

THESIS

DON'T TAKE THAT TONE WITH ME!

AN EXAMINATION OF ATTRIBUTION AND EVALUATION AS A CONSEQUENCE OF
INCIVILITY PERCEIVED IN WORKPLACE EMAIL

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In partial fulfillment of the requirements

For the Degree of Master of Science

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Spring 2022

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ABSTRACT

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This research investigated how people in the workforce interpret and react to the experience of incivility when it is perceived in workplace email. The purpose of this study was to assess relationships between perceptions of incivility in email, the fundamental attribution error, and associated judgments made about the email content and sender. Moreover, this work examined the similarity-attraction paradigm to test whether perceptions of similarity to the email sender moderated the aforementioned relationships. In this vignette-based survey, participants were asked to evaluate email content in the context of hypothetical workplace scenarios. These participants were recruited from the Amazon Mechanical Turk workforce pool (MTurk), resulting in a final sample of 219 respondents. Results indicated that people make the fundamental attribution error more often when perceptions of incivility are high, and that perceiving incivility is associated with a poorer evaluation of the email sender's communication skills and with a lower desire to work with that email sender in the future. In addition, participants who perceived themselves to be more similar to the email sender evaluated the email sender positively even when they detected incivility. Findings in this study do not support that the perception of incivility or attribution was related to email content ambiguity or cognitive load. This work contributes empirical evidence to research about email and computer mediated communication (CMC) in organizations and the pitfalls of miscommunication or

misinterpretation on lean media platforms. Implications for workplace training and organizational policy change are discussed.

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Introduction

The Society for Industrial and Organizational Psychology (SIOP) ranked ‘*managing virtual teams*’ as the third most relevant and critical workplace trend for the year 2016 (Worthy, 2015). Now, over five years later, in a post COVID-19 world, remote work has become commonplace for knowledge-based industries and, increasingly, there are more and more telecommunication platforms that workers use to interact (Peek, 2021). Using email and other computer mediated technology to collaborate with coworkers to complete projects and communicate is now the norm rather than the exception. For instance, in white collar occupations, 78% of office-based workers and 25% of non-office-based workers reported that email is very important for doing their job (Pew Research Center, 2014). A recent email usage study conducted by Adobe reported that U.S. workers in office or management positions who also own smartphones will spend, on average, three hours per weekday checking work email (“2019 Adobe Email”, 2019).

Because technology and computer mediated communication (CMC) is pervasive as an operational tool at work, it is important to gain a better understanding of potential issues that may arise given that such communication becomes problematic when workers are geographically and temporally dispersed (Holtbrügge & Berning, 2017; Zakaria et al., 2012). Email is a susceptible space for miscommunication, especially when subtleties such as sarcasm and humor are involved (“The Impact of Email,” 2020). Beyond miscommunication of email content, there is not a large body of work that has investigated how an email recipient makes attributions to the email sender when they interpret the tone of the email, such as perceiving rudeness, impoliteness, or breaches of email etiquette. Moreover, when people form impressions of others online, those impressions, particularly when negative, tend to be exaggerated; for example,

Sillars and Zorn (2021) found that when email recipients perceived conflict in workplace email communication, the negativity was magnified by an ‘intensification bias’ and that people were extremely variable as evaluators, making it unclear what precisely made the email offensive to a particular person. With email becoming “ubiquitous in the workplace,” there is a need for more empirical evidence to investigate repercussions of perceived mistreatment when it is transmitted in email (Tassabehji & Vakola, 2005, p. 70).

This research aimed to explore the realm of workplace communication using email technology with a focus on investigating workplace mistreatment and attribution: namely, to investigate workers’ evaluations of others when they perceive themselves to be the target of such mistreatment in email interactions with co-workers. The next section first introduces and explains the nature and importance of workplace incivility as well as the intricacies of email communication as it relates to the present research. Following that discussion, the theoretical background on which this research is based is laid out, and hypotheses investigated in the study are presented throughout.

Workplace Mistreatment & Incivility

The current study focuses on the construct *incivility*, which can be insidious and difficult to identify, because, by definition, this form of mistreatment is both ambiguous and not necessarily intentional: Incivility is subtle, originally defined as “low-intensity deviant behavior with ambiguous intent to harm” (Andersson & Pearson, 1999, p. 456). Uncivil behavior is vulnerable to misinterpretation, and, because of the lack of clear intentionality, incivility cannot necessarily be observed by an outsider but is really a product of perception. Incivility takes place when a person perceives to have been treated in an uncivil manner (Andersson & Pearson, 1999).

Incivility as a form of workplace mistreatment can be conceptualized within Robinson and Bennet's (1995) model of workplace deviance, which is based on the broad definition that deviance occurs when an employee violates a workplace norm. However, the model qualifies this statement with the requisite that these behaviors are intentional, or, in other words, carried out by choice (Robinson & Bennett, 1995). This component of the definition is important to note because, unlike deviances described by Robinson and Bennett (1995), intentionality is no longer a requirement of workplace mistreatment when it comes to incivility. One of the reasons that incivility is difficult to study is because "incivility is neutral on its surface" and therefore can 'come to life' regardless of whether the instigator of the incivility meant to cause harm or not; furthermore, effects of incivility may depend on the *way* that the target of the incivility interprets the words or behavior to be uncivil (Cortina, Kabat-Farr, Leskinen, et al., 2013, p. 1580).

In addition to incivility, the literature is now riddled with other constructs describing more indirect forms of mistreatment and aggression where such actions may or may not be intentional (Hershcovis, 2011). An example of blatant mistreatment is *bullying*: This form of abuse is usually ongoing and can be perpetrated either privately or publicly (Einarsen & Ståle, 2000). In contrast, an example of subtle mistreatment is *ostracism*: Ostracism is similar to but distinct from incivility, where representative ostracizing behaviors are considered acts of ignoring or excluding by individuals or groups at work (Hershcovis, 2011). Ostracism is unique and difficult to notice because it manifests as inaction under circumstances where that inaction is not considered acceptable per the social norms of the workplace (Robinson et al., 2013). On the other hand, incivility is not defined by inaction. In this research, incivility is presented as a distinct construct unique from other forms of workplace deviance.

Workplace incivility has become a popular research area over the past two decades due to its high prevalence and negative consequences for employees (Cortina, Kabat-Farr, Magley, & Nelson, 2017). One of the first empirical studies in industrial/organizational psychology to examine incivility found that over 70% of employees had experienced incivility at work at some point over the past five years (Cortina et al., 2001). More recent empirical research in incivility branched out to examine the construct in the form of written communication, specifically CMC, which includes email. Findings support that when workers experienced incivility in email, those experiences were directly related to stress and withdrawal from work; this withdrawal and stress also ‘spilled over’ into their nonwork lives and to their domestic partners (Park & Haun, 2018). More evidence of the negative effects of email incivility in the literature include affective and physical distress at work (Park et al., 2018).

In the context of CMC, *cyber incivility* has emerged to include incivility that is perceived in email as well as incivility that manifests on other technological communication platforms such as online discussion boards and blogs (Borah, 2013; Rösner et al., 2016). Different forms of mistreatment in cyberspace, such as cyber bullying, are also becoming areas of concern in terms of potential for interpersonal conflict and negative impact on emotional and psychological well-being (Barlett, 2015).

Purpose of the Present Study

The primary purpose of this study was to examine the association between perceived incivility, attribution, and subsequent evaluations and judgements of a hypothetical email sender, barring any other information about the sender aside from a workplace scenario and email content. The ultimate goal was to investigate the nature of people’s appraisal of another when they believed that that other had made subtle transgressions (behaved uncivilly in email), and

then what potential implications those observations might have for communication, collaboration and relationships at work.

Although there is existing research that seeks to better understand workplace incivility, email incivility, and attributional evaluations, this study is different in that it examined the intersection of all three components (email, incivility, and attribution) with a CMC vignette-based methodology. One of the unique aspects of this research from a design perspective is that there is a focus on how a potential ‘target’ experiences incivility as a function of their perception of the *instigator* and the instigator’s behavior based purely on hypothetical situation and text, whereas most of previous research has examined the target of or witness to incivility as a reflection of their own experiences by means of self-reporting (Moon et al., 2017; Park & Haun, 2018).

Theoretical Background & Hypotheses

Media Richness Theory & Information Exchange

To better understand the nuances of incivility when perceived in email, it is valuable to briefly describe some of the particularities of textual communication. Email is used at work to communicate and exchange information, and media richness theory helps explain why more ambiguous messages sent in email are especially difficult to interpret. As a lean media format, email lacks the cues and contextual information that is often embedded in face-to-face or even telephone communication. When email carries equivocal (ambiguous, abstract, uncertain) information, misinterpretation, misunderstanding, or conflict is both more likely to occur and harder to resolve (Daft & Lengel, 1986). Highly ambiguous information exchange benefits from a richer communication medium, otherwise, frame of reference and content can be especially unclear (Daft et al., 1987).

This is where email is especially vulnerable to the ‘mutual knowledge problem’ (Cramton, 2001). Mutual knowledge implies that people have the same information, mental model, and experience regarding that knowledge. However, sufficient mutual knowledge is difficult to achieve when text-only CMC is the basis for knowledge transfer. When striving to reach a point of accurately sharing knowledge with a partner or partners and to make sense of equivocal messages, communicators are likely to rely on social categorization to draw conclusions; In adopting social categorization heuristics, the message recipient perceives the message sender differently depending on how they interpret the message (Cramton, 2001). Similar to equivocal knowledge, email can also convey emotion, but people are often not good at interpreting emotion accurately and have the tendency to perceive emotion more negatively than intended (Byron, 2008). This first hypothesis is based on incivility being inherently ambiguous and being transmitted equivocally via a lean communication medium.

H1: There will be a negative relationship between perceived incivility and message clarity such that the greater the level of perceived incivility, the less easy the message will be to understand (greater perceived ambiguity).

In assessing how senders compose email differently (versus how receivers may interpret email differently), past work investigating CMC and evaluating textual composition has demonstrated that context and individual characteristics influence the way people write and interpret writing. People change the way they write based on intent, emotionality, and personality differences (Hancock et al., 2007; Ireland & Mehl, 2014). For example, one study found that the linguistic styles of messages sent by people who were asked to and motivated to deceive the message recipient notably differed in terms of their usage of sensory and causal words, pronouns, and questions (Hancock et al., 2007). A summary of research on the analysis of natural language

usage in text described the differences in language use based on personality construct dimensions such as the Big Five markers, trait emotionality and psychopathology (Ireland et al., 2014). Even in an auto-reply email message, people vary in what email characteristics they think are more or less polite or direct, such as email length and amount of information included (Edstrom & Edwald, 2019).

Empirical research has also demonstrated that people write differently based on a number of individual, social, and stylistic tendencies. An assessment of various types of archival written text found that men and women semantically communicate differently in their writing (Newman et al., 2008). In addition, one's relational position to email recipients influences how individuals write such that the pronouns used can be an indicator of power and status (Kacewicz et al., 2014). A set of five studies that examined dyadic communication using different media (both face-to-face and email) found relationships between status and pronoun usage as well as status and self-orientation versus other-orientation in their word choices (Kacewicz et al., 2014).

Further interdisciplinary support of language variation and adaptation is evidenced in communication accommodation theory: based in sociolinguistics, this theory posits that speakers evaluate the speech and language of others and then make attributions and change their discourse style in response to their interlocutors (Coupland et al., 1998). In a similar vein, Niderhoffer and Pennebaker (2002) experimentally demonstrated, using a text-analytic method, that within dyadic interactions, people exhibit linguistic style matching in conversations. Given this range of both individual and group-difference driven approaches to textual composition and understanding, email content and tone is highly variable in terms of its interpretation.

Attribution Theory

One way in which an email recipient might vary in their interpretation of a message is based on attribution. Heider (1958) developed the original naïve or common-sense psychology of attribution, namely, that people, to find a satisfactory reason for an observed action by an ‘actor,’ make a distinction between personal and impersonal causality. This is a cognitive process, and, before deciding whether to attribute an observed behavior to internal (dispositional) or external (situational) causes, the observer first decides whether or not the observed behavior is intentional (Heider, 1958). The conclusion that the observer makes about intentionality, no matter how accurate, influences their inferences about the ‘actor’ themselves and what drove that particular behavior (Jones & Davis, 1965). These conclusions about intentionality and their accuracy is based on how much knowledge and information the observer has about the actor and the situation (Jones & Davis, 1965).

Developed within social psychology, attribution theory provides the underpinnings for the conclusion that “property X characterizes property Y... the ascription of an attribute to an entity and the particular causal explanation of effects associated with that entity” (Kelley, 1973, p. 107). The three main types of attribution are causality, or the reason that an event or behavior occurred, responsibility, or accountability for the outcome of the event or behavior, and the inherent characteristics of the ‘actor’ involved, qualities that are ascribed to the actor as being dispositional and stable over time or driven by external forces and pressures (Lord & Smith, 1983).

Attribution can be influenced by several factors, including affective intensity and information processing. One illustrative experiment suggested that participants attributed more dispositional attitudes towards a writer who chose to write an essay on a topic to which the

participants were highly opposed, and they did so even when they were told that the essay writers had no choice on the topic or position (Forgas, 1988). This finding supports that when confronted with communications that people react affectively or negatively to, they make dispositional attributions and do so even when they know the communicators did not freely choose to take that particular position. In addition, people are more likely to explain interactions based on dispositional characteristics than on context, especially when people are cognitively busy (Gilbert et al., 1998).

Fundamental Attribution Error. Attribution theory is important to consider when investigating how observers draw conclusions about a certain observed behavior because there are biases associated with this particular decision-making process, most commonly, that individuals tend to overestimate the contribution of internal and dispositional causes and underestimate the influence of external and circumstantial forces when making such assumptions (Heider, 1958). This bias is exacerbated when strong affect is associated with the observed behavior (Jones & Davis, 1965). Attributing responsibility to an actor themselves for a negative outcome can give rise to anger or other strong emotions (Martinko, 1995). In addition, strong affective states can impair the accuracy of attributions, and attributional biases can lead to conflict (Martinko et al., 2006; Martinko & Gardner, 1987).

The likelihood of the fundamental attribution error can also be aggravated under circumstances where equivocal knowledge is exchanged, which is reason to consider attribution in the context of email (Cramton, 2001). Also, there is evidence that experiences of incivility can drive negative affective responses (Kabat-Farr et al., 2018). Given the bias associated with the fundamental attribution error, in conjunction with the intensifying effects of incivility-driven

negative affect and lean communication formats such as email, it is reasonable to hypothesize the following:

H2: Perceptions of incivility will be negatively correlated with attribution such that greater perceived incivility will be more often associated with attribution to the sender rather than to the situation.

When committing the fundamental attribution error, an observer overestimates the influence that the actor's disposition has on the behavior and, thus, there is a greater chance that this can influence the observer's judgment of the actor's character (Berry & Frederickson, 2015). Chiu et al. (2000) developed a measure to capture this 'dispositionist bias,' asking participants from China and North Africa to evaluate incidents and decide whether the incident was due primarily to the situation or to the actor involved in the incident. This measure included items referring to the actor's conscientiousness, capabilities at work (including general performance), and their ability to communicate well; in Chiu et al.'s study, participants systematically made such dispositional inferences about the actor involved in the hypothetical incident scenario presented (2000). Other researchers found evidence of a similar phenomenon in an experimental setting: respondents committed the fundamental attribution error when evaluating emails, attributing violations in etiquette and technical errors to the email sender themselves in terms of their conscientiousness, intelligence, and trustworthiness (Vignovic & Thompson, 2010). The third hypothesis proposes a replication of those results to the extent that committing the fundamental attribution error when evaluating perceptions of incivility will lead to a poorer evaluation of the email sender.

H3: Attribution will be negatively related to the evaluation of the sender such that attribution to the sender will be associated with poorer evaluations of the sender.

- a. Attribution to the sender will be negatively associated with an evaluation of the sender as less conscientious.
- b. Attribution to the sender will be negatively associated with an evaluation of the sender as a poorer performer.
- c. Attribution to the sender will be negatively associated with an evaluation of the sender as having poorer communication skills.

Douglas and colleagues (2008) proposed a model to help explain how attribution, attitudes and affective states can influence “aggression-related processes” (p. 425). They proposed that experiencing a negative affective state as a result of a ‘trigger event,’ would lead to attributions and negative attitudes toward the perceived cause of the trigger event that were consistent with their negative affective state (p. 433). Since perceptions of incivility can lead to negative affective outcomes and, the more an observer attributes incivility to the actor’s intention to do harm leads to a more negative assessment of the entire interaction, perceptions of incivility should be directly associated with a poorer evaluation of the email sender (Marchiondo et al., 2018).

H4: There will be a positive relationship between perceived incivility and evaluation of sender such that the greater the level of perceived incivility, the poorer the evaluation of the sender. In other words, it is expected that incivility will be positively associated with poorer evaluations.

- a. Higher ratings of incivility will be positively associated with an evaluation of the sender as less conscientious.
- b. Higher ratings of incivility will be positively associated with an evaluation of the sender as a poorer performer.
- c. Higher ratings of incivility will be positively associated with an evaluation of the sender as having poorer communication skills.

In addition to poorer evaluation of the sender as a result of the fundamental attribution error and perceived incivility, there may be an additional relational consequence regarding the observer's unwillingness to want to work with the actor (email sender) in the future (relationship viability). Cramton's mutual knowledge problem model offers that viability is a critical outcome when it comes to sharing knowledge such that transfer of information that is inherently ambiguous may result in poorer relationship viability (Cramton, 2001). One study found that, based on certain components of messages, especially impoliteness, participants would not only make attributions about the sender and the sender's characteristics, but that such perceptions would also impact their willingness to work with the message writer in the future (Jessmer & Anderson, 2001). Another study found that experiences of incivility were strongly and negatively associated with satisfaction ratings for co-workers and supervisors (Lim et al., 2008). Based on this evidence, it is justifiable to test if experiences of incivility are related to people's assumptions about future working relationships.

H5: Attribution will be positively related to viability such that attribution to the sender will be associated with lower relationship viability.

H6: There will be a negative relationship between perceived incivility and relationship viability such that the greater the level of perceived incivility, the lower the relationship viability.

In summary, incivility can lead to negative affective states, which tends to give more power to the fundamental attribution error, which might then distort judgements and evaluations of an actor by the observer.

Stress, Emotional Activation & Cognitive Load

Occupational health psychology research has conceptualized incivility as a potential stressor (Cortina et al., 2017) that can trigger an emotional reaction and thus increase cognitive load (related to cognitive resources allocated to emotional processing). In other words, incivility is a workplace stressor that can act as a drain on emotional and cognitive resources (Han et al., 2016; Zhu et al., 2021).

Multiple studies have suggested that the experience of incivility is associated with resource depletion: In an experiment where participants were working on tasks with a supervisor, participants who were exposed to uncivil supervisor behavior reported lower levels of energy than those who were not exposed to uncivil behavior (Giumetti et al., 2013). Also, supervisor cyber incivility was found to predict higher levels of reported burnout, customer incivility has been shown to be positively related to emotional exhaustion, and reactions to incivility are stronger when cognitive load is high (Fonseca et al., 2012; Sliter et al., 2010).

Measuring cognitive effort or load has implications for efficiency in email comprehension and therefore, potentially, response time (Ayres, 2006; Yeo & Neal, 2008). Cognitive load can influence a person's emotional reactions, specifically when norms are violated (Fonseca et al., 2013). For example, Fonseca et al.'s (2013) research suggested that by

putting a participant into a high cognitive load condition imposed by experimental manipulation, the participant's reaction to witnessing uncivil behavior would be more hostile than the reaction of those put in a low cognitive load condition. Therefore, experiencing or perceiving incivility could act as a stressor that depletes cognitive resources, thereby imposing greater demand on cognitive effort and increasing cognitive processing time:

H7: There will be a positive relationship between perceived incivility and subjective cognitive load such that the greater the level of perceived incivility, the greater perceived mental effort required to evaluate the email.

H8: There will be a positive relationship between perceived incivility and objective cognitive load such that the greater the level of perceived incivility, the greater the processing time for evaluating the email and answering questions about the email.

The Similarity-Attraction Paradigm

Originally coined “the Law of Attraction” (Byrne, 1971), there is empirical and theoretical consensus in the social psychological sciences that there is a relationship between similarity and interpersonal attraction (Leonard Jr, 1976). The similarity-attraction paradigm explains that people are attracted to one another to the extent that they are similar in regard to individual differences, whether trait-related or behavior-related: personality, opinions, values, abilities, emotional states, emotional responses, and evaluation of performance are examples of dimensions where interpersonal attraction is a linear function of similarity and “interpersonal attraction is a construct referring primarily to an individual's affective evaluation of another individual” (Byrne & Griffitt, 1973, p. 318).

The phenomenon wherein someone is more likely to like others they believe to be more similar to themselves was originally studied solely in terms of attitudes (Byrne, 1971), but more recent research has replicated that finding in many areas including mentoring and supervisor-employee dyads at work (Ensher & Murphy, 1997). The similarity-attraction effect can even overpower logical decision-making processes, for example, Golightly et al. (1972) found that similarity affects the amount of money someone will loan to another, even when they have objective financial information about the other person. The similarity effect has been well-documented: a meta-analysis of over 300 similarity studies revealed a moderate, positive effect of similarity on attraction (Montoya et al., 2008).

Empirical research has also demonstrated that people tend to favor those who share their demographic characteristics. A recent study clustered virtual team members into groups based on characteristics such as nationality and location; Based on shared characteristics, these groups were said to share a “social identity” and then tended to form more negative perceptions towards out-group members than towards in-group members (Vahtera et al., 2017). In addition, past work indicated that employees receiving ratings in appraisal were more receptive to feedback if it was delivered by someone similar to them in race or ethnicity (Ryan et al., 2000). Being demographically similar to others in one’s work group can also impact perceptions of productivity and commitment to the group (Riordan & Shore, 1997). Taken all together, this work contributes support to the assertion that people are good at categorizing others by observable or perceived characteristics and that they generally have more positive reactions to those with whom such characteristics are shared.

Beyond the robust support in the literature (Byrne, 1997) that there is a positive linear relationship between the proportion of similarities and attraction, there is evidence that, in the

same way but more extremely, dissimilarity is related to repulsion; in terms of social attraction (liking someone or enjoying their company), dissimilar attitudes are more heavily associated with repulsion than similar ones are with attraction, but in terms of intellectual attraction (assessment of intelligence and general knowledge), dissimilar and similar attitudes are comparably related to repulsion and attraction, respectively (Singh & Ho, 2000). Michinov and Monteil (2002) also found differential attraction responses based on the type of similarity being measured; they found that behavioral responses to similarity were influenced by social context and the goals of an interaction, but affective responses remained unaffected by such contextual cues.

Thus, there are nuances to this paradigm: the effect of similarity on attraction may or may not be the same in magnitude as the effect of dissimilarity on repulsion, that this difference may be dependent on the type of attraction, and that context may play a role in informing some types of attraction responses but not others. Montoya and Horton (2013) use two models to explain underpinnings of the similarity effect. The first, an automatic cognitive process, is that detected similarities reinforce one's current beliefs and view of the world to maintain a sense of logic and consistency. The other is that the strength of attraction is influenced by information available, namely, that the effect of similarity on attraction is magnified when stimuli are informative and salient (Montoya & Horton, 2013). Moreover, when information is favorable, whether that is related to personality traits, attitudes, or behaviors, that information will be positively evaluated; conversely, people will make negative evaluations when that information is dissimilar or unfavorable.

Essentially, perceived similarity is fairly consistently associated with liking and other essential reactions, such as satisfaction with the likelihood of continuing a relationship (Ensher &

Murphy, 1997). Additionally, feelings of identification and similarity can alleviate some complications related to communication in a relationship (Lincoln & Miller, 1979). One way of assessing similarity is to ask about shared goals as well as one's perceptions in terms of similarity in regard to appearance, behavior, personality, and abilities (Crump et al., 2010). Similarity perceptions (or perceived homophily) have been measured in the past by asking a person about the extent to which they believe another thinks similarly, behaves similarly, or holds values similar to them (Leonhardt et al., 2020).

Even when not much information is available, people use whatever cues are present to draw conclusions about another person. In textual email transmission, it is possible to pick up on indicators of various personality traits such as extraversion and psychoticism (Gill et al., 2006). Dearth of information in email motivates people to search for anything to interpret; evidence supports that people actively search for whatever signals they can find in an email – capitalization and use of emoticons are more overt cues that are associated with liking or disliking, however, more subtle indicators, such as deception, are also detectable in CMC (Byron & Baldrige, 2007; Hancock et al., 2007). It follows then, if people can collect information related to potential similarities or dissimilarities and recognize incivility in email, that perceived similarity might alleviate the negative assessment of such mistreatment or violation of social norms.

In general, people differ from one another in terms of how tolerant they are of mistreatment at work or how acceptable such behavior is (Salin et al., 2019). To better understand such intolerance, it may be useful to consider politeness theory. Even though politeness and civility (or impoliteness and incivility) are not the same constructs, Brown and Levinson's politeness theory poses that a communicator who is more similar to the other may be

more permissive of impoliteness (Goldsmith, 2007). The *Mere Preferences Hypothesis* consistently suggests that ingroup members will be more likely excused if they violate social or cultural norms, and people will punish norm violations more harshly when committed by outgroup members (Liu, n.d.; McAuliffe & Dunham, 2016). By definition, acts of incivility are norm violations (Andersson & Pearson, 1999). Therefore, people might give more leeway to those perceived as being uncivil if they are also perceived as being more similar. The following moderation hypotheses account for the power of similarity and attraction. Namely, that the negative evaluations spurred by perceptions of incivility and attributions of characteristics to an email sender will be mitigated by perceptions of similarity towards that email sender.

H9: Perceptions of similarity to the sender will moderate the relationship between attribution and relationship viability such that greater perceptions of similarity will be associated with a weaker positive relationship between attribution and relationship viability.

H10: Perceptions of similarity to the sender will moderate the relationship between attribution and sender evaluation such that greater perceptions of similarity will be associated with a weaker negative relationship between attribution and evaluation of the sender.

- a. Similarity will moderate the attribution-sender evaluation relationship to the extent that attribution will be associated with a less harsh evaluation of the sender as being unconscientious.
- b. Similarity will moderate the attribution-sender evaluation relationship to the extent that attribution will be associated with a less harsh evaluation of the sender as being a poor performer.

- c. Similarity will moderate the attribution-sender evaluation relationship to the extent that attribution will be associated with a less harsh evaluation of the sender as having poor communication skills.

H11: Perceptions of similarity to the sender will moderate the relationship between incivility and relationship viability such that greater perceptions of similarity will be associated with a weaker negative relationship between incivility and relationship viability.

H12: Perceptions of similarity to the sender will moderate the relationship between incivility and sender evaluation such that greater perceptions of similarity will be associated with a weaker positive relationship between incivility and evaluation of the sender.

- a. Similarity will moderate the incivility-sender evaluation relationship to the extent that incivility will be associated with a less harsh evaluation of the sender as being unconscientious.
- b. Similarity will moderate the incivility-sender evaluation relationship to the extent that incivility will be associated with a less harsh evaluation of the sender as being a poor performer.
- c. Similarity will moderate the incivility-sender evaluation relationship to the extent that incivility will be associated with a less harsh evaluation of the sender as having poor communication skills.

To test the twelve hypotheses proposed in the preceding section, a vignette-based methodology was implemented. This design is conducive to investigating workplace email incivility and attribution by examining how a potential ‘target’ experiences

incivility as a function of their perception of the instigator and the instigator's behavior based purely on hypothetical situations and email text. The model of hypothesized relationships is depicted in *Figure 1*.

Method

Stimulus material (email messages) were developed prior to data collection. Before converting material into a survey for primary data collection, material was generated and then thoroughly evaluated and pilot-tested.

Stimulus Material Development

Graduate students and department staff members in the Psychology Department at Colorado State University (CSU) were directly contacted and asked if they would voluntarily submit email material from their own experience that they considered to be uncivil. The request for material was sent via email with a link to a Qualtrics survey (Appendix A). In this email request, potential respondents were provided with the definition of incivility and some specific behavioral examples of incivility. Contributors could copy and paste email text they thought was uncivil directly into the survey and answer follow-up questions regarding which words, phrases, or sentences in the message they identified as being uncivil. They could submit up to four email excerpts. Ten individuals made submissions.

In addition to the raw material collected from colleagues, verbal and written manipulations from the incivility literature provided content for the construction of the email vignettes. One source was Giumetti et al.'s (2013) list of uncivil phrases from work testing task performance and emotional affect by manipulating incivility with either uncivil or supportive phrases. Other phrases were derived from studies where the researchers manipulated incivility by having the experimenter use either uncivil or civil language in interactions with participants to

test participant task performance and helpfulness as well as the task performance of a participant witnessing expressions of incivility (Porath & Erez, 2007; Porath & Erez, 2009). The remaining phrases came from publicly available quotes in emails written by TV and film Director Frank Darabont, who was referenced in an article written by Christine Porath and pulled from the original article in the *New York Post* (Atkinson, 2017; Porath, 2017).

The integration of material from all of these sources allowed for the production of forty-two phrases and drafts of six pairs of email vignettes. Each pair of vignettes included a hypothetical workplace scenario, a drafted uncivil email, and an ‘analogous’ *not* uncivil email version where the uncivil phrases were revised to be civil (note that the opposite of uncivil is not, in terms of construct definition, civil, however, for the purposes of this document, the analogue of an uncivil email will henceforth be referred to as ‘civil’ instead of ‘not uncivil’).

To control for certain email characteristics that could confound perceptions of incivility by distracting from the email content itself, vignettes were composed using the following criteria: emails had no closings or greetings, since these email components on their own introduce some differences in assessments of politeness (Waldvogel, 2007). The hypothetical scenario referred to a ‘neutral’ situation where the interlocuters were of the same status, title, position, tenure, and team, since authority could influence assessments of incivility (Bjørge, 2007). Uncivil and civil email analogues had roughly equivalent word counts, literacy levels and ease of readability (literacy level of all emails were less than or equal to the Flesch Kinkade grade level 8 and Flesch reading ease scores above 70). Finally, none of the vignettes included cursing, radical punctuation, or capitalization of entire words in either the uncivil or civil email versions.

Four subject matter experts from the CSU Psychology, Business and Communication Studies Department evaluated the email vignette stimuli. These subject matter experts were qualified because they had conducted research in incivility and had at least one top journal publication where incivility was a primary variable of interest, or they were faculty in the Communication Studies Department and had extensive experience in communication research. Edits to vignettes based on subject matter feedback were made before finalizing the survey for data collection.

Participants

Participants were adults who accessed the survey using their Amazon Mechanical Turk workforce pool (MTurk) account. To be considered eligible for the study, respondents needed to have worked at least part-time in the past two years, have worked at least three years in their lifetime, be over the age of 21, have used email on a daily basis at work, and have high to native level proficiency in English (see Appendix B for a list of eligibility requirements and survey questions).

Across survey versions, 54% of the sample was female and 45% was male. Two thirds of respondents identified as White. The next most common racial identity was Asian (16%) followed by Black or African American (5%) and Hispanic, Latinx, Chicanx (4%). Mean age was 38.7 years ($SD = 11.10$) and mean years in the workforce reported was 15.8 ($SD = 9.90$). The majority of respondents claimed they were born in the United States (67%), 10% were from India, and the remainder of the sample was variable in terms of birth nation (see *Table 1*). While 79% of the sample reported native English reader and speaker-level proficiency, 41% identified as bilingual or multilingual and 30% identified as bicultural or multicultural. See *Table 1* for a comprehensive breakdown of sample demographics.

Procedure

After obtaining IRB approval, the main survey was programmed using the Qualtrics survey design platform. The main survey was designed to take 30-45 minutes to complete and included sections requesting demographic information, followed by the evaluation of email vignettes, followed by a number of scales included as potential controls (see *Measures*). There were two versions of the survey, each with four email vignettes. Survey version A contained 2 uncivil email vignettes and 2 civil email vignettes. Survey version B contained the analogous versions of the vignettes in survey version A. Based on the length of the survey, five attention check items were included as well as subjective attentive responding items at the end of the survey (Goldammer et al., 2020; Huang et al., 2012).

Pilot Testing

Round 1. Before finalizing the survey, there were two rounds of pilot testing. Graduate students in the CSU I/O Psychology Department as well as non-CSU affiliated working professionals piloted the survey before launch. Pilot testers reported the time it took them to complete the survey and provided feedback regarding survey length, item wording and instructions, and survey functionality. In addition, to check the quality of the incivility manipulation, testers were asked to focus particularly on evaluating email vignettes and providing thoughtful and honest incivility ratings (see *Measures*).

Three of the pilot participants (raters 1, 2 and 3) assessed survey version A (evaluating uncivil vignettes 1, 3, and 5 and civil vignettes 2, 4 and 6) and another three pilot participants (raters 4, 5 and 6) assessed survey version B (evaluating uncivil vignettes 2, 4, and 6 and civil vignettes 1, 3, and 5). Incivility ratings based on the assessment of this round of pilot testing are reported in *Table 6a*. To make sure the email vignettes were performing as designed, average

pilot-tester ratings and intra-class correlations were calculated as an evaluation of inter-rater reliability (Hallgren, 2012). Based on these Round 1 ratings, civil versions of vignettes 1, 3 and 5 were revised and re-tested.

Round 2. A different rater (also a CSU I/O Psychology graduate student) reviewed the civil version of vignettes 1, 3 and 5, which had received higher than intended incivility ratings during Round 1 of pilot testing. First, the three problematic vignettes were revised with the aim of making them more civil. Then, this new rater (rater 7) evaluated both the original and revised versions of civil vignettes 1, 3 and 5 using the incivility rating item. Based on this rater's assessment, the revised versions of civil vignettes 3 and 5 were acceptable for use in the final survey (see *Table 6b*).

Based on this data and feedback, the four pairs of vignettes that performed the best according to pilot-tester incivility ratings across both rounds of testing were selected; tester feedback was also implemented in making survey cuts according to reported confusion or fatigue. An additional new rater (rater 8), a CSU senior undergraduate psychology major, piloted the revised version of the survey for a final functionality, typo, and incivility rating check. From the original six vignettes, vignettes 3-6 were retained. Throughout the rest of the document, vignettes 3, 4, 5 and 6 will be referred to as vignettes 1, 2, 3 and 4, respectively.

Primary Data Collection

After revising the vignettes and editing the survey in Qualtrics, participants were recruited using the Amazon Mechanical Turk workforce pool (MTurk) following best practices and protocols of the platform (Cheung et al., 2017). Data collection took place over the course of approximately six weeks (9/2/2021-10/15/2021). Batches of survey versions A and B were posted separately in an alternating fashion in an attempt to get a fairly equal number of

respondents in each version. Within both survey versions, the presentation order of the vignettes was randomized to minimize order effects. MTurk respondents who began the eligibility survey were compensated 10 cents, and those who went on to complete the main survey attentively were compensated an additional \$3.90. The complete survey can be found in Appendix C, and the email vignettes and associated scenarios are listed in Appendix D. Survey instructions provided to MTurk participants are in Appendix E.

Measures

Participants not only evaluated the email vignettes but also provided detailed demographic information and filled out a number of scales related to their own experiences with incivility. All items and scales used in the survey are documented in Appendix F.

Key Model Variables

Predictors. The two predictors in the model reflect the degree to which the respondent judged the email content to be uncivil (perceived incivility) and whether or not the respondent attributed any incivility that they perceived to the email sender or to the scenario/situation (attribution).

Perceived incivility. For each email vignette presented, respondents were asked the extent to which they agreed with the following statement: “This email is uncivil.” Giumetti et al. (2013) also used this item to evaluate ratings of incivility in email, but instead of using a 7-point Likert scale, this study utilized a 6-point scale: 1 (*Strongly disagree*) to 6 (*Strongly agree*) where there was no neutral option. It is common to use an even number of response choices when the research goal is to “force the respondent to at least make a weak commitment” one way or the other (DeVellis, 2012, p. 91).

Attribution. After respondents rated the vignettes in terms of how uncivil they thought the email was, they reported their attributions regarding the incivility. Items from Duncan (1976) were adapted to create a single question regarding whether participants attributed incivility to either the email sender themselves or the situation (since they were given a scenario as context as well). Because respondents were asked to make attributions based on incivility detected, an option in the case that the respondent did not perceive the email as uncivil was provided. Therefore, the final adaptation of the item was: “if you think this email is uncivil, would you attribute the incivility to the email sender themselves or to the situation,” where the response options were, categorically: the email sender themselves, the situation, and not applicable (N/A).

Outcomes. There were seven outcome variables in the proposed model: message ambiguity, relationship viability, subjective and objective cognitive load, and evaluation of the sender on three separate dimensions: conscientiousness, performance, and communication skills.

Ambiguity (clarity). To measure ambiguity, items from the clarity dimension of the Quality of Communication Experience scale were selected, where the dimension’s alpha in the scale validation study was .75 (Liu et al., 2010). An example item to assess perceptions of ambiguity or lack of clarity is: “I understood what the sender was saying” where respondents provided ratings on a 5-point Likert Scale: 1 (*Strongly disagree*) to 5 (*Strongly agree*). The three items used in the final analysis had reliability coefficients ranging from .82-.89 across the eight vignettes.

Viability. An empirical study (Bushe & Coetzer, 2007) investigating group development and viability was referenced to develop relationship viability items for the current study; One of those items was specifically and solely related to viability: “I would choose this person to work with on similar tasks in the future.” Also included in the current study was an item adapted from

Barrick et al., (1998): “I would want to collaborate with this person at work.” Both items were rated on a 5-point Likert Scale: 1 (*Strongly disagree*) to 5 (*Strongly agree*). The two item scores were averaged together because they were highly correlated (correlation coefficients ranged from .67 - .84 across all eight vignettes, where .67 was the only value below .70).

Cognitive Load. Cognitive load was measured both subjectively and objectively. The subjective measure of cognitive load will be referred to here as *mental effort*. To capture mental effort, respondents rated their perceived effort in understanding and evaluating each email vignette on a 5-point Likert scale: 1 (*No mental effort at all*) to 5 (*A great deal of mental effort*; Leppnik et al., 2013; Paas et al., 2003). Metadata from MTurk captured the amount of time a participant spent evaluating each email vignette, which time included reading the scenario, email text, and responding to the questions associated with that specific email vignette (objective cognitive load). In visual processing research, longer fixation time is associated with higher cognitive load (Korbach et al., 2017).

Evaluation of Sender. Chiu et al. (2000) developed items to measure dispositional attribution that performed consistently across cultures ($\alpha = .85$). From this measure, the three items related to the individual actor involved in the scenario were selected. Confirmatory Factor Analysis (CFA) of these three items produced factor loadings and reliability statistics that did not meet requirements necessary to treat the items as a mini-scale (single factor or dimension), therefore, because of this, and the content of the items, each item was analyzed separately – related to evaluation of the sender, respondents assessed the email sender’s overall conscientiousness, performance, and communication skills. Items were rated on a 5-point Likert Scale: 1 (*Strongly disagree*) to 5 (*Strongly agree*).

Moderator: Similarity to Sender

Based on quantitative research that used items to assess participant perceptions of how similar one is to another, research in perceived homophily and the theoretical foundation that similarity-attraction is preceded by shared values, goals, and perspectives, four items were compiled to assess perceptions of similarity to the email sender (Byrne, 1971; Crump et al., 2010; Leonhardt et al., 2020). In line with previous research, these items addressed similarity directly, i.e., “I am similar to this email sender” as well as asked about the degree to which respondents thought the email sender shared their goals, values, and working styles (as it is appropriate to ask about behavior and abilities when assessing similarity: Crump et al., 2010). After performing on a CFA on how the four items behaved as a scale, all factor loadings were very high, and reliabilities ranged from .88 - .92 across the vignettes. Items were rated on a 5-point Likert Scale: 1 (*Strongly disagree*) to 5 (*Strongly agree*).

Demographics & Control Measures

Respondents reported their gender, race, sexual orientation, and age. They were also prompted to report their years in the workforce and their current employment status. Finally, information was requested about languages spoken and English language proficiency as well as nation of birth and bi/multilingualism and culturalism. The measures listed below are scales that were included at the end of the survey because such individual difference variables related to attribution and variability in personal past experiences of face-to-face or cyber incivility at work might have been necessary to include in analysis as control variables. (See Appendix F for scales and scale items.)

Attribution biases. After evaluating email vignettes, participants completed the six-item hostile attribution bias scale ($\alpha = .72$; Adams & John, 1997) and the 12-item organizational

attribution style scale, where respondents say to what extent they think certain hypothetical workplace outcomes (i.e., getting laid off, getting a poor performance evaluation, or failing to achieve goals) would be caused by internal or external causes (Kent & Martinko, 1995).

Workplace incivility. Cortina et al.'s 2001 workplace incivility scale (WIS, $\alpha = .89$), incorporating updates made in the 2013 paper (Cortina et al., 2013) was also included. From both the original and the updated WIS, only items that did not risk infringing on other related workplace mistreatment constructs such as ostracism or bullying were selected (Hershcovis, 2011). As a result, this study used only seven of the original WIS items, where the instructions are “During the PAST YEAR, were you ever in a situation in which any of your supervisors or co-workers:...”, and participants use a 5-point scale to respond: 0 (*never*) to 4 (*many times*) (Cortina et al., 2013). Sample items include “Put you down or were condescending to you,” and “made insulting or disparaging remarks about you.” In addition to the WIS, participants filled out the cyber incivility scale, a 14-item scale ($\alpha = .95$) developed by Lim & Teo (2009) and built to measure “behavior exhibited in computer mediated interactions that violate workplace norms of mutual respect” (Lim & Teo, 2009 p. 419). A single-item measure, as implemented by a previous experiment evaluating online politeness where the participants were asked to rate on a 5-point scale how polite they perceived a message to be, was also added as a potential correlate of incivility ratings (Danescu-Niculescu-Mizil et al., 2013; Lerman, 2006).

Other covariates. Additional scales included in the survey were PANAS (Positive and Negative Affect Scales, Watson et al., 1988) and sensitivity to interpersonal treatment (SIT) using an eight-item scale with two dimensions (SIT – self, $\alpha = .78$ and SIT – other, $\alpha = .70$), which estimates how people differ in the way they react to or perceive interpersonal communications with their co-workers (Bunk & Magley, 2011). Given the diverse nature of the

sample and the ambiguity of the incivility construct, items to measure a relevant dimension related to cultural orientation – ambiguity intolerance – was included (Sharma, 2010, α range .70-.85 for all cultural dimension sub-scales).

Results

Data Cleaning and Quality Assessment

A thorough investigation of data quality was conducted before hypothesis testing. Specifically, data quality was assessed by looking at patterns of missing data, item frequency distributions and descriptive statistics. The first check was for overall survey completion percentage, followed by accuracy of responses to attention checking items. Per guidelines of inattentive responding (Huang et al., 2012), differences in response patterns were examined between those who spent very little time on the survey overall and on each individual vignette compared to expected time to complete the survey attentively (significance testing using independent sample *t*-tests were used to make decisions). Responses that were flagged for potential fraud by the Qualtrics survey technology were also checked.

A conservative approach to data retention using listwise deletion for removing data from inattentive participants was implemented (Newman, 2014). To confirm the robustness of the vignette design, a vignette level assessment of each of the model variables using descriptive statistics, histograms, and boxplots was done. Where necessary, potential outliers were explored. By preliminarily reviewing the descriptive nature of the data, it could be concluded that, for the most part, uncivil vignettes were rated as uncivil and civil vignettes were rated as civil and that, after data cleaning, uncivil and civil vignette analogues were rated significantly differently from one another, per independent sample *t*-tests.

Of the 488 eligible participants who began the survey, 373 finished the survey with at least 70% of the survey completed (177 in survey version A, 196 in version B). To make sure each response was independent, 34 submissions from duplicate MTurk Worker IDs were dropped. For duplicate respondents, only their first submission was retained given that people tend to alter their answers when they re-take a test or survey (Hogan, Barrett & Hogan, 2007). Of these remaining 339 responses, 312 correctly responded to at least three of the five attention checks (Meade & Craig, 2012; Goldammer et al., 2020).

Because response time can be an indicator of inattentive responding, overall time spent on the survey and time spent per vignette page was assessed (Huang et al., 2012). Out of the 312 remaining respondents, 71 spent less than 15 minutes total on the survey (pilot testers estimated that attentive responders would need at least 30 minutes and in the participant sample, the median time spent before removing any respondents was 22.5 minutes). Independent *t*-test comparisons showed that respondents spending less than 15 minutes overall differed significantly on their incivility ratings on five out of the eight vignettes where four out of those five were all civil by design, therefore, these 71 respondents were dropped listwise as inattentive responders.

For the same reason as above, of the 241 remaining responses, the amount of time spent evaluating each email vignette was assessed. Again, independent *t*-test comparisons showed that respondents who spent less than 75 seconds on any single vignette differed significantly on their incivility ratings on five out of the eight vignettes, where four out of those five were all civil by design. After these respondents were dropped listwise, 219 responses remained (64.6% of the completed non-duplicate original sample). Of these 219 responses, 104 were in survey version A

(47.6%) and 115 were in survey version B (52.5%). After listwise deletion based on this response time approach, missing data did not appear to pose a problem for any variables.

To make sure the final sample was completed by legitimately human respondents, flags on potential bots or fraudulent responses were checked. Twenty-eight responses were flagged as potential bots or fraudulent responders. In terms of attention checking, missing data and qualitative responding, these responses looked legitimate, and independent t-tests confirmed that there were no significant differences in incivility ratings between responses flagged for bots or fraud and those not flagged, therefore, those 28 responses were retained in the final sample.

Finally, because there was some concern that there might be discrepancies between those respondents who reported being native speakers of English and those that didn't, path analysis models were run both with all participants and excluding those who reported being non-native English speakers. The results were comparable across both samples; therefore all 219 respondents were retained, both native and non-native English speakers.

Outliers

After data cleaning, there were no outlying responses for open-ended numeric entry variables such as age or years in the workforce. Time spent per vignette (objective cognitive load) was the only variable in the primary model that could vary unbounded outside of a scale, therefore descriptive statistics, histograms, and boxplots were evaluated to identify outliers. This was the only variable that was statistically skewed. For those respondents who spent more than 20 minutes evaluating any single email vignette (over three standard deviations from the mean), their response time was replaced by imputation of the mean after deletion – despite the documented limitations of mean imputation, given the nature of the cognitive load variable, this is an acceptable application of the approach (Newman, 2014).

Psychometric Analyses

Next, a series of analyses were conducted to evaluate the psychometric properties of the scales used in this study. Specifically, confirmatory factor analyses were done to assess variables with multiple item indicators (perceived ambiguity, relationship viability and similarity). All item factor loadings and reliability coefficients were acceptable. (Coefficient alphas are reported in *Tables 3a* and *3b* along the diagonal.)

Descriptive Statistics

All vignette-specific descriptive statistics are presented in *Tables 2a* and *2b*. Average incivility ratings of email vignettes confirm that respondents agreed that the email was uncivil when it was designed to be so and did not agree that the email was uncivil when it was not. Across the four uncivil vignettes the range of mean incivility ratings was 4.42-5.11 on a six-point Likert scale, whereas, across the four civil vignettes, the range of mean incivility ratings was 2.46-2.77. To confirm that these descriptive differences were meaningful, effect sizes were calculated, which are reported in *Table 2d* (Tabachnik & Fidell, 2013). For most model variables, mean differences between uncivil and civil vignette analogues were very large ($d_{\text{perceivedIncivility1-4}} > |1|$). However, it is important to note that 95% confidence intervals were also very large and consistently crossed zero, which is a caution to the interpreter that these findings might be sample-specific and not generalize well to the population.

Counter to expectations, on average, respondents rated uncivil email vignettes as *less* ambiguous and rated civil vignettes as *easier* to understand ($M_{\text{uncivil-all}} = 4.15$, $M_{\text{civil-all}} = 4.44$, where greater mean values indicate less ambiguity). Mean measures of cognitive load did not differ that much between sets of vignettes. Respondents spent roughly 4-5 minutes evaluating

each vignette independent of whether it was uncivil or civil, and they typically reported a moderate amount of mental effort evaluating both uncivil and civil vignettes.

Overall, sender viability ratings were lower on uncivil vignettes (means range from 1.18-2.33) than on civil vignettes (means range from 3.58-3.80). The same pattern emerged for the variable related to perceptions of similarity to the email sender, where ratings were generally lower across uncivil vignettes ($M_{\text{uncivil-all}} = 2.24$) than across civil vignettes ($M_{\text{civil-all}} = 3.66$). Evaluation of the sender was, on average, harsher within the context of an uncivil vignette than a civil one. This difference in averages was greatest when evaluating communication skills and least great when evaluating the sender's performance (see *Table 2c* and *Table 2d*).

Hypothesis Testing

In this section, results are addressed somewhat out of order. Hypothesis 2, which predicted the relationship between perceived incivility and attribution, was analyzed using Pearson correlation significance tests. To test Hypotheses 1 and 3-12, a moderated path analysis was conducted. First, the findings related to attribution and Hypothesis 2 are discussed. Then, each of the hypotheses in the path model (*Figure 1*) are addressed.

Attribution Ratings

In general, survey respondents attributed incivility to the email sender more often when evaluating vignettes designed to be uncivil than when evaluating those designed to be civil: attributions were made to the sender in 72% of cases in uncivil email vignette 1, and across the other three uncivil vignettes the rate of attribution to sender was 75%, 50% and 71%. In contrast, respondents made attributions to the sender in 31%, 15%, 25% and 19% of cases across the four civil vignettes. Respondents claimed that attribution to either the sender or situation was not applicable at an average rate of 3% across the uncivil vignettes and 45% across civil ones.

To test Hypothesis 2, that perceived incivility would be associated more strongly with attributions to the sender than to the situation, correlations, with significance tests, between attribution and incivility variables were computed. There was strong support for this hypothesis, especially when the vignettes were uncivil. All four correlations between incivility and attribution were statistically significant and in the expected direction ($r_{\text{uncivil-1}} = -.60, p < .001$; $r_{\text{uncivil-2}} = -.28, p < .01$; $r_{\text{uncivil-3}} = -.41, p < .001$; $r_{\text{uncivil-4}} = -.28, p < .01$). This effect was also present across civil vignettes only to a slightly lesser degree, where all correlations but that for vignette 2 were statistically significant ($r_{\text{civil-1}} = -.41, p < .01$; $r_{\text{civil-2}} = -.22, p > .05$; $r_{\text{civil-3}} = -.28, p < .05$; $r_{\text{civil-4}} = -.36, p < .01$). All other variable correlations can be found in *Table 3a* and *Table 3b*.

Path Analysis

A moderated path analysis was conducted using R version 4.1.1 to test the hypotheses that perceived incivility and attribution to sender predict relationship viability and poor evaluation of sender and that perceived incivility also predicts perceived ambiguity and cognitive load (path model in *Figure 1*). In addition, perceived similarity to sender was included as a moderator of both incivility and attribution predictors to test the hypotheses that perceived similarity to sender would mitigate the relationship between perceived incivility and relationship viability and evaluation of sender as well as the relationship between attribution and relationship viability and evaluation of sender. Because not all key variables shared the same scale (see *Measures*), standardized regression coefficients are reported and discussed here (Deegan, 1978). These coefficients (β) are an index of effect size, with values of .1, .3, and .5 being considered small, medium, and large, respectively (Cohen, 1998). A robust form of maximum likelihood estimation (MLR) to perform Chi-Square tests and derive parameter estimates and indices of

model fit was applied because this estimation technique is equipped to handle data where normality assumptions aren't absolutely met (Li, 2016; Satorra & Bentler, 2010). Per Aguinis and Vandenberg (2014). Path models were run both with and without control variables.

Model fit parameters suggested by Hu and Bentler (1999) were applied to assess the quality of overall model fit set by the following fit indices: comparative fit index (CFI) > .95, Tucker–Lewis Index (TLI) > .95, root mean square error of approximation (RMSEA) < .06, and standardized root mean square residual (SRMR) < .08. In addition, Chi-square tests of model fit, where a non-significant test indicates a good fit of the model to the data, were conducted. When evaluating standardized regression coefficients, *p*-values determined statistical significance ($\alpha < .05$).

Prior to testing hypotheses, assumptions for path analysis were checked. Multicollinearity was assessed by looking at the magnitude of Pearson correlations between the two predictors, perceived incivility and attribution; although there is always some concern when interpreting the outcome of models with correlated predictors, the magnitude of correlation coefficients was at most $|.60|$ (uncivil vignette 1), which is not overly concerning (Cohen et al., 2014; Newman, 2014; Tabachnik & Fidell, 2013). The linearity of the relationship between independent and dependent variables was also checked using scatter plots and linear regressions. This assumption was not met for cognitive load variables and only partly met for perceived ambiguity but was met for all other variables. Homoscedasticity was evaluated by assessing fitted values against residuals for all relationships between independent and dependent variables. The independent variables predicted inconsistently at different levels for cognitive load variables and perceived ambiguity. To check the normality of the dependent variable distributions, descriptive statistics and plotted histograms were reviewed. Skewness and kurtosis statistics for all variables except

for objective cognitive load fell within bounds considered within the normal range (± 2 and ± 3 , respectively: Tabachnick & Fidell, 2013). As explained in the *Outliers* section above, mitigation of this skewness was handled by replacing a few extreme outliers by mean imputation and using an estimation method robust to non-normal data instead of doing a variable transformation.

Overall Model Fit. All overall model fit statistics for the path analyses are reported in *Table 4*. Based on these results, the fit of the model to the data varied across vignettes. The chi-square test of model fit was significant for all but one email vignette (Uncivil Vignette 1, $\chi^2(9) = 34.34$ $p = .000$). The robust Comparative Fit Index (CFI) was in an acceptable range for all eight vignettes ($CFI_{\min} = .91$, $CFI_{\max} = 1.00$) as was the standardized root mean square residual ($SRMR_{\min} = .027$, $SRMR_{\max} = .059$). Robust RMSEA did not demonstrate good fit on three of the eight vignettes ($RMSEA_{\text{uncivil-1}} = .13$, $RMSEA_{\text{uncivil-3}} = .09$, $RMSEA_{\text{civil-4}} = .12$). However, because of the small sample size and low degrees of freedom, RMSEA can be artificially large because there is greater sampling error (Kenny et al., 2015).

Main Effects. All standardized regression coefficients and standard errors are reported in *Table 5*. There was partial support for Hypothesis 1 such that perceived incivility was negatively related to ambiguity among vignettes with *civil* messages; the greater the perceived incivility, the less easy it was to understand the message. This relationship was statistically significant for three of the four civil vignettes where the average effect size across all four was moderate ($b_{\text{civil-mean}} = -.30$). However, contrary to original predictions, this was not the case for uncivil vignettes: incivility and ambiguity were unrelated in all four uncivil vignettes; the average effect size across uncivil vignettes was small and all effects were statistically insignificant ($b_{\text{uncivil-mean}} = .10$).

Attribution rating was not a statistically significant predictor of either relationship viability or any of the three sender evaluation variables. Therefore, there was no statistical support for either Hypothesis 3 or 5.

Hypotheses 4a, 4b, and 4c indicated that incivility would predict the evaluation of the sender such that greater perceived incivility would be associated with poorer sender evaluation. In terms of sender evaluation, there was varied support for Hypothesis 4. Hypotheses 4a and 4b were supported in some but not all vignettes. Incivility was negatively related to conscientiousness in a subset of the vignettes (2 uncivil, 3 civil) and significantly predicted rating senders as poor performers in a different but overlapping subset of the vignettes (3 uncivil, 2 civil). Hypothesis 4c was more strongly supported in that incivility significantly predicted that respondents would rate email senders as poor communicators in all four uncivil vignettes and two of the four civil vignettes.

Incivility was consistently negatively associated with predicted relationship viability ($p < .05$ for effect sizes across all eight vignettes both civil and uncivil), which supports Hypothesis 6: the more strongly respondents rated the vignettes as uncivil, the less relationship viability they reported. Moreover, these effects were stronger for civil vignettes compared to uncivil vignettes ($b_{\text{uncivil-min}} = -.55$, $b_{\text{uncivil-max}} = -.43$, $b_{\text{civil-min}} = -1.15$, $b_{\text{civil-max}} = -.45$).

Neither Hypothesis 7 nor 8 was supported by the data. Incivility was unrelated to subjective assessments of mental effort and the amount of time that participants spent evaluating vignettes. This was the case across all vignettes for both the mental effort and cognitive load variables.

Moderation Effects. There were no significant moderation effects between perceived similarity and attribution. Therefore, the data do not provide support for either Hypothesis 9 or

10. However, there were a couple of significant similarity-incivility moderation effects that support Hypothesis 11 (that similarity would mitigate the negative relationship between incivility and relationship viability) and partially support Hypothesis 12c (that similarity would weaken the positive effect of perceived incivility on evaluation of the sender as a poor communicator). For all eight of the vignettes, perceived similarity significantly moderated the relationship between incivility and relationship viability such that when raters perceived themselves to be more similar to the email sender, if perceived incivility was also high, then relationship viability was higher, and this effect was stronger when the email vignettes were civil (effect sizes for all eight vignettes were statistically significant, $p < .05$: $b_{\text{uncivil-min}} = .43$, $b_{\text{uncivil-max}} = .58$, $b_{\text{civil-min}} = .54$, $b_{\text{civil-max}} = 1.04$). In addition, perceived similarity significantly moderated the relationship between incivility and the evaluation of the sender in terms of their communication skills such that when perceptions of similarity were high and perceived incivility was also high, respondents were less likely to agree that the sender was a poor communicator; however, the data was only statistically significant at the a priori $\alpha < .05$ for five of the eight vignettes, although these five included all four of the uncivil vignettes ($b_{\text{uncivil-min}} = -.47$, $p < .05$ and $b_{\text{uncivil-max}} = -.27$, $p < .05$).

Discussion

The purpose of the current study was to gain a better understanding of how people make attributions about coworkers when they perceive incivility in workplace email. Specifically, the study focused on how workers react to emails in terms of their attributions to and their evaluations of the email sender. The study measured how perceived incivility in email and attribution of such incivility to the email sender (rather than the situation) was related to the following variables: message ambiguity, or how clear the respondent thought the email message was; the cognitive effort the respondent reported needing to decipher the email; viability, or, to

what degree the respondent thought the email sender would make a good future coworker; and evaluation of the email sender in terms of their conscientiousness, their ability to perform their job, and their communication skills. A respondent's perception of how similar they were to the email sender was included as a moderator: specifically, a priori hypotheses considered that perception of similarity would mitigate negative evaluations of the email sender and reluctance to work with the email sender.

Overall, results indicated that people can and do detect incivility in email and that they react differently to analogous communications when presented with the same workplace scenario. The most consistent findings suggest that perceptions of incivility in email likely exacerbate people's tendency to make the fundamental attribution error (i.e., they are more likely to attribute behavior to characteristics of the person rather than the situation) and this has implications for how people make judgements about others in terms of that other person's capabilities as well as their own desire to work with that other person. In other words, if they perceived incivility in email, they are more likely to attribute the uncivil behavior to the email sender's dispositional and internal characteristics rather than external or situational factors. Furthermore, results suggest that perceptions of similarity may be powerful enough to significantly reduce or even reverse the negative effects that perceptions of incivility have on one's evaluations of their interlocuter.

Interpretation of Findings

Before interpreting the empirical results of hypothesis testing, it is important to note that the sample size varied depending on email vignette due to the attribution variable. As a reminder, the attribution variable was coded in a binary fashion with a third option to select 'Not Applicable' (i.e., "NA") if incivility was not detected. Descriptive statistics indicated that

respondents selected 'NA' in 40-50% of cases on civil vignettes and 2-5% of cases on uncivil vignettes. Therefore, because attribution was a predictor variable in the specified a priori model, the cases in which attribution was categorized as 'NA' were not modeled for hypothesis testing, which led to a discrepancy in sample size between path models for civil compared to uncivil vignettes. Per *Table 4*, the range of observations used in path models for civil vignettes was 54-67 and for uncivil vignettes was 102-111. Despite these low sample sizes, fit statistics and chi square significance tests still produced mostly satisfactory model fits.

The proposal that more incivility would be associated with more ambiguity and less clarity, was not supported for uncivil vignettes. However, the relationship between perceived incivility and ambiguity was statistically significant for three of the four *civil* vignettes. Effect sizes across these four civil vignettes were all of magnitude greater than $\beta = |.22|$, and all associated standard errors were quite small (see *Table 5*). One explanation for finding a relationship between ambiguity and perceived incivility on civil but not uncivil vignettes could be that respondents were specifically prompted to look for incivility and 'taught' about the incivility construct in the instructions, thereby being primed to expect incivility (Finlay et al., 2015). As a result, it seems plausible that respondents would find messages less easy to evaluate when messages were civil, because participants may have anticipated incivility and therefore found the civil vignettes to be more ambiguous. A future study could investigate this interpretation by experimentally manipulating the condition of priming (based on providing instructions) to see whether perceptions of ambiguity were related to differences in instructions to evaluate emails for incivility or the email content itself.

In terms of media richness theory, it is possible that average ambiguity ratings here in lean media could have been greater if compared to evaluations of the same communications

delivered non-textually (Daft & Lengel, 1987). Since most respondents found the message fairly easy to understand across all vignettes ($M_{\text{ambiguity-all}} > 4$, see *Table 2c*), it may be the case that email excerpts were so brief and simple and framed in such an isolated context that there wasn't enough room for the complexity or abstractness that typically characterizes ambiguity (Cramton, 2001).

For *all* email vignettes, standardized regression coefficients for both subjective and objective cognitive load (self-reported mental effort and time spent evaluating the vignette) were all small in magnitude and not statistically significant. Therefore, within this model, perceptions of incivility were unrelated to cognitive load. This is consistent with the descriptive statistics and effect sizes – the median statistic for the mental effort variable across all vignettes was 3 (a moderate amount of mental effort). This may be due to the possibility that this wording was difficult to interpret, or that people had difficulty with assessing their own mental effort. Given that the distribution of objective cognitive load was positively skewed, it could be that respondents who spent much longer than average on a certain page did so because they took breaks during the survey and came back to it later, which would have confounded the results for assessing this relationship. It may also be that the hypothetical nature of the exercise (Short et al., 1976) here was not powerful enough to elicit the type of emotional response necessary to have an impact on cognitive load (Han et al., 2016; Porath & Pearson, 2012). Lastly, this result may also reflect a common phenomenon: a general lack of metacognitive awareness (Schraw, 1998).

The most consistent finding pertained to incivility and relationship viability. The very last set of questions in each email vignette survey section had to do with working with the email sender in the future. Respondents were asked if they would *choose* to work with the email sender on similar tasks in the future and if they would *want* to collaborate with the email sender at work.

Across all eight vignettes the standardized regression coefficients were large and statistically significant, with relatively small standard errors, and in the predicted direction: the more incivility the respondent perceived in the email, the less they projected wanting to work with the person. Moreover, the effect size was greater for civil vignettes than uncivil ones, pointing to the possibility that even in a vignette designed to be civil, if a person were to detect incivility, they would have an even stronger negative reaction toward the email sender. A possible explanation for this could be due to individual differences regarding interpersonal sensitivity or reported past experiences with incivility, which were variables included as potential controls that, in this sample, were highly correlated with model variables including perceived incivility and attribution (see *Table 8*).

Because sensitivity to interpersonal treatment (SIT) and experiences of incivility (both face-to-face and cyber incivility) were highly correlated with model variables, post-hoc analyses were done to test the proposed path model with these three variables only as controls. Overall, model fit improved, but results changed to the extent that results became more difficult to interpret (model fit statistics for post-hoc models are available upon request). Note that, a priori, models were run both with and without all eight originally specified control variables (see *Measures*) as originally proposed; the models that included all controls were over-identified given so few degrees of freedom, and, because the smaller model without controls fit acceptably, per Aguinis and Vandenberg (2014), the more parsimonious model was reported.

Even with small samples, significant moderation effects emerged: perceived similarity moderated the relationship between perceived incivility and relationship viability. This is meaningful due to the difficulty associated with finding significant moderation effects, particularly with a smaller sample size (Murphy & Russell, 2017). Original predictions posited

that perceptions of similarity would *mitigate* the negative consequences of incivility. However, the results show that perceptions of similarity were more powerful than anticipated so far as to produce an ordinal interaction: the direction of the relationship between incivility and relationship viability changed when perceived similarity was accounted for as a moderator. This could be interpreted to mean that, when incivility is perceived in email, relationship viability is lower, and someone will report not wanting to work the instigator of such incivility. However, if someone reports perceiving incivility *and* being similar to the email sender, then they subsequently decide that they *would* choose to collaborate with that person at work in the future. One possible reason for this could be the order in which questions were presented. First, respondents were asked about incivility, then similarity, and then about viability. If a respondent already indicated that they were similar to the email sender, it would be unusual for them to then not want to collaborate with them or poorly evaluate them based on cognitive dissonance, which refers to the state where one's attitudes are recognized as being inconsistent with their behaviors (Festinger, 1957). This moderation effect was statistically significant and even larger in magnitude across civil vignettes as well.

The same pattern that occurred with incivility and relationship viability recurred with incivility and evaluation of the message sender in terms of their communication skills. Specifically, in uncivil emails, people who reported higher levels of incivility also evaluated the email sender as being a poor communicator. On three of the four uncivil vignettes, higher incivility was associated with evaluations of the email sender as a poor performer, and on two of the four uncivil vignettes, higher incivility was associated with evaluations of the email sender as being unconscientious when writing the email. Again, significant ordinal interactions emerged across the uncivil vignettes: perceived similarity interacted with perceptions of incivility such

that when perceived incivility was high and similarity was also high, evaluations of the email sender as a communicator were not poor, in fact they were in the opposite direction (people disagreed that the person did not communicate well with their coworkers). Looking at the average of effect sizes across uncivil vignettes, perceived incivility on its own is related to evaluation of the sender as being a poor communicator ($\beta_{\text{uncivil-avg}} = .45, p < .05$), but perceived incivility moderated by perceived similarity to the sender is related to evaluation of the sender as not necessarily being a poor communicator ($\beta_{\text{uncivil-avg}} = -.30, p < .05$).

The results regarding incivility and evaluation of the sender were less consistent across civil vignettes; in terms of communication skills, higher perceived incivility was related to poorer evaluations in general, but the relationship was statistically significant for only two of the four civil vignettes. This could be vignette dependent or due to sampling error and small sample size for the civil vignette models (Kenny et al., 2015). The moderation findings here are a testament to the similarity-attraction paradigm and the generalizability of this pervasive effect (Byrne & Griffitt, 1973)

Even though paths related to attribution as a predictor were not statistically significant in terms of the specified outcomes, the support for Hypothesis 2 and correlations between attribution and other variables indicate the strength of the fundamental attribution error, even if conclusions about the causality or direction of the relationship cannot be drawn (see *Tables 3a* and *3b*). Level of perceived incivility was consistently and statistically significantly correlated with attribution to the email sender themselves but not the situation across all vignettes. In addition, for all four uncivil vignettes, attribution was statistically significantly correlated with relationship viability, evaluation of the sender as a poor communicator and perceived similarity: attribution to the sender was associated with less desire to work with the person in the future and

an evaluation of the sender as a poor communicator, but perceived similarity was associated with greater attribution to the *situation* rather than the sender. The same pattern appeared across the civil vignettes, but effect sizes were smaller and not always significant, statistically speaking (see *Tables 3a* and *3b*).

Attribution and Likelihood

Considering the correlational findings, especially with perceived incivility, yet the lack of support for attributional hypotheses in the path model, the attribution data were analyzed using a different approach post-hoc. One way of looking at binary variables as associated with another variable is to assess it using logistic regression, which yields information about likelihood using odds ratios (Tabachnik & Fidell, 2013). The post-hoc assessment of attribution odds revealed that the likelihood of someone making an attribution to the sender instead of the situation when someone rated perceived incivility as 4, 5, or 6 (agreeing that the email was uncivil at least somewhat) was 1.74 to 15.37 times as high compared to when someone rated the email as 1, 2, or 3 on the incivility item (disagreeing that the email was uncivil). For uncivil vignettes, these odds ratios ranged from 3.37 to 15.37 and for civil vignettes, these odds ratios ranged from 1.74 to 11.69 (see *Table 7*). This means that, if one finds incivility in email, the odds that they are going to make dispositional attributions instead of situational ones are higher than when they do not find incivility. This attribution may not always be in error, but, because it is less likely that raters will make attributions to the sender when they do not perceive incivility, there are implications that incivility may indeed be associated with an increased chance that someone will make the fundamental attribution error.

Limitations

There are important conceptual and methodological limitations to consider regarding this research and the interpretation of findings discussed in the preceding section. First, this study is rooted in the interpretation of English text, therefore it is crucial to account for variability both in English language proficiency and experience with the English language in workplace email. Differences in participant's language compatibility and proficiency will consistently be a potential variable interfering with message evaluation (Klitmøller et al., 2015). In the eligibility screening portion of the survey, 79% of respondents claimed that they were native English reader/speakers. However, 95% responded 'Yes' when asked if English was their native language in the main survey. This discrepancy could be due to the difference in phrasing of the question, the item response offerings (scale versus binary), or for reasons related to social desirability (DeVellis, 2003). Additionally, 41% of respondents reported being bilingual or multilingual, Therefore, even if English was a respondent's native language, in many cases it was not their only native language, which could influence interpretation of the email text (Klitmøller, 2015).

A second potential complication to consider is related to those respondents (i.e., 30% of all participants in the study) who identified as bicultural or multicultural. Those who identify as bicultural or multicultural are able to adapt their style to the language they are working in (they will code-switch); in other words, they can shift to adapt to the dominant cultural framework in which they are operating (Mok et al., 2010). However, given how the study defines the construct of incivility and asked about individual reactions to and perceptions of incivility, it is possible that people interpreted the meaning differently, thus creating space for construct bias. To strengthen the research design in this respect, future work should consider looking at measures of

incivility *and* civility during pilot testing to assess the consistency of incivility interpretations. Interpretations can also become inconsistent when interacting virtually: especially over email, variability in interpretation is likely, and especially when individuals differ in their “intersubjective reality” or “lifeworld,” which individuals form based on their “unarticulated...assumptions, knowledge, culture, beliefs and values” (Bjørn & Ngwenyama, 2009, p. 229). Also, characteristics of the communicators, such as culture, gender, and familiarity will influence how a message is conveyed and interpreted (Weingart et al., 2015).

A third possible limitation is that the phrasing of the incivility item may also have been confusing in and of itself to either native or non-native English speakers. There is evidence that people may have read the item incorrectly and reversed the use of the scale. Data gathered during pilot testing as well as preliminary reviews of qualitative data suggest detection of incivility even when scale ratings indicated the opposite (i.e., writing or commenting that the email was not uncivil but scoring it as highly uncivil or vice versa). One drawback to the use of a single-item measure is not having an opportunity to rely upon additional items and evaluate internal consistency reliability (Nunnally & Bernstein, 1994). This limitation is further discussed in *Measurement Limitations*, below. In a follow-up study, incivility perceptions should be assessed using multiple items and assessing quantitative data in conjunction with qualitative data.

The study’s reliance on self-report, subjective evaluation is a double-edged sword. On the one hand, the approach strengthens the internal validity of the study by allowing participants to report their own perceptions, which is aligned with the definition of incivility: the mistreatment manifests because it does so in the eye of beholder (Andersson & Pearson, 1999). On the other hand, self-reporting and making judgments in a hypothetical scenario may not reveal the true nature of the effects: social presence theory supports that a virtual scenario such as the ones

presented in the study would lead to an attenuation effect on any interaction because it is difficult to imagine that one is dealing with a ‘real person’ (Short et al., 1976). For this reason, the current research may be limited in terms of its external validity. Given the nature of the vignette design and use of hypothetical scenarios, generalization to the field or ‘real world’ should be done with caution (Eifler & Petzold, 2019).

Along this line of thinking, it is also worth mentioning the presentation of the email text and scenario itself as another limitation. Even though instructions provided indicated that the email did not have typical email components such as closings and openings, respondents still may have interpreted the ‘bare bones’ format or lack of niceties to be uncivil even though instructions highlighted that only content would be displayed. Without the typical visual indicators of an email, such as a sender name and an email window that people are accustomed to seeing in this context, participants might have been psychologically invested or impacted by the stimuli differently than if confronted with the same situation in reality; indeed, people tend to react differently in hypothetical scenarios than in real-life situations where the incident directly or at least indirectly involves them personally: for instance, affective forecasting in a hypothetical circumstance tends to be over-estimated, and the distal nature of hypotheticals tends to lead people to process information at a high level – abstractly, as opposed to concretely (Danziger et al., 2012; Wilson & Gilbert, 2005).

Also related to clarity and understanding of the item wordings, one of the data cleaning tactics used may have contributed to range restriction. Time spent on the entire survey and on evaluation of vignettes was a significant differentiator of groups of respondents in terms of their evaluation of civil vignettes (93 responses got dropped for not meeting a minimum time requirement – 30% of the non-duplicate sample that passed the majority of attention checks), but

there is always the possibility that these dropped respondents were truly faster at the task and were meant to remain in the sample of attentive respondents; even though less time spent is a good indicator of inattentive responding, it is conceivable that this may not always be the case (Huang et al., 2012). A more thorough investigation of how people differed in their response patterns regarding time spent on the survey and their evaluation of different sections could be warranted.

For those respondents retained, the median time to complete the survey was 26.43 minutes and the median time spent on the instructions page, which preceded the evaluation of email vignettes, was 36 seconds ($M = 56$ seconds, $SD = 75$ seconds). In these instructions (see *Appendix D*), incivility was clearly defined, and respondents were given examples of what to look for. It is possible that in doing this, respondents were unintentionally primed to *expect* incivility, look more closely for it and be more sensitive to it than they otherwise would have been. As a sixth limitation worth discussing, priming someone positively or negatively can influence affective evaluations of neutral objects, which is also called affect misattribution (Gibbons et al., 2018). The instructions in this study acted as a direct, explicit form of priming; moreover, research shows that the recall for this type of information is even greater when confronted with material inconsistent with the prime – perhaps the encounters with civil information posed an even greater challenge given that the priming message was to evaluate incivility; it is also conceivable, therefore, that for this reason ambiguity was only related to incivility in civil vignettes and not uncivil ones, as expected, and that no relationship was found between incivility and cognitive load variables (Finlay et al., 2005). Future research could investigate the manipulation of using instructions versus not using instructions to see the nature and magnitude of this potential priming effect.

Another variable that might have been influenced by priming was attribution. The vignette methodology provided a very brief scenario, but that may not have been a strong enough situational cue for the respondent to give it the same weight they might have under ‘real’ circumstances. Absent from the evaluation were contextual factors that might exist in the real world, such as information about the email sender, familiarity or relationship with the email sender, or workplace cultural norms, that would have played a larger role but were less likely to be evident or considered in such a brief hypothetical encounter. Indeed, lack of situational cues could have even operated as an indirect prime to make dispositional attributions because of insufficient external information. Future work using similar designs might pre-test or control for situational strength, provide more contextual information, and measure attributions to situation and actor separately.

Finally, this study was limited by low power given that there were two different survey versions, each vignette had to be evaluated individually, and the attribution variable, by design and as a predictor, called for a very conservative approach to dealing with missing data (listwise deletion) when respondents decided attribution was ‘Not Applicable’ (explained in detail at the beginning of this *Discussion* section). An a priori SEM power analysis was conducted to determine a target sample size. Using Satorra & Saris (1985), at $\alpha = .05$, power (β) = .80, $df = 9$ and effect (RMSEA) = .06, the number of observations needed was 262 (Hu & Bentler, 1999). After data cleaning, the size of the final sample was 219 ($\beta = .71$), but 105 respondents attentively completed survey version A, and 114 respondents attentively completed survey version B, so power was even lower and quite variable across vignettes. Data were collected over six weeks and ended after receiving close to 500 responses. To maintain methodological integrity and avoid collecting more data after initial results were known, hypothesized analyses were

tested with the small but high-quality sample that remained after data cleaning (Murphy & Aguinis, 2019). With higher statistical power, it might have been possible to detect more or larger effects; on the other hand, low power to detect effects has implications for where there were insignificant results; where effects were not statistically significant here, a replicate higher-powered study might reveal more effects in an analogous design (Osborne, 2013).

Measurement Limitations

Related to the current research, there is also a notable point to be made in regard to measurement. Specifically, the use of single items or smaller sets of items to measure a single construct has advantages and disadvantages. It is sometimes appropriate to use single items to measure a construct, especially if survey length is a potential source of fatigue for respondents (Fisher et al., 2016). Indeed, this was a concern in the current study: research supports that survey length can affect response rate (Deutskens et al., 2004; Jepson et al., 2005), and pilot testing revealed that this survey, even in its final, abbreviated state, felt particularly long. From a psychometric perspective, multi-item measures have been arguably more reliable than single-item measures and are typically preferable, especially in the social and behavior sciences (Nunnally, 1978); however, there is growing evidence that single-item assessments can also be reliable and correlate with multi-item measures (Abdel-Khalek, 2006; Gardner et al., 1998; Littman et al., 2006), and that they perform well in Structural Equation Modeling procedures (which builds on Path Analysis) with sample sizes comparable to those in this research (Chea et al., 2018). Because of the heavy use of single-item measures in this work, if results were to be referenced by a practitioner, they should be wary if relying solely on this study for decision-making purposes (Loo, 2002).

Theoretical Contributions

Workplace communication and mistreatment has received less attention than other areas when it comes to attribution theory. This research has contributed to this body of literature by demonstrating that attribution biases can be magnified in the context of email incivility with potential consequences to coworker evaluations and relationship viability. In general, there is some lacking in attribution research within the organizational behavioral sciences (Martinko & Mackey, 2019). In industrial/organizational psychology and management, attribution theory has been investigated in research about individual differences, counterproductive behavior (in terms of explaining why people engage in forms of workplace aggression), leader-member exchange and interaction, impression and human resource management, and emotion (Martinko et al., 2006). Harvey et al. (2014) explicitly pointed out that intentionality in an attributional context, specifically in workplace violence and aggression, is an area that should be explored in future research. This study was a step in that direction.

There is currently a low volume of published work directly assessing incivility and attribution. Of the few studies there are, most deal with attribution biases as an individual difference moderator (Li-jing et al., 2018; Wang et al., 2021), whereas in this study attribution was addressed directly from a behavioral and decision-making perspective regarding the evaluations of others. One prior study examined the relationship between experienced incivility at work and organizational citizenship behaviors (OCBs), where internal attribution orientation as an individual difference was examined as a moderator. Findings indicated that internal attribution orientation did moderate the experience of coworker incivility and employee guilt, which then was related to performance of OCBs (Teng et al., 2021). Another study focused on the consequences of perceived incivility in terms of physical health moderated by hostile

attribution bias – again, where attribution was conceptualized as an individual difference – however, results did not support the moderating effect of hostile attribution bias (Bayne, 2015). Other research on incivility has addressed attribution from a racial discrimination perspective (Minneyfield, 2021). For instance, there is evidence of racial and gender differences in attributing perceived incivility to dispositional prejudice and bias (Chavez, 2005). There is documentation to suggest that perceptions of mistreatment are relevant in terms of attribution theory, yet there is no research addressing this issue when it comes to workplace email (Marchiondo et al., 2018). The current work has helped to fill this need by demonstrating that attribution biases can be exacerbated when incivility is perceived in email.

This research also supports the power of the similarity effect in the similarity-attraction paradigm. The strength of the moderation effects found here – that the relationship between perceptions of incivility and subsequent assessment of the email sender changed direction when perceptions of similarity were high – is a testament to the robustness of the effect. Given the implications of this effect in terms of workplace relationships and diversity (Ensher & Murphy, 1997; Valenzuela et al., 2019), it is critical to consider how the paradigm operates in terms of incivility.

Finally, although the incivility literature is growing quite rapidly, much less has been done primarily in the realm of CMC (Cortina et al., 2017). The current research demonstrated that even in the most ‘bare bones’ situation – simply a hypothetical scenario with accompanying email text without any other indicators or cues such as closings and greetings (Waldvogel, 2007), capitalization and punctuation (Byron & Baldrige, 2007) or emoticons/emojis (Kavanagh, 2016) – people perceived incivility and made subsequent judgments that could have consequences for workplace interactions and relationships. Findings here indicate that even for a

vignette that was designed to be explicitly civil, approximately one third of participants still detected incivility and reacted strongly and negatively. This work therefore supports the notion that perception is important for incivility as the phenomenon of incivility exists in ‘the eye of the beholder.’

Practical Implications

Email is a unique potential conduit of workplace incivility because email interpreters usually make more negative interpretations than the sender intended and tend to over-estimate the emotional charge in email (Byron, 2008). Furthermore, recent research on cyber incivility supports that both face-to-face and email incivility negatively influences task performance, and that the performance is worse when the same message is delivered via email rather than face-to-face (McCarthy et al., 2020). The current research adds to the growing body of evidence that incivility perceived in email has negative consequences, specifically, that such perceptions influence one’s evaluation of coworkers, which has implications for relationship viability between coworkers, especially those working in virtual teams where members are culturally diverse, temporary (or where teammates are unfamiliar), and where there is heavy reliance on CMC (Jarvenpaa & Leidner, 1999).

Based on the ratings of perceived incivility in this study, it is clear that people do indeed detect incivility in email, even when the emails are written with the intent of being civil. As expected, most respondents detected incivility in uncivil email vignettes, with over three quarters of the sample reporting at least some incivility in each of the four uncivil vignettes (90.4%, 86.7%, 85.7% and 78.1% of respondents rated perceived incivility as either 4, 5 or 6 on uncivil vignettes 1 through 4, respectively). More surprisingly though, over 30% of respondents detected incivility in *civil* email vignettes (32.4%, 30.4%, 34.5% and 36.4% of respondents rated

perceived incivility as either 4, 5 or 6 on *civil* vignettes 1 through 4, respectively). Despite the limitations described in the preceding section, these data emphasize the nature of incivility as manifesting ‘in the eye of the beholder’ independent of the email composer’s intentions. These findings also have implications for the pervasiveness of incivility in email even when no other information or cues are available. In addition, this research has implications for negative consequences that extend beyond the individual as the target of the perceived mistreatment, but also what decisions that target might make about the instigator of the mistreatment.

Despite social distance as a product of the study’s design using virtual communication and hypothetical scenarios, this research adds to our understanding of the semantic qualities of uncivil ‘lean’ messages as interpreted by both native and non-native English speakers as well as multilingual and multicultural individuals. In terms of what the results might mean for organizations, this study may contribute to the groundwork for developing or revising communication and attribution trainings that educate workers about the importance of attending to how emails are written to prevent or avoid incivility, as well as to exercise caution when reading and interpreting emails due to the strong tendency people have toward the fundamental attribution error. Organizations should create development programs for virtual teams and virtual interaction to improve communication (Githers, 2011). This work is relevant to organizations now more than ever because COVID-19 has augmented the use of distal and electronic communication techniques (Mouratidis & Papagiannakis, 2021).

One way that organizations might be able to reduce the incidence of email incivility is to use interventions that involve training for employees that is tailored to the nature of such mistreatment. For example, the Civility, Respect, and Engagement at Work approach is a program that has proved effective in both health care and veteran administrations and is designed

to enable workers to better recognize incivility, decrease the occurrence of incivility, and boost self-efficacy of workers in their response to incivility when it happens (CREW: Leiter et al., 2011). Incorporating CMC-specific components in the training process, such as how to make messages more targeted and effective and under what circumstances email is an appropriate medium to use, would also help to alleviate the deficiencies uniquely suited to text-only communication platforms (see *Media Richness Theory & Information Exchange*), such as using best practices to guide employees on how to express themselves clearly and effectively (Jackson et al., 2006).

Findings in this study further indicate that civility training alone is not sufficient to prevent incivility. Incorporating bias training that includes education about the fundamental attribution error would also be useful for having employees recognize that their reactions to incivility may need additional scrutiny; perspective-taking training methods might be especially useful for this purpose (Hopper et al., 2015).

Additionally, moderation effects found in this research suggest that emphasizing similarities among workers could help combat the negative influence of perceived incivility, which is also theoretically supported by social identity theory (Tajfel & Turner, 1986). Adding a component to training for both employees and management that emphasizes coworker commonalities would then be another valuable suggestion for organizations that depend on email communication (Valenzuela et al., 2019). A secondary intervention approach is also warranted given the potential for miscommunication and subsequent conflict between workers. Training managers in interpersonal conflict resolution might be beneficial in those scenarios where employees do perceive mistreatment and react negatively toward the instigator.

Beyond training, organizations might establish policies for preventing interpersonal mistreatment as well as clearly describing consequences for how it will be addressed when it occurs. Outlining codes of conduct, including conduct specifically related to CMC and appropriate use of technology would be a good place to start. Examples may include establishing reporting mechanisms and appropriate methods for dealing with such reports would ensure that employees feel safe raising these issues (West et al., 2014). It would also help if organizations established an organizational culture standard for project and team collaboration that supported frequent use of non-textual communication methods to supplement CMC (Cramton, 2001). Building organizational training programs and creating practices that address CMC, attribution biases, and conflict resolution at both the employee and managerial levels as well as encouraging structural changes in guiding how employees and teams communicate with one another (including diversifying the mediums by which they communicate, leaning less on CMC where possible) would serve as a good starting point for both email incivility prevention and intervention.

Avoiding Email Incivility

There are some ways people can minimize the likelihood that someone perceives their email to be uncivil. Tonal uncivil features of email to avoid include bitter frustration, impatience, irony, mocking, threat, vulgarity, and blatant name-calling (Ferreira et al., 2021). Incivility is typically detected in emails with derogatory remarks, uncooperative language, pejorative words, and emotional undertones (Papacharissi, 2004). Incorrect use of capitalization, especially in business email, can be taken negatively, typically as a sign of anger and potentially as yelling (Byron & Baldrige, 2007). Messages that might spark conflict tend to contain ‘flames,’ which, in addition to writing in all capital letters, could come in the form of excessive punctuation, such

as overuse of exclamation points or question marks (as well as multiple of any form of punctuation at the end of a sentence) and potentially any use of an acronym (i.e., ASAP) (Turnage, 2007).

While being wary to avoid being uncivil, conversely, there are ways to promote civility and politeness in email. Using greetings and closings is a good way to acknowledge the email recipient directly, and there is empirical support that such formalities reflect more open and friendly relationships (Waldvogel, 2007). Inserting emoticons appropriately in email can be a good strategy to project positivity and politeness, although users might be discretionary when using graphics in the workplace (Kavanagh, 2016). Even writing with common niceties such as ‘please’ and ‘thank you’ can aid in creating a more amicable digital interaction (Turnage, 2007). The perception of incivility can at times be out of an individual’s control, as it exists in the ‘eye of the beholder’ (Andersson & Pearson, 1999), but the above practical recommendations may be helpful to in curtailing the occurrence of those negative perceptions.

Future Directions

Next steps based on this research fall into two main areas: 1) refining, adjusting, and replicating the current study based on methodological limitations and post-hoc evaluation of the current path modeling approach and 2) taking the concepts explored in this research and investigating them from different perspectives. Two perspectives to recommend include cross-cultural and diversity, equity, and inclusion (DEI) related to selective incivility and discrimination.

Given the limitations of this research due to low statistical power and the design of the attribution variable, a follow-up study would be valuable to replicate findings or even reveal additional findings: a second higher-powered empirical assessment investigating incivility,

ambiguity, and cognitive effort relationships more closely would be beneficial, given that these variables have ramifications for productivity and performance (Daft et al., 1987; Giumetti et al., 2013). Also, as post-hoc investigations revealed (see *Interpretation of Findings*), adding *some* appropriate control variables into the model to account for individual differences would be worthwhile. Conducting this type of research in the field would be an additional direction to take this work: assessing these variables in actual organizations with real employees and known coworkers would both add the component of realism (Short et al., 1976) and help support the external validity of the patterns found here (Bauman et al., 2014).

In terms of internal validity, a replication using multi-item scales to measure variables in the model, such as incivility, attribution, and evaluation of sender would make this line of research more robust. Specifically, adapting items from McCarthy et al.'s (2019) updated cyber incivility scale to assess perceptions of incivility would afford a multi-dimensional assessment of the construct. Using Likert scale items to assess attributions to the situation and to the actor *separately* would help to understand more nuances involved in people's tendencies to see incivility derived from the actor's disposition. Finally, looking at additional aspects of participant evaluation of the sender, such as cognition-based and affective-based trust, as done by Vignovic and Thompson (2010), would allow for a more comprehensive analysis of how incivility and attribution affect dispositional inferences.

It is also important to consider that this is cross-sectional research where there is no opportunity to observe possible future behaviors. Incivility can be a product of conflict expression, and, as such, a trigger of workplace conflict that has a snowballing or 'spiral' effect (Anderson & Pearson, 1999). To properly investigate this, longitudinal designs should be administered in the future not only in terms of the outcomes of this potential snowballing, but

also the underlying process of ongoing interaction and the mechanism by which incivility escalates conflict. In addition to longitudinal designs, qualitative approaches would be useful to address this spiraling theory. By evaluating responses to open ended questions about how workers might respond to a perceived uncivil communication and questions about what drove their interpretations or judgements, we could gain richer insights into any potential escalation processes.

Another alternative direction this research could have taken relates to the way in which the data was analyzed. Given that each respondent assessed six vignettes, there are different ways to look at the data. This study looked at people nested within vignettes, but one could also analyze the information by looking at vignettes nested within people. Future research could consider a different analytical approach to the one taken here.

Perhaps one of the most important and least explored areas to consider in the future is whether perceptions of and reactions to incivility vary systematically based on group differences: are there groups of people who, in general, perceive emails as more or less uncivil, who care more or less about incivility, or who react more or less extremely to incivility? To answer this question, future research should take more of a cross-cultural focus when it comes to the study of incivility (Gelfand et al., 2017). Incivility may be ‘operationalized’ differently across cultures and may be especially impacted by cultural differences due to its distinctive ambiguous nature (Wasti & Erdas, 2019). Additionally, cultures may have different standards in terms of how acceptable it might be to break different norms and how strongly they react to those violations (Moon et al., 2018).

It would be interesting to apply a situational dynamics framework to examining email incivility, which would help integrate the concepts of cultural values, schemas, and norms to

describe how “ambiguity and cultural tightness might influence the connection between culture and norms on the way to differences in judgment and behavior” (Leung & Morris, 2015, p. 1037). There is even evidence that people notice when messages might be written by someone from a different culture. For instance, participants from three different countries (Japan, America and Jordan) were asked to write emails in response to a request, and a separate group of American raters, blind to the culture of the email writer, evaluated their emails differently on scales of politeness, clarity and effectiveness (Panina & Kroumova, 2015). Taking a cross-cultural approach to this area of research would be especially interesting given that not only virtual teams but *global* virtual teams are prevalent in multinational corporations (culturewizard™, 2018).

It would also be beneficial to gather more empirical evidence related to whether and how different demographic groups are impacted by or perceive incivility. Incivility might not be intentional, but there is increasing interest in studying underrepresented or minority groups, and microaggressions has been in some literature labeled “the language of everyday racism” (Shoshana, 2016; Sue, 2010). The language used or expression of incivility in and of itself may not necessarily carry any explicit indicators of race, gender, culture, or ethnicity, but considering the possibility of selective mistreatment, there exists a potential ‘hidden’ outlet for discrimination (Cortina, 2008).

It is especially important to have a better understanding of incivility in email in our discussions related to diversity and inclusion: “Incivility may sometimes represent a *covert* manifestation of gender and racial bias when women and people of color are selectively targeted” (Cortina et al., 2013, pp. 1580-1581). Selective incivility theory posits that incivility can act as a covert conduit for expression of discrimination, such as sexism or racism. Accepting

selective incivility means that research should find that minorities (i.e., women compared to men or African Americans compared to Caucasians) are more likely targets of incivility than their ‘majority’ counterparts (Cortina, 2008).

An empirical study conducted amongst a sample of employees across law enforcement, government and military organizations tested this theory and found minimal evidence for differential experiences of incivility between men and women or between African Americans and Caucasians but did find some support for a gender-race interaction where female non-Caucasians experienced more incivility than other groups (Cortina et al., 2013). Similarly, in a study of employees at a university in the United States (near Mexico), no main effects were found in terms of differences of experienced incivility between men and women or Hispanic and non-Hispanic employees, but there re-appeared a gender-ethnicity interaction (Welbourne et al., 2015). Interestingly, the interaction did not take the same form as it did in Cortina et al.’s study in 2013: non-Hispanic females experienced the most incivility, followed by Hispanic males, then Hispanic females, and finally non-Hispanic males (Welbourne et al., 2015). These authors suggested that other differences, such as resilience, could partially explain the findings, which may be the case: individual differences in trait characteristics and cultural characteristics or orientations can influence who is more often an instigator of or target of (or, believes themselves the target of) incivility (Cortina, et al., 2017; Liu et al., 2009). Studies across cultures and nations continue to test selective incivility, but without much consistency in their results. In a study of cyber incivility instigation between employees and their supervisors in Singapore, *both* male and female employees encountered more cyber incivility from male supervisors than from female supervisors (Lim & Teo, 2009). The theory of selective incivility and the previously described

empirical work assessing differences in the experience of incivility across gender, race and ethnicity begs that more be done to further explain potential differential experiences.

Since psychologists began investigating incivility, there has been interest in designating ‘who are targets’ and ‘who are instigators’ (Cortina, 2001; Cortina et al., 2017). More research is needed to assess the profiles of both the instigators and targets of workplace aggression, especially in the case of these microaggressions such as incivility (Hershcovis et al., 2007). Practically, incivility as it is understood right now is difficult to deal with in terms of identifying adverse impact or discrimination, because legally, such subtle mistreatment is not covered under Title VII and is difficult to prove (Cortina, 2008). However, with a better understanding of how different individuals interpret this mistreatment, we might be better equipped to continue studying what discrimination means in a virtual workplace.

Concluding Remarks

Changes in the nature of work, not to mention the increasing tendency to work remotely due to restrictions made necessary by COVID-19, have made virtual communication a necessity and email an essential tool in the workplace (“2019 Adobe Email”, 2019; “Top 10 Work Trends 2022”, 2022). Even though there has been a notable increase over the past two decades in incivility research and the harmful effects it can have on workers, not nearly as much work has focused specifically on incivility perceived in CMC (Cortina et al., 2017). Because CMC is a medium where messages are more prone to misunderstanding and potential conflict (Cramton, 2001), the goal of this research was to better understand perceptions of email incivility in terms of how people then subsequently evaluate the email sender. This vignette methodology using a diverse worker sample allowed for an investigation that was hypothetical, mitigating the influence of individual emotions associated with personal experiences. Findings support that,

when people perceive incivility in email, they are more likely to attribute the behavior to the internal disposition of the email sender rather than the situation, evaluate the email sender more poorly, and prefer not work with the email sender in the future. Interestingly, these negative assessments become positive ones when people also believe that they are similar to the email sender *even if they thought the email was uncivil*. The expectation is that this research sets the stage for further investigation of email incivility in terms of working relationships, effective collaboration, and making assessments of coworkers, especially as a potential mechanism of discrimination. This work contributes to the incivility, attribution and similarity-attraction literature as well as provides important implications for what organizations need to consider in terms of training programs and communication policies.

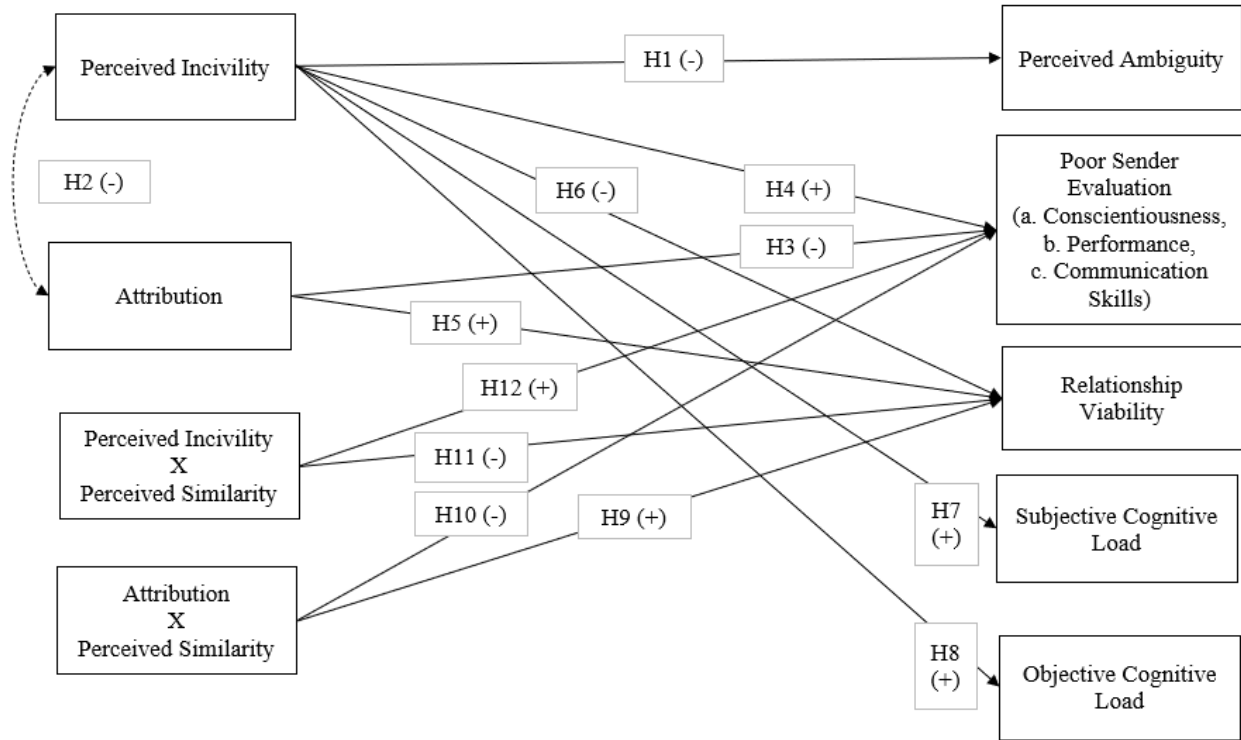


Figure 1. Path Model

Table 1. Summary of Respondent Demographics

	<i>N</i>	<i>%</i>	<i>M</i>	<i>SD</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>
Gender							
Female	117	54%					
Male	98	45%					
Prefer not to say	2	1%					
Race							
White	147	67%					
Asian	36	16%					
Black or African American	12	5%					
Hispanic, Latinx, Chicanx	9	4%					
White & Hispanic, Latinx, Chicanx	7	3%					
Prefer not to say	3	1%					
Middle Eastern or North African	2	1%					
American Indian or Alaskan Native	1	0%					
Other	1	0%					
Self-described	1	0%					
Age			38.7	11.1	36	22	74
Years in Workforce			15.8	9.9	14	3	45
English Proficiency			4.8	0.41	5	4	5
Native English reader/speaker	175	79%					
Very Proficient	46	21%					
English as a Native Language							
Yes	209	95%					
No	10	5%					
Native Language (if not English)							
Other	4						
Italian	2						
Hindi	1						
Spanish	1						
Arabic	1						
French	1						
Identify as Bicultural or Multicultural							
No	154	70%					
Yes	65	30%					
Identify as Bilingual or Multilingual							
No	130	59%					
Yes	89	41%					
Country of Birth							
United States	167	76%					
India	22	10%					
Other	19	9%					
Canada	5	2%					
Great Britain	5	2%					
China	1	0%					

Table 2a. Descriptive Statistics for Uncivil Vignettes

VIGNETTE 1 - UNCIVIL (N = 105)						
	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	5.11	1.15	6	1	6	
Attribution	0.26	0.44	0	0	1	1.90%
Mental Effort	3.35	1.09	3	1	5	
Cognitive Load	4.65	3.06	3.54	1.43	17.14	
Perceived Ambiguity	3.92	0.92	4	1	5	
Sender Viability	2.13	1.27	1.50	1	5	
Perceived Similarity to Sender	2.15	1.23	1.75	1	5	
Sender Evaluation - Conscientiousness	3.85	1.16	4	1	5	
Sender Evaluation - Performance	3.65	1.02	4	1	5	
Sender Evaluation - Communication	4.25	0.99	5	1	5	

NOTE: For interpretation, the direction of counter-intuitive variables is as follows: higher attribution values mean a more likely attribution to situation than sender (0 = sender, 1 = situation); higher ratings of perceived ambiguity mean that the email was *more* easy to understand; higher ratings of sender viability mean less desire to work with the sender again; higher values associated with evaluation of the sender indicate a *poorer* evaluation. *NA was only an option for the Attribution variable - here the statistic indicates response rate of NA as opposed to 0 or 1.

VIGNETTE 2 - UNCIVIL (N = 114)						
	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	4.96	1.30	5	1	6	
Attribution	0.23	0.43	0	0	1	2.60%
Mental Effort	3.21	1.17	3	1	5	
Cognitive Load	4.95	2.92	4.30	1.37	16.41	
Perceived Ambiguity	4.24	0.80	4.33	1.67	5	
Sender Viability	2.08	1.18	2.00	1	5	
Perceived Similarity to Sender	2.04	1.11	1.50	1	4.75	
Sender Evaluation - Conscientiousness	3.70	1.26	4	1	5	
Sender Evaluation - Performance	3.10	0.92	3	1	5	
Sender Evaluation - Communication	4.26	0.95	5	1	5	

VIGNETTE 3 - UNCIVIL (N = 105)						
	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	4.48	1.34	5	1	6	
Attribution	0.48	0.50	0	0	1	2.90%
Mental Effort	3.25	1.14	3	1	5	
Cognitive Load	4.35	3.05	3.54	1.33	18.75	
Perceived Ambiguity	4.19	0.79	4.33	1.67	5	
Sender Viability	2.33	1.26	2.00	1	5	
Perceived Similarity to Sender	2.45	1.26	2.25	1	5	
Sender Evaluation - Conscientiousness	3.60	1.21	4	1	5	
Sender Evaluation - Performance	3.32	1.06	3	1	5	
Sender Evaluation - Communication	3.93	0.98	4	1	5	

VIGNETTE 4 - UNCIVIL (N = 114)						
	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	4.42	1.37	5	1	6	
Attribution	0.26	0.44	0	0	1	4.40%
Mental Effort	3.27	1.10	3	1	5	
Cognitive Load	6.10	3.34	5.34	1.44	18.03	
Perceived Ambiguity	4.26	0.75	4.33	2.00	5	
Sender Viability	2.29	1.20	2.00	1	5	
Perceived Similarity to Sender	2.35	1.19	2.00	1	5	
Sender Evaluation - Conscientiousness	3.41	1.31	4	1	5	
Sender Evaluation - Performance	2.89	0.99	3	1	5	
Sender Evaluation - Communication	3.85	1.21	4	1	5	

Table 2b. Descriptive Statistics for Civil Vignettes

VIGNETTE 1 - CIVIL						
(N = 114)	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	2.61	1.62	2	1	6	
Attribution	0.39	0.49	0	0	1	50.00%
Mental Effort	3.07	1.20	3	1	5	
Cognitive Load	4.62	3.06	3.56	1.36	17.96	
Perceived Ambiguity	4.47	0.72	5	2	5	
Sender Viability	3.58	1.15	4.00	1	5	
Perceived Similarity to Sender	3.47	1.10	3.75	1	5	
Sender Evaluation - Conscientiousness	2.46	1.28	2	1	5	
Sender Evaluation - Performance	2.23	1.06	2	1	4	
Sender Evaluation - Communication	2.45	1.30	2	1	5	

VIGNETTE 2 - CIVIL						
(N = 105)	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	2.46	1.49	2	1	6	
Attribution	0.73	0.45	1	0	1	45.10%
Mental Effort	3.11	1.24	3	1	5	
Cognitive Load	3.88	3.08	2.79	1.25	19.95	
Perceived Ambiguity	4.46	0.71	5.00	2.67	5	
Sender Viability	3.92	0.95	4.00	1	5	
Perceived Similarity to Sender	3.80	0.91	4.00	1	5	
Sender Evaluation - Conscientiousness	2.69	1.37	3	1	5	
Sender Evaluation - Performance	2.40	1.36	2	1	5	
Sender Evaluation - Communication	2.48	1.35	2	1	5	

VIGNETTE 3 - CIVIL						
(N = 114)	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	2.77	1.46	3	1	6	
Attribution	0.60	0.49	1	0	1	39.10%
Mental Effort	3.13	1.14	3	1	5	
Cognitive Load	4.49	2.80	3.80	1.33	18.12	
Perceived Ambiguity	4.49	0.64	4.83	2.33	5	
Sender Viability	3.58	1.07	4.00	1	5	
Perceived Similarity to Sender	3.62	1.02	3.75	1	5	
Sender Evaluation - Conscientiousness	2.43	1.29	2	1	5	
Sender Evaluation - Performance	2.15	1.07	2	1	5	
Sender Evaluation - Communication	2.54	1.28	2	1	5	

VIGNETTE 4 - CIVIL						
(N = 105)	<i>M</i>	<i>SD</i>	Median	Min	Max	% NA*
Perceived Incivility	2.73	1.57	2	1	6	
Attribution	0.67	0.48	1	0	1	42.40%
Mental Effort	3.25	1.15	3	1	5	
Cognitive Load	4.88	3.02	4.04	1.36	16.84	
Perceived Ambiguity	4.33	0.78	4.67	1.67	5	
Sender Viability	3.80	0.95	4.00	1	5	
Perceived Similarity to Sender	3.76	0.98	4.00	1	5	
Sender Evaluation - Conscientiousness	2.52	1.25	2	1	5	
Sender Evaluation - Performance	2.31	1.31	2	1	5	
Sender Evaluation - Communication	2.30	1.31	2	1	5	

Table 2c. Variable Means Across the four Uncivil and Civil Vignettes

OVERALL MEANS (ACROSS VIGNETTES)			
	Uncivil	Civil	Diff
Perceived Incivility	4.74	2.64	2.10
Attribution	0.31	0.60	-0.29
Mental Effort	3.27	3.14	0.13
Cognitive Load	5.02	4.47	0.55
Perceived Ambiguity	4.15	4.44	-0.29
Sender Viability	2.21	3.72	-1.51
Perceived Similarity to Sender	2.24	3.66	-1.42
Sender Evaluation - Conscientiousness	3.64	2.52	1.12
Sender Evaluation - Performance	3.24	2.27	0.97
Sender Evaluation - Communication	4.07	2.44	1.63

Table 2d. Effect Size Mean Differences between Uncivil and Civil Vignettes (Cohen's d)

	Uncivil versus Civil Vignettes							
	1		2		3		4	
Perceived Incivility	1.77	[-1.72, .98]	1.79	[-1.72, .98]	1.21	[-1.80, .98]	1.15	[-1.80, .97]
Attribution	-1.32	[-2.14, .97]	-1.31	[-2.14, .98]	-1.01	[-2.10, .98]	-1.13	[-2.12, .97]
Perceived Ambiguity	-0.67	[-2.05, .97]	-0.30	[-2.00, .97]	-0.42	[-2.02, .98]	-0.09	[-1.97, .98]
Mental Effort	0.25	[-1.93, .97]	0.08	[-1.95, .97]	0.10	[-1.95, .98]	0.02	[-1.96, .97]
Cognitive Load	0.01	[-1.96, .98]	0.36	[-1.91, .97]	-0.05	[-1.97, .97]	0.38	[-1.91, .97]
Sender Viability	-1.20	[-2.12, .97]	-1.71	[-2.19, .97]	-1.07	[-2.10, .97]	-1.39	[-2.15, .98]
Perceived Similarity to Sender	-1.13	[-2.11, .98]	-1.74	[-2.20, .97]	-1.03	[-2.10, .97]	-1.29	[-2.13, .98]
Sender Evaluation - Conscientiousness	1.14	[-1.81, .97]	0.77	[-1.86, .97]	0.93	[-1.83, .97]	0.69	[-1.87, .97]
Sender Evaluation - Performance	1.37	[-1.78, .98]	0.60	[-1.88, .98]	1.10	[-1.81, .97]	0.50	[-1.89, .97]
Sender Evaluation - Communication	1.55	[-1.75, .98]	1.54	[-1.75, .98]	1.22	[-1.80, .97]	1.23	[-1.79, .98]

NOTE: Cohen's d calculated with 95% confidence intervals, displayed in brackets.

Table 3a. Pearson Correlations for Uncivil Vignettes

VIGNETTE 1 - UNCIVIL (N = 105)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.60***								
3. EFF	-0.04	0.15							
4. COG	0.00	-0.04	-0.01						
5. AMB	0.17	-0.20*	0.03	0.23*	(0.83)				
6. VIAB	-0.59***	0.63***	0.16	0.03	-0.12	(0.77)			
7. SIM	-0.46***	0.58***	0.25*	0.08	0.05	0.71***	(0.94)		
8. CONSC	0.23*	-0.25*	-0.09	0.08	0.05	-0.24*	-0.32***		
9. PERF	0.20*	-0.04	-0.08	-0.07	0.04	-0.12	-0.11	0.17	
10. COMM	0.42***	-0.38***	-0.02	-0.01	0.14	-0.43***	-0.52***	0.47***	0.41***

NOTE: 1. INC = Perceived incivility, 2. ATT = Attribution (0 = sender, 1 = situation), 3. EFF = Mental effort, 4. COG = Cognitive load, 5. AMB = Perceived ambiguity (negative correlations mean greater ambiguity), 6. VIAB = Sender viability (negative correlations mean less viability), 7. SIM = Perceived similarity to sender (negative correlations mean less perceived similarity), 8. CONSC, 9. PERF, 10. COMM = Sender Evaluation - Conscientiousness, Performance, Communication Skills, respectively, where positive correlations mean poorer evaluations. When applicable, reliability coefficient alpha is reported on the diagonal. Asterisks indicate levels of statistical significance (* = $p < .05$, ** = $p < .01$, *** = $p < .001$).

VIGNETTE 2 - UNCIVIL (N = 114)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.28**								
3. EFF	-0.03	-0.08							
4. COG	0.05	0.13	-0.10						
5. AMB	-0.02	-0.01	-0.03	0.02	(0.82)				
6. VIAB	-0.35***	0.36***	0.06	-0.10	0.00	(0.67)			
7. SIM	-0.29**	0.50***	0.03	-0.02	-0.01	0.74***	(.91)		
8. CONSC	0.12	-0.17	0.08	-0.04	-0.05	-0.03	-0.11		
9. PERF	0.03	-0.06	0.18	0.05	0.08	-0.01	-0.07	0.12	
10. COMM	0.37***	-0.48***	-0.01	0.03	0.15	-0.54***	-0.50***	0.24*	0.18

VIGNETTE 3 - UNCIVIL (N = 105)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.41***								
3. EFF	-0.13	0.20*							
4. COG	0.11	0.03	-0.03						
5. AMB	0.11	-0.19	-0.09	0.25**	(0.85)				
6. VIAB	-0.58***	0.54***	0.28**	-0.06	-0.24*	(0.84)			
7. SIM	-0.51***	0.51***	0.29**	0.10	-0.03	0.78***	(0.94)		
8. CONSC	0.29**	-0.29**	0.01	0.01	-0.06	-0.31**	-0.43***		
9. PERF	0.41***	-0.25*	-0.14	0.11	0.01	-0.24*	-0.26**	0.33***	
10. COMM	0.58***	-0.54***	-0.11	0.09	0.23*	-0.56***	-0.47***	0.44***	0.50***

VIGNETTE 4 - UNCIVIL (N = 114)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.28**								
3. EFF	0.15	0.06							
4. COG	0.13	-0.06	-0.01						
5. AMB	0.00	0.07	-0.12	0.07	(0.83)				
6. VIAB	-0.47***	0.35***	-0.14	0.02	0.02	(0.84)			
7. SIM	-0.52***	0.40***	0.02	0.04	0.04	0.76***	(0.92)		
8. CONSC	0.38***	-0.12	0.06	0.11	-0.02	-0.35***	-0.28**		
9. PERF	0.39***	-0.12	0.17	0.09	-0.21*	-0.17	-0.27**	0.42***	
10. COMM	0.57***	-0.29**	0.05	0.07	-0.02	-0.46***	-0.45***	0.57***	0.52***

Table 3b. Pearson Correlations for Civil Vignettes

VIGNETTE 1 - CIVIL (N = 114)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.40**								
3. EFF	0.16	-0.01							
4. COG	0.16	-0.07	0.06						
5. AMB	-0.43***	0.18	-0.17	-0.06	(0.89)				
6. VIAB	-0.52***	0.38**	-0.05	-0.17	0.44***	(0.81)			
7. SIM	-0.55***	0.39**	-0.01	-0.15	0.36***	0.81***	(0.92)		
8. CONSC	0.63***	-0.20	0.15	0.05	-0.27**	-0.46***	-0.45***		
9. PERF	0.52***	-0.23	-0.10	0.04	-0.47***	-0.34***	-0.30**	0.42***	
10. COMM	0.68***	-0.38**	0.10	0.21*	-0.34***	-0.54***	-0.53***	0.63***	0.52***

VIGNETTE 2 - CIVIL (N = 105)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.22								
3. EFF	0.17	0.06							
4. COG	0.12	0.03	0.11						
5. AMB	-0.59***	0.07	-0.27**	0.01	(0.88)				
6. VIAB	-0.55***	0.30*	-0.11	-0.22*	0.29**	(0.84)			
7. SIM	-0.46***	0.35**	-0.02	-0.10	0.27**	0.78***	(0.88)		
8. CONSC	0.55***	-0.21	0.13	0.06	-0.48***	-0.52***	-0.41***		
9. PERF	0.54***	-0.08	0.12	0.11	-0.57***	-0.30**	-0.19*	0.67***	
10. COMM	0.56***	-0.25	0.15	0.14	-0.47***	-0.51***	-0.39***	0.71***	0.75***

VIGNETTE 3 - CIVIL (N = 114)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.28*								
3. EFF	0.12	0.08							
4. COG	0.10	0.01	-0.10						
5. AMB	-0.47***	0.15	-0.12	0.10	(0.87)				
6. VIAB	-0.48***	0.22	0.07	-0.01	0.36***	(0.74)			
7. SIM	-0.49***	0.26*	0.04	-0.08	0.36***	0.71***	(0.92)		
8. CONSC	0.65***	-0.32**	0.19*	0.13	-0.37***	-0.37***	-0.39***		
9. PERF	0.56***	-0.23	0.22*	0.02	-0.51***	-0.39***	-0.41***	0.55***	
10. COMM	0.62***	-0.24	0.13	0.15	-0.41***	-0.50***	-0.47***	0.70***	0.65***

VIGNETTE 4 - CIVIL (N = 105)	1	2	3	4	5	6	7	8	9
1. INC									
2. ATT	-0.36**								
3. EFF	0.03	-0.11							
4. COG	-0.05	0.06	-0.12						
5. AMB	-0.43***	0.28*	-0.10	0.20*	(0.85)				
6. VIAB	-0.49***	0.28*	-0.09	-0.04	0.46***	(0.67)			
7. SIM	-0.37***	0.40**	-0.08	0.06	0.50***	0.77***	(0.92)		
8. CONSC	0.49***	-0.34*	0.30**	0.08	-0.44***	-0.49***	-0.44***		
9. PERF	0.47***	-0.26	0.27**	0.02	-0.39***	-0.34***	-0.32***	0.69***	
10. COMM	0.57***	-0.31*	0.28**	0.02	-0.48***	-0.47***	-0.43***	0.71***	0.79***

Table 4. Overall Model Fit Statistics

	Uncivil Vignettes				Civil Vignettes			
	1	2	3	4	1	2	3	4
<i>N</i>	102	111	102	109	54	56	67	57
Robust chi square p-value	.000	.436	.052	.350	.568	.348	.632	.090
Robust CLI	.910	1.000	.968	.995	1.000	.993	1.000	.943
Robust RMSEA	.132	.004	.089	.030	.000	.048	.000	.119
SRMR	.048	.031	.059	.035	.035	.027	.048	.057

NOTE: Robust indicates that estimation procedures used took into account the heavy tailed and kurtotic distributions of model variables per Yuan, Chan & Bentler (2000). Observations used for civil vignettes does not include those whose responses to Attribution were "N/A" and couldn't be modeled numerically. Degrees of freedom in each modeled vignette = 9.

Table 5. Standardized Regression Coefficients and Standard Errors

	Uncivil Vignettes				Civil Vignettes			
	1	2	3	4	1	2	3	4
Ambiguity ~ Incivility	.16 (.07)	.01 (.07)	.17 (.07)	.06 (.07)	-.31 (.06)	-.40 (.06)	-.28 (.07)	-.22 (.07)
Mental Effort ~ Incivility	-.06 (.09)	-.04 (.10)	-.15 (.08)	.13 (.09)	.18 (.10)	.13 (.11)	.10 (.12)	-.10 (.10)
Cognitive Load ~ Incivility	-.00 (.35)	.05 (.19)	.10 (.18)	.11 (.21)	-.03 (.32)	.05 (.22)	-.05 (.25)	-.22 (.35)
Viability ~								
Incivility	-.50 (.10)	-.43 (.09)	-.55 (.08)	-.44 (.09)	-.78 (.11)	-1.15 (.17)	-.45 (.16)	-.94 (.11)
Attribution	-.06 (.95)	-.07 (.50)	.10 (.37)	-.22 (.53)	-.15 (.60)	-.52 (.68)	-.35 (.67)	-.38 (.55)
Incivility*Similarity	.43 (.02)	.58 (.02)	.53 (.03)	.49 (.02)	.77 (.03)	1.04 (.04)	.54 (.04)	.95 (.02)
Attribution*Similarity	.14 (.30)	.14 (.17)	.03 (.17)	.41 (.17)	.25 (.19)	.63 (.21)	.51 (.20)	.41 (.17)
Evaluation (Conscientiousness) ~								
Incivility	.29 (.13)	.09 (.13)	.14 (.11)	.38 (.12)	.74 (.13)	.74 (.26)	.55 (.16)	-.02 (.19)
Attribution	-.43 (.72)	-.52 (.72)	-.03 (.52)	-.20 (.56)	-.21 (.84)	-.14 (1.33)	-.30 (1.03)	.54 (1.05)
Incivility*Similarity	-.34 (.03)	-.07 (.03)	-.27 (.03)	-.12 (.03)	-.26 (.03)	-.45 (.06)	-.17 (.04)	.14 (.04)
Attribution*Similarity	.47 (.25)	.44 (.25)	-.16 (.20)	.23 (.20)	.29 (.24)	.08 (.39)	.12 (.29)	-.87 (.29)
Evaluation (Performance) ~								
Incivility	.31 (.11)	.06 (.11)	.41 (.12)	.36 (.08)	.41 (.12)	-.16 (.29)	.39 (.12)	-.40 (.28)
Attribution	.02 (1.13)	-.69 (1.13)	-.47 (.46)	-.05 (.59)	-.29 (.77)	-.44 (1.23)	-.02 (.69)	.76 (1.12)
Incivility*Similarity	-.07 (.02)	-.15 (.02)	-.16 (.03)	-.10 (.02)	.16 (.03)	.49 (.07)	.06 (.03)	.63 (.06)
Attribution*Similarity	.16 (.37)	.75 (.37)	.48 (.19)	.06 (.19)	.26 (.22)	.35 (.37)	-.11 (.21)	-1.14 (.33)
Evaluation (Communication Skills) ~								
Incivility	.45 (.11)	.32 (.11)	.49 (.08)	.54 (.10)	.69 (.14)	.49 (.28)	.59 (.15)	.16 (.24)
Attribution	-.37 (.94)	-.48 (.94)	-.74 (.33)	-.22 (.55)	-.54 (.92)	-1.05 (1.28)	-.53 (1.11)	.36 (1.17)
Incivility*Similarity	-.47 (.02)	-.30 (.02)	-.27 (.02)	-.14 (.02)	-.18 (.03)	-.35 (.07)	-.28 (.04)	.22 (.06)
Attribution*Similarity	.41 (.31)	.20 (.31)	.55 (.12)	.11 (.18)	.47 (.25)	.96 (.39)	.46 (.31)	-.56 (.33)

NOTE: Coefficients in bold are significant paths at $p < .05$

Table 6a. Pilot-Testing Round 1: Incivility Ratings & Intra-Class Correlation (ICC)

Round 1 - Survey Version A						
	Vignette	Rater 1	Rater 2	Rater 3	<i>M</i>	ICC
1	Uncivil	5	6	6	5.67	0.955
3	Uncivil	6	6	6	6.00	
5	Uncivil	5	6	5	5.33	
2	Civil	1	2	2	1.67	
4	Civil	1	1	1	1.00	
6	Civil	1	3	1	1.67	
Round 1 - Survey Version B						
	Vignette	Rater 4	Rater 5	Rater 6	<i>M</i>	ICC
2	Uncivil	5	5	4	4.67	0.077
4	Uncivil	6	1	6	4.33	
6	Uncivil	5	6	6	5.67	
1	Civil	1	4	4	3.00	
3	Civil	2	2	5	3.00	
5	Civil	4	4	4	4.00	

Table 6b. Pilot-Testing Round 2: Revision and Selection of Vignettes

Revising Inconsistent Vignettes		
	Vignette	Rater 7
1	Civil	4
	Civil - Revised	4
3	Civil	6
	Civil - Revised	1
5	Civil	5
	Civil - Revised	2
	Vignette	Rater 8
3	Uncivil	6
5	Uncivil	6
4	Civil	2
6	Civil	4

Evaluation of Vignettes Retained for Final Survey Versions			
Vignettes Retained	<i>N</i>	<i>Incivility Rating or Average Incivility Rating</i>	
3	Uncivil	4	6.00
4	Uncivil	3	4.33
5	Uncivil	4	5.50
6	Uncivil	3	5.67
3	Civil - Revised	1	1.00
4	Civil	4	1.25
5	Civil - Revised	1	2.00
6	Civil	4	2.25

NOTE: *N* is the number of raters who evaluated the vignette that was retained and used in the final version of the survey. For the final survey version, Vignettes 3-6 became Vignettes 1-4.

Table 7. Fundamental Attribution Error Odds & Odds Ratios

	Uncivil Vignettes				Civil Vignettes			
	1	2	3	4	1	2	3	4
Odds of Attribution to Sender over Situation for Incivility Ratings 1-3	0.25	1.17	0.09	0.75	0.62	0.27	0.36	0.09
Odds of Attribution to Sender over Situation for Incivility Ratings 4-6	3.84	3.90	1.37	4.50	3.13	0.47	1.06	1.06
Odds that Attribution is 'Not Applicable' over either Situation or Sender for Incivility Ratings 1-3	0.00	0.15	0.25	0.19	2.48	1.54	1.40	1.63
Odds that Attribution is 'Not Applicable' over either Situation or Sender for Incivility Ratings 4-6	0.02	0.01	0.00	0.01	0.06	0.11	0.03	0.09
Odds Ratio: Attribution to Sender over Situation for Incivility Ratings of 4-6 vs. 1-3	15.37	3.34	15.05	6.00	5.08	1.74	2.90	11.69

Table 8. Pearson Correlations for all Path Analysis and Control Variables

VIGNETTE 1 - UNCIVIL (N = 105)	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. INC																				
2. ATT																				
3. EFF																				
4. COG																				
5. AMB																				
6. VIAB																				
7. SIM																				
8. CONSC																				
9. PERF																				
10. COMM																				
11. SIT	219	4.00	0.59	0.40***	-0.43***	0.01	0.15	0.20*	-0.45***	-0.33***	0.18	0.23*	0.42***	(.75)						
12. CULT	219	3.43	0.92	0.19*	-0.1	0.05	0.16	0.1	-0.03	0.06	0.06	-0.04	0.09	0.13	(.79)					
13. WIS	219	2.50	0.92	-0.25*	0.35***	0.1	-0.21*	-0.08	0.48***	0.56***	-0.22*	0.02	-0.24*	-0.19**	0.09	(.90)				
14. CYBER	219	2.58	0.82	-0.22*	0.32**	0.07	-0.12	-0.03	0.52***	0.58***	-0.19*	0.02	-0.28**	-0.21**	0.1	0.68***	(.93)			
15. ORG ATTR	218	3.15	0.74	-0.11	0.27**	0.06	-0.11	-0.13	0.25**	0.28**	-0.21*	-0.02	-0.21*	-0.30***	0.03	0.35***	0.32***	(.84)		
16. HOST ATTR	219	3.19	0.83	-0.21*	0.20*	-0.04	-0.07	0	0.28**	0.34***	-0.23*	0.07	-0.1	-0.04	0.23***	0.47***	0.48***	0.24***	(.80)	
17. NA	209	22.05	8.76	-0.31**	0.46***	-0.02	-0.16	-0.12	0.42***	0.50***	-0.24*	0.08	-0.16	-0.17*	0.34***	0.51***	0.48***	0.16*	0.47***	
18. PA	211	35.10	7.99	0.01	0.1	0	0.16	0.26**	0.25*	0.37***	-0.1	0.17	-0.02	-0.01	-0.24***	0.07	0.18**	0.08	0.06	-0.08

NOTE: 1. INC = Perceived incivility, 2. ATT = Attribution (0 = sender, 1 = situation), 3. EFF = Mental effort, 4. COG = Cognitive load, 5. AMB = Perceived ambiguity (negative correlations mean greater ambiguity), 6. VIAB = Sender viability (negative correlations mean less viability), 7. SIM = Perceived similarity to sender (negative correlations mean less perceived similarity), 8. CONSC, 9. PERF, 10. COMM = Sender Evaluation - Conscientiousness, Performance, Communication Skills, respectively, where positive correlations mean poorer evaluations. 11. SIT = Sensitivity to Interpersonal Treatment; 12. CULT = Intolerance to Ambiguity Cultural Orientation; 13. WIS = Workplace Incivility Scale; 14. CYBER = Cyber Incivility Scale; 15. ORG = Organizational Attribution Scale; 16. HOST ATTR = Hostile Attribution Bias; 17. NA = Negative Affect; 18. PA = Positive Affect. When applicable, reliability coefficient alpha is reported on the diagonal. Since control variables were not vignette dependent, scale reliability coefficients for scales (11-16) are only reported in this table, as are means and standard deviations for model variables at the vignette level are reported in Table 2. this also means that the bottom right hand corner of each table is identical. Asterisks indicate levels of statistical significance (* = $p < .05$, ** = $p < .01$, *** = $p < .001$).

VIGNETTE 2 -
UNCIVIL
(N = 114)

	1	2	3	4	5	6	7	8	9	10
1. INC										
2. ATT	-0.28**									
3. EFF	-0.03	-0.08								
4. COG	0.05	0.13	-0.1							
5. AMB	-0.02	-0.01	-0.03	0.02	(0.82)					
6. VIAB	-0.35***	0.36***	0.06	-0.1	0.00	(0.67)				
7. SIM	-0.29**	0.50***	0.03	-0.02	-0.01	0.74***	(.91)			
8. CONSC	0.12	-0.17	0.08	-0.04	-0.05	-0.03	-0.11			
9. PERF	0.03	-0.06	0.18	0.05	0.08	-0.01	-0.07	0.12		
10. COMM	0.37***	-0.48***	-0.01	0.03	0.15	-0.54***	-0.50***	0.24*	0.18	
11. SIT	0.23*	-0.30**	-0.07	0.04	0.28**	-0.31***	-0.31***	0.07	-0.04	0.30**
12. CULT	0	-0.03	0.24*	-0.15	0.09	-0.02	0.1	-0.06	-0.01	0.07
13. WIS	-0.05	0.1	0.11	-0.07	-0.08	0.26**	0.36***	-0.01	-0.06	-0.15
14. CYBER	0.03	0.11	0.09	-0.20*	0	0.23*	0.29**	0.14	-0.03	-0.05
15. ORG ATTR	-0.08	0.28**	0.11	-0.09	-0.11	0.25**	0.29**	-0.18	0.09	-0.32***
16. HOST ATTR	0.03	0.15	0	-0.1	0.13	0.18	0.32***	-0.11	-0.09	-0.11
17. NA	-0.04	0.16	0.08	-0.05	-0.09	0.29**	0.42***	0.02	-0.16	-0.1
18. PA	-0.12	0.18	-0.05	0.13	0.11	0.30**	0.22*	0.05	0.20*	-0.13

VIGNETTE 3 -
UNCIVIL
(N = 105)

	1	2	3	4	5	6	7	8	9	10
1. INC										
2. ATT	-0.41***									
3. EFF	-0.13	0.20*								
4. COG	0.11	0.03	-0.03							
5. AMB	0.11	-0.19	-0.09	0.25**	(0.85)					
6. VIAB	-0.58***	0.54***	0.28**	-0.06	-0.24*	(0.84)				
7. SIM	-0.51***	0.51***	0.29**	0.1	-0.03	0.78***	(0.94)			
8. CONSC	0.29**	-0.29**	0.01	0.01	-0.06	-0.31**	-0.43***			
9. PERF	0.41***	-0.25*	-0.14	0.11	0.01	-0.24*	-0.26**	0.33***		
10. COMM	0.58***	-0.54***	-0.11	0.09	0.23*	-0.56***	-0.47***	0.44***	0.50***	
11. SIT	0.26**	-0.29**	0.02	0.07	0.38***	-0.35***	-0.28**	0.08	0.02	0.36***
12. CULT	0.06	-0.14	0	0.11	0.11	-0.01	0.12	0	0.01	0.14
13. WIS	-0.18	0.31**	0.08	-0.20*	-0.29**	0.40***	0.42***	-0.22*	0.17	-0.14
14. CYBER	-0.29**	0.30**	0.05	-0.14	-0.15	0.42***	0.45***	-0.28**	0.1	-0.17
15. ORG ATTR	-0.17	0.21*	-0.13	-0.06	-0.22*	0.23*	0.23*	0.01	0.20*	-0.1
16. HOST ATTR	-0.24*	0.28**	-0.07	-0.05	-0.04	0.32**	0.31**	-0.24*	0.02	-0.14
17. NA	-0.12	0.25*	0.09	-0.15	-0.25*	0.40***	0.38***	-0.1	0.14	-0.06
18. PA	-0.11	0.28**	0.03	0.23*	0.17	0.22*	0.38***	-0.12	0.01	-0.08

VIGNETTE 4 -

UNCIVIL (N = 114)	1	2	3	4	5	6	7	8	9	10
1. INC										
2. ATT	-0.28**									
3. EFF	0.15	0.06								
4. COG	0.13	-0.06	-0.01							
5. AMB	0	0.07	-0.12	0.07	(0.83)					
6. VIAB	-0.47***	0.35***	-0.14	0.02	0.02	(0.84)				
7. SIM	-0.52***	0.40***	0.02	0.04	0.04	0.76***	(0.92)			
8. CONSC	0.38***	-0.12	0.06	0.11	-0.02	-0.35***	-0.28**			
9. PERF	0.39***	-0.12	0.17	0.09	-0.21*	-0.17	-0.27**	0.42***		
10. COMM	0.57***	-0.29**	0.05	0.07	-0.02	-0.46***	-0.45***	0.57***	0.52***	
11. SIT	0.18	-0.15	-0.11	0.04	0.43***	-0.25**	-0.29**	0.02	-0.20*	0.16
12. CULT	-0.12	0.06	0.22*	-0.1	0.16	0.08	0.21*	-0.21*	-0.19*	-0.13
13. WIS	-0.02	0.07	0.13	0.05	-0.12	0.22*	0.28**	-0.02	-0.03	-0.11
14. CYBER	0.13	0.03	0.16	-0.01	-0.08	0.17	0.15	0.07	0.12	0.07
15. ORG ATTR	-0.13	0.20*	0.07	-0.07	-0.29**	0.20*	0.25**	-0.03	0.02	-0.17
16. HOST ATTR	-0.05	0.15	0.02	0.01	0.04	0.23*	0.28**	-0.15	-0.03	-0.08
17. NA	-0.02	0.06	0.08	0.1	-0.15	0.23*	0.32***	0.07	0.05	0.06
18. PA	-0.23*	0.31**	-0.14	0.04	0	0.42***	0.26**	-0.04	0.12	-0.14

VIGNETTE 1 -

CIVIL (N = 114)	1	2	3	4	5	6	7	8	9	10
1. INC										
2. ATT	-0.40**									
3. EFF	0.16	-0.01								
4. COG	0.16	-0.07	0.06							
5. AMB	-0.43***	0.18	-0.17	-0.06	(0.89)					
6. VIAB	-0.52***	0.38**	-0.05	-0.17	0.44***	(0.81)				
7. SIM	-0.55***	0.39**	-0.01	-0.15	0.36***	0.81***	(0.92)			
8. CONSC	0.63***	-0.2	0.15	0.05	-0.27**	-0.46***	-0.45***			
9. PERF	0.52***	-0.23	-0.1	0.04	-0.47***	-0.34***	-0.30**	0.42***		
10. COMM	0.68***	-0.38**	0.1	0.21*	-0.34***	-0.54***	-0.53***	0.63***	0.52***	
11. SIT	-0.16	-0.25	-0.02	0.01	0.24*	0.01	-0.01	-0.08	-0.27**	-0.04
12. CULT	0.12	-0.26	0.24*	0.03	-0.04	-0.09	-0.12	0.12	0.06	0.12
13. WIS	0.22*	0.14	0.13	0.02	-0.11	-0.06	0	0.24**	0.20*	0.28**
14. CYBER	0.23*	0.06	0.14	0.03	-0.06	0.03	0.04	0.25**	0.32***	0.29**
15. ORG ATTR	0.25**	0.16	0.06	0.1	-0.22*	-0.1	-0.07	0.14	0.27**	0.21*
16. HOST ATTR	0.23*	0.01	0.06	-0.05	-0.06	-0.02	0.09	0.20*	0.22*	0.20*
17. NA	0.16	0.03	0.16	-0.05	-0.15	0.04	0.11	0.22*	0.21*	0.19*
18. PA	0.18	0.09	-0.07	0.1	0.02	0.03	0.13	0.14	0.17	0.15

VIGNETTE 2 -
CIVIL
(N = 105)

	1	2	3	4	5	6	7	8	9	10
1. INC										
2. ATT	-0.22									
3. EFF	0.17	0.06								
4. COG	0.12	0.03	0.11							
5. AMB	-0.59***	0.07	-0.27**	0.01	(0.88)					
6. VIAB	-0.55***	0.30*	-0.11	-0.22*	0.29**	(0.84)				
7. SIM	-0.46***	0.35**	-0.02	-0.1	0.27**	0.78***	(0.88)			
8. CONSC	0.55***	-0.21	0.13	0.06	-0.48***	-0.52***	-0.41***			
9. PERF	0.54***	-0.08	0.12	0.11	-0.57***	-0.30**	-0.19*	0.67***		
10. COMM	0.56***	-0.25	0.15	0.14	-0.47***	-0.51***	-0.39***	0.71***	0.75***	
11. SIT	-0.28**	0.08	-0.1	0.14	0.53***	0.17	0.22*	-0.29**	-0.35***	-0.26**
12. CULT	-0.09	-0.17	-0.05	0.01	0.12	0.21*	0.31**	-0.07	0.03	-0.04
13. WIS	0.40***	0.02	-0.01	-0.09	-0.41***	-0.26**	-0.06	0.44***	0.47***	0.51***
14. CYBER	0.29**	0.18	0.01	-0.06	-0.31**	-0.1	0.03	0.27**	0.45***	0.37***
15. ORG ATTR	0.33***	-0.06	-0.03	0.06	-0.38***	-0.21*	-0.1	0.35***	0.38***	0.39***
16. HOST ATTR	0.23*	0.14	-0.11	-0.06	-0.19	-0.02	0.14	0.12	0.33***	0.22*
17. NA	0.28**	0.28*	-0.02	-0.06	-0.29**	-0.03	0.09	0.28**	0.37***	0.28**
18. PA	-0.04	0.33*	-0.04	0.1	0.08	0.21*	0.29**	-0.02	0.17	0.11

VIGNETTE 3 -
CIVIL
(N = 114)

	1	2	3	4	5	6	7	8	9	10
1. INC										
2. ATT	-0.28*									
3. EFF	0.12	0.08								
4. COG	0.1	0.01	-0.1							
5. AMB	-0.47***	0.15	-0.12	0.1	(0.87)					
6. VIAB	-0.48***	0.22	0.07	-0.01	0.36***	(0.74)				
7. SIM	-0.49***	0.26*	0.04	-0.08	0.36***	0.71***	(0.92)			
8. CONSC	0.65***	-0.32**	0.19*	0.13	-0.37***	-0.37***	-0.39***			
9. PERF	0.56***	-0.23	0.22*	0.02	-0.51***	-0.39***	-0.41***	0.55***		
10. COMM	0.62***	-0.24	0.13	0.15	-0.41***	-0.50***	-0.47***	0.70***	0.65***	
11. SIT	-0.29**	0.05	-0.17	-0.02	0.51***	0.12	0.1	-0.18	-0.19*	-0.15
12. CULT	0.12	-0.27*	0.18*	0	0.03	0	0	0.1	0.13	0.11
13. WIS	0.30**	-0.11	0.09	-0.06	-0.23*	-0.1	-0.02	0.37***	0.22*	0.25**
14. CYBER	0.32***	-0.08	0.25**	-0.06	-0.19*	-0.01	0.09	0.37***	0.20*	0.29**
15. ORG ATTR	0.42***	0.06	0.08	0.07	-0.34***	-0.12	-0.16	0.30**	0.28**	0.24*
16. HOST ATTR	0.18	-0.02	-0.02	0.11	-0.02	0.02	0.13	0.23*	0.14	0.07
17. NA	0.28**	-0.30*	0.14	0.07	-0.22*	0	0.03	0.31***	0.25**	0.22*
18. PA	0.03	0.08	-0.06	0.12	-0.05	0.21*	0.14	0.07	0.07	-0.03

VIGNETTE 4 -
 CIVIL
 (N = 105)

	1	2	3	4	5	6	7	8	9	10
1. INC										
2. ATT	-0.36**									
3. EFF	0.03	-0.11								
4. COG	-0.05	0.06	-0.12							
5. AMB	-0.43***	0.28*	-0.1	0.20*	(0.85)					
6. VIAB	-0.49***	0.28*	-0.09	-0.04	0.46***	(0.67)				
7. SIM	-0.37***	0.40**	-0.08	0.06	0.50***	0.77***	(0.92)			
8. CONSC	0.49***	-0.34*	0.30**	0.08	-0.44***	-0.49***	-0.44***			
9. PERF	0.47***	-0.26	0.27**	0.02	-0.39***	-0.34***	-0.32***	0.69***		
10. COMM	0.57***	-0.31*	0.28**	0.02	-0.48***	-0.47***	-0.43***	0.71***	0.79***	
11. SIT	-0.28**	0.11	-0.01	0.13	0.56***	0.16	0.28**	-0.33***	-0.36***	-0.28**
12. CULT	-0.15	-0.13	0.04	0.09	0.09	0.19*	0.15	0.04	-0.01	-0.04
13. WIS	0.28**	-0.01	0.03	-0.18	-0.32**	-0.05	0.04	0.33***	0.40***	0.43***
14. CYBER	0.26**	0.02	0.09	-0.01	-0.30**	-0.17	-0.06	0.39***	0.40***	0.42***
15. ORG ATTR	0.15	0.13	-0.11	0.03	-0.19	-0.02	-0.01	0.15	0.36***	0.24*
16. HOST ATTR	0.15	0.03	-0.13	0.11	-0.20*	-0.07	0.03	0.07	0.19	0.16
17. NA	0.37***	-0.19	0.05	-0.14	-0.34***	-0.19	-0.08	0.33**	0.38***	0.45***
18. PA	0.08	0.28*	0.02	0.22*	0.22*	0.13	0.19	0.11	0.17	0.17

References

- “2019 Adobe Email Usage Study.” (2019, September 12). Retrieved from:
<https://www.slideshare.net/adobe/2019-adobe-email-usage-study>
- Abdel-Khalek. (2006). Measuring happiness with a single-item scale. *Social Behavior and Personality*, 34(2), 139–150. <https://doi.org/10.2224/sbp.2006.34.2.139>
- Adams, S., & John, O. (1997). A hostility scale for the California Psychological Inventory: MMPI, Observer Q-Sort, and Big-Five correlates. *Journal of Personality Assessment*, 69(2), 408–424. https://doi.org/10.1207/s15327752jpa6902_11
- Aguinis, H., & Vandenberg, R. J. (2014). An ounce of prevention is worth a pound of cure: Improving research quality before data collection. *Annual Review of Organizational Psychology and Organizational Behavior*. 1(1), 569-595.
- Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24(3), 452-471.
- Atkinson, C. (2017, July 14). ‘F-k you all’: Ex-‘Walking Dead’ director went off on staff emails. <https://nypost.com/2017/07/14/f-k-you-all-ex-walking-dead-director-went-off-on-staff-in-emails/>.
- Ayres, P. (2006). Using subjective measures to detect variations of intrinsic cognitive load within problems. *Learning and Instruction*, 16(5), 389–400.
<https://doi.org/10.1016/j.learninstruc.2006.09.001>
- Barlett, C. P. (2015). Anonymously hurting others online: The effect of anonymity on cyberbullying frequency. *Psychology of Popular Media Culture*, 4(2), 70-79. <https://doi.org/10.1037/a0034335>.

- Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology, 83*(3), 377.
- Bauman, McGraw, A. P., Bartels, D. M., & Warren, C. (2014). Revisiting external validity: Concerns about trolley problems and other sacrificial dilemmas in Moral Psychology. *Social and Personality Psychology Compass, 8*(9), 536–554.
<https://doi.org/10.1111/spc3.12131>
- Bayne, A. M. (2015). *Relationships between incivility and physical health: The mediating effect of sleep and moderating effects of hostile attribution bias and rumination in a sample of nurses*. Bowling Green State University.
- Beatty, P. C., & Willis, G. B. (2007). Research synthesis: The practice of cognitive interviewing. *Public Opinion Quarterly, 71*(2), 287-311.
- Berry, Z., & Frederickson, J. (2015). Explanations and implications of the fundamental attribution error: A review and proposal. *Journal of Integrated Social Sciences, 5*(1), 44-57.
- Borah, P. (2013). Interactions of news frames and incivility in the political blogosphere: Examining perceptual outcomes. *Political Communication, 30*(3), 456-473.
- Bjørge, A. K. (2007). Power distance in English lingua franca email communication. *International Journal of Applied Linguistics, 17*(1), 60-80.
- Bjørn, P., & Ngwenyama, O. (2009). Virtual team collaboration: building shared meaning, resolving breakdowns and creating translucence. *Information Systems Journal, 19*(3), 227-253.

- Bushe, G. R., & Coetzer, G. H. (2007). Group development and team effectiveness: Using cognitive representations to measure group development and predict task performance and group viability. *The Journal of Applied Behavioral Science*, *43*(2), 184-212.
- Byrne, D. E. (1971). *The attraction paradigm* (Vol. 462). Academic press.
- Byrne, D. (1997). An overview (and underview) of research and theory within the attraction paradigm. *Journal of Social and Personal Relationships*, *14*(3), 417-431.
- Byrne, D., & Griffitt, W. (1973). Interpersonal attraction. *Annual review of psychology*, *24*(1), 317-336.
- Byrne, Griffitt, W., & Stefaniak, D. (1967). Attraction and similarity of personality characteristics. *Journal of Personality and Social Psychology*, *5*(1), 82-90.
<https://doi.org/10.1037/h0021198>
- Byron, K. (2008). Carrying too heavy a load? The communication and miscommunication of emotion by email. *Academy of Management Review*, *33*(2), 309-327.
- Byron, K., & Baldrige, D. C. (2007). E-mail recipients' impressions of senders' likability: The interactive effect of nonverbal cues and recipients' personality. *The Journal of Business Communication* (1973), *44*(2), 137-160.
- Caza, B. B., & Cortina, L. M. (2007). From insult to injury: Explaining the impact of incivility. *Basic and Applied Social Psychology*, *29*(4), 335-350.
- Chapman, M., Gajewska-De Mattos, H., Clegg, J., & Jennings Buckley, P. (2008). Close neighbours and distant friends—perceptions of cultural distance. *International Business Review*, *17*(3), 217-234. <https://doi.org/10.1016/j.ibusrev.2008.01.007>.
- Chavez, R. M. (2005). Student incivility in the college classroom from a faculty perspective: Race and gender differences in perception, attribution, effect, and response.

- Cheah, Sarstedt, M., Ringle, C. M., Ramayah, T., & Ting, H. (2018). Convergent validity assessment of formatively measured constructs in PLS-SEM: On using single-item versus multi-item measures in redundancy analyses. *International Journal of Contemporary Hospitality Management*, 30(11), 3192–3210. <https://doi.org/10.1108/IJCHM-10-2017-0649>
- Chen, Y., Wang, Z., Peng, Y., Geimer, J., Sharp, O., & Jex, S. (2018). The multidimensionality of workplace incivility: Cross-cultural evidence. *International Journal of Stress Management*. <https://doi.org/10.1037/str0000116>.
- Cheung, J. H., Burns, D. K., Sinclair, R. R., & Sliter, M. (2017). Amazon Mechanical Turk in organizational psychology: An evaluation and practical recommendations. *Journal of Business and Psychology*, 32(4), 347-361.
- Chiu, C. Y., Morris, M. W., Hong, Y. Y., & Menon, T. (2000). Motivated cultural cognition: The impact of implicit cultural theories on dispositional attribution varies as a function of need for closure. *Journal of Personality and Social Psychology*, 78(2), 247.
- Cohen, J. (1988). *Statistical power analysis for the social sciences*.
- Cohen, P., West, S. G., & Aiken, L. S. (2014). *Applied multiple regression/correlation analysis for the behavioral sciences*. Psychology press.
- Collisson, B., & Howell, J. L. (2014). The liking-similarity effect: Perceptions of similarity as a function of liking. *The Journal of Social Psychology*, 154(5), 384-400.
- Cortina, L. (2008). Unseen injustice: Incivility as modern discrimination in organizations. *Academy of Management Review*, 33(1), 55–75.

- 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(6), 1579–1605.
- Cortina, L. M., Kabat-Farr, D., Magley, V. J., & Nelson, K. (2017). Researching rudeness: The past, present, and future of the science of incivility. *Journal of Occupational Health Psychology*, 22(3), 299.
- Cortina, L., Magley, V., Williams, J., Langhout, R., & Barling, Julian. (2001). Incivility in the workplace: Incidence and impact. *Journal of Occupational Health Psychology*, 6(1), 64-80.
- Coupland, N., & Giles, H. (1988). Introduction: The communicative contexts of accommodation. *Language and Communication*, 8(3-4), 175–182.
- Cramton, C. D. (2001). The mutual knowledge problem and its consequences for dispersed collaboration. *Organization science*, 12(3), 346-371.
- Crump, S. A., Hamilton, D. L., Sherman, S. J., Lickel, B., & Thakkar, V. (2010). Group entitativity and similarity: Their differing patterns in perceptions of groups. *European Journal of Social Psychology*, 40(7), 1212-1230.
- culturewizard™ (2018). *Trends in High Performing Global Virtual Teams*. Retrieved from <https://www.rw-3.com/resource-center>.
- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management science*, 32(5), 554-571.
- Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message equivocality, media selection, and manager performance: Implications for information systems. *MIS quarterly*, 355-366.

- Daim, T., Ha, A., Reutiman, S., Hughes, B., Pathak, U., Bynum, W., & Bhatla, A. (2012). Exploring the communication breakdown in global virtual teams. *International Journal of Project Management*, *30*(2), 199–212. <https://doi.org/10.1016/j.ijproman.2011.06.004>.
- Danescu-Niculescu-Mizil, C., Sudhof, M., Jurafsky, D., Leskovec, J., & Potts, C. (2013). A computational approach to politeness with application to social factors. *arXiv preprint arXiv:1306.6078*.
- Danziger, S., Montal, R., & Barkan, R. (2012). Idealistic advice and pragmatic choice: A psychological distance account. *Journal of Personality and Social Psychology*, *102*(6), 1105.
- Davidov, E., Meuleman, B., Cieciuch, J., Schmidt, P., & Billiet, J. (2014). Measurement equivalence in cross-national research. *Annual review of sociology*, *40*, 55-75.
- Deegan Jr, J. (1978). On the occurrence of standardized regression coefficients greater than one. *Educational and Psychological Measurement*, *38*(4), 873-888.
- DeSimone, J. A., Harms, P. D., & DeSimone, A. J. (2015). Best practice recommendations for data screening. *Journal of Organizational Behavior*, *36*(2), 171-181.
- Deutskens, E., De Ruyter, K., Wetzels, M., & Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: an experimental study. *Marketing Letters*, *15*(1), 21-36.
- Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The mini-IPIP scales: tiny-yet-effective measures of the Big Five factors of personality. *Psychological Assessment*, *18*(2), 192.
- Douglas, Kiewitz, C., Martinko, M. J., Harvey, P., Kim, Y., & Chun, J. U. (2008). Cognitions, Emotions, and Evaluations: An Elaboration Likelihood Model for Workplace

Aggression. *The Academy of Management Review*, 33(2), 425–451.

<https://doi.org/10.5465/AMR.2008.31193490>

Duncan, B. L. (1976). Differential social perception and attribution of intergroup violence:

Testing the lower limits of stereotyping of blacks. *Journal of personality and social psychology*, 34(4), 590.

Edstrom, A., & Ewald, J. D. (2019). Characteristics of effective auto-reply emails: Politeness and perceptions. *Technology in Society*, 58, 101112.

Eifler, S., & Petzold, K. (2019). Validity aspects of vignette experiments: Expected “What-If” differences between reports of behavioral intentions and actual behavior. *Experimental Methods in Survey Research: Techniques that combine random sampling with random assignment*, 393-416.

Einarsen, S. (2000). Harassment and bullying at work: A review of the Scandinavian approach. *Aggression and violent behavior*, 5(4), 379-401.

Ensher, E. A., & Murphy, S. E. (1997). Effects of race, gender, perceived similarity, and contact on mentor relationships. *Journal of vocational behavior*, 50(3), 460-481.

Ferreira, I., Cheng, J., & Adams, B. (2021). The "Shut the f** k up" phenomenon:

Characterizing incivility in Open Source code review discussions. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW2), 1-35.

Festinger, L. (1957). *A theory of cognitive dissonance* (Vol. 2). Stanford university press.

Finlay, K., Marmurek, H. H., & Morton, R. (2005). Priming effects in explicit and implicit memory for textual advertisements. *Applied Psychology*, 54(4), 442-455.

- Fisher, G. G., Matthews, R. A., & Gibbons, A. M. (2016). Developing and investigating the use of single-item measures in organizational research. *Journal of Occupational Health Psychology, 21*(1), 3–23. <https://doi.org/10.1037/a0039139>.
- Foo, M. D., Sin, H. P., & Yiong, L. P. (2006). Effects of team inputs and intrateam processes on perceptions of team viability and member satisfaction in nascent ventures. *Strategic Management Journal, 27*(4), 389-399.
- Forgas, J. (1998). On being happy and mistaken: Mood effects on the fundamental attribution error. *Journal of Personality and Social Psychology, 75*(2), 318–331. <https://doi.org/10.1037/0022-3514.75.2.318>.
- Francis, Holmvall, & O'Brien. (2015). The influence of workload and civility of treatment on the perpetration of email incivility. *Computers in Human Behavior, 46*, 191-201.
- Fujita, M., Harrigan, P., Soutar, G. N., Roy, S. K., & Roy, R. (2020). Enhancing member-institution relationships through social media: The role of other-user engagement behavior and similarity perceptions. *Journal of Business Research, 121*, 642-654.
- Gardner, D. G., Cummings, L. L., Dunham, R. B., & Pierce, J. L. (1998). Single-item versus multiple-item measurement scales: An empirical comparison. *Educational and Psychological Measurement, 58*(6), 898-915.
- Gardner, Karam, E. P., Tribble, L. L., & Cogliser, C. C. (2019). The missing link? Implications of internal, external, and relational attribution combinations for leader–member exchange, relationship work, self-work, and conflict. *Journal of Organizational Behavior, 40*(5), 554–569. <https://doi.org/10.1002/job.2349>

- Gelfand, M. J., Aycan, Z., Erez, M., & Leung, K. (2017). Cross-cultural industrial organizational psychology and organizational behavior: A hundred-year journey. *Journal of Applied Psychology, 102*(3), 514.
- Gibbons, H., Seib-Pfeifer, L. E., Koppehele-Gossel, J., & Schnuerch, R. (2018). Affective priming and cognitive load: Event-related potentials suggest an interplay of implicit affect misattribution and strategic inhibition. *Psychophysiology, 55*(4), e13009.
- Gilbert, D., Pelham, B., & Krull, D. (1988). On cognitive busyness: When person perceivers meet persons perceived. *Journal of Personality and Social Psychology, 54*(5), 733–740. <https://doi.org/10.1037/0022-3514.54.5.733>.
- Gill, A. J., Oberlander, J., & Austin, E. (2006). Rating e-mail personality at zero acquaintance. *Personality and Individual Differences, 40*(3), 497-507.
- Geiger, I., & Parlamis, J. (2014). Is there more to email negotiation than email? The role of email affinity. *Computers in Human Behavior, 32*, 67-78.
- Githens, R. P. (2011). Diversity and incivility: Toward an action-oriented approach. *Advances in Developing Human Resources, 13*(1), 40-53.
- Giumetti, G., Mckibben, E., Hatfield, A., Schroeder, A., & Kowalski, R. (2012). Cyber incivility @ work: The new age of interpersonal deviance. *Cyberpsychology, Behavior, and Social Networking, 15*(3), 148-154.
- Giumetti, G., Hatfield, A., Scisco, J., Schroeder, A., Muth, E., Kowalski, R., & Hurrell, Joseph J. (2013). What a rude email! 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), 297-309.

- Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. *Personality Psychology in Europe*, 7(1), 7-28.
- Goldammer, P., Annen, H., Stöckli, P. L., & Jonas, K. (2020). Careless responding in questionnaire measures: Detection, impact, and remedies. *The Leadership Quarterly*, 101384.
- Goldsmith, D. J. (2007). Brown and Levinson's politeness theory. *Explaining communication: Contemporary theories and exemplars*, 219-236.
- Golightly, C., Huffman, D. M., & Byrne, D. (1972). Liking and loathing. *Journal of Applied Psychology*, 56(6), 521–523. <https://doi.org/10.1037/h0033746>
- Hallgren, K. A. (2012). Computing inter-rater reliability for observational data: an overview and tutorial. *Tutorials in Quantitative Methods for Psychology*, 8(1), 23.
- Han, S. J., Bonn, M. A., & Cho, M. (2016). The relationship between customer incivility, restaurant frontline service employee burnout and turnover intention. *International Journal of Hospitality Management*, 52, 97-106.
- Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR” understanding the role of resources in conservation of resources theory. *Journal of management*, 40(5), 1334-1364.
- Hancock, J. T., Curry, L. E., Goorha, S., & Woodworth, M. (2007). On lying and being lied to: A linguistic analysis of deception in computer-mediated communication. *Discourse Processes*, 45(1), 1-23.

- Harvey, P., Madison, K., Martinko, M., Crook, T. R., & Crook, T. A. (2014). Attribution theory in the organizational sciences: The road traveled and the path ahead. *Academy of Management Perspectives*, 28(2), 128-146.
- Harvey, P., Martinko, M. J., & Borkowski, N. (2017). Justifying deviant behavior: The role of attributions and moral emotions. *Journal of Business Ethics*, 779-795.
- Heider, F. (1958). The naive analysis of action.
- Hershcovis, M. (2011). "Incivility, social undermining, bullying. . .oh my!": A call to reconcile constructs within workplace aggression research. *Journal of Organizational Behavior*, 32(3), 499–519. <https://doi.org/10.1002/job.689>.
- Hershcovis, M. S., Turner, N., Barling, J., Arnold, K. A., Dupré, K. E., Inness, M., ... & Sivanathan, N. (2007). Predicting workplace aggression: a meta-analysis. *Journal of Applied Psychology*, 92(1), 228.
- Hobfoll, S. E. (1989). Conservation of resources: a new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513.
- Hogan, J., Barrett, P., & Hogan, R. (2007). Personality measurement, faking, and employment selection. *Journal of Applied Psychology*, 92(5), 1270.
- Holtbrügge, D., & Berning, S. C. (2017). Email communication styles across cultures. *The International Encyclopedia of Intercultural Communication*, 1-5.
- Holtbrügge, D., Weldon, A., & Rogers, H. (2013). Cultural determinants of email communication styles. *International Journal of Cross Cultural Management*, 13(1), 89-110.

- Hooper, N., Erdogan, A., Keen, G., Lawton, K., & McHugh, L. (2015). Perspective taking reduces the fundamental attribution error. *Journal of Contextual Behavioral Science*, 4(2), 69-72.
- Hu, L. T., & 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), 1-55.
- Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology*, 27(1), 99-114.
- Ipeirotis, P. G. (2010). Demographics of mechanical turk.
- Ireland, M. E., & Mehl, M. R. (2014). Natural language use as a marker. *The Oxford Handbook of Language and Social Psychology*, 201-237.
- Ireland, Molly E., Mehl, Matthias R., and Holtgraves, Thomas M. "Natural Language Use as a Marker of Personality." Oxford University Press.
- Jackson, T. W., Burgess, A., & Edwards, J. (2006). A simple approach to improving email communication. *Communications of the ACM*, 49(6), 107-109.
- Jarvenpaa, S. L., & Leidner, D. E. (1999). Communication and trust in global virtual teams. *Organization Science*, 10(6), 791-815.
- Jepson, C., Asch, D. A., Hershey, J. C., & Ubel, P. A. (2005). In a mailed physician survey, questionnaire length had a threshold effect on response rate. *Journal of Clinical Epidemiology*, 58(1), 103-105.
- Jessmer, S. L., & Anderson, D. (2001). The effect of politeness and grammar on user perceptions of electronic mail. *North American Journal of Psychology*, 3(2), 331-346.

- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions the attribution process in person perception. In *Advances in experimental social psychology* (Vol. 2, pp. 219-266). Academic Press.
- Kabat-Farr, 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. <https://doi.org/10.1037/str0000045>
- Kacewicz, E., Pennebaker, J. W., Davis, M., Jeon, M., & Graesser, A. C. (2014). Pronoun use reflects standings in social hierarchies. *Journal of Language and Social Psychology*, 33(2), 125-143.
- Kavanagh, B. (2016). Emoticons as a medium for channeling politeness within American and Japanese online blogging communities. *Language & Communication*, 48, 53-65.
- Kelley, H. H. (1973). The processes of causal attribution. *American psychologist*, 28(2), 107.
- Kenny, D. A. (2020, June 5). Measuring Model Fit. Retrieved from:
<http://www.davidakenny.net/cm/fit.htm>
- Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2015). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods & Research*, 44(3), 486-507.
- Kent, R. L., & Martinko, M. J. (1995). The development and evaluation of a scale to measure organizational attributional style. *Attribution theory: An organizational perspective*, 53-75.
- Kern, J. H., & Grandey, A. A. (2009). Customer incivility as a social stressor: the role of race and racial identity for service employees. *Journal of Occupational Health Psychology*, 14(1), 46.

- Klitmøller, A., & Luring, J. (2013). When global virtual teams share knowledge: Media richness, cultural difference and language commonality. *Journal of World Business, 48*(3), 398-406.
- Klitmøller, A., Schneider, S. C., & Jonsen, K. (2015). Speaking of global virtual teams: language differences, social categorization and media choice. *Personnel Review*.
- Korbach, A., Brünken, R., & Park, B. (2017). Measurement of cognitive load in multimedia learning: a comparison of different objective measures. *Instructional Science, 45*(4), 515–536. <https://doi.org/10.1007/s11251-017-9413-5>.
- Krull, D. S., Loy, M. H. M., Lin, J., Wang, C. F., Chen, S., & Zhao, X. (1999). The fundamental attribution error: Correspondence bias in individualist and collectivist cultures. *Personality and Social Psychology Bulletin, 25*(10), 1208-1219.
- Leiter, M. P., Laschinger, H. K. S., Day, A., & Oore, D. G. (2011). The impact of civility interventions on employee social behavior, distress, and attitudes. *Journal of Applied Psychology, 96*(6), 1258.
- Leonard Jr, R. L. (1976). Cognitive complexity and the similarity-attraction paradigm. *Journal of Research in Personality, 10*(1), 83-88.
- Leonhardt, Pezzuti, T., & Namkoong, J.-E. (2020). We're not so different: Collectivism increases perceived homophily, trust, and seeking user-generated product information. *Journal of Business Research, 112*, 160–169. <https://doi.org/10.1016/j.jbusres.2020.03.017>
- Leppink, J., Paas, F., Van der Vleuten, C. P., Van Gog, T., & Van Merriënboer, J. J. (2013). Development of an instrument for measuring different types of cognitive load. *Behavior Research Methods, 45*(4), 1058-1072.

- Lerman, D. (2006). Consumer politeness and complaining behavior. *Journal of Services Marketing, 20*(2), 92–100. <https://doi.org/10.1108/08876040610657020>.
- Leung, K., & Morris, M. W. (2015). Values, schemas, and norms in the culture–behavior nexus: A situated dynamics framework. *Journal of International Business Studies, 46*(9), 1028–1050.
- Li, C. H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior research methods, 48*(3), 936–949.
- Li-jing, Z. H. A. O., Zheng-tang, Z. H. A. N. G., & Kun-tai, S. O. N. G. (2018). The Effects of Coworker Incivility on Employees' Time Banditry: Moderating Role of Hostile Attribution Bias and Psychological Resilience. *Commercial Research, 60*(7), 80.
- Lim, S., Cortina, L., & Magley, V. (2008). Personal and workgroup incivility: Impact on work and health outcomes. *Journal of Applied Psychology, 93*(1), 95–107. <https://doi.org/10.1037/0021-9010.93.1.95>.
- Lim, V. K., & Teo, T. S. (2009). Mind your E-manners: Impact of cyber incivility on employees' work attitude and behavior. *Information & Management, 46*(8), 419–425.
- Lincoln, J. R., & Miller, J. (1979). Work and friendship ties in organizations: A comparative analysis of relation networks. *Administrative Science Quarterly, 181*–199.
- Littman, A. J., White, E., Satia, J. A., Bowen, D. J., & Kristal, A. R. (2006). Reliability and validity of 2 single-item measures of psychosocial stress. *Epidemiology, 398*–403.
- Liu, C. Group and Similarity Effects on Cooperation and Punishment.

- Liu, L. A., Chua, C. H., & Stahl, G. K. (2010). Quality of communication experience: Definition, measurement, and implications for intercultural negotiations. *Journal of Applied Psychology, 95*(3), 469.
- Liu, W., Steve Chi, S. C., Friedman, R., & Tsai, M. H. (2009). Explaining incivility in the workplace: The effects of personality and culture. *Negotiation and Conflict Management Research, 2*(2), 164-184.
- Loo, R. (2002). A caveat on using single-item versus multiple-item scales. *Journal of Managerial Psychology, 17*(1), 68-75.
- Lord, R.G., & Smith, J. E. (1983). Theoretical, information processing, and situational factors affecting attribution theory models of organizational behavior. *The Academy of Management Review, 8*(1), 50–60. <https://doi.org/10.2307/257167>
- Luiz, J. M. (2015). The impact of ethno-linguistic fractionalization on cultural measures: Dynamics, endogeneity and modernization. *Journal of International Business Studies, 46*, 1080–1098. <http://dx.doi.org/10.1057/jibs.2015.6>.
- Marchiondo, Cortina, L. M., & Kabat-Farr, D. (2018). Attributions and Appraisals of Workplace Incivility: Finding Light on the Dark Side?: Incivility attributions and appraisals. *Applied Psychology, 67*(3), 369–400. <https://doi.org/10.1111/apps.12127>
- Martinko, M. J. (1995). Attribution theory. *The Blackwell Encyclopedic Dictionary of Organizational Behavior. London: Blackwell*, 21-3.
- Martinko, M. J., Douglas, S. C., & Harvey, P. (2006). Attribution Theory in Industrial and Organizational Psychology: A Review.

- Martinko, M. J., Harvey, P., & Dasborough, M. T. (2011). Attribution theory in the organizational sciences: A case of unrealized potential. *Journal of Organizational Behavior*, 32(1), 144-149.
- Martinko, M. J., & Mackey, J. D. (2019). Attribution theory: An introduction to the special issue. *Journal of Organizational Behavior*, 40(5), 523-527.
- McAuliffe, & Dunham, Y. (2016). Group bias in cooperative norm enforcement. *Philosophical Transactions. Biological Sciences*, 371(1686), 20150073–20150073.
<https://doi.org/10.1098/rstb.2015.0073>
- McCarthy, K. A. (2016). Is rudeness really that common? An exploratory study of incivility at work. *Journal of Organizational Computing and Electronic Commerce*, 26(4), 364-374.
- McCarthy, K., Pearce, J. L., Morton, J., & Lyon, S. (2020). Do you pass it on? An examination of the consequences of perceived cyber incivility. *Organization Management Journal*.
- McCarthy, K., Pillai, R., Cherry, B., & Steigerwald, M. (2019). From cyber to e-mail incivility: a psychometric assessment and measure validation study. *Organization Management Journal*, 16(2), 61-68.
- McPherson, M. B., & Young, S. L. (2004). What students think when teachers get upset: Fundamental attribution error and student-generated reasons for teacher anger. *Communication Quarterly*, 52(4), 357-369.
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological methods*, 17(3), 437.
- Merrienboer, J. J. V. (2013). Development of an instrument for measuring different types of cognitive load. *Behavior Research Methods*, 45(4), 1058–1072.
<https://doi.org/10.3758/s13428-013-0334-1>

- Meyer, R. D., Dalal, R. S., José, I. J., Hermida, R., Chen, T. R., Vega, R. P., ... & Khare, V. P. (2014). Measuring job-related situational strength and assessing its interactive effects with personality on voluntary work behavior. *Journal of Management*, *40*(4), 1010-1041.
- Michinov, E., & Monteil, J. M. (2002). The similarity–attraction relationship revisited: divergence between the affective and behavioral facets of attraction. *European Journal of Social Psychology*, *32*(4), 485-500.
- Minneyfield, A. (2021). *Observer Attribution of Workplace Incivility as Racial Discrimination: An Application of Social Information Processing Theory* (Doctoral dissertation, Southern Illinois University at Carbondale).
- Montoya, R. M., & Horton, R. S. (2013). A meta-analytic investigation of the processes underlying the similarity-attraction effect. *Journal of Social and Personal Relationships*, *30*(1), 64-94.
- Moon, C., Weick, M., & Uskul, A. K. (2018). Cultural variation in individuals' responses to incivility by perpetrators of different rank: The mediating role of descriptive and injunctive norms. *European Journal of Social Psychology*, *48*(4), 472-489.
- Mouratidis, K., & Papagiannakis, A. (2021). COVID-19, internet, and mobility: The rise of telework, telehealth, e-learning, and e-shopping. *Sustainable Cities and Society*, *74*, 103182.
- Murphy, K. R., & Russell, C. J. (2017). Mend it or end it: Redirecting the search for interactions in the organizational sciences. *Organizational Research Methods*, *20*(4), 549-573.
- Murphy, K. R., & Aguinis, H. (2019). HARKing: How badly can cherry-picking and question trolling produce bias in published results? *Journal of Business and Psychology*, *34*(1), 1-17.

- Newman, D. A. (2014). Missing data: Five practical guidelines. *Organizational Research Methods, 17*(4), 372-411.
- Newman, M. L., Groom, C. J., Handelman, L. D., & Pennebaker, J. W. (2008). Gender differences in language use: An analysis of 14,000 text samples. *Discourse Processes, 45*(3), 211-236.
- Niederhoffer, K. G., & Pennebaker, J. W. (2002). Linguistic style matching in social interaction. *Journal of Language and Social Psychology, 21*(4), 337-360.
- Nunnally, J. C. (1978). *Psychometric theory* (2d ed.). New York: McGraw-Hill.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York, NY: McGraw-Hill.
- Osborne, J. W. (2013). *Best practices in data cleaning: A complete guide to everything you need to do before and after collecting your data*. Sage.
- Paas, F., Tuovinen, J. E., Tabbers, H., & Van Gerven, P. W. (2003). Cognitive load measurement as a means to advance cognitive load theory. *Educational Psychologist, 38*(1), 63-71.
- Panina, Daria, & Kroumova, Maya. (2015). Cross-cultural communication patterns in computer mediated communication. *Journal of International Education Research, 11*(1), 1-6.
- Park, Y., Fritz, C., & Jex, S. M. (2018). Daily cyber incivility and distress: The moderating roles of resources at work and home. *Journal of Management, 44*(7), 2535-2557.
- Park, Y., & Haun, V. (2018). The long arm of email incivility: Transmitted stress to the partner and partner work withdrawal. *Journal of Organizational Behavior, 39*(10), 1268-1282.
- Peek, Sean. (2021, December, 1). Communication Technology and Inclusion Will Shape the Future of Remote Work. Retrieved from <https://www.businessnewsdaily.com/8156-future-of-remote-work.html>.

- Pew Research Center (2014). *Technology's Impact on Workers*. Retrieved from <https://www.pewinternet.org/2014/12/30/technologys-impact-on-workers/>.
- Papacharissi, Z. (2004). Democracy online: Civility, politeness, and the democratic potential of online political discussion groups. *New Media & Society*, 6(2), 259-283.
- Porath, C. (2017, September 15). The silent killer of workplace happiness, productivity, and health is a lack of basic civility. Retrieved from <https://qz.com/1079344/the-silent-killer-of-workplace-happiness-productivity-and-health-is-a-lack-of-basic-civility/>.
- Porath, C., & Erez, A. (2009). Overlooked but not untouched: How rudeness reduces onlookers' performance on routine and creative tasks. *Organizational Behavior and Human Decision Processes*, 109(1), 29–44. <https://doi.org/10.1016/j.obhdp.2009.01.003>.
- Porath, C., & Erez, A. (2007). Does rudeness really matter? The effects of rudeness on task performance and helpfulness. *The Academy of Management Journal*, 50(5), 1181–1197. <https://doi.org/10.2307/20159919>.
- Porath, C. L., & Pearson, C. M. (2012). Emotional and behavioral responses to workplace incivility and the impact of hierarchical status. *Journal of Applied Social Psychology*, 42, E326-E357.
- Rahim, M. (1983). A measure of styles of handling interpersonal conflict. *The Academy of Management Journal*, 26(2), 368–376. <https://doi.org/10.2307/255985>.
- Reich, T. C., & Hershcovis, M. S. (2015). Observing workplace incivility. *Journal of Applied Psychology*, 100(1), 203.
- Riordan, C. M., & Shore, L. M. (1997). Demographic diversity and employee attitudes: An empirical examination of relational demography within work units. *Journal of Applied Psychology*, 82(3), 342.

- Robinson, S., & Bennett, R. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *The Academy of Management Journal*, 38(2), 555–572. <https://doi.org/10.2307/256693>.
- Robinson, S., O'Reilly, J., Wang, W., & Robinson, S. (2013). Invisible at work: An integrated model of workplace ostracism. *Journal of Management*, 39(1), 203–231. <https://doi.org/10.1177/0149206312466141>.
- Rösner, L., Winter, S., & Krämer, N. (2016). Dangerous minds? Effects of uncivil online comments on aggressive cognitions, emotions, and behavior. *Computers in Human Behavior*, 58, 461-470.
- Ross, J., Zaldivar, A., Irani, L., & Tomlinson, B. (2009). Who are the turkers? worker demographics in amazon mechanical turk. *Department of Informatics, University of California, Irvine, USA, Tech. Rep.*
- Russell, D. (1982). The Causal Dimension Scale: A measure of how individuals perceive causes. *Journal of Personality and Social Psychology*, 42(6), 1137.
- Ryan, A., Brutus, S., Greguras, G., & Hakel, M. (2000). Receptivity to assessment-based feedback for management development. *Journal of Management Development*, 19(4), 252–276. <https://doi.org/10.1108/02621710010322580>.
- Satorra, A., & Saris, W. E. (1985). Power of the likelihood ratio test in covariance structure analysis. *Psychometrika*, 50(1), 83-90.
- Satorra, A., & Bentler, P. M. (2010). Ensuring positiveness of the scaled difference chi-square test statistic. *Psychometrika*, 75(2), 243-248.

- Salin, D., Cowan, R., Adewumi, O., Apospori, E., Bochantin, J., D’cruz, P., ... Zedlacher, E. (2019). Workplace bullying across the globe: a cross-cultural comparison. *Personnel Review*, 48(1), 204–219. <https://doi.org/10.1108/PR-03-2017-0092>.
- Schmidt, F. L., & Hunter, J. E. (1996). Measurement error in psychological research: Lessons from 26 research scenarios. *Psychological Methods*, 1(2), 199–223. <https://doi.org/10.1037/1082-989X.1.2.199>
- Schraw, G. (1998). Promoting general metacognitive awareness. *Instructional Science*, 26(1), 113-125.
- Shaffer, M., Harrison, D., Gregersen, H., Black, J., & Ferzandi, L. (2006). You can take it with you: Individual differences and expatriate effectiveness. *Journal of Applied Psychology*, 91(1), 109–125. <https://doi.org/10.1037/0021-9010.91.1.109>.
- Sharma, P. (2010). Measuring personal cultural orientations: scale development and validation. *Journal of the Academy of Marketing Science*, 38(6), 787–806. <https://doi.org/10.1007/s11747-009-0184-7>.
- Shimizu, K. (2017). Senders' Bias: How can top managers' communication improve or not improve strategy implementation? *International Journal of Business Communication*, 54(1), 52-69.
- Shpaizman, I., & Kogut, T. (2010). Can perceptions of similarity reduce the ability to see the other’s needs? The case of immigrant students’ integration policy. *Social Psychology of Education*, 13(3), 425-440.
- Sillars, A., & Zorn, T. E. (2021). Hypernegative interpretation of negatively perceived email at work. *Management Communication Quarterly*, 35(2), 171-200.

- Singh, & Ho, S. Y. (2000). Attitudes and attraction: A new test of the attraction, repulsion and similarity-dissimilarity asymmetry hypotheses. *British Journal of Social Psychology, 39*(2), 197–211. <https://doi.org/10.1348/014466600164426>
- Shoshana, A. (2016). The language of everyday racism and microaggression in the workplace: Palestinian professionals in Israel. *Ethnic and Racial Studies, 39*(6), 1052-1069.
- St. Amant, K. (2001). Cultures, computers, and communication: Evaluating models of international online production. *IEEE Transactions on Professional Communication, 44*(4), 291-295.
- St. Amant, K. (2002). When cultures and computers collide: Rethinking computer-mediated communication according to international and intercultural communication expectations. *Journal of business and Technical Communication, 16*(2), 196-214.
- Stich, J. F., Farley, S., Cooper, C., & Tarafdar, M. (2015). Information and communication technology demands: outcomes and interventions. *Journal of Organizational Effectiveness: People and Performance*.
- Sousa, C., & Bradley, F. (2006). Cultural distance and psychic distance: Two peas in a pod? *Journal of International Marketing, 14*(1), 49–70.
<https://doi.org/10.1509/jimk.14.1.49>.
- Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. John Wiley & Sons.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.

- Tajfel, H., & Turner, J. C. (1986). The Social Identity Theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
- Tassabehji, R., & Vakola, M. (2005). Business email: The killer impact. *Communications of the ACM*, 48(11), 64-70.
- Teclaw, R., Price, M. C., & Osatