.** Sexual orientation is also a control variable in this study. Sexual orientation should be measured as it may affect levels of uncivil workplace behaviour experienced by participants. According to Meyer (1995; 2003), sexual minorities (i.e., gay or LGB individuals) tend to experience minority stress (i.e., unique stressors on top of “everyday stress”) due to their status as a minority. Cortina’s (2008) selective incivility also suggests that

sexual minorities may experience higher levels of uncivil workplace behaviour because of the mandated inclusivity of workplaces. As the Dysempowerment Model indicates that a higher volume of polluters experienced by an individual will cause a higher level of negative affect, and therefore more negative workplace outcomes (Kane & Montgomery, 1998), then LGB individuals may experience both more negative affect and workplace outcomes in response to workplace incivility. In this case, LGB individuals may experience higher levels of turnover intentions and interactional injustice and lower levels of affective commitment. Participants had the choice to type in their sexual orientation in a text box or select “*prefer not to answer.*” Responses were coded by the researcher into categorical data.

**Education.** Education is a categorical variable and will be used as a demographics descriptor to describe the sample's characteristics. If the participants skew too highly or lowly educated, it may affect the study's external validity. Participants were asked, “*What is the highest level of education that you have completed?*” Participants could select from “*did not complete high school,*” “*high school diploma/GED,*” “*Some college/vocational school,*” “*vocational diploma,*” “*college/undergrad degree,*” “*graduate school/master’s degree,*” or “*Ph.D.*”

**Industry.** As industries vary, uncivil workplace behaviour may be more normalized in some industries and not in others. This may create a habituation effect in which people employed in certain industries may not consider some actions to uncivil. It may also be true that individuals in some industries may experience higher levels of uncivil behaviours and may have stronger reactions to them, such as described by Kane and Montgomery’s (1998) suggestions on volume of polluters. Industries are listed mostly following the North American Industry Classification System (NAICS, Statistics Canada, 2016), including; “*Agriculture/Forestry/Fishing/Hunting,*”

*“Utilities,”* and *“Educational Services”* among others. Thus, this classification system was used to create the categorical data on industry.

## **Pre-Test**

Once this project received ethics approval through Interdisciplinary Committee on Ethics in Human Research (ICEHR), a pre-test was then conducted to determine whether the survey flowed properly, was legible, and the questions made sense. This pre-test was conducted on both an expert population (i.e., other graduate students) and the target population (i.e., North American adults who are employed full-time or are self-employed). Participants of the pre-test were ensured that their data would not be used in the final data collection, and that their identifying information would not be collected unless provided. Participants were given three options to provide the experimenter with feedback, either through the text box at the end of the survey or directly through email or Facebook Messenger. One participant gave the experimenter feedback in person. Overall, the pre-test had 15 participants total.

The pre-test illuminated that positive affect needed to be measured along with negative affect. Multiple participants found it an awkward baseline measurement, noting that there was nothing to feel negatively about. However, a baseline measurement of affect is necessary to show that a change has happened after manipulation. Measuring positive affect in addition to negative affect should reduce the awkwardness reported. It should also provide any further insights into how uncivil behaviour effects this form of affect. Furthermore, adding a positive affect measure may reduce any priming effects induced by showing participants a measure only for negative affect.

## *Positive Affect*

Further hypotheses must be discussed with the addition of the new measure. The Dysempowerment Model (Kane & Montgomery, 1998) does not make suggestions on positive affect. However, one of the foundation theories to the Dysempowerment Model was Affective Events Theory (Weiss & Croponzo, 1996), which stipulates affective responses follow workplace events (including both daily hassles and uplifts: Glasø et al., 2011). These affective responses include positive and negative affect. Hence, while an increase in negative affect is expected on account of the Dysempowerment Model (Kane & Montgomery, 1998), there may also be an effect on participants' positive affect as per Affective Events Theory. Ford and Clarke (2017) found that uncivil behaviour (in their case, uncivil emails) directly decreases positive affect and increases negative affect such as fear and anger.

Hypothesis 13: Those who experience incivility will have a lower positive affect than those who do not.

Positive affect was measured through a measure developed by Ford and Clarke (2017). This measurement instrument consists of four items “*happy*,” “*relaxed*,” “*at ease*,” and “*good*.” Ford and Clarke (2017) developed this measure to determine whether a drop in positive affect accompanies an increase in negative affect in response to uncivil behaviour. The measure was designed to match the tone of Spielberger's (1999) state anger scale (part of the STAXI-II), which was also used in their study. In Ford and Clarke's (2017) study, the measurement had internal reliability of  $\alpha = 0.90$  and  $\alpha = 0.95$  for pre- and post-manipulation. The current study uses these four items inserted into the *Negative Mood* checklist (Scott et al., 2001). Both measures were displayed to participants together in a randomized order. This display method was chosen as participants would be presented both the negative and positive affect questions

together. The positive affect items were adapted to a 5-point Likert-type scale with 1 meaning *strongly disagree*, 3 meaning *neither agree or disagree*, and 5 meaning *strongly agree*.

After the inclusion of the positive affect, pilot studies were conducted.

## **Pilot Studies**

Prior to testing the hypotheses, I first needed to test the experimental manipulations and the psychometric properties of the measures within this research context. While the expectation was to only complete one, the results of the first pilot study indicated there was an issue that needed resolution before the main study could be complete. Thus, I present the two pilot studies in order along with their results.

### ***Pilot Study 1***

**Sample.** A pilot study was started once changes to our affect measure were approved by ICEHR. The pilot study's purpose was two-fold: (1) to test whether the manipulation worked on the target population; and (2) to ensure appropriate psychometric properties within this research context. The pilot test was conducted through mTurk (the most widely used online participant pool for management research; Porter et al., 2019), which gives researchers options to limit which participants can access their studies. Participants were limited to mTurk masters, residents of Canada and the United States, and must be employed full-time (35+ hours a week). Given this pilot study's purposes was to examine psychometric properties and conduct manipulation checks, sufficient power was deemed at 90 participants (target sample size of 30 per gender



manipulation, 45 per incivility manipulation). Thus, 100 participants were sought, and participants were offered an honorarium of 1.00 USD each upon completion.

The final sample size for Pilot Study 1 was 38, with 26 male participants and 12 female participants (see Table 1 for distribution across groups). Recruitment efforts ended early as it was evident early on that there was a manipulation failure (discussed below). Unfortunately, there were no gender minority participants in the pilot study.

**Table 1: Pilot Study 1 Experimental Group Samples**

		Target (Participant) Gender			Total
		Male	Female	Gender Minority	
Control	Male Manager	3	6	0	9
	Female Manager	4	0	0	4
	Gender Minority Manager	2	5	0	7
TOTAL CONTROL		9	11	0	20
Incivility	Male Manager	4	3	0	7
	Female Manager	4	2	0	6
	Gender Minority Manager	4	1	0	5
TOTAL INCIVILITY		12	6	0	18
GRAND TOTALS		21	17	0	38

**Measures and Reliability.** In the pilot study, the dependent measures appeared to be performing well. Affective Commitment (Allen & Meyer, 1990) had good reliability,  $\alpha = 0.91$ , negative affect (Scott et al., 2001) had a good reliability of  $\alpha = 0.76$ , Interactional Justice

(Colquitt, 2001) also had good reliability  $\alpha = 0.99$ . The manipulation check for incivility (Cortina et al., 2001) had good reliability,  $\alpha = 0.96$ . Lastly, the measure for the control variable of experienced incivility (Cortina et al., 2001) performed well, with a reliability of  $\alpha = 0.95$ .

**Incivility Manipulation.** An independent samples t-test was run to determine whether the incivility manipulation was sufficient. Levene's test was significant, ( $F = 11.65, p = 0.002$ ), so equal variance was not assumed. The t-test was significant, ( $t_{(20.86)} = 9.98, p < 0.001$ ) with the correct valence, showing that the manipulation was sufficient.

**Manager Gender Manipulation.** A problem with the manager gender manipulation was uncovered during the pilot test. To test the gender manipulation for the gender manager, a chi-square test of independence was run ( $\chi^2 = 30.87, df = 6, p < 0.001$ ). As the chi-square was significant, these two variables are not independent, suggesting that there was a manipulation effect; however, looking at the gender minority manager, it was clear this manipulation was not effective. Participants were not accurately identifying Ainsley's gender.

A chi-square test was run to determine if there was a relationship between the participant's own gender and the correct identification of Ainsley's gender identity ( $\chi^2 = 0.35, df = 2, p = 0.84$ ). These two variables were independent, which indicated the lack of accurate recall was not associated with the participant's gender. Thus, it was a manipulation failure, not a saliency issue based on participant's own gender. Most participants reported that they thought that Ainsley was either male or female, even though transgender and non-binary were options given to the participants to choose. While the original intent was to provide the participants with the managers' genders in a more subtle manner, the manipulation was not strong enough to elicit a correct response.

To address this, the wording of the gender manipulation was changed to state Ainsley's gender identity, which was changed to transgender instead of agender. The gender identity of transgender was chosen as this gender identity may be more accessible to those who are not either somewhat well-versed in gender terminology or may not keep up on social issues. Furthermore, directly stating the gender of each manager may strengthen the manipulation.

However, directly communicating each managers' gender identity may lead to hypothesis guessing. To help reduce potential hypothesis guessing, the managers' gender identity was paired with information on their age. The manager's age was listed as "close to" the participants' age to reduce potential intergenerational effects. The new wording on the vignettes read, "*your position requires a fair amount of cooperation between your manager (Andrew, who is about your age and identifies as male) and yourself,*" "*...(Ainsley, who is about your age and identifies as transgender),*" and "*... (Alice, who is about your age and identifies as female).*" The discussion of the parental rights group was also changed in the Ainsley condition, which now reads: "*...supporting transgender parental rights.*" This addition is only in the baseline measure to keep the manipulation of gender and incivility separate from one another.

### ***Pilot Study 2***

The purpose of this pilot study was to re-examine the new manipulation for manager's gender and confirm psychometric properties. The procedure and measures were as noted above.

**Sample.** The recruitment target on mTurk was for 100 participants; however, only 51 users had completed the survey. After these 51 participants had completed the survey, there was no other participation for five days. Of those 51 participants, 39 completed the survey and gave

final consent allowing their data to be included in the study (76%). (See Table 2 for distribution of the sample across groups.)

**Table 2: Pilot Study 2 Experimental Group Samples**

		Target (Participant) Gender			Total
		Male	Female	Gender Minority	
Control	Male Manager	7	1	0	8
	Female Manager	4	3	0	7
	Gender Minority Manager	3	3	0	6
TOTAL CONTROL		14	7	0	21
Incivility	Male Manager	3	2	0	5
	Female Manager	5	2	0	7
	Gender Minority Manager	5	1	0	6
TOTAL INCIVILITY		13	5	0	18
GRAND TOTALS		27	12	0	39

The participants ranged in age between 29 and 54 years of age. All participants (38) resided in the United States. Most participants identified as Caucasian or White (71%), 7% identified as mixed ethnicities, 5% identified as Asian/East Asian or Hispanic/Latino each, and 2.5% each identified as Aboriginal or Middle Eastern. 78% of the sample identified as straight or heterosexual, 5% identified as gay or lesbian, and 2% identified as bisexual. 7% of participants answered either “other” or stated a preference towards a certain sex. In terms of education levels, most participants had graduated with an undergraduate degree (61%), 10% had graduated graduate school, and 7% each have either graduated with a highschool diploma, have completed

some post-secondary school, or have a vocational diploma. In terms of employment, 27% of participants worked in management, followed by 12% employed in healthcare or social services, and 10% employed in real estate. For participant gender, 55% of participants identified as male and 45% of participants identified as female. Unfortunately, no individuals who identified as a gender minority were recruited for this study.

**Results.** An exploratory maximum likelihood analysis with varimax rotation was conducted. SPSS was instructed to include any factors with an Eigenvalue greater than 1. As this was an exploratory analysis, SPSS was instructed to use as many factors as possible. The items appeared to load based on measurement scales. However, the single-item measures did not load on their own factor. This is likely on account of the small sample size used for the pilot study. The largest factor (accounting for 61.74% of total variance) accounted for the items on the Negative Mood checklist, as well as the job search item. The Affective Commitment items loaded onto the second factor (accounting for 11.05% of total variance). The third factor accounted for 5.45% of total variance, which included the interactional justice items. Lastly, the positive affect items loaded onto the fourth factor (accounting for 4.69% of total variance). The intention to quit item did not load onto either factor, but had negative relationships with factors two and three. Of note, no indicators loaded onto a factor associated with another construct more than their respective factor. While the sample size was small for this type of analysis, the maximum likelihood analysis determined that the items of each variable aligned appropriately. This suggests there is sufficient discriminant validity. Please see Appendix D for the complete factor analysis results.

Next, the measures were examined for their internal consistency (reliability). All of the multi-item measures had sufficient internal consistency ( $\alpha > 0.70$ ), thus were deemed acceptable

for use in the main study. Specifically, the following were the Cronbach's alphas: incivility manipulation check ( $\alpha = 0.94$ ; Cortina, et al., 2001); incivility control variable ( $\alpha = 0.88$ ; Cortina, et al., 2001); negative affect (post-manipulation  $\alpha = 0.95$ ; Scott et al., 2001); positive affect (post-manipulation  $\alpha = 0.97$ ; Ford & Clarke, 2017); interactional justice ( $\alpha = 0.99$ ; Colquitt, 2001); and affective commitment (post manipulation  $\alpha = 0.95$ ; Allen & Myer, 1990).

Given psychometric properties appeared to meet criteria, the manipulation checks were conducted. An independent samples t-test assuming equal variance ( $F_{(1,36)} = 3.199, p = 0.082$ ) was performed to determine whether the manipulation for incivility differed between the control and manipulation (i.e., civil and uncivil) conditions. There was a significant difference,  $t_{(36)} = 10.62, p < 0.001, d = 3.40$ , and in the correct direction with the incivility group ( $n = 18, \bar{x} = 3.93, sd = 0.96$ ) reporting more incivility within the scenario than the control group ( $n = 20, \bar{x} = 1.35, sd = 0.48$ ). Thus, the manipulation of incivility was deemed to be sufficient to proceed to the main study.

A chi-squared test of independence analysis for manipulated manager's gender and participants' recall of manager's gender was conducted to test if the manipulation effect was sufficient. The results indicated that the two variables (experimental condition of managers' gender and reported managers' gender) are not independent ( $\chi^2 = 43.60, df = 6, p < 0.001$ ). The cross-tabulation table shows the relationship is in the expected direction (e.g., male manipulation resulted in reporting male, female manipulation result in reporting female). There was not perfect alignment, however. In the female condition, just one participant misgendered Alice as male. There were no mistakes in gendering Andrew in the male condition. The transgender manipulation had the most error. Upon further examination, it appears as though participants in

the incivility group had a one-in-three chance of reporting Ainsley as transgender or male (but not female); whereas, the transgender-control group appeared to be more accurate.

Based on the possibility that there may be some prescriptive gender stereotypes at play with the interaction between gender and incivility, plus there is sufficient manipulation effect, no further changes were made to this manipulation for the study. The previous changes to the manipulation added a blatant statement of the managers' gender identities. Any further deviation from organic storytelling in the vignettes may lead to hypothesis guessing.

Aside from the psychometric properties and manipulation effects, Pilot Study 2 also revealed a second limitation of the research design, in particular with the recruitment methods: mTurk does not allow requesters to limit participants to just gender minorities. The option exists for requesters (i.e., those creating surveys or studies through the platform) to recruit only males or only females (<https://requester.mturk.com/create/>). Still, a requestor cannot recruit only gender minorities. The use of mTurk as the primary recruitment option certainly limits requesters' ability to conduct research on gender minorities on the platform. To address this limitation, for the main study, I opted to use social media recruitment of gender minorities at the same time as mTurk recruitment. This is to ensure that enough data on gender minorities can be collected and analyzed, and also had ethics approval.

Furthermore, the results on sexual orientation revealed that there was an issue with how this was worded. Individuals seem to have gotten confused between gender identity and sexual orientation, as some individuals have answered “*female*” or “*male*” instead. The change made to this question was to give participants the option to choose between “*bisexual*,” “*gay/lesbian*,” “*straight*,” “*other, please self-describe (text box)*,” and “*prefer not to answer*.” This change should prompt participants to what kind of answer they should give.

One other methods change was deemed necessary for the main study. It appeared as if interest in partaking in the study was dwindling before the right amount of participants were recruited. To help address this lack of interest, the honorarium was increased for the main study to 1.25 USD instead of the 1.00 USD.



## MAIN STUDY

Once the analysis was conducted on the pilot test, showing that the measures had internal reliability and the manipulations created a significant difference between groups, the main study was conducted to test the research hypotheses. The procedure and measures were as described above, with the revisions in the sexual orientation question and recruitment tactics.

Recruitment was done using three methods, each using a different sample pool population, while maintaining the selection criteria. The first was like the pilot studies, through mTurk, offering a 1.25USD honorarium for participation. The survey was set up to ensure that those who had participated in the pilot study could not participate in the main study. This decision was made as those who participated previously and were debriefed on the study's true purpose and manipulations.

The second method was through targeted recruitment for transgender individuals. Social media groups for transgender and gender minorities were sought on Facebook. Direct messages were sent to the pages (to contact each page's administrators; please see Appendix C for the messages sent). Social media participants could opt-in to prize draws of a 25.00USD per 20 participants (or CAD equivalent) gift card, of which they could choose several businesses.

Social media recruitment was somewhat fruitless: many Facebook groups for gender minorities have rules against posting studies, surveys, and other data analysis links. While frustrating, this makes sense as many group members wish to discuss issues to do with gender minorities in a safe space. Both the researcher and her supervisor posted recruitment messages to their personal Facebook pages, and some “friends” on the platform shared the survey on their personal pages as well.

As recruitment of gender minorities through mTurk was also proving fruitless, a move to recruit for gender minorities on another platform, Prolific, was discussed and chosen as the third recruitment method (and ethics approval was granted for this recruitment revision). Prolific is based in the UK and focuses on recruitment for academic studies (versus mTurk, which has a more general focus). Prolific is set up so that requesters can submit pre-screenings and are given the number of participants who fit those pre-screenings who were active in the past three months on the platform. The pre-screenings selected were similar to the requirements selected through mTurk; users must be employed full time, live in Canada or The United States, and be a gender minority. Prolific gives many gender options in prescreening: male, female, trans man/trans male, trans woman/trans female, genderqueer/gender non-conforming, different identity, and rather not say. For the recruitment of gender minorities, transgender males, transgender females, genderqueer, and different identity were the options selected. According to Prolific, 249 users fitting these matches were active in the past three months (January 2021).

Results through Prolific came through quite quickly. As there were still issues with getting 90 male and 90 female participants through mTurk, the full study was moved to Prolific. The Prolific study was set up with a survey to gather the remaining female participants needed, and a separate study to gather the remaining male participants. This choice was made to ensure that enough males and females were recruited for sufficient power to conduct the statistical analyses. The same prescreening filters were applied in the gender minority recruitment survey, except that only males and only females were selected.

Prolific has a minimum wage requirement in survey completion (£5 per hour). 1.25USD worked out to approximately £0.90. This was rounded off to £1.00 (approximately 1.39USD) to be more attractive to potential participants. The reasoning behind this is that many participants

might not consider anything below £1.00. The average time calculated from the mTurk participants was approximately 7 minutes (working out to about £8.57/hour, which is above Prolific's £5/hour minimum wage).

## **Sample**

Participants were selected to be employed adults from Canada (21.6%) and United States of America (76.8%) (1.6% did not disclose country, but were kept in the study as screening criteria would ensure they met this criteria). The study's participants represented a wide range of ages, ethnicity, sexual orientation, education, and were employed in a range of industries.

Ethnicity was measured through participants selecting from a list of common North American ethnicities, self-describing, or declining to disclose their ethnic identity. Most participants identified as Caucasian/European/white (77%), 9% as Asian or East Asian, 6% as African-American (or African-Canadian)/black, 3% identified as Latino, 2% as multiple or mixed identities, <1% identified as either Aboriginal/Indigenous/Native American, Ashkenazi/Jewish, or "none of the above" each. 3% of participants did not disclose their ethnic identity.

Participants were given the option of selecting commonly known sexual orientations, self-describing, or declining to disclose their sexual orientation. Over half of the participants identified as straight/heterosexual (56%), 20% identified as bisexual. 12% identified as gay or lesbian, 4% as pansexual, 3% defined as queer or asexual, each, and 2% declined to disclose their sexual orientation. As the percentage for straight participants was quite low considering Canadian national averages (accessed through Statistics Canada) shows that in 2014, only 3% of

the population (between ages 18 and 59) self-described as bisexual (1.3%), or as gay or lesbian (1.7%) (Statistics Canada, 2014). A chi-squared analysis was conducted to determine whether the differences in sexuality seen in this sample are on account of the focus on recruiting gender minorities. The results indicated that sexuality and gender identity are not independent ( $\chi^2 = 163.308$ ,  $df = 12$ ,  $p < 0.001$ ). Indeed, 97.6% of the participants who self-identified as gender minority identified their sexuality as one of the following: gay, lesbian, bisexual, pansexual, asexual or queer; whereas 15.6% of the participants who self-identified as male and 31.3% of the participants who self-identified as female identified their sexuality as gay, lesbian, bisexual, pansexual or queer.

Education levels were reported as the highest level of education completed. Most participants graduated with an undergraduate degree (48%), 18% have completed some college/university or vocational school, 16% have graduated with a master's degree, 7% with a high school diploma or GED, 6% have a vocational diploma, 2% have graduated with a Ph.D., <1% have only completed some high school, and 2% of participants declined to disclose their education levels.

Industry was measured through the North American Industry Classification System (NAICS, Statistics Canada, 2016). Participants were given the option to choose between seventeen different general industries, an option to decline to answer, and an option for other services with a text box to specify. The two most common industries were educational services (15%) and professional/scientific/technical services (15%), and 3% declined to disclose their industry.

Participants were randomly assigned to one of 18 experimental conditions (see Table 3 for the sample distribution). Prior to testing hypotheses, the experimental conditions were tested

to ensure no pre-existing differences existed on demographics and pre-test dependent variables (discussed further in results).

**Table 3: Main Study Experimental Group Samples**

		Target (Participant) Gender			Total
		Male	Female	Gender Minority	
Control	Male Manager	15	21	14	50
	Female Manager	17	18	15	50
	Gender Minority Manager	20	15	16	51
TOTAL CONTROL		52	54	45	151
Incivility	Male Manager	16	21	14	51
	Female Manager	17	18	11	46
	Gender Minority Manager	24	19	14	57
TOTAL INCIVILITY		57	58	39	154
GRAND TOTALS		109	112	84	305

## Results

Data was downloaded from Qualtrics, and then analyzed in SPSS.

Across all recruitment groups (i.e., mTurk, Prolific, and social media), a total of 425 individuals started the survey, of whom 12 participants were recruited from social media recruitment (4%). These 12 individuals all identified as gender minorities, as the social media recruitment campaign was targeted only for gender minorities. Due to technical issues or quota

issues, 85 of the 425 cases were dropped (20%). These cases had opened the survey but were not able to continue past the first screen. There were issues with the quota function on the Qualtrics survey, which meant that many individuals opened the study to find that it was “full,” unbeknownst to the researchers. While the quota issue was fixed, there were reports of other users not being able to access the survey later. Therefore, any cases that did not answer the first question are considered a technical error with Qualtrics, and thus not included in the withdrawal rate calculation.

A total of 67 of 340 participants withdrew part-way through the study (19.7% withdrawal rate), of these, 29 participants had completed the survey but did not provide final consent (9%). Likely, these participants did not see the consent button at the bottom of the screen as this required scrolling through the debriefing page. They may have just exited the survey once they reached the debriefing page. One participant was removed on account of poor data quality. Upon coding of demographic data, another participant was removed for disclosing “unemployed” in the industry question, meaning that they were not qualified to participate in the experiment. This resulted in a total of 305 participants who were included in the statistical analysis for a final completion rate of 89%.

To examine if there was a potential selection bias at play between those who completed and those who did not, a chi-square test of independence for participant gender and completion was conducted as that was the only data we had for all incomplete participants. The results indicated there was a relationship between participant gender and incomplete data ( $\chi^2 = 7.53$ ,  $df = 2$ ,  $p = 0.02$ ). Upon reviewing the data, it was clear that this effect was only for females and gender minorities, and the vast majority of those participants attempted to participate during the

technical failure for Qualtrics' quota functionality. Thus, it is more likely that this effect was not a self-selection bias but rather a technical failure

### ***Psychometric Property Tests***

**Factor Analysis.** A confirmatory factor analysis was conducted using SPSS; maximum likelihood with varimax rotation with fixed number of factors was repeated with varying number of fixed factors to determine which had best fit (1-factor, 2-factors, 3-factors, 4-factors, 5-factors, 6-factors and 7-factors models were calculated). An Excel-macro application was used to compute the NNFI and change in chi-squared were calculated, and FITMOD (Browne, 1992) was used to compute the RMSEA of the models. (See Table 4 for summary of the models.)

There data had seven measures based upon the six dependent variable measures: pre-manipulation measures of negative affect, positive affect, affective commitment, intention to quit, turnover intention; post-manipulation measure of interactional justice; and the incivility manipulation check. This analysis only included the pre-manipulation measures instead of including both pre and post measures of the same variable. While pre- and post-manipulation measures should load on the same variable, the incivility manipulation could confound the results. As such, only the pre-manipulation measures were used. Interactional justice was only measured once so it was included as it was (post-manipulation).

While the CFA indicated that the 7-factor model had the best fit indices, the examination of the seventh factor indicated that only the first six factors had Eigen values over 1, and sufficient indicator loadings. Thus, the 6-factor model was the best fit, and met fit criteria ( $\chi^2_{(319)} = 671.45, p < 0.001$ ; NNFI = 0.96; RMSEA = 0.058). (See Appendix E for the results of the

rotated matrix.) These results are within acceptable ranges (NNFI > 0.9; Byrne, 1994; RMSEA between 0.05 - 0.08; Hu & Bentler, 1999). The largest factor, which encompasses the Negative Affect items, accounts for 31.15% of the total variance. Next, all interactional injustice items loaded on the second-largest factor, accounting for 19.45% of the total variance. The third factor consists of the affective commitment measure items, accounting for 7.76% of the total variance. While two items have low loadings (AFFCOM\_Pre1 0.386, and AFFCOM\_Pre3 0.296), they do not load higher on any other factor, and 0.30 is still acceptable for reflective measure items (Tabachnick & Fidell, 2012). Positive affect loaded on the fourth factor, accounting for 4.65% of the total variance. The two turnover items loaded on the fifth factor, accounting for 4.06% of the variance. The final factor accounts for incivility manipulation check items, and accounts for 3.19% of the total variance. Again, one item had a low loading (INC-MANI1) at 0.27; however, it did not load onto any other factor.

The results of this factor analysis indicate several things. First there is no indication of an issue with common method variance given the first factor explains less than 50% of the total variance (Harman's one-factor test; Fuller et al., 2016; Podsakoff & Organ, 1986). Second, the factor analysis supports discriminant validity (i.e., measures are correctly distinct; Rönkkö & Cho, 2020) of the measures because the items all loaded onto the factors to which they belong, suggesting that there is no construct overlap between the measures.



**Table 4: Model Fit Statistics for Confirmatory Factor Analysis**

Chi-Squared Change	Chi-squared	DF	Change	df change	p-value	NNFI	RMSEA
Independent model	11590.34	496.00					
1 factor model	3513.44	464.00	8076.90	32.00	0.0000	0.71	0.159
2 factor model	2438.11	433.00	1075.33	31.00	0.0000	0.79	0.133
3 Factor model	1581.33	403.00	856.78	30.00	0.0000	0.87	0.106
4 Factor model	1158.83	374.00	422.50	29.00	0.0000	0.91	0.090
5 Factor model	844.42	346.00	314.41	28.00	0.0000	0.94	0.074
6 Factor model	603.26	319.00	241.16	27.00	0.0000	0.96	0.058
7 Factor model	449.66	293.00	153.61	26.00	0.0000	0.98	0.045

**Internal Consistency.** Next, the measures were examined for their internal consistency (reliability). All of the multi-item measures had sufficient internal consistency ( $\alpha > 0.70$ ). Specifically, the following were the Cronbach's alphas: negative affect (pre-manipulation  $\alpha = 0.94$ , post-manipulation  $\alpha = 0.96$ ; Scott et al., 2001); positive affect (pre-manipulation  $\alpha = 0.78$ , post-manipulation  $\alpha = 0.95$ ; Ford & Clarke, 2017); affective commitment (pre-manipulation  $\alpha = 0.79$ , post-manipulation  $\alpha = 0.93$ ; Allen & Myer, 1990); incivility manipulation check ( $\alpha = 0.93$ ; 4 items from Cortina, et al., 2001); incivility control variable ( $\alpha = 0.93$ ; full measure from Cortina, et al., 2001); and interactional justice ( $\alpha = 0.98$ ; Colquitt, 2001).

The turnover intention measure was made of two items. One of these items was from Bluedorn's (1982) *Stay/Leaving Index*, "how would you rate your chances of quitting sometime in the next six months?" This is reverse-coded on a semantic differential scale of 1 (*terrible*) to 7 (*excellent*). The second item was from Firth and colleagues' (2004) study, "how likely are you to look for a new job within the next year?" This item is rated on a Likert-type scale from 1 (*not at all likely*) to 5 (*extremely likely*). The internal reliability of the two items together was  $\alpha = 0.82$  for the pre-manipulation measure and  $\alpha = 0.82$  for the post-manipulation measure.

Variable scores were then computed. This process started with recoding any item that was reverse-coded. Then, the averages of the items were developed for the following variables: interactional justice, and the pre- and post-manipulation variables of. negative affect, positive affect, affective commitment. A variable score for intention to quit was created by summing the two items' scores, as the two questions included in this variable score had different anchors (intention to quit was 1-7, whereas turnover intention was 1-5).

### ***Test of Random Assignment, Pre-existing Group Differences***

Before examining the results of the post-manipulation measures, I examined for group differences among all 18 experimental groups on the pre-manipulation measures, control variables and demographics. This is for two reasons: 1) to ascertain whether the random assignment was successful, and 2) if there are pre-existing differences in the dependent variables prior to the incivility manipulation, then this needs to be statistically controlled.

There were no significant differences between groups for: negative affect ( $F_{(5, 299)} = 0.44$ ,  $p = 0.82$ ), positive affect ( $F_{(5, 299)} = 1.16$ ,  $p = 0.33$ ), affective commitment ( $F_{(5, 299)} = 0.98$ ,  $p = 0.43$ ), or incivility control variable ( $F_{(5, 299)} = 1.53$ ,  $p = 0.18$ ). A chi-square test was run for ethnicity and experimental condition, ( $\chi^2_{(136, 305)} = 153.08$ ,  $p = 0.15$ ), which was non-significant, showing that there was no relationship between participant ethnicity and experimental group. There was also no relationship between participant age and experimental group, ( $\chi^2_{(17, 304)} = 13.29$ ,  $p = 0.72$ ), or for education level and experimental group, ( $\chi^2_{(119, 305)} = 126.84$ ,  $p = 0.29$ ).

However, there was a significant difference found for the pre-manipulation measure of turnover intention ( $F_{(5, 298)} = 39.94$ ,  $p < 0.001$ ,  $\eta^2 = 0.21$ ). A post-hoc Tukey test showed that

the female manager control group differed significantly from all other groups,  $p < 0.001$  for all groups ( $\bar{x}_{female} = 6.05$ ,  $sd = 2.78$ ;  $\bar{x}_{male} = 3.48$ ,  $sd = 1.74$ ;  $\bar{x}_{gender\ minority} = 3.88$ ,  $sd = 1.88$ ). On account of this, further statistical analyses using turnover intention is calculated with the delta (or difference) of the measure (post incivility – pre incivility) to control for the pre-existing difference on pre-manipulation score.

### ***Manipulation Check***

Next two manipulation checks needed to be conducted: one on incivility manipulation, and the other for manager gender manipulation. An independent samples t-test was run to determine whether the incivility manipulation was sufficient to create a difference in perceived incivility. The t-test was significant ( $t_{(303)} = 17.26$ ,  $p < 0.001$ ,  $d = 1.98$ ) showing that the 154 participants in the incivility manipulation had perceived the incivility from the manager as more egregious ( $\bar{x} = 3.68$ ,  $sd = 1.05$ ) than the 151 participants in the control group ( $\bar{x} = 1.67$ ,  $sd = 0.98$ ).

A chi-squared test was run for the managers' gender manipulation. The chi-squared test was significant ( $\chi^2_{(6, 305)} = 352.13$ ,  $p < 0.001$ ), showing that there is a relationship between the managers' presented gender identity and the gender as identified by the participants. While most people did not have an issue with identifying the gender of the male and female managers (i.e., had a high level of accuracy; male: 96% accuracy, female: 94% accuracy), there was more of an issue with participants accurately identifying the gender identity of the gender minority (i.e., transgender) manager (47%).

## *Hypothesis Testing*

**Main Effects (Hypotheses 1-4 and 13).** The first hypotheses suggest that those in the incivility condition would experience higher levels of negative affect and turnover intention and lower levels of interactional justice and affective commitment than those in the control condition. Independent-samples t-tests were conducted with all main effects included to determine whether there were significant differences. The decision to use t-tests was made so that each comparison is made directly between the incivility and control groups. The results are as follows:

For negative affect (H1), the Levene's test was not significant, so equal variance is assumed ( $F = 0.02, p = 0.97$ ). There was a significant difference between the incivility ( $\bar{x} = 3.75, sd = 0.79$ ) and control groups ( $\bar{x} = 1.79, sd = 0.78$ ),  $t_{(303)} = 21.86, p < 0.001, d = 2.51$ ). Thus Hypothesis 1 is supported.

For interactional justice (H2), the Levene's test was not significant ( $F = 1.76, p = 0.186$ ) so equal variance is assumed. There was a significant difference between the incivility ( $\bar{x} = 1.54, sd = 0.81$ ) and control groups ( $\bar{x} = 4.39, sd = 0.85$ ) ( $t_{(303)} = 30.01, p < 0.001, d = 3.44$ ) in the direction hypothesized. Thus Hypothesis 2, that incivility results in lower interactional justice, is supported.

For Hypothesis 3, turnover intention was used as a delta score (post-manipulation minus pre-manipulation), such that a positive score would indicate an increase in turnover intentions and a negative score would indicate a decrease in turnover intentions. Levene's test was not significant, ( $F = 3.43, p = 0.065$ ), so equal variance is assumed. There was a significant difference ( $t_{(302)} = 15.38, p < 0.001, d = 1.76$ ) between the incivility ( $\bar{x} = 3.78, sd = 0.21$ ) and

control groups ( $\bar{x} = -1.14$ ,  $sd = 2.98$ ). Hypothesis 3 is supported as the difference is in the expected direction.

For affective commitment (H4), the Levene's test was significant ( $F = 4.51$ ,  $p = 0.035$ ), so equal variance cannot be assumed. There was a significant difference ( $t_{(295.30)} = 14.38$ ,  $p < 0.001$ ,  $d = 1.65$ ) between the incivility ( $\bar{x} = 3.24$ ,  $sd = 1.26$ ) and control groups ( $\bar{x} = 5.15$ ,  $sd = 1.05$ ), such that incivility groups reported lower affective commitment. Thus Hypothesis 4 is supported.

For positive affect (H13), the Levene's test was significant, so equal variance cannot be assumed ( $F = 4.88$ ,  $p = 0.028$ ). There was a significant difference ( $t_{(297.26)} = 21.64$ ,  $p < 0.001$ ,  $d = 2.48$ ), which was in the expected direction, between the incivility ( $\bar{x} = 1.56$ ,  $sd = 0.78$ ) and control ( $\bar{x} = 3.60$ ,  $sd = 0.87$ ) groups. Thus, Hypothesis 17 is supported.

Next, a full-factorial, multivariate general linear model using Type III Sums of Squares was used to test the remaining hypotheses regarding gender of target, gender of manager, and their potential interaction effects with incivility. This analysis included all factors (target gender, manager gender and incivility/control condition). The results are presented next, grouped in order of hypothesis.

**Gender Identity Group Effect (Hypotheses 5-8).** The following are the results of the main effects and interaction effects for target gender.

There were no significant differences for negative affect based upon an interaction of incivility and participant gender, ( $F_{(2,286)} = 0.80$ ,  $p = 0.45$ ). Thus Hypotheses 5a (transgender) and 5b (female) are not supported.

There were no significant differences for interactional justice based upon an interaction of incivility and participant gender ( $F_{(2, 286)} = 0.24, p = 0.79$ ). Thus Hypotheses 6a (transgender) and 6b (female) are not supported.

There were no significant differences for intention to quit based upon an interaction of incivility and participant gender ( $F_{(2, 286)} = 1.34, p = 0.26$ ). Thus Hypotheses 7a (transgender) and 7b (female) are not supported.

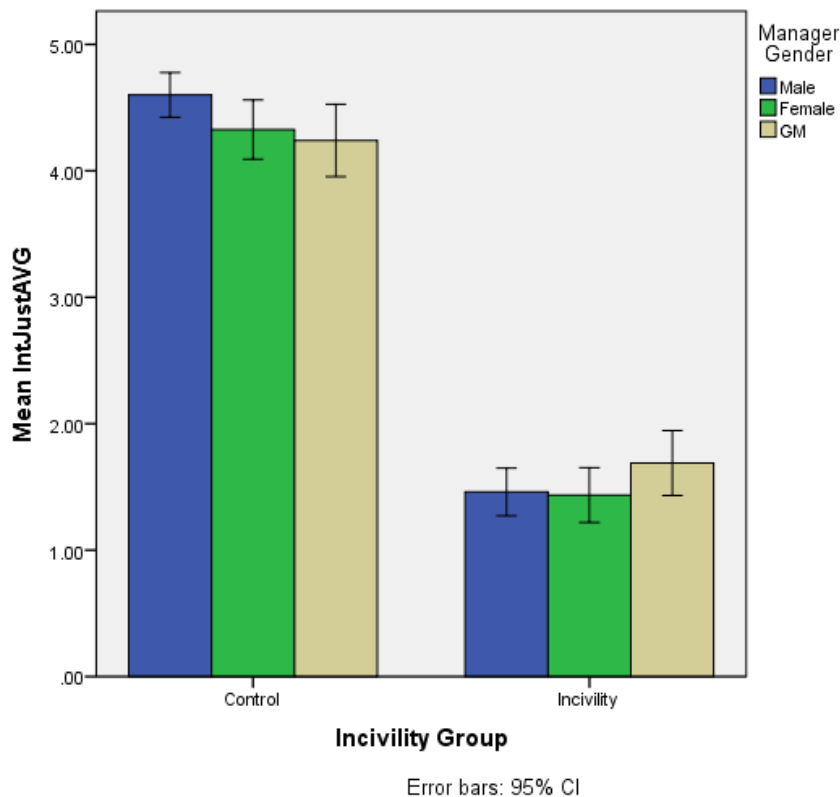
There were no significant differences for affective commitment based upon an interaction of incivility and participant gender ( $F_{(2, 286)} = 2.24, p = 0.11$ ). Thus, there is no support for Hypotheses 8a (transgender) and 8b (female).

**Manager Gender Effect (Hypotheses 9-12).** The following are the results for the main effects of manager gender and interaction effects of manager gender and incivility.

The interaction effect for manager gender and incivility was not significant for negative affect ( $F_{(2, 286)} = 0.02, p = 0.98$ ). Thus there is no support for Hypothesis 9.

There was a significant interaction effect for manager gender and incivility for interactional justice ( $F_{(2, 286)} = 25.29, p < 0.001, \eta^2 = 0.03$ ). (See Figure 1 for illustration.) A post-hoc Tukey HSD test was ran to determine whether there were any further significant differences between the groups. There was no significant differences between the manager groups ( $\bar{x}_{male} = 2.97, sd = 1.54$ ;  $\bar{x}_{female} = 2.91, sd = 1.69$ ;  $\bar{x}_{gender\ minority} = 2.96, sd = 1.69$ ). Further post-hoc ANOVA tests were ran to determine whether there was a difference between the manager genders by incivility (versus control) group. Using the Bonferonni corrected alpha of  $\alpha = 0.016$ , there were no significant differences between the manager genders in the incivility

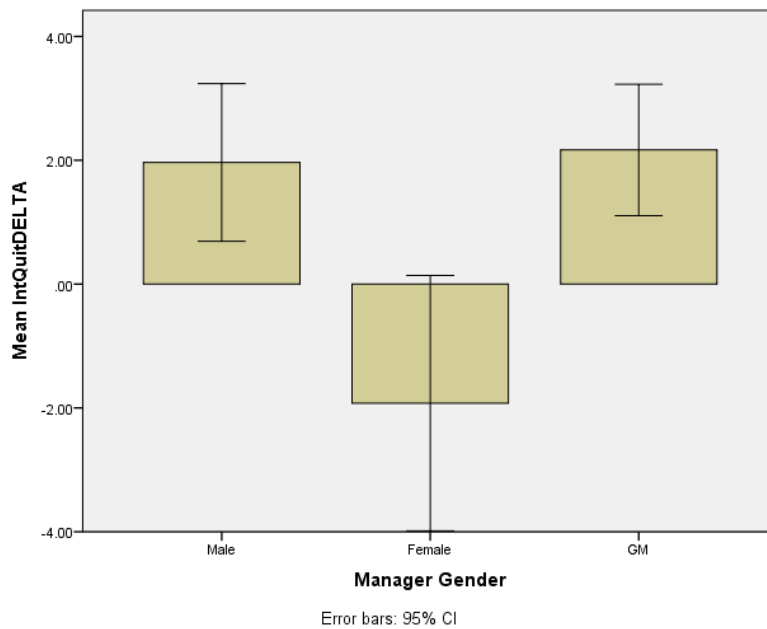
group ( $F_{(2, 148)} = 2.52, p = 0.08$ ) nor in the control group ( $F_{(2, 151)} = 1.60, p = 0.21$ ). Thus there is no simple group means (i.e., male vs. female, female vs. gender minority, and gender minority vs. male) difference that is significant; but there may be a complex group means difference (in that two of the groups together might be significantly different from the third group).



**Figure 1: Interaction Effect between Manager Gender and Incivility for Interactional Justice**

Regarding Hypothesis 11, there were significant main effect for intention to quit based upon manager gender ( $F_{(2,286)} = 21.70, p < 0.001, \eta^2 = 0.13$ ). A post-hoc Tukey HSD test was ran to determine where the significant differences lay. Those with the female manager (Alice;  $\bar{x} =$

3.52,  $sd = 1.64$ ) were significantly different from those with either the male (Andrew;  $\bar{x} = 3.51$ ,  $sd = 1.45$ ,  $p < 0.001$ ) or the gender minority (Ainsley;  $\bar{x} = 4.20$ ,  $sd = 0.83$ ,  $p < 0.001$ ) managers. There was no difference between the male and gender minority managers ( $p = 1.00$ ). See Figure 2 for illustration of the main effect.

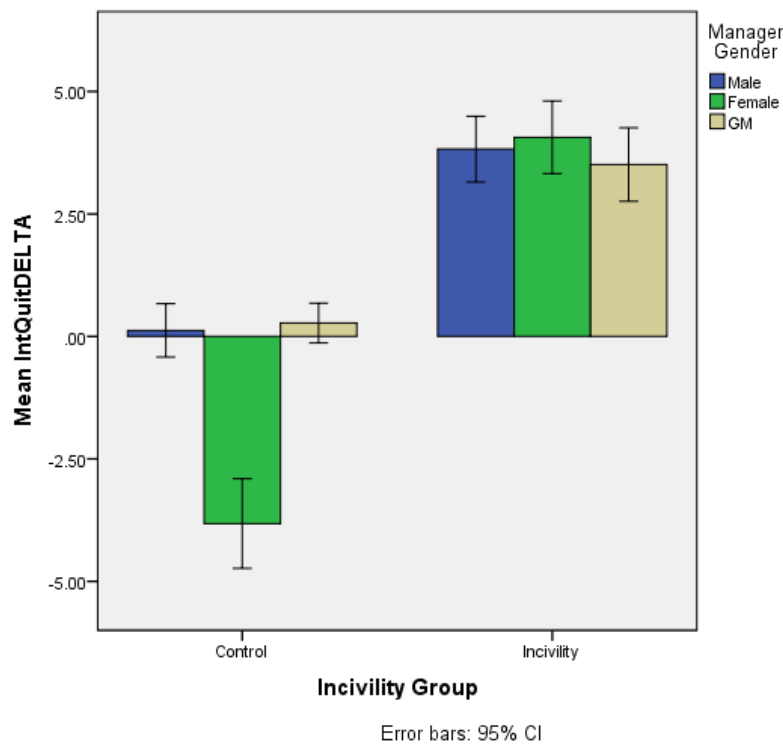


**Figure 2: Main Effect for Manager Gender on Intentions to Quit (Post-Pre)**

However, there was also a significant interaction between Manager Gender and Incivility for Intentions to Quit (Pre – Post) ( $F_{(2, 286)} = 25.29$ ,  $p < 0.001$ ,  $\eta^2 = 0.15$ ). Thus, two post-hoc ANOVAs, using Bonferroni family-wise correction ( $\alpha = 0.025$ ), were conducted to determine where the difference lies. There was a significant difference in the control group ( $F_{(2, 147)} = 50.50$ ,  $p < 0.001$ ,  $\eta^2 = 0.041$ ). A post-hoc Tukey’s HSD test was performed to determine between which manager gender group the differences could be found. The female manager (Alice;  $\bar{x} = 3.22$ ,  $sd = -0.04$ ) control group had significant differences with the male manager (Andrew;  $\bar{x} = 1.90$ ,  $sd = 0.12$ ,  $p < 0.001$ ) and the gender minority manager (Ainsley;  $\bar{x} = 1.44$ ,  $sd = 0.27$ ,  $p <$



0.001) control groups. There were no significant differences found in the experimental groups ( $F_{(2, 151)} = 0.60, p = 0.55$ ). (See Figure 3 for the interaction effect.) The results do not provide support for Hypothesis 11, however, as the effect was in the control group, not the incivility group; there were no significant differences among the manager genders for incivility.



**Figure 3: Interaction Effect for Manager Gender and Incivility on Intentions to Quit (Post-Pre)**

For affective commitment (H12), there were no significant differences based upon manager gender ( $F_{(2, 286)} = 2.10, p = 0.12$ ), thus Hypothesis 12 was not supported. For a summary of the hypotheses test results, please see Table 5.

**Table 5: Summary of Hypotheses Results**

#	Hypothesis	Significant difference?
1	Incivility will be positively related to negative affect.	Supported $p < 0.001$
2	Incivility will be positively related to interactional injustice.	Supported $p < 0.001$
3	Incivility will be positively related to turnover intention.	Supported $p < 0.001$
4	Incivility will be negatively related to affective commitment.	Supported $p < 0.001$
5a	There is a positive relationship between incivility and negative affect moderated by gender whereby gender minority employees will experience significantly higher levels of negative affect than cisgender employees	Not supported $p = 0.63$
5b	Cisgender women will experience higher levels of negative affect than cisgender male employees.	Not supported $p = 0.63$
6a	There is a positive relationship between incivility and interactional injustice moderated by gender whereby gender minority employees will experience significantly higher levels of interactional injustice than cisgender employees.	Not supported $p = 0.28$
6b	Cisgender women will experience higher levels of interactional injustice than cisgender male employees.	Not supported $p = 0.28$
7a	There is a positive relationship between incivility and intention to quit moderated by gender whereby gender minority employees will experience significantly higher intention to quit than cisgender employees	Not supported $p = 0.23$
7b	Cisgender women will experience higher intentions to quit than cisgender male employees	Not supported $p = 0.23$
8a	There is a negative relationship between incivility and affective commitment moderated by gender whereby gender minority employees will experience significantly lower affective commitment than cisgender employees.	Not supported $p = 0.93$
8b	Cisgender women will experience lower affective commitment than cisgender male employees.	Not supported $p = 0.93$
9	Those who are targeted by cisgender women will experience more negative affect than those targeted by other genders	Not supported $p = 0.33$
10	Those targeted by cisgender women will experience higher levels of interactional injustice than those targeted by other genders	Not supported, but significant results, $p = 0.04$
11	Those targeted by cisgender women will experience higher levels of intention to quit than those targeted by other genders	Not supported, but significant results, $p < 0.001$
12	Those targeted by cisgender women will experience lower levels of affective commitment than those targeted by other genders	Not supported $p = 0.12$
13	Incivility will be positively related with lower levels of positive affect	Supported $p < 0.001$

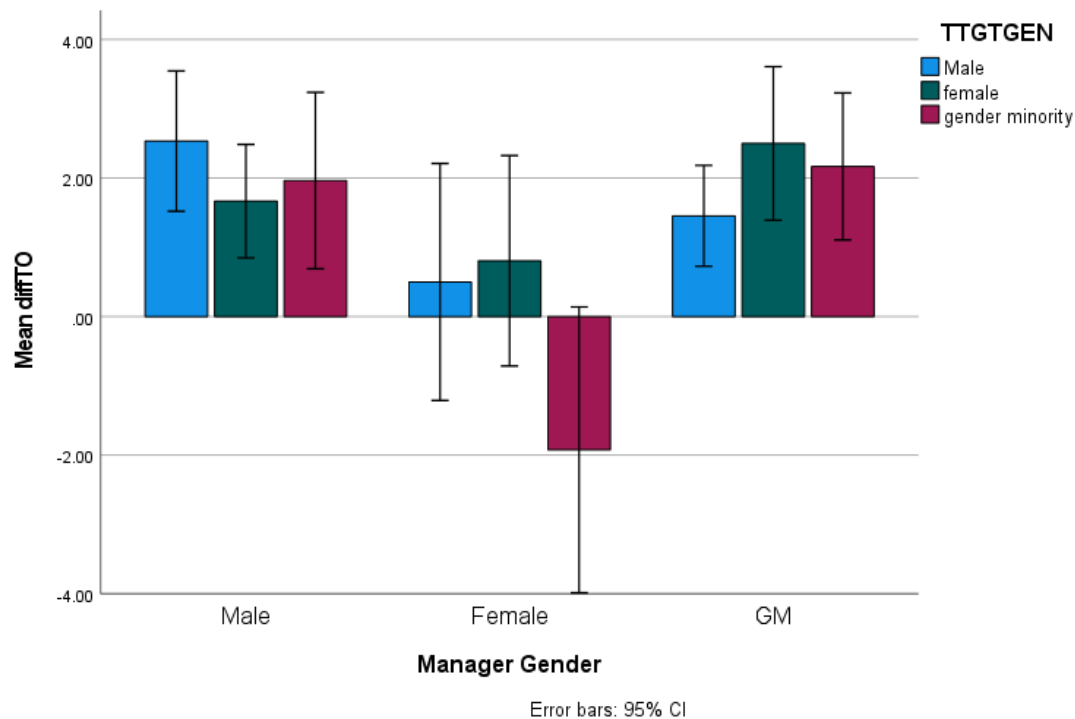
### ***Additional Results of Full Factorial Model***

The results of the full factorial model also included interactions that were not hypothesized. I report these results here for additional information purposes.

**Positive Affect.** While there were no hypotheses made for positive affect effects outside of the main effect for incivility, the full factorial modeling shows that there were no significant results for positive affect. There were no significant results for positive affect based upon the two interactions which were hypothesized upon, target gender ( $F(2, 286) = 0.57, p = 0.57$ ), and manager gender ( $F(2, 286) = 2.76, p = 0.07$ ). Further interactions also showed no significant results for positive affect; the interaction with target gender by manager gender ( $F(4, 286) = 0.53, p = 0.72$ ), the interaction between target gender and incivility ( $F(2, 286) = 1.23, p = 0.29$ ), and the interaction between manager gender and incivility ( $F(2, 286) = 0.08, p = 0.92$ ).

**Intention to Quit.** For Intention to Quit (Pre – Post), there was a significant difference based upon the interaction between target gender and manager gender ( $F(4, 286) = 3.97, p = 0.004, \eta^2 = 0.05$ ). Post-hoc ANOVA tests on manager gender with split sample based on target gender using Bonferroni family-wise correction ( $\alpha = 0.017$ ) were run to determine where this difference lies. There was no significant differences between the manager genders for male participants, ( $F(2, 105) = 2.76, p = 0.07$ ), nor was there significant differences for female participants ( $F(2, 109) = 2.07, p = 0.13$ ). There were significant differences for participants who identified as gender minorities ( $F(2, 81) = 9.87, p < 0.001, \eta^2 = 0.20$ ). A post-hoc Tukey HSD test was performed, showing that there were significant differences between male ( $\bar{x} = 1.96, sd = 3.28$ ) and female ( $\bar{x} = -1.92, sd = 5.11$ ) manager groups for those participants who identified as gender minorities ( $p = 0.001$ ). There were also differences between the female and gender minority ( $\bar{x} = 2.17, sd = 2.84$ ) manager groups ( $p < 0.001$ ). The Figure 4 below further illustrates the differences between

manager gender with an interaction of participant gender. Implications of these results will be discussed further in the Discussion.



**Figure 4: Interaction Effect between Manager Gender and Participant Gender for Intentions to Quit (Post-Pre)**

**Interactional Injustice.** The interaction effect for manager gender and incivility was significant for interactional justice ( $F_{(2, 286)} = 3.24, p = 0.04, \eta^2 = 0.02$ ). However, post-hoc analyses with Bonferroni family-wise corrections ( $\alpha = 0.025$ ) did not find any significant differences as per the hypotheses. Within the control groups, there were no significant differences between the manager gender groups ( $F_{(2, 148)} = 2.52, p = 0.08$ ), and similarly there were no significant differences between the genders within the incivility group ( $F_{(2, 151)} = 1.60, p$

= 0.21). Power analyses were conducted to see if there was a possible Type II Error due to insufficient sample size. Given the observed means and standard deviations, we may have had significant findings with a sample size of 80 per cell.

**3-Way Interactions.** There were no significant results for the 3-way interaction (target gender by manager gender by incivility) for any of the dependent variables: affective commitment ( $F_{(4, 286)} = 0.62, p = 0.65$ ), interactional injustice ( $F_{(4, 286)} = 0.54, p = 0.71$ ), negative affect ( $F_{(4, 286)} = 0.49, p = 0.74$ ), positive affect ( $F_{(4, 286)} = 0.79, p = 0.53$ ), and intention to quit ( $F_{(4, 286)} = 0.97, p = 0.43$ ).

## DISCUSSION

The main effect hypotheses were all significant, thus supporting that workplace incivility will lead to an increase in negative affect, interactional injustice, and turnover intentions, and a decrease in positive affect and affective commitment. This is supported through Kane and Montgomery's (1998) Dysempowerment Model, in which polluters (affronts to an individual's dignity) cause affective changes, especially those are considered negative (humiliation, anger, etc.). Furthermore, the results found for interactional injustice support the Dysempowerment Model (Kane & Montgomery, 1998).

Kane and Montgomery (1998) posited that the experience of polluters will lead to perceptions of unfairness. The increase in turnover intentions is supported through both the Dysempowerment Model (Kane & Montgomery, 1998) and social cognitive theory (Bandura, 1973). The Dysempowerment Model suggests that experience of polluters will lead to higher turnover intentions (Kane & Montgomery, 1998). Furthermore, Bandura's (1973) social cognitive theory suggests that people will either mimic rude behaviour or escape it, and as turnover intention suggests an intention to leave one's job, it could be considered escaping rude behaviour.

However, the target and instigator gender hypotheses were not supported. Those who identified as gender minorities were not more susceptible to worse effects of uncivil behaviour than were those who identified as cismale or cisfemale. Furthermore, those who identified as cisfemale were no more susceptible to the effects of uncivil behaviour than were those who identified as cismale or gender minorities. These results could be on account of the sample size and the potential for Type II Errors. In order to determine whether significant results would have

been achieved with more participants, a power analysis was conducted through <https://www.stat.ubc.ca/~rollin/stats/ssize/>.

The observed power under the general linear model analysis for affective commitment (manager gender) was 0.430. The sample size calculation suggests that with a desired power of 0.8, a sample size would need to be 439 in order to have enough power to find any significant differences. For interactional justice (for manager gender), the observed power was 0.22. The sample size calculation suggests that with a desired power of 0.8, the sample size would need to be 2,516 in order to have enough power to find any significant differences. For intentions to quit, the observed power under manager gender was 1.00. The sample size calculation suggests that a sample size of 804 to find any significant differences at the  $p > 0.05$  level. For these three tests, it is unlikely it is a Type II Error given the large samples required to find statistically significant results.

However, for negative affect and positive affect under manager gender, a somewhat larger sample size may have been helpful. The observed power for negative affect under manager gender was 0.24. The sample size calculation suggests that with the desired power of 0.8, the sample size would need to be 109 to find any significant differences should they exist. The observed power for negative affect under manager gender was 0.54. With a desired power of 0.8, the sample size calculation suggests that a sample size of 46 is necessary to find any significant differences. This suggests that the non-significant findings may have been a Type II Error. Future research should seek larger sample sizes to confirm.

Perhaps these results are on account of methods; the vignette design chosen can only show the actions of the manager on one day. However, the vignette suggests that the participants generally get along well with their coworkers, so this might further suggest that this behaviour

was out of the ordinary. Andersson and Pearson (1999) posit that uncivil workplace behaviour can spiral, which further suggests that a back-and-forth of misbehaviour would cause the results to become worse. This build-up is also suggested by Kane and Montgomery's (1998) Dysempowerment Model, in that the more polluters an individual experiences, the worse the outcome could be.

To double check the validity of the assumption of higher polluter rate due to selective incivility, a post hoc analysis of self-reported incivility experiences in the past twelve months was done for the three gender groups. While the 18 experimental conditions did not have a significant difference in reported incivility experiences, participants who are gender minorities experienced more incivility in the past twelve months than males ( $F_{(2, 302)} = 3.035$ ,  $p = 0.05$ ,  $\eta^2 = 0.02$ ;  $\bar{x}_m = 2.12$ ,  $sd = 0.94$ ,  $\bar{x}_{gm} = 2.48$ ,  $sd = 1.04$ ). Females did not differ significantly from males or gender minorities in their experienced incivility ( $\bar{x}_f = 2.25$ ,  $sd = 1.05$ ). Thus, there is some support for the selective incivility assumption. However, that did not translate to a different response to the single incident in the scenario.

In terms of hypothesized gender minority target effects, Testa and colleagues (2017) suggest that those who identify as a gender minority and are openly living as their preferred gender may experience an “affirmation in their sense of self” (p. 134), community connectedness, and pride which may be resiliency factors for gender minorities. These resiliency factors may interact with any minority stressors (e.g., Meyer, 2003) experienced by gender minorities. Future research should examine possible moderator variables that may provide this resiliency against the theorized polluters effect. Until then, all this research allows us to conclude is that there are no gender effects on the target, even with the different histories of incivility.



For example, Barling's (1996) stressor-strain model, which was used to discuss the consequences of workplace violence (an extreme form of workplace interpersonal mistreatment), noted stressors include exposure and vulnerability. Exposure and vulnerability were likely controlled in this experiment through random assignment; however, in the field, these may prove important when discussing minority/gender minority stress (Meyer, 2003; Testa et al., 2015), as well as Cortina's (2008) selective incivility. Minority/gender minority stress (Meyer, 2003; Testa et al., 2015) and selective incivility (Cortina, 2008) suggest that certain groups of people are more exposed and vulnerable to uncivil workplace behaviour than others.

The hypotheses regarding manager gender (specifically, whether cisfemale managers (i.e., cisfemale instigators) would cause significantly different results in the dependent variables than those in the cismale or gender minority groups) were not supported. Although there were two significant results. It was posited that participants in the female manager incivility condition would experience more interactional injustice. There was a significant interaction effect for the manager gender and incivility variables. However, once post-hoc tests with the Bonferonni correction were ran, there were no significant differences between the manager gender conditions. Furthermore, once tested for between incivility groups, there were no significant results between manager gender for the experimental groups nor for the control groups. There may not have been enough power to assess any differences between groups. There also may have been more complex interaction effects (such that two groups together are significantly different from the third), which were not hypothesized for this experiment.

It was also posited that participants in the female manager incivility condition would experience more intention to quit. There was a significant main effect for manager gender where those who were in the female manager condition were significantly more likely to quit. However,

this was found with the pre-manipulation measure of intentions to quit. Thus, this difference needed to be controlled with the post-manipulation measure. To do this, I used a delta measure. With the delta measure of intentions to quit, there was still a main effect, and there was also a significant interaction effect for manager gender and incivility. However, the post-hoc tests with a Bonferonni correction showed differences within the control group, not the incivility group. In other words, those in the female manager control condition had the greatest change in intentions to quit than the other control conditions. This change was in a negative direction, showing that there was a more negative reaction to a female manager in the control condition than to any other condition. There were no significant differences in the experimental (i.e., incivility) conditions, thus the hypothesis is not supported.

These results may suggest that in a web design setting that female managers need to prove themselves with civil interactions to mitigate higher intentions to quit. However, there were no significant results for the experimental (incivility) groups. As web design may be considered a male-dominated industry (Moss et al., 2007), perhaps participants expect a female manager who displays male traits (in a male-dominated context, female leaders are expected to uphold organizational culture and have masculine traits, Hatch, 2004), which may make participants uncomfortable working in such a setting. Once the female manager has been proven to not be agentic, but rather either straightforwardly civil to the participants, it seems as if participants are more comfortable with her.

There is a methodological consideration that should be considered with these results. While the incivility manipulation was accompanied by a pre- and post- measure questionnaire, the presentation of the manager's gender manipulation was not accompanied by any pre-manipulation questions. Therefore, the participants' job attitudes were not measured before the

presentation of the manager's gender. This makes it difficult to determine whether the effects seen were on account of the work environment or on account of the manager's gender/work environment combination. However, the only difference among the groups at the time of measuring the pre-incivility measure, was the gender of the manager (and their support of parental rights for their gender). Any future studies should consider having a pre-manager manipulation measure as well as a pre-incivility manipulation measure. This may introduce further complications however, such that a large questionnaire may introduce fatigue in the participants, meaning that they may not consider questions carefully or answer in a more patterned manner. Other issues this may introduce include hypothesis guessing, in which presentations of the same questions may lead the participants to guess what the reserachers are looking for, and adjust their answers accordingly.

While the gender minority stress (Meyer, 1995; 2003), selective incivility (Cortina, 2008), and victim-prescipated models do not support the results, perhaps other theories or models may do so. These manager gender effects may be explained by these other theoretical lenses: stereotype content model, behaviour from intergroup affect and stereotypes (BIAS) map, and social roles.

Fiske and colleagues' (2002) Stereotype Content Model suggests that individuals predict competency and warmth through the social values of status and competition (Cuddy et al., 2008). In such, those who are considered warm are not competitive (and vice-versa), and those who are high in status are competent and vice-versa (Cuddy et al., 2008; Fiske et al., 2002). This may explain the result found for intention to quit, where those who identified as a gender minority had higher intention to quit when they were paired with the female manager. The scenario was housed in a web design company. Considering that web design is generally male-dominated

(Moss et al., 2007), those who identify as gender minorities may consider cisgender females to be competitive for the same non-male “slots” in the company or field, hence considering cisgender females to be not warm (Cuddy et al., 2008; Fiske et al., 2002). To test this idea, researchers could house vignettes in three settings – a male-dominated field, a female-dominated field, and a gender-neutral field. They could compare the effects of having a manager (cismale, cisfemale, and gender minority) exhibiting uncivil behaviour towards the participants in all three settings and comparing them. However, this would be a large study (2x3x3x3).

Alternatively, social roles may help account for the found differences. Eagly and Karau (2002) suggest that certain traits that culturally fit with management are male social roles, such as agency. This may lead to an impression that women are not as fitted for, or good at, so-called “male roles” such as management. This may explain the results regarding the manager’s gender; whereas uncivil workplace behaviour on account of female management did not lead to an increase in interactional injustice or turnover intention. Rather, having a female manager act in a civil manner may suggest a disconnect between assumptions of management and the traits that a civil female manager may show. Hence, participants may have believed that the female manager was not up to the task because she did not act in a manner that is less like female roles (i.e., caring; Heilman, 2012). Future research should examine this further by asking participants what they expect when they are told that they have a female manager, perhaps through a Likert-type scale of suggesting traits. The participants would then be presented with a work scenario. Then, the participants would be presented with a civil or uncivil female manager scenario and would fill out the same scale, but describing the traits of the manager. Between each manipulation, participants would also be asked about negative/positive affect and turnover intentions.

## **Limitations & Future Research Recommendations**

One weakness of this experiment's design is the use of Western European names for each of the managers. While this was necessary to control any differences in reactions to individuals of different ethnic or cultural backgrounds, it may also increase reactions (either positive or negative) to those of Western European descent or to English-North American individuals. While the managers' names were peer reviewed, pre- and pilot-tested, most of the individuals who have seen and had a chance to comment on the names were of European decent. However, there is no way to tell what the participants' first language is within the confines of the data collected. So, while there may be an ethnic bias, it cannot be said whether there is a language bias as well. Future research should consider perspectives from different ethnic and language backgrounds to access potential researcher implicit biases. Furthermore, it may be interesting to access whether a three-way interaction of gender-ethnic background-incivility might exist.

Furthermore, naming conventions (i.e., use of a gender neutral name for the transgender manager) may have led participants to believe that the manager was one gender or another, depending on how familiar they were with the fact that the name was considered gender neutral. In other words, they may have only been familiar with the name Ainsley in a female-only context or a male-only context. While the managers' names have led to some limitations to the study, the managers' names were picked to start with the same letter and to have the same number of syllables to control for any unknown psychological (i.e., confounding) variables. Should future research use vignettes in this manner, perhaps studying the effects of naming conventions should be included.

In terms of vignette design, designating Ainsley through they/them pronouns may have confused some participants about whether Ainsley identified as transgender or agender, should

they not have read the vignette carefully. Depending on the definition of transgender that participants are familiar with, they may not realize that transgender people may self-describe as they/them (versus the typical male/female pronouns based upon their gender identity). Some groups differentiate transgender from other gender identities, such as agender and genderqueer, while others include them under one broad stroke.

According to Budge and colleagues (2010), the construct “transgender” includes anyone whose gender identity does not match their biological sex, or those whose gender identity “does not identify with society’s traditional, dichotomous, social constructions of gender” (p. 377). While this is true for a scientific approach, laypeople may have a different understanding of the concept of “transgender” (i.e., they may believe that it is specifically used in cases when an individual identifies as the “opposite” gender from their gender assigned at birth). This study uses they/them pronouns to ensure that Ainsley is not mistaken for female instead of transgender male-to-female (MTF) or vice-versa. However, in real life, knowing someone is transgender may be accompanied by a level of familiarity with the individual, which is also much more difficult to convey through a written vignette.

Furthermore, while convenient, the use of mTurk did not allow for the sample of cisgender individuals and individuals who identify as gender minorities to come from the same place. As mTurk does not enable the requesters to filter for gender minorities (but does allow for filtering of males or females), it makes researchers go elsewhere for a significant gender minority population. This means that this study drew from two different populations. These populations could vary based upon descriptive demographics (i.e., those on mTurk vs. those on a website for gender minority issues). Thus populations could vary in age, political affiliation, countries of origin, and other descriptors.

While the switch to Prolific resulted in some of the sample for both cisgender and gender minority participants came from the same sample pool, this may actually further convolute any potential different sample effects as now there are three separate participant pools: mTurk, Prolific, and social media recruitment. One major difference between the participant pools is that Prolific has a different focus than does mTurk. Prolific is specifically targeted towards researchers and people who wish to participate in research for a small financial gain, while mTurk has a broader focus on providing workers with small a small financial gain in exchange for simple work, but not limited to scientific research. Furthermore, the participants recruited from social media are coming from a sample more close to the general population, which may differ from those who are specifically seeking out work/research participation for small pecuniary reward.

Another common limitation to research, which applies to this study, is there is a possibility of common method bias in terms of all of the questionnaires are in a self-report format (Podsakoff et al., 2012). However, there were certain measures taken to avoid common method bias in this experiment. Firstly, while the questions were presented in blocks, the content of the blocks were presented in a randomized order. Some questions were also reverse-coded in order to prevent patterned answers. Furthermore, many of the questionnaires used have different anchoring points and scaling type, which should reduce common method bias (Podsakoff et al., 2012). Positive affect (Ford & Clarke, 2017) and negative affect (Scott et al., 2001), and the incivility manipulation (Cortina et al., 2001) check were measured on a five-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). While interactional injustice (Colquitt, 2001) was measured on a five-point semantic differential scale, the wording of the anchors differed from the others (1 = *to a small extent* and 5 = *to a large extent*). Affective commitment (Allen &

Meyer, 1990) was measured on a seven-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The two turnover intention items were measured on two different scales, job search on a five-point Likert-type scale from 1 (*not at all likely*) to 5 (*extremely likely*) (Firth et al., 2004) and likelihood to quit (Bluedorn, 1982) on a seven-point semantic differential scale from 1 (*terrible*) to 7 (*excellent*).

Podsakoff and colleagues (2012) also suggest that a balance of positive and negative items should reduce common method bias. They also suggest that a balance of positive and negative items on measures should also reduce common method bias. While some scales (i.e., the affective commitment scale, Allen & Meyer, 1990) already had both positively and negatively worded items, others were changed or updated to include this. The Negative Mood Checklist (Scott et al., 2001) was changed so that Ford & Clarke's (2017) positive affect items were randomly embedded amongst the negative affect items. Furthermore, the turnover intention item is a combination of items from two different scales, in which one item is asked in a positive manner, and the other in a negative manner.

There may also be issues with external validity and generalizability. As the vignettes in this study take place in a limited situation (i.e., web design) that may be considered a male-dominated field (Moss et al., 2007), participants may expect certain types of behaviours and not others, suggesting that the results may be able to be used in a limited context. Furthermore, while the vignettes had several items that could be considered uncivil (e.g., ignoring, rudeness), perhaps suggesting in the vignette that this behaviour is common in the setting or suggesting that the participant sometimes acts in this manner towards the manager as well would better reflect an uncivil context. Andersson and Pearson (1999) suggest that uncivil workplace behaviour is "tit-for-tat" (p. 452) and a cycle that may "escalate into an exchange of coercive actions" (p. 458).



Therefore, scenarios which include one-sided incivility may not fully capture the scope of the results of uncivil workplace behaviour.

Lastly, perhaps the gender minority groups should not have been collapsed into one for the means of statistical analysis. However, due to the small sample size (and this being a Master's thesis leading to time constraints) it was unavoidable. There may have been differences between groups on account of the difference in personal experiences (i.e., those who identify as agender/non-conforming may have different experiences than those who are transgender and have transitioned, and those who are MTF or FTM may also have different experiences based on societal gender roles). Future studies should recruit enough participants to both have enough statistical power and have each gender identity as its own group.

### **Implications for Practitioners**

The main effect results suggest that any workplace with a manager (regardless of gender) exhibiting uncivil workplace behaviour will have employees dealing with an increase in negative affect, interactional injustice, and intentions to quit, while dealing with a decrease in positive affect and affective commitment. Practitioners should consider civility training or workplace behaviour guidelines to minimize any deviant behaviour (which includes incivility) in the workplace. In terms of "tit-for-tat" (Andersson & Pearson, 1999: 452), practitioners should also consider a de-escalation procedure or guide to ensure that the uncivil workplace behaviour does not turn into a cycle of ever-escalating coercive actions.

While this study did not have any supported hypotheses on participant gender, practitioners should consider the implications of minority stress and gender minority stress on

the both individual employees and the overall workplace. This includes ensuring that there are no instances of discrimination or deviant behaviour based upon gender minority status (or any gender status).

The results might also suggest that female managers in male-dominated fields (Moss et al., 2007) may be judged before actually interacting with employees. Specifically, there were higher intentions to quit when there was a female manager (who was politically active supporting parental leave rights for females). It appears that there is a “burden of proof” for civil and warm, or feminine, behaviours from the female managers, while the male and transgender manager (who were also politically active for parental leave rights) did not bear that burden of proof. Organizations need to be aware of this apparently implicit bias as it may impact employee behaviours, which is not a lack of skill by the female manager.

Furthermore, the behaviours presented in the vignettes are what caused the results (i.e., higher negative affect, turnover intentions, and interactional injustice, as well as lower affective commitment and negative affect) across all genders. These are common behaviours, such as not responding to a smile and casual greeting in the hallway (ignoring), tilting one’s head slightly to the right and responding rudely, with something like “Really?!? You wait until now to tell me this? This project started a week ago! The other employees are too busy to help you with this project,” and condescension (“Maybe if you used your time better you wouldn’t need overtime”).

While some of these actions might not even be purposeful (i.e., ambiguous; Andersson & Pearson, 1999), they can cause organizational issues. Furthermore, even when managers are disappointed with not knowing about issues or are upset with workflow, they must be careful with how they speak to their employees. These vignettes show the manager being upset and talking rudely to the participant after they raise concerns about deadlines, and this rudeness or

condescension displayed by the manager, combined with other rude behaviour such as ignoring, lead participants to be more upset and likely to leave their jobs as well as being less happy and committed to their organizations.

## **Conclusion**

Workplace incivility comes with a price to both individuals (e.g., more negative affect, lower positive affect) and organizations (e.g., more interactional injustice, more turnover intentions, and less affective commitment). While the interaction effect hypotheses for target and instigator genders were nonsignificant, this study still adds to the literature on both incivility and gender minorities and gender differences. Results regarding intentions to quit based on manager gender, in particular, suggests that female managers, who work in a male-dominated field (e.g., Moss et al., 2007), are judged based on their gender before they interact with employees, yet this effect does not exist with male or transgender managers.

The main effect results of this study show that common ambiguously deviant behaviours (Andersson & Pearson, 1999) such as ignoring, rudeness, and condescension, can have tangible, negative effects on the workplace. Participants experienced higher negative affect, interactional injustice, and turnover intentions, as well as lower positive affect and affective commitment. As this study used a manager-subordinate relationship, managers should be careful to interact with their employees in a positive manner.

Furthermore, few studies consider the role of gender minorities in uncivil workplace behaviour. As society progresses, individuals who identify as transgender/agender/non-binary/other may become more empowered to live openly as their identified gender, and more

organizations will report having employees that identify as gender minorities. Therefore, it is important to understand the implications of workplace incidents, including uncivil behaviour, in order to develop workplaces that are healthy and productive for individuals of all gender identities. The results in this research do support selective incivility, such that individuals who are not cisgender experience more incivility within the past 12 months than cis-males do. Since gender minorities might experience more social stress (Testa et al., 2017), I call for future research to include these individuals in any studies that focus on workplace misbehaviour or deviant workplace behaviours, and not only look at male-female differences.

## REFERENCES

- Abubakar, A. M. (2018). Linking work-family interference, workplace incivility, gender, and psychological distress. *The Journal of Management Development*, 37, 226-242. DOI: 10.1108/JMD-06-2017-0207
- Adams, G. A., & Webster, J. R. (2013). Emotional regulation as a mediator between interpersonal mistreatment and distress. *European Journal of Work and Organizational Psychology*, 22, 697-710. DOI: 10.1080/1359432X.2012.698057
- Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods*, 17, 351-371. DOI: 10.1177/1094428114547952.
- Aguinis, H., Villamor, I., & Ramani, R. S. (2021). MTurk research: Review and recommendations. *Journal of Management*, 47, 823-837. DOI: 10.1177/0149206320969787
- Alexander, S., & Ruderman, M. (1987). The role of procedural and distributive justice in organizational behavior. *Social Justice Research*, 1, 177-198.
- Allen, N. J., & Meyer, J. P. (1990). The measure and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1-18.
- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, 49, 252-276.

- Alutto, J. A., Hrebiniak, L. G., & Alonso, R. C. (1973). On operationalizing the concept of commitment. *Social Forces*, 51, 448-454.
- American Psychological Association. (2015). Guidelines for psychological practice with transgender and gender nonconforming people. *American Psychologist*, 70, 832-864.  
DOI: 10.1037/a0039906
- An, S., Meier, K. J., Ladenburg, J., & Westergård-Nielsen, N. (2020). Leadership and job satisfaction: Addressing endogeneity with panel data from a field experiment. *Review of Public Personnel Administration*, 40, 589-612. DOI: 10.1177/0734371X19839180
- Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiralling effect of incivility in the workplace. *Academy of Management. The Academy of Management Review*, (24), 452-471.
- Aquino, K. (2000). Structural and individual determinants of workplace victimization: The effects of hierarchical status and conflict management style. *Journal of Management*, 26(2), 171-193.
- Aquino, K., Grover, S. L., Bradfield, M., & Allen, D. G. (1999). The effects of negative affectivity, hierarchical status, and self-determination on workplace victimization. *The Academy of Management Journal*, 42, 260-272. DOI: 10.2307/256918
- Bandura, A. (1973). *Aggression: A Social Learning Analysis*. Prentice Hall, Englewood Cliffs.
- Barling, J. (1996). The prediction, experience, and consequences of workplace violence. In VardenBos, G. R., & Bulatao, E. Q. (Eds) *Violence on the job: Identifying risks and developing solutions*. Washington, DC: American Psychological Association.

- Bennett, M., Sani, F., Hopkins, N., Agostini, L., & Malucchi, L. (2000). Children's gender categorization: An investigation of automatic processing. *British Journal of Developmental Psychology*, 18, 97-102. DOI: 10.1348/026151000165599
- Bies, R. J., & Moag, J. F. (1986). Interactional justice: Communication criteria of fairness. In Lewicki, R. J., Sheppard, B. H., & Bazerman, M. H. (Eds.) *Research On Negotiations in Organizations* (Vol 1, pp. 43-55). Greenwich, CT: JAI Press.
- Blau, G., & Andersson, L. (2005). Testing a measure of instigated workplace incivility. *Journal of Occupational and Organizational Psychology*, 78(4), 595-614.
- Blauner, R. (1964). *Alienation and freedom, The factory worker and his industry*, Chicago University Press.
- Bluedorn, A. C. (1982). The theories of turnover: Causes, effects, and meaning. In *Research in the Sociology of Organizations* (pp. 75-128). Greenwich, CT: JAI Press.
- Bowles, H., & Gelfand, M. J. (2010). Status and the evaluation of workplace deviance. *Psychological Science*, 21, 49-54.
- Brandberg, M., & Öhman, A. (1993). Type A behaviour and real-life situations. A case study of interactions. *Cognitive Behaviour Therapy*, 22, 31-48. DOI: 10.1080/16506079309455922
- Brooks, V. R. (1981). *Minority stress and lesbian women*. Free Press
- Browne, W. E. (1992). Point and interval estimates of measures of fit of a model. DOS Program.

- Budge, S. L., Tebbe, E. N., & Howard, K. A. S. (2010). The work experiences of transgender individuals: Negotiating the transition and career decision-making process. *Journal of Counselling Psychology, 57* (4), 377-393. DOI: 10.1037/a0020472
- Byrne, B. M. (2010). Testing for the factorial validity, replication, and invariance of a measuring instrument: A paradigmatic application based on the Maslach Burnout Inventory. *Multivariate Behavioral Research, 29*, 289-311.
- Carli, L. L. (2001). Gender and social influence. *Journal of Social Influences, 57*, 725-741.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior, 29*(6), 2156-2160.
- Caza, B. B. & Cortina, L. M. (2007). From insult to injury: Explaining the impact of incivility. *Basic and Applied Social Psychology, 29*, 335-350. DOI: 10.1080/01973530701665108
- Chamberlain, L. J., Crowley, M., Tope, D., & Hodson, R. (2008). Sexual harassment in organizational context. *Work and Occupations, 35*, 262-295.
- Chandler, D., & Kapelner, A. (2013). Breaking monotony with meaning: Motivation in crowdsourcing markets. *Journal of Economic Behavior & Organization, 90*, 123-133.  
DOI: j.jebo.2013.03.003
- Chen, X., & Latham, G. P. (2014). The effect of priming learning vs. performance goals on a complex task. *Organizational Behavior and Human Decision Processes, 125* (2), 88-97.  
DOI: 10.1016/j.obhdp.2014.06.004



- Clarke, H. M., Ford, D. P., & Sulsky, L. M. (2016). Moderating effects of harasser status and target gender on the relationship between unwanted sexual attention and overall job satisfaction. *Journal of Applied Social Psychology, 46*, 701-717. DOI: 10.1111/jasp.12408
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation measure. *Journal of Applied Psychology, 86*, 386-400. DOI: 10.1037/0021-9010.86.3.386
- Cook, T.D. & Campbell, D.T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Boston: Houghton Mifflin.
- Cortina, L. M. (2008). Unseen injustice: Incivility as modern discrimination in organizations. *The Academy of Management Review, 33*, 55-75. DOI: 10.2307/20159376
- Cortina, L. M., Kabat-Farr, D., & Leskinen, E. A., Huerta, M., & Magley, V. J. (2013). Selective incivility as modern discrimination in organizations: Evidence and impact. *Journal of Management, 39*, 1579-1605. DOI: 10.1177/0149206311418835
- Cortina, L. M., Lonsway, K. L., Magley, V. J., Freeman, L. V., Collinsworth, L. L., Hunter, M., & Fitzgerald, L. F. (2002). What's gender got to do with it? Incivility in the federal courts. *Law and Social Inquiry, 27*, 235-270.
- Cortina, L. M., Magley, V. J., Hunter Williams, J., & day Langhout, R. (2001). Incivility in the workplace: Incidence and impact. *Journal of Occupational Health Psychology, 6*, 64-80. DOI: 10.1037/1076-8998.6.1.64

- Cortina, L. M., Rabelo, V. C., & Holland, K. J. (2018). Beyond blaming the victim: Toward a more progressive understanding of workplace mistreatment. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 11, 81-100.
- Craig, J. M., & Sherif, C. W. (1986). The effectiveness of men and women in problem-solving groups as a function of group gender composition. *Sex Roles*, 14, 453-466.
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology*, 40, 61-149.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice towards female leaders. *Psychological Review*, 109, 573-598. DOI: 10.1037/0033-295-X.109.3.573
- Ellemers, N. (2018). Gender Stereotypes. *Annual Review of Psychology*, 69, 275-298. DOI: 10.1146/annurev-psych-122216-011719
- Epstein, C. F. (1988). *Deceptive distinctions: Sex, gender, and the social order*. Yale University Press.
- Fernandez, S., & Moldogaziev, T. (2013). Employee empowerment, employee attitudes, and performance: Testing a causal model. *Public Administration Review*, 73, 490-506. DOI: 10.1111/puar.12049.
- Firth, L., Mellor, D. J., Moore, K. A., & Loquet, C. (2004). How can managers reduce employee intention to quit? *Journal of Managerial Psychology*, 19, 170-187. DOI: 10.1108/02683940410526127

- Fiske, S. T., Cuddy, A. M. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878-902.
- Ford, D.P. & Clarke, H.M. (2017). Testing the Impact of Media Characteristics for Virtual Workplace Aggression: Four Experiments. Poster presentation at *Canadian Psychological Association Conference*, Toronto, ON, June 8-10, 2017.
- Fuller, C. M., Simmering, M. J., Atinc, G., Atinc, Y., & Babin, B. J. (2016). Common methods variance detection in business research. *Journal of Business Research*, 69(8), 3192-3198.
- Gabriel, A. S., Butts, M. M., Yuan, Z., Rosen, R. L., & Sliter, M. T. (2018). Further understanding incivility in the workplace: The effects of gender, agency, and communion. *Journal of Applied Psychology*, 4, 362-382. DOI: 10.1037/apl1000289
- Giumetti, G. W., Hatfield, A. L., Scisco, J. L., Schroeder, A. N., Muth, E. R., & Kowalski, R. M. (2013). What a rude e-mail! Examining the differential effects of incivility versus support on mood, energy, engagement, and performance in an online context. *Journal of Occupational Health Psychology*, 18(3), 297.
- Glasø, L., Vie, T. L., Holmdal, G. R., & Einarsen, S. (2011). An application of affective events theory to workplace bullying: The role of emotions, trait anxiety, and trait anger. *European Psychologist*, 16(3), 198.
- Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust web-based studies? A comparative analysis of six preconceptions about internet questionnaires. *American Psychologist*, 59 (2), 93-104. DOI: 10.1037/0003-066X.59.2.93

- Hatch, M. J. (2004). *Dyanmics in organizational culture* (M. S. Poole & A. Van de Ven, Eds.), *Handbook of organizational change and innovation* (pp.190-211). Oxford University Press.
- Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behaviour*, 32, 113-135. DOI: 10.1016/j.riob.2012.11.003
- Herrenkohl, R. C., Judson, G. T., & Heffner, J. A. (1999). Defining and measuring employee empowerment. *The Journal of Applied Behavioral Science*, 35(3), 373-389.
- Hershcovis, M. S. & Barling, J. (2010a). Comparing victim attributions and outcomes for workplace aggression and sexual harassment. *Journal of Applied Psychology*. 95, 874-888. DOI: 10.1037/a0020070
- Hershcovis, M. S., & Barling, J. (2010b). Towards a multi-foci approach to workplace aggression: A meta-analytic review of outcomes from different perpetrators. *Journal of Organizational Behavior*, 31(1), 24-44.
- Hershcovis, M. S., Ogunfowora, B., Reich, T. C., & Christie, A. M. (2017). Targeted workplace incivility: The roles of belongingness, embarrassment, and power. *Journal of Organizational Behavior*, 38(7), 1057-1075.
- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Inderrieden, E. J. (2005). Shocks as causes of turnover: What they are and how organizations can manage them. *Human Resource Management*, 44, 337-352. DOI: 10.1002/hrm.20074

- Horton, J. J., Rand, D. G., & Zeckhauser, R. J. (2011). The online laboratory: Conducting experiments in a real labor market. *Experimental Economics*, 14, 399-425. DOI: 10.1007/s10683-011-9273-9
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1-55.
- Huang, HT. & Lin, CP. (2019). Assessing ethical efficacy, workplace incivility, and turnover intention: A moderated-mediation model. *Review of Managerial Science*, 13, 33-56. DOI: 10.1007/s11846-017-0240-5
- Hughes, R., & Huby, M. (2002). The application of vignettes in social and nursing research. *Journal of Advanced Nursing*, 37(4), 382-386.
- Johnson, P. R., & Indvik, J. (2001). Rudeness at work: Impulsive over restraint. *Public Personnel Management*, 30, 457-465.
- Joinson, A. N., Woodley, A., & Reips, U. D. (2007). Personalization, authentication and self-disclosure in self-administered Internet surveys. *Computers in Human Behavior*, 23(1), 275-285.
- Kabat-Farr, D., Cortina, L. M., & Marchiondo, L. A. (2018). The emotional aftermath of incivility: Anger, guilt, and the role of organizational commitment. *International Journal of Stress Management*, 25 (2), 109-128. DOI: 10.1037/str0000045
- Kane, K. & Montgomery, K. (1998). A framework for understanding dysempowerment in organizations. *Human Resource Management*, 37, 263-275.

- Konrad, A. M., & Gutek, B. A. (1986). Impact of work experiences on attitudes toward sexual harassment. *Administrative Science Quarterly*, 422-438.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being?. *American Psychologist*, 53(9), 1017.
- Kunkel, D., Carnevale, J., & Henderson, D. (2015). Examining instrument issues in workplace incivility: Measurement or mutation? *Journal of Organizational Culture, Communication, and Conflict*, 19, 102-117.
- Lee, T. W., Mitchell, T. R., Holtom, B. C., McDaniel, L. S., & Hill, J. W. (1999). The unfolding model of voluntary turnover: A replication and extension. *Academy of Management Journal*, 42, 450-462.
- Leiter, M. P., Day, A., Gilin Oore, D., & Spence Laschinger, H. K. (2012). Getting better and staying better: Assessing civility, incivility, distress, and job attitudes one year after civility intervention. *Journal of Occupational Health Psychology*, 17, 425-434. DOI: 10.1037/a0029540
- Levitt, S. D., & List, J. A. (2009). Field experiments in economics: The past, the present, and the future. *European Economic Review*, 53, 1-18.
- Levitt, S. D., & List, A. (2007). What do laboratory experiments measuring social preferences reveal about the real world? *Journal of Economic Perspectives*, 21 (2), 153-174.

- Lim, S., Cortina, L. M., & Magley, V. J. (2008). Personal and workgroup incivility: Impact on work and health outcomes. *Journal of Applied Psychology, 93*, 95-107. DOI: 10.1037/0021-9010.931.95
- Lim, S., & Lee, A. (2011). Work and nonwork outcomes of workplace incivility: Does family support help? *Journal of Occupational Health Psychology, 16*, 95-111. DOI: 10.1037/a0021726
- Lind, E. A., & Tyler, T. R. (1988). *The Social Psychology of Procedural Justice*. New York: Plenum Press.
- Lockheed, M. E. (1985). Sex and social influence: A meta-analysis guided by theory. In Berger, J. & Zelditch, M. (Eds.) *Status, Rewards, and Influence: How Expectations Organize Behavior*, 406-429. San Francisco: Jossey-Bass.
- Loepp, E., & Kelly, J. T. (2020). Distinction without a difference? An assessment of mTurk worker types. *Research and Politics, 7*, 1-8. DOI: 10.1177/2053168019901185
- Martin, R. J., & Hine, D. W. (2005). Development and validation of the uncivil workplace behavior questionnaire. *Journal of Occupational Health Psychology, 10*(4), 477.
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior, 36*, 38-56. DOI: 10.2307/2137286
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in gay, lesbian, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*, 674-697. DOI: 10.1037/0033-2909.129.5.674

- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*, 61-89.
- Miner, K. N., & Eischeid, A. (2012). Observing incivility toward coworkers and negative emotions: Do gender of the target and observer matter? *Sex Roles, 66*, 492-505. DOI: 10.1007/s11199-011-0108-0
- Miner, K. N., & Cortina, L. M. (2016). Observed workplace incivility toward women, perceptions of interpersonal injustice, and observer occupational well-being: Differential effects for gender of the observer. *Frontiers in Psychology, 7*, 482. DOI: 10.3389/fpsyg.2016.00482
- Miner, A., Glomb, T., & Hulin, C. (2005). Experience sampling mood and its correlates at work. *Journal of Occupational and Organizational Psychology, 78*, 171-193. DOI: 10.1348/096317905X40105
- Miner, K. N., Diaz, I., Wooderson, R. L., McDonald J. N., Smittick, A. L., & Lomeli, L. C. (2018). A workplace incivility roadmap: Identifying theoretical speedbumps and alternative routes for future research. *Journal of Occupational Health Psychology, 23*, 320-337. DOI:10.1037/ocp0000093
- Miner, K. N., & Eischeid, A. (2012). Observing incivility toward co-workers and negative emotions: Do the gender of the target and observer matter? *Sex Roles, 66*, 492-505. DOI: 10.1007/s11199-011-0108-0
- Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology, 62*, 237-240.



- Montgomery, K., Kane, K., & Vance, C. M. (2004). Accounting for differences in norms of respect: A study of assessments of incivility through the lenses of race and gender. *Group & Organizational Management*, 29, 248-268. DOI: 10.1177/1059301103252105
- Moss, G. A., Gunn, R., & Kubacki, K. (2007). Successes and failures of the mirroring principle: The case of angling and beauty websites. *International Journal of Consumer Studies*, 31, 248-257. DOI: 10.1111/j.1470-6431.2006.00529.x
- North, M. A., & Smith, S. (2018). Victim precipitation: Let's not silence that voice. *Industrial and Organizational Psychology*, 11, 137-141. DOI: 10.1017/iop.2017.98
- Olweus, D. (1978). *Aggression in Schools: Bullies and Whipping Boys*. Washington, DC: Hemisphere.
- Parasuraman, S., & Alutto, J. A. (1984). Sources and outcomes of stress in organizational settings: Toward the development of a structural model. *Academy of Management Journal*, 27, 330-350.
- Podsakoff, P. M., MacKenzie, S. M., & Podsakoff, N. P. (2012). Sources of common method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539-569. DOI: 10.1146/annurev-psych-120710-100452
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of management*, 12(4), 531-544.
- Porath, C. L., & Erez, A. (2007). Does rudeness really matter? The effects of rudeness on task performance and helpfulness. *The Academy of Management Journal*, 50, 1181-1197.

- Porath, C. L., & Pearson, C. M. (2012). Emotional and behavioral responses to workplace incivility and the impact of hierarchical status. *Journal of Applied Psychology, 42*, 326-357. DOI: 10.1111/j.1559-1816.2012.01020.x
- Porter, C. O. L. H., Outlaw, R., Gale, J. P., & Cho, T. S. (2019). The use of online panel data in management research: A review and recommendations. *Journal of Management, 45*, 319-344. DOI: 10.1177/0149206318811569
- Prentice, D. A., & Carranza, E. (2002). What women and men should be, shouldn't be, are allowed to be, and don't have to be: The content of prescriptive gender stereotypes. *Psychology of Women Quarterly, 27*, 26-47.
- Ridgeway, C. L. (2009). Framed before we know it: How gender shapes social relations. *Gender & Society, 23*, 145-160. DOI: 10.1177/0891243208330313
- Risman, B. J. (2004). Gender as a social structure: Theory wrestling with activism. *Gender & Society, 18*, 429-450. DOI: 10.1177/08912432042653493
- Rönkkö, M., & Cho, E. (2020). An updated guideline for assessing discriminant validity. *Organizational Research Methods, 1-42*. DOI: 10.1177/1094428120968614
- Rospenda, K. M., Richman, J. A., & Mawyn, S. J. (1998). Doing power: The confluence of gender, race, and class in contrapower sexual harassment. *Gender & Society, 12*, 40-60.
- Rouse, S. V. (2020). Reliability of mTurk data from masters and workers. *Journal of Individual Differences, 41*, 30-36. DOI: 10.1027/1614-0001/a000300
- Rouse, S. V. (2015). A reliability of mTurk data. *Computers in Human Behavior, 43*, 304-307. DOI: 10.1016/j.chb.2014.11.004

- Sager, J. K., Griffeth, R. W., & Hom, P. W. (1998). A comparison of structural models representing turnover cognitions. *Journal of Vocational Behavior*, 53, 254-273.
- Schleider, J. L., & Weisz, J. R. (2015). Using Mechanical Turk to study family processes and youth mental health: A test of feasibility. *Journal of Child and Family Studies*, 24(11), 3235-3246.
- Scott, B., Brandberg, M., & Öhman, A. (2001). Measuring the negative mood component of stress experiences: Description and psychometric properties of a short adjective checklist of stress responses. *Scandinavian Journal of Psychology*, 42, 1-7.
- Shapiro, D. N., Chandler, J., & Mueller, P. A. (2013). Using Mechanical Turk to study clinical populations. *Clinical Psychological Science*, 1(2), 213-220.
- Sharma, N., & Singh, V. K. (2016). Effect of workplace incivility on job satisfaction and turnover intentions in India. *South Asian Journal of Global Business Research*, 5, 234-249. DOI: 10.1108/SAJGBR-02-2015-0020
- Siong, Z. M. B., Mellor, D., Moore, K. A., & Firth, L. (2006). Predicting intention to quit in the call centre industry: Does the retail model fit? *Journal of Managerial Psychology*, 21, 231-243. DOI: 10.1108/02683940610659579
- Smith, N. A., Sabat, I. E., Martinez, L. R., Weaver, K., & Xu, S. (2015). A convenient solution: Using mTurk to sample from hard-to-reach populations. *Industrial and Organizational Psychology*, 8, 220-228.

Snook, A. K., "In Defense of External Validity: Do College Student Samples Yield Different Results?" (2011). *Doctoral Dissertations*. AAI3504790.

<https://opencommons.uconn.edu/dissertations/AAI3504790>

Spielberger, C. D. (1999). *State-Trait Anger Expression Inventory*™. PAR Psychological Assessment Resources, Inc.

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38, 1442-1465.

Statistics Canada. (2016). *North American Industry Classification System (NAICS), Canada, 2017 version 1.0*. Ottawa: Statistics Canada, Standards Division.

Statistics Canada. (2018, January 25). *Gender of Person*. Statistics Canada.

<https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=410445>

Sumner, M., & Niederman, F. (2004). The impact of gender differences on job satisfaction, job turnover, and career experiences of information systems professionals. *The Journal of Computer Information Systems*, 44 (2), 29-39.

Tabachnick, B. G., & Fidell, L. S. (2007). *Experimental designs using ANOVA* (p. 724).

Belmont, CA: Thomson/Brooks/Cole.

Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6<sup>th</sup> edition). Pearson.

Taylor, S. G., Bedeian, A. G., & Kluemper, D. H. (2012). Linking workplace incivility to citizenship performance: The combined effects of affective commitment and conscientiousness. *Journal of Organizational Behaviour*, 33, 878-893.

- Testa, R. J., Habarth, J., Peta, J., Balsam, K., & Bockting, W. (2015). Development of the gender minority stress and resilience measure. *Psychology of Sexual Orientation and Gender Diversity, 2*, 65-77. DOI: 10.1037/sgd0000081
- Testa, R. J., Michaels, M. S., Bliss, W., Rogers, M. L., Balsam, K. F., & Joiner, T. (2017). Suicidal ideation in transgender people: Gender minority stress and interpersonal theory factors. *Journal of Abnormal Psychology, 126*, 125-136. DOI: 10.1037/abn0000234
- Vandenberg, R. J., & Self, R. M. (1993). Assessing newcomers' changing commitments to the organization during the first 6 months of work. *Journal of Applied Psychology, 78*, 557-568.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin, 96*, 465-490.
- Weiss, H. M., & Cropanzo, R. (1996). Affective events theory: A theoretical discussion of the structure, causes, and consequences of affective experiences at work. In Staw, B., & Cummings, L. L. (Eds.) *Research in Organizational Behaviour, 18*, 1-74. Greenwich, CT: JAI Press.
- Wong, Y. J., Ho, M. H. R., Wang, S. Y., & Miller, I. (2017). Meta-analysis of the relationship between conformity to masculine norms and mental health-related outcomes. *Journal of Counselling Psychology, 64*, 80-93.
- Zurbrugg, L. & Miner, K. N. (2016). Gender, sexual orientation, and workplace incivility: Who is most targeted and who is most harmed? *Frontiers in Psychology, 7*:565. DOI: 10.3389/fpsyg.2016.00565



## APPENDIX A

### Letter of Information (Amazon mTurk)

#### **Informed Consent Form**

Title: Interactions in the workplace

Researcher(s): Katlyn Pike, MSc Student, Department of Business Administration, Memorial University of Newfoundland, [kap058@mun.ca](mailto:kap058@mun.ca)

Supervisor(s): Dr. Dianne Ford, Supervisor, Faculty of Business Administration, Memorial University of Newfoundland, [dpford@mun.ca](mailto:dpford@mun.ca)

You are invited to take part in our research project, "Interactions in the workplace."

To partake in this study, you must be an adult (age of 19 years or older) who is employed full-time or self-employed.

#### Informed Consent

Informed consent is essential to potential participants of any research project, as it allows you to make a free and informed choice on whether to participate in the study. Here in this form, you will learn what the basic idea of the research is about and what is involved in participation, including any risks. Please read this letter carefully and fully to ensure you understand the information given to you by the researcher.

Participation is completely voluntary, and it is entirely up to you whether you participate or not. There will be no, and will never be negative consequences should you choose not to partake in the study.

Please feel free to ask if you would like more information about anything included or not included in this form.

#### Introduction

My name is Katlyn Pike, and I am a Master's (MSc) student at Memorial University of Newfoundland. This research project is part of my thesis required to graduate. My research interests mainly lie in social interaction at work and how it affects our thoughts and attitudes and workplace-related outcomes. This research project is supervised by Dr. Dianne Ford, professor at Memorial University's Department of Business Administration.

## Purpose

The purpose of this study is to determine how language affects our opinions of our workplace.

## Your role in this study

If you agree to participate, you will be asked to read a short hypothetical scenario and answer questions regarding that scenario. You will also be asked to provide some demographic information. The total estimated time to complete this study is between 5 to 20 minutes (depending on how quickly you read and respond to the questions and your experience with this type of survey).

## Possible benefits

You may derive an intrinsic reward from participating in this study. You may also read the entire thesis through Memorial University of Newfoundland's library, which is accessible through this link: [https://research.library.mun.ca/view/theses\\_dept/](https://research.library.mun.ca/view/theses_dept/). It will be available after October 2021.

## Possible risks

Participation in the study does have some risks. The hypothetical scenarios and questionnaire may deal with sensitive topics such as gender identity and conflict. You may feel uncomfortable while reading the scenario and answering the questionnaire. Hypothetical conflict may be mentioned in the scenario, this may make you feel uncomfortable or feel stress.

Should you feel uncomfortable about the hypothetical scenarios, or any of the questions asked in the questionnaire, you may withdraw from the questionnaire by closing the tab or web browser. You are not obligated to complete the study once you start. If you do not complete the questionnaire, the information you entered will not be included in the study. Some questions give you the opportunity to not answer and to continue with the questionnaire. Anonymized data is coded as such that no identifying information (such as your user number) is stored with your answers. Data will be aggregated (collected together). This means that no one person's data will be traceable back to them.

If you feel discomfort or stress, you may withdraw from the study at any time before final submission (in which you will be prompted). You may contact me or my supervisor for information about the study. You also have the option to contact a professional such as a psychologist or counsellor, or an employee assistance program at your company, should they have one. If you do not have access to either professional consultation or an employee assistance program at your company of employment, the following resources may be of use;

Canadian Mental Health Association: <https://cmha.ca/find-your-cmha>  
Toll-free (1-833-456-4566 /// for those in Quebec: 1-866-277-3553)

Mental Health America: <https://mhanational.org/finding-help>



Canadian Human Rights Commission: [www.chrc-ccdp.gc.ca](http://www.chrc-ccdp.gc.ca)

The United States Commission on Civil Rights: [www.usccr.gov](http://www.usccr.gov)

Aside from the potential discomfort and stress discussed, there are no known physical, economic, or social consequences associated with participating in this study.

#### Withdrawal from the study

You may withdraw consent at any time during the study. This includes now (by not providing consent), throughout the questionnaire (by not completing it or exiting it) or prior to submitting your answers (by not agreeing to have your data used). After final submission, however, withdrawal will not be possible as the data will be anonymized. You will be prompted when it is the final step to submit your answers to the study.

At the end of the study, you will be prompted to give final consent. Should you choose not to have your data used in the study, you are still able to enter your mTurk ID code to receive payment. If you close the survey before the final consent form, you will not be redirected to the text box for your mTurk ID code, as exiting the webpage will not allow you to redirect. Amazon will not know whether you gave consent to use your data.

#### Confidentiality

The information that you provide during the study will be kept confidential. We will not collect any personal identifying information from you. Any information you provide will be anonymized and no information will be able to be traced back to you. Nor will any information be personally identifiable, as it will be aggregated (collected together). Furthermore, we do not collect any IP addresses or other such personal information.

The information will be stored on an encrypted file, which will also be password-protected and only accessible to the researchers involved in the project. No identifying information will be stored. No “hard copies” of the data will be made.

Data will be stored for five years at minimum. This is following Memorial University’s policy on Integrity in Scholarly Research (<https://www.mun.ca/policy/browse/policies/view.php?policy=298>). The data will not be used for archival purposes. The data will be maintained in case the research is audited by another researcher or if future analyses are required for revision purposes for thesis completion or for publication purposes. Data will not be reused in any other study.

## Data Storage

The survey is hosted on Qualtrics, and is protected as per the General Data Protection Regulation (GDPR) that came into effect in May 25, 2018. The GDPR contains a number of new protections for data and threatens significant penalties for non-compliance to security and confidentiality. Also, for further information on the security and privacy policy of the company, you may visit:

<https://www.qualtrics.com/privacy-statement/>

Once the data has been collected, it will be transferred to the researcher and removed from Survey Company's website. Questionnaires will be stored electronically on password-protected servers and encoded computers (i.e., researcher's university laptop and desktop computers). No identifying information will be stored with the data or will be linked to the data files in anyway (e.g., similar file names). The Memorial University policy on Integrity in Scholarly Research requires data retention for a minimum of five years. The data will not be used for archival purposes; rather it will be maintained in case the research is "audited" by another researcher or future analyses are required for revision purposes in the publication process.

## Anonymity

Only your user number will be collected by the researchers. Once data collection is completed, information will be anonymized (coded so that your user number is not attached to it). The raw data will be encrypted, password-protected, and stored separately from your responses. No other information (such as IP addresses) will be linked to you.

The answers of the survey will not be shared outside of the aggregated (collected together) reporting of the data included in academic research, any publications, or related presentations. Your data will not be traceable back to you. Furthermore, Amazon will not know your answers to the survey, and researchers will not know your Amazon ID code or any personal information outside of any demographic information you choose to provide.

## Reporting of Results

The results of this research will be published to Memorial University library's collection of theses, as well as in academic and practitioner journals. They will also be presented at research conferences. All results will be reported in aggregate and therefore no single individual's responses will be reported or reproduced in the papers or presentations.

## Questions

Please ask me any questions about the research should you have any. My contact information is found at the top and bottom of this form. You may do this at any time during your participation in the

research. Alternatively, you may contact my supervisor, Dr. Dianne Ford, with any questions about the research. Dr. Ford's contact information is also found on the top and bottom of this form.

## Ethics

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research (for example, the way that you have been treated or your rights as a participant), you may contact the Chairperson of the ICEHR at [icehr@mun.ca](mailto:icehr@mun.ca) or by telephone at +1 (709) 864-2861.

## Consent

Providing your consent to participate in this study means:

- You have read the information about the research;
- You have been able to ask questions about this study
- You are satisfied with the answers to all of your questions;
- You understand what the study is about and what you will be doing; and
- You understand that you are free to withdraw from the study without having to give a reason, and that doing so will not affect you now or in the future.

**Providing consent does not mean that you give up your legal rights or that you release the researchers from their professional responsibilities.**

## **By continuing and completing this survey, you agree that:**

I have read what this study is about and understood the risks and benefits. I have had adequate time to think about this and had the opportunity to ask questions, and my questions have been answered.

I agree to participate in the research project understanding the risks and contributions of my participation, that my participation is voluntary, and that I may end my participation.

**Please print a copy of this for your records**

Sincerely,

Katlyn Pike, MSc Student  
Faculty of Business Administration  
Memorial University of Newfoundland  
e-mail: [kap058@mun.ca](mailto:kap058@mun.ca)

Dr. Dianne P. Ford, Professor  
Faculty of Business Administration  
Memorial University of Newfoundland  
e-mail: [dpford@mun.ca](mailto:dpford@mun.ca)

## **Letter of Information (Social Media Recruitment)**

### **Informed Consent Form**

Title: Interactions in the workplace

Researcher(s): Katlyn Pike, MSc Student, Department of Business Administration, Memorial University of Newfoundland, [kap058@mun.ca](mailto:kap058@mun.ca)

Supervisor(s): Dr. Dianne Ford, Supervisor, Faculty of Business Administration, Memorial University of Newfoundland, [dpford@mun.ca](mailto:dpford@mun.ca)

You are invited to take part in our research project, “Interactions in the workplace.”

To partake in this study, you must be an adult (age of 19 years or older) who is employed full-time or self-employed.

We are specifically recruiting gender minorities (i.e., transgender, agender and gender non-binary, etc.) to ensure that there is representation among all gender identities in our results.

### **Informed Consent**

Informed consent is essential to potential participants of any research project, as it allows you to make a free and informed choice on whether to participate in the study. Here in this form, you will learn what the basic idea of the research is about and what is involved in participation, including any risks. Please read this letter carefully and fully to ensure you understand the information given to you by the researcher.

Participation is completely voluntary, and it is entirely up to you whether you participate or not. There will be no, and will never be negative consequences should you choose not to partake in the study.

Please feel free to ask if you would like more information about anything included or not included in this form.

### **Introduction**

My name is Katlyn Pike, and I am a Master’s (MSc) student at Memorial University of Newfoundland. This research project is part of my thesis required to graduate. My research interests mainly lie in social interaction at work and how it affects our thoughts and attitudes and workplace-related outcomes. This research project is supervised by Dr. Dianne Ford, professor at Memorial University’s Department of Business Administration.

## Purpose

The purpose of this study is to determine how language affects our opinions of our workplace.

## Your role in this study

If you agree to participate, you will be asked to read a short hypothetical scenario and answer questions regarding that scenario. You will also be asked to provide some demographic information. The total estimated time to complete this study is between 5 to 20 minutes (depending on how quickly you read and respond to the questions and your experience with this type of survey).

## Possible benefits

You may derive an intrinsic reward from participating in this study. You may also read the entire thesis through Memorial University of Newfoundland's library, which is accessible through this link: [https://research.library.mun.ca/view/theses\\_dept/](https://research.library.mun.ca/view/theses_dept/). It will be available after October 2021.

## Possible risks

Participation in the study does have some risks. The hypothetical scenarios and questionnaire may deal with sensitive topics such as gender identity and conflict. You may feel uncomfortable while reading the scenario and answering the questionnaire. Hypothetical conflict may be mentioned in the scenario, this may make you feel uncomfortable or feel stress.

Should you feel uncomfortable about the hypothetical scenarios, or any of the questions asked in the questionnaire, you may withdraw from the questionnaire by closing the tab or web browser. You are not obligated to complete the study once you start. If you do not complete the questionnaire, the information you entered will not be included in the study. Some questions give you the opportunity to not answer and to continue with the questionnaire. Anonymized data is coded as such that no identifying information (such as your email address) is stored with your answers. Data will be aggregated (collected together). This means that no one person's data will be traceable back to them.

If you feel discomfort or stress, you may withdraw from the study at any time before final submission (in which you will be prompted). You may contact me or my supervisor for information about the study. You also have the option to contact a professional such as a psychologist or counsellor, or an employee assistance program at your company, should they have one. If you do not have access to either professional consultation or an employee assistance program at your company of employment, the following resources may be of use;

Canadian Mental Health Association: <https://cmha.ca/find-your-cmha>  
Toll-free (1-833-456-4566 /// for those in Quebec: 1-866-277-3553)

Mental Health America: <https://mhanational.org/finding-help>

Canadian Human Rights Commission: [www.chrc-ccdp.gc.ca](http://www.chrc-ccdp.gc.ca)

The United States Commission on Civil Rights: [www.usccr.gov](http://www.usccr.gov)

Aside from the potential discomfort and stress discussed, there are no known physical, economic, or social consequences associated with participating in this study.

#### Withdrawal from the study

You may withdraw consent at any time during the study. This includes now (by not providing consent), throughout the questionnaire (by not completing it or exiting it) or prior to submitting your answers (by not agreeing to have your data used). After final submission, however, withdrawal will not be possible as the data will be anonymized. You will be prompted when it is the final step to submit your answers to the study.

At the end of the study, you will be prompted to give final consent. Should you choose not to have your data used in the study, you are still redirected to the prize draw survey and may enter it if you choose. If you close the survey before the final consent form, you will not be redirected to the prize draw, as exiting the webpage will not allow you to redirect. Your prize draw entry will not reflect whether you gave consent to use your data.

#### Confidentiality

The information that you provide during the study will be kept confidential. We will not collect any personal identifying information from you. Any information you provide will be anonymized and no information will be able to be traced back to you. Nor will any information be personally identifiable, as it will be aggregated (collected together). Furthermore, we do not collect any IP addresses or other such personal information.

The information will be stored on an encrypted file, which will also be password-protected and only accessible to the researchers involved in the project. No identifying information will be stored. No “hard copies” of the data will be made. Your contact information for the raffle will be stored in a separate, password-protected file. Once the prize draw is completed, your contact information will be deleted. Your contact information will be collected on a separate survey, so that your answers are not recorded with your contact information.

Data will be stored for five years at minimum. This is following Memorial University’s policy on Integrity in Scholarly Research (<https://www.mun.ca/policy/browse/policies/view.php?policy=298>). The data will not be used for archival purposes. The data will be maintained in case the research is audited by another researcher or if future analyses are required for revision purposes for thesis completion or for publication purposes. Data will not be reused in any other study.

## Data Storage

The survey is hosted on Qualtrics, and is protected as per the General Data Protection Regulation (GDPR) that came into effect in May 25, 2018. The GDPR contains a number of new protections for data and threatens significant penalties for non-compliance to security and confidentiality. Also, for further information on the security and privacy policy of the company, you may visit:

<https://www.qualtrics.com/privacy-statement/>

Once the data has been collected, it will be transferred to the researcher and removed from Survey Company's website. Questionnaires will be stored electronically on password-protected servers and encoded computers (i.e., researcher's university laptop and desktop computers). No identifying information will be stored with the data or will be linked to the data files in anyway (e.g., similar file names). The Memorial University policy on Integrity in Scholarly Research requires data retention for a minimum of five years. The data will not be used for archival purposes; rather it will be maintained in case the research is "audited" by another researcher or future analyses are required for revision purposes in the publication process.

## Anonymity

If you opted to partake in this survey through a closed-member ship group on social media, moderators of your social media group were contacted about our survey. After posting the information and links provided, they have no further interaction with this survey (unless they choose to take it themselves). They will not know whether or not you have participated in this research.

If you have come across this survey from a post from one of the researchers, please note that we will not know whether you have opted to partake in the survey or not. Furthermore, we will not be able to tell which data belongs to you. No one will have knowledge of whether you decided to complete the survey outside of anyone you tell directly.

Furthermore, the answers of the survey will not be shared outside of the aggregated (collected together) reporting of the data included in academic research, any publications, or related presentations. Your data will not be traceable back to you.

Only your user number will be collected by the researchers. Once data collection is completed, information will be anonymized (coded so that your user number is not attached to it). The raw data will be encrypted, password-protected, and stored separately from your responses. Your contact information is recorded on a separate survey, and will be deleted once the prize raffle is completed. Before the raffle is completed, your contact information will be stored on a separate, encrypted, and password-protected file. No other information (such as IP addresses) will be linked to you.

## Reporting of Results

The results of this research will be published to Memorial University library's collection of theses, as well as in academic and practitioner journals. They will also be presented at research conferences. All results

will be reported in aggregate and therefore no single individual's responses will be reported or reproduced in the papers or presentations.

### Prize Draw

Anyone who participates in the study are entered into the prize draw. Once the survey is completed, you will be redirected to a separate survey to provide your first name and your email address. A separate survey is used in order to ensure that your contact information is not connected to your data. Furthermore, your contact information and your survey data will be stored on separate encrypted files. Once the winners are randomly selected, all contact data will be deleted.

The prize available is a 20 USD gift card. One of these will be drawn for every 20 participants recruited in this manner. Winners will be contacted via email.

### Questions

Please ask me any questions about the research should you have any. My contact information is found at the top and bottom of this form. You may do this at any time during your participation in the research. Alternatively, you may contact my supervisor, Dr. Dianne Ford, with any questions about the research. Dr. Ford's contact information is also found on the top and bottom of this form.

### Ethics

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research (for example, the way that you have been treated or your rights as a participant), you may contact the Chairperson of the ICEHR at [icehr@mun.ca](mailto:icehr@mun.ca) or by telephone at +1 (709) 864-2861.

### Consent

Providing your consent to participate in this study means:

- You have read the information about the research;
- You have been able to ask questions about this study
- You are satisfied with the answers to all of your questions;
- You understand what the study is about and what you will be doing; and
- You understand that you are free to withdraw from the study without having to give a reason, and that doing so will not affect you now or in the future.



**Providing consent does not mean that you give up your legal rights or that you release the researchers from their professional responsibilities.**

**By continuing and completing this survey, you agree that:**

I have read what this study is about and understood the risks and benefits. I have had adequate time to think about this and had the opportunity to ask questions, and my questions have been answered.

I agree to participate in the research project understanding the risks and contributions of my participation, that my participation is voluntary, and that I may end my participation.

**Please print a copy of this for your records**

Sincerely,

Katlyn Pike, MSc Student  
Faculty of Business Administration  
Memorial University of Newfoundland  
e-mail: [kap058@mun.ca](mailto:kap058@mun.ca)

Dr. Dianne P. Ford, Professor  
Faculty of Business Administration  
Memorial University of Newfoundland  
e-mail: [dpford@mun.ca](mailto:dpford@mun.ca)

## **Letter of Information (Prolific)**

### **Informed Consent Form**

Title: Interactions in the workplace

Researcher(s): Katlyn Pike, MSc Student, Department of Business Administration, Memorial University of Newfoundland, [kap058@mun.ca](mailto:kap058@mun.ca)

Supervisor(s): Dr. Dianne Ford, Supervisor, Faculty of Business Administration, Memorial University of Newfoundland, [dpford@mun.ca](mailto:dpford@mun.ca)

You are invited to take part in our research project, “Interactions in the workplace.”

To partake in this study, you must be an adult (age of 19 years or older) who is employed full-time or self-employed.

#### **Informed Consent**

Informed consent is essential to potential participants of any research project, as it allows you to make a free and informed choice on whether to participate in the study. Here in this form, you will learn what the basic idea of the research is about and what is involved in participation, including any risks. Please read this letter carefully and fully to ensure you understand the information given to you by the researcher.

Participation is completely voluntary, and it is entirely up to you whether you participate or not. There will be no, and will never be negative consequences should you choose not to partake in the study.

Please feel free to ask if you would like more information about anything included or not included in this form.

#### **Introduction**

My name is Katlyn Pike, and I am a Master’s (MSc) student at Memorial University of Newfoundland. This research project is part of my thesis required to graduate. My research interests mainly lie in social interaction at work and how it affects our thoughts and attitudes and workplace-related outcomes. This research project is supervised by Dr. Dianne Ford, professor at Memorial University’s Department of Business Administration.

#### **Purpose**

The purpose of this study is to determine how language affects our opinions of our workplace.

### Your role in this study

If you agree to participate, you will be asked to read a short hypothetical scenario and answer questions regarding that scenario. You will also be asked to provide some demographic information. The total estimated time to complete this study is between 5 to 20 minutes (depending on how quickly you read and respond to the questions and your experience with this type of survey).

### Possible benefits

You may derive an intrinsic reward from participating in this study. You may also read the entire thesis through Memorial University of Newfoundland's library, which is accessible through this link: [https://research.library.mun.ca/view/theses\\_dept/](https://research.library.mun.ca/view/theses_dept/). It will be available after October 2021.

### Possible risks

Participation in the study does have some risks. The hypothetical scenarios and questionnaire may deal with sensitive topics such as gender identity and conflict. You may feel uncomfortable while reading the scenario and answering the questionnaire. Hypothetical conflict may be mentioned in the scenario, this may make you feel uncomfortable or feel stress.

Should you feel uncomfortable about the hypothetical scenarios, or any of the questions asked in the questionnaire, you may withdraw from the questionnaire by closing the tab or web browser. You are not obligated to complete the study once you start. If you do not complete the questionnaire, the information you entered will not be included in the study. Some questions give you the opportunity to not answer and to continue with the questionnaire. Anonymized data is coded as such that no identifying information (such as your user number) is stored with your answers. Data will be aggregated (collected together). This means that no one person's data will be traceable back to them.

If you feel discomfort or stress, you may withdraw from the study at any time before final submission (in which you will be prompted). You may contact me or my supervisor for information about the study. You also have the option to contact a professional such as a psychologist or counsellor, or an employee assistance program at your company, should they have one. If you do not have access to either professional consultation or an employee assistance program at your company of employment, the following resources may be of use;

Canadian Mental Health Association: <https://cmha.ca/find-your-cmha>  
Toll-free (1-833-456-4566 /// for those in Quebec: 1-866-277-3553)

Mental Health America: <https://mhanational.org/finding-help>

Canadian Human Rights Commission: [www.chrc-ccdp.gc.ca](http://www.chrc-ccdp.gc.ca)

Aside from the potential discomfort and stress discussed, there are no known physical, economic, or social consequences associated with participating in this study.

#### Withdrawal from the study

You may withdraw consent at any time during the study. This includes now (by not providing consent), throughout the questionnaire (by not completing it or exiting it) or prior to submitting your answers (by not agreeing to have your data used). After final submission, however, withdrawal will not be possible as the data will be anonymized. You will be prompted when it is the final step to submit your answers to the study.

At the end of the study, you will be prompted to give final consent. Should you choose not to have your data used in the study, you are still able to enter your Prolific ID code to receive payment. If you close the survey before the final consent form, you will not be redirected to the text box for your Prolific ID code, as exiting the webpage will not allow you to redirect. Prolific will not know whether you gave consent to use your data.

#### Confidentiality

The information that you provide during the study will be kept confidential. We will not collect any personal identifying information from you. Any information you provide will be anonymized and no information will be able to be traced back to you. Nor will any information be personally identifiable, as it will be aggregated (collected together). Furthermore, we do not collect any IP addresses or other such personal information.

The information will be stored on an encrypted file, which will also be password-protected and only accessible to the researchers involved in the project. No identifying information will be stored. No “hard copies” of the data will be made.

Data will be stored for five years at minimum. This is following Memorial University’s policy on Integrity in Scholarly Research (<https://www.mun.ca/policy/browse/policies/view.php?policy=298>). The data will not be used for archival purposes. The data will be maintained in case the research is audited by another researcher or if future analyses are required for revision purposes for thesis completion or for publication purposes. Data will not be reused in any other study.

#### Data Storage

The survey is hosted on Qualtrics, and is protected as per the General Data Protection Regulation (GDPR) that came into effect in May 25, 2018. The GDPR contains a number of new protections for data

and threatens significant penalties for non-compliance to security and confidentiality. Also, for further information on the security and privacy policy of the company, you may visit:

<https://www.qualtrics.com/privacy-statement/>

Once the data has been collected, it will be transferred to the researcher and removed from Survey Company's website. Questionnaires will be stored electronically on password-protected servers and encoded computers (i.e., researcher's university laptop and desktop computers). No identifying information will be stored with the data or will be linked to the data files in anyway (e.g., similar file names). The Memorial University policy on Integrity in Scholarly Research requires data retention for a minimum of five years. The data will not be used for archival purposes; rather it will be maintained in case the research is "audited" by another researcher or future analyses are required for revision purposes in the publication process.

### Anonymity

Only your user number will be collected by the researchers. Once data collection is completed, information will be anonymized (coded so that your user number is not attached to it). The raw data will be encrypted, password-protected, and stored separately from your responses. No other information (such as IP addresses) will be linked to you.

The answers of the survey will not be shared outside of the aggregated (collected together) reporting of the data included in academic research, any publications, or related presentations. Your data will not be traceable back to you. Furthermore, Prolific will not know your answers to the survey, and researchers will not know your Prolific ID code or any personal information outside of any demographic information you choose to provide.

### Reporting of Results

The results of this research will be published to Memorial University library's collection of theses, as well as in academic and practitioner journals. They will also be presented at research conferences. All results will be reported in aggregate and therefore no single individual's responses will be reported or reproduced in the papers or presentations.

### Questions

Please ask me any questions about the research should you have any. My contact information is found at the top and bottom of this form. You may do this at any time during your participation in the research. Alternatively, you may contact my supervisor, Dr. Dianne Ford, with any questions about the research. Dr. Ford's contact information is also found on the top and bottom of this form.

## Ethics

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research (for example, the way that you have been treated or your rights as a participant), you may contact the Chairperson of the ICEHR at [icehr@mun.ca](mailto:icehr@mun.ca) or by telephone at +1 (709) 864-2861.

## Consent

Providing your consent to participate in this study means:

- You have read the information about the research;
- You have been able to ask questions about this study
- You are satisfied with the answers to all of your questions;
- You understand what the study is about and what you will be doing; and
- You understand that you are free to withdraw from the study without having to give a reason, and that doing so will not affect you now or in the future.

**Providing consent does not mean that you give up your legal rights or that you release the researchers from their professional responsibilities.**

### **By continuing and completing this survey, you agree that:**

I have read what this study is about and understood the risks and benefits. I have had adequate time to think about this and had the opportunity to ask questions, and my questions have been answered.

I agree to participate in the research project understanding the risks and contributions of my participation, that my participation is voluntary, and that I may end my participation.

**Please print a copy of this for your records**

Sincerely,

Katlyn Pike, MSc Student  
Faculty of Business Administration  
Memorial University of Newfoundland  
e-mail: [kap058@mun.ca](mailto:kap058@mun.ca)

Dr. Dianne P. Ford, Professor  
Faculty of Business Administration  
Memorial University of Newfoundland  
e-mail: [dpford@mun.ca](mailto:dpford@mun.ca)

## **APPENDIX B**

### **Scenario Scripts**

#### **Baseline - Male Manger**

You are an employee at Working Web Design Co., which provides web design and hosting to various clients ranging from small businesses like bakeries to web forums. You have worked here for five years and hold a mid-tier web design position. The job is enjoyable and fulfilling, and your co-workers are generally kind and efficient.

You are quite skilled in your work, and you wish to continue employment at Working Web Design Co. for at least a few more years. The company has 110 employees total, all at the same location, allowing for collaboration and easy communication between you, your co-workers, and the managers. This one-location business model works well as your job involves a moderate amount of collaboration and communication on a day-to-day basis.

Your position requires a fair amount of cooperation between your direct manager (Andrew) and yourself. Generally, you and Andrew are in good standing and work well together. You respect him for his volunteer work with an activist group supporting paid parental leave for fathers. When issues arise you work very well together to solve them.

#### **Control (No Uncivil Behaviour) – Male Manager**

Today, while you were walking into the office, you see your manager, Andrew, and you give him a polite smile as a greeting. Andrew smiles back at you as you remove your coat.

Later that morning, you are working in your cubicle, answering emails when Andrew comes by to see what your work plan is for the rest of the day.

You raise a concern with him over your most recent project. You are working with three other individuals to do extensive updates for a web store for a large retail company. You are concerned that the deadline will not be met without overtime or additional help.

Andrew politely notes your concern with a nod. He says, “I’ll look further into the demands of your project and see if I can move employees around to give you some additional support if it seems necessary.” As he looks at your computer screen with the emails open, he adds, “Keeping up on your work emails? There sure has been a lot lately.”

He leaves your cubicle to finish visiting the other employees in your area.

### **Uncivil Behaviour – Male Manager**

Today, while you were walking into the office, you cross paths with your manager, Andrew, and you give him a polite smile as a greeting. Andrew ignores you as you remove your coat.

Later that morning, you are working in your cubicle, answering emails when Andrew comes by to see what your work plan is for the rest of the day.

You raise a concern with him over your most recent project. You are working with three other individuals to do extensive updates for a web store for a large retail company. You are concerned that the deadline will not be met without overtime or additional help.



Andrew tilts his head slightly to the right and says, “Really?!? You wait until now to tell me this? This project started a week ago! The other employees are too busy to help you with this project.” As he looks at your computer screen with the emails open, he adds, “Maybe if you used your time better you wouldn’t need overtime.”

Andrew leaves your cubicle to finish visiting the other employees in your area.

### **Baseline - Female Manager**

You are an employee at Working Web Design Co., which provides web design and hosting to various clients ranging from small businesses like bakeries to web forums. You have worked here for five years and hold a mid-tier web design position. The job is enjoyable and fulfilling, and your co-workers are generally kind and efficient.

You are quite skilled in your work, and you wish to continue employment at Working Web Design Co. for at least a few more years. The company has 110 employees total, all at the same location, allowing for collaboration and easy communication between you, your co-workers, and the managers. This one-location business model works well as your job involves a moderate amount of collaboration and communication on a day-to-day basis.

Your position requires a fair amount of cooperation between your direct manager (Alice) and yourself. Generally, you and Alice have a good relationship and work well together. You respect her for her volunteer work with an activist group supporting parental rights for mothers. When issues arise you work very well together to solve them.

### **Control (No Uncivil Behaviour) – Female Manager**

Today, while you were walking into the office, you see your manager, Alice, and you give her a polite smile as a greeting. Alice smiles back at you as you remove your coat.

Later that morning, you are working in your cubicle, answering emails when Alice comes by to see what your work plan is for the rest of the day. You raise a concern with her over your most recent project. You are to work with three other individuals to do extensive updates for a web store for a large retail company. You are concerned that the deadline will not be met without overtime or additional help.

Alice politely notes your concern with a nod. She says, “I’ll look further into the demands of your project and see if I can move employees around to give you some additional support if it seems necessary.” As she looks at your computer screen with the emails open, she adds, “Keeping up on your work emails? There sure has been a lot lately.”

Alice leaves your cubicle to finish visiting the other employees in your area.

### **Uncivil Behaviour – Female Manager**

Today, while you were walking into the office, you cross paths with your manager, Alice, and you give her a polite smile as a greeting. Alice ignores you as you remove your coat.

Later that morning, you are working in your cubicle, answering emails when Alice comes by to see what your work plan is for the rest of the day. You raise a concern with her over your most recent project. You are to work with three other individuals to do extensive updates for a

web store for a large retail company. You are concerned that the deadline will not be met without overtime or additional help.

Alice tilts her head slightly to the right and says, “Really?!? You wait until now to tell me this? This project started a week ago! The other employees are too busy to help you with this project.” As she looks at your computer screen with the emails open, she adds, “Maybe if you used your time better you wouldn’t need overtime.”

Alice leaves your cubicle to finish visiting the other employees in your area.

### **Baseline - Gender Minority Manager**

You are an employee at Working Web Design Co., which provides web design and hosting to various clients ranging from small businesses like bakeries to web forums. You have worked here for five years and hold a mid-tier web design position. The job is enjoyable and fulfilling, and your co-workers are generally kind and efficient.

You are quite skilled in your work, and you wish to continue employment at Working Web Design Co. for at least a few more years. The company has 110 employees total, all at the same location, allowing for collaboration and easy communication between you, your co-workers, and your managers. This one-location business model works well as your job involves a moderate amount of collaboration and communication on a day-to-day basis.

Your position requires a fair amount of cooperation between your direct manager (Ainsley) and yourself. Generally, you and Ainsley have a good relationship and work well together. You respect them for their volunteer work with an activist group supporting gender minority parental rights. When issues arise you work very well together to solve them.

### **Control (No Uncivil Behaviour) – Gender Minority Manager**

Today, while you were walking into the office, you see your manager, Ainsley, and you give them a polite smile as a greeting. Ainsley smiles back at you as you remove your coat.

Later that morning, you are working in your cubicle, answering emails when Ainsley comes by to see what your work plan is for the rest of the day.

You raise a concern with them over your most recent project. You are to work with three other individuals to do extensive updates for a web store for a large retail company. You are concerned that the deadline will not be met without overtime or additional help.

Ainsley politely notes your concern with a nod. They say, “I’ll look further into the demands of your project and see if I can move employees around to give you some additional support if it seems necessary.” As they look at your computer screen with the emails open, they add, “Keeping up on your work emails? There sure has been a lot lately.”

Ainsley leaves your cubicle to finish visiting the other employees in your area.

### **Uncivil Behaviour – Gender Minority Manager**

Today, while you were walking into the office, you cross paths with your manager, Ainsley, and you give them a polite smile as a greeting. Ainsley ignores you as you remove your coat.

Later that morning, you are working in your cubicle, answering emails when Ainsley comes by to see what your work plan is for the rest of the day.

You raise a concern with them over your most recent project. You are to work with three other individuals to do extensive updates for a web store for a large retail company. You are concerned that the deadline will not be met without overtime or additional help.

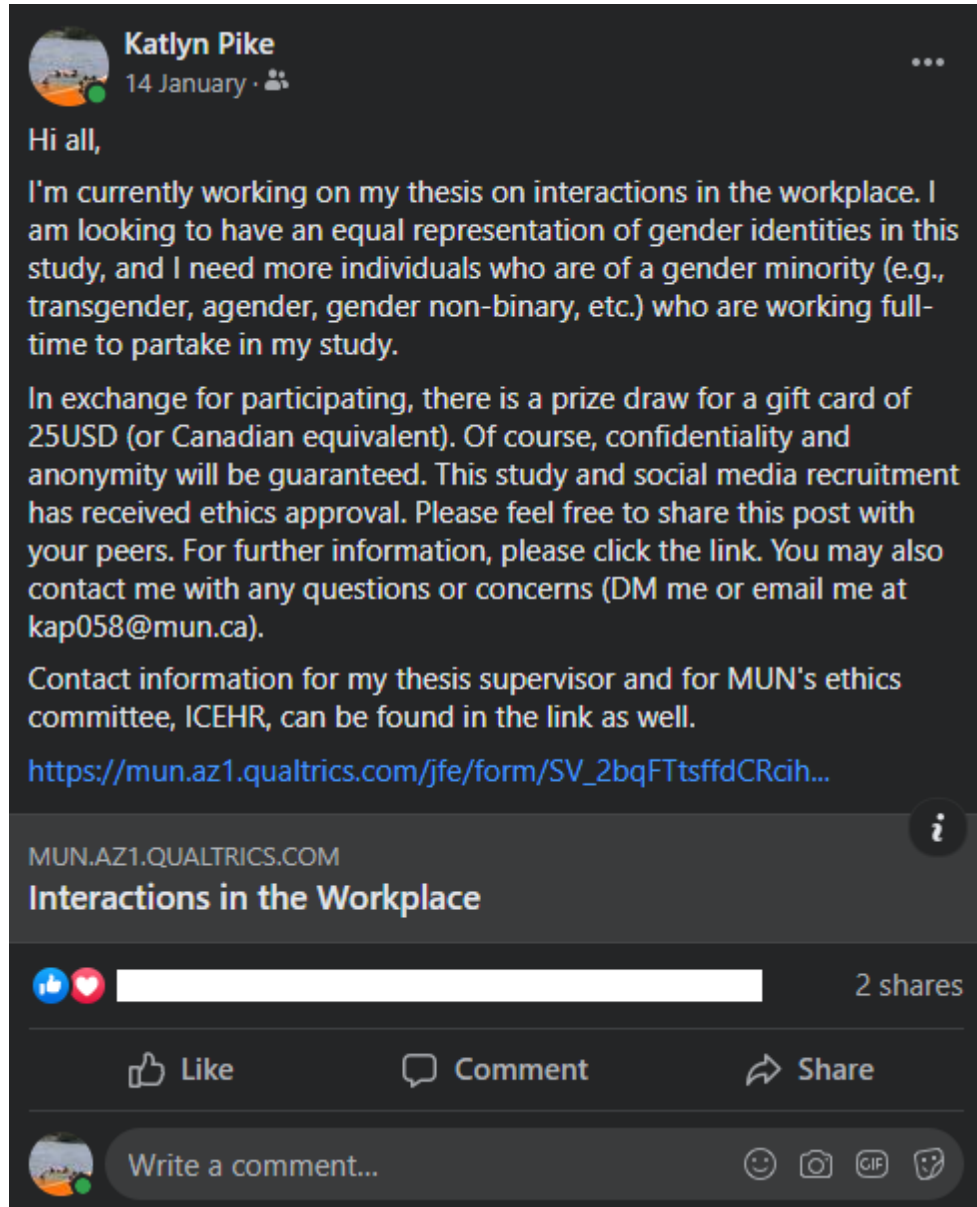
Ainsley tilts their head slightly to the right and says, “Really?!? You wait until now to tell me this? This project started a week ago! The other employees are too busy to help you with this project.” As they look at your computer screen with the emails open, they add, “Maybe if you used your time better you wouldn’t need overtime.”

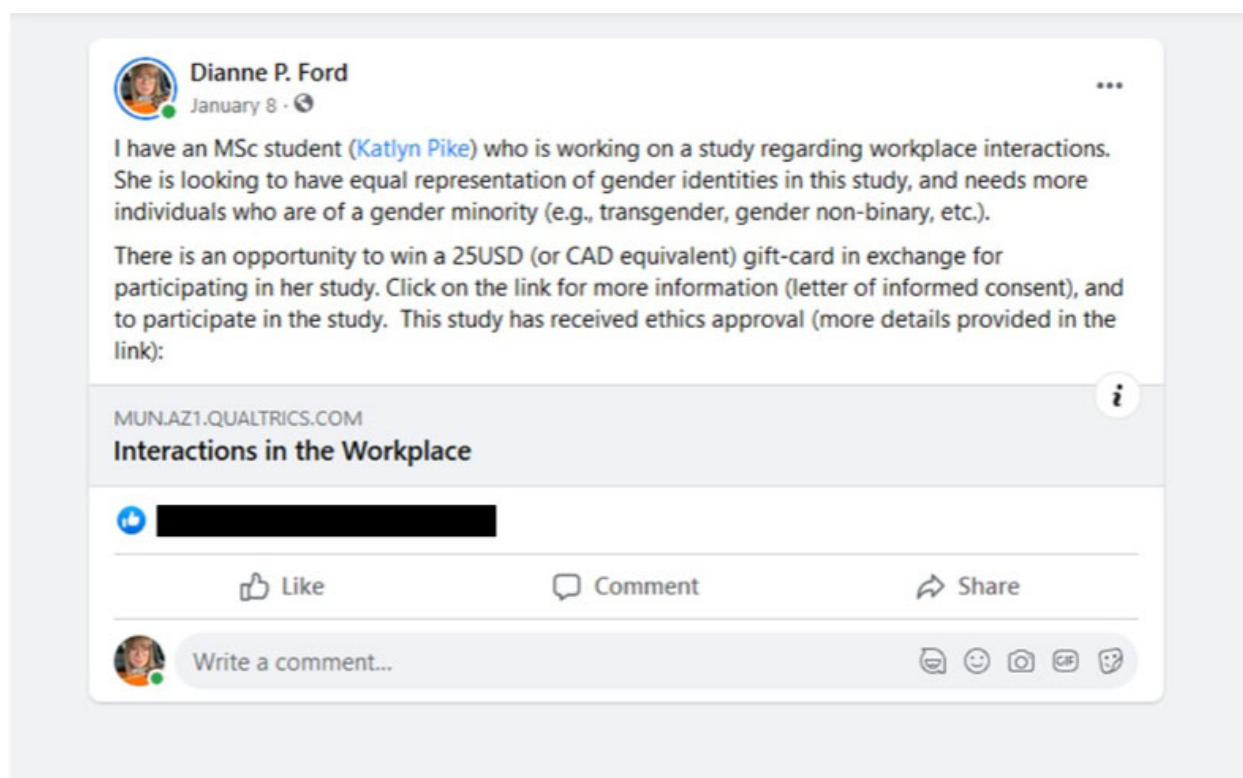
Ainsley leaves your cubicle to finish visiting the other employees in your area.

## APPENDIX C

### Social Media Recruitment Correspondance

#### Posts





## **Correspondence With Groups**

Hello, my name is Katlyn and I am an MSc student conducting a study on workplace interactions. I'm looking for a large gender minority sample and thus I'm wondering whether you would be interested in sharing a link to my study on your page. Gender minorities are not well represented in much of the body of social scientific research, so I'm hoping that my study will be able to offer better representation. Participants will have full anonymity and confidentiality and after completion are invited to enter a prize draw for a gift card of 25USD (or equivalent in CAD) to a business of their choice from a list. This study has received ethics approval from Memorial University of Newfoundland's ICEHR group. Please let me know if you are interested or have any further questions or concerns. Thanks.

*(There were no responses)*

## **Prize Draw Winner Correspondance**

Email Subject: You've won the prize draw!

Special Message: Thank you for participating in my research. \$31.61 is equivalent to 25USD on February 15, 2021. Enjoy your prize!



## APPENDIX D

### Pilot Study Factor Analysis (Exploratory)

**Rotated Factor Matrix<sup>a</sup>**

	Factor			
	1	2	3	4
	61.74	11.05	5.45	4.69
% of Total Variance				
Total	17.29	3.1	1.53	1.31
AFC1		<b>.642</b>	.512	
AFC2.		<b>.728</b>		
AFC3		<b>.718</b>		
AFC4		<b>.933</b>		
AFC5		<b>.900</b>		
AFC6		<b>.907</b>		
JS1	<b>.453</b>			
JQ1		-.602	-.358	
IJ1		.507	<b>.681</b>	.335
IJ2		.536	<b>.685</b>	.325
IJ3		.518	<b>.698</b>	
IJ4		.463	<b>.666</b>	.319
AngryPOST	<b>.502</b>			
UpsetPOST	<b>.706</b>			
IrritablePOST	<b>.552</b>			
WorriedPOST	<b>.687</b>			
NervousPOST	<b>.572</b>			
SadPOST	<b>.733</b>			
AgonizedPOST	<b>.740</b>			
HelplessPOST	<b>.777</b>			
IrritatedPOST	<b>.624</b>			
AnxiousPOST	<b>.672</b>			
InadequatePOST	<b>.683</b>			
DejectedPOST	<b>.817</b>			
HappyPOST		.459	.487	<b>.622</b>
At easePOST			.335	<b>.764</b>
RelaxedPOST		.432	.308	<b>.618</b>
GoodPOST		.526	.366	<b>.659</b>

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

## APPENDIX E

### Main Study Factor Analysis (Confirmational)

Rotated Factor Matrix <sup>a</sup>							
	Factor						
	1	2	3	4	5	6	7
Eigen Value	9.97	6.23	2.48	1.49	1.30	1.02	0.91
% Variance	31.15	19.45	7.76	4.65	4.06	3.19	2.83
Neg_AFF_Pre1	<b>0.81</b>						
Neg_AFF_Pre2	<b>0.77</b>						
Neg_AFF_Pre3	<b>0.75</b>						
Neg_AFF_Pre4	<b>0.65</b>						0.33
Neg_AFF_Pre5	<b>0.55</b>						
Neg_AFF_Pre6	<b>0.82</b>						
Neg_AFF_Pre7	<b>0.76</b>						
Neg_AFF_Pre8	<b>0.85</b>						
Neg_AFF_Pre9	<b>0.80</b>						
Neg_AFF_Pre10	<b>0.61</b>						
Neg_AFF_Pre11	<b>0.63</b>						0.28
Neg_AFF_Pre12	<b>0.83</b>						
Pos_AFF_Pre1			0.38	<b>0.48</b>			
Pos_AFF_Pre2				<b>0.66</b>			
Pos_AFF_Pre3			0.20	<b>0.52</b>			
Pos_AFF_Pre4			0.24	<b>0.54</b>			
AFFCOM_Pre1			<b>0.39</b>	0.23			
AFFCOM_Pre2			<b>0.56</b>				
AFFCOM_Pre3			<b>0.30</b>				
AFFCOM_Pre4			<b>0.67</b>				
AFFCOM_Pre5			<b>0.85</b>				
AFFCOM_Pre6			<b>0.79</b>				
TURN_Pre					<b>0.75</b>		
QUIT_Pre	0.30				<b>0.77</b>		
INC_MANI1						<b>0.27</b>	
INC_MANI2						<b>0.40</b>	
INC_MANI3						<b>0.41</b>	
INC_MANI4						<b>0.37</b>	
INT_JUST1		<b>0.95</b>				0.23	
INT_JUST2		<b>0.95</b>				0.23	
INT_JUST3		<b>0.94</b>				0.22	
INT_JUST4		<b>0.86</b>				0.22	
Extraction Method: Maximum Likelihood.							
a. Rotation converged in 6 iterations.							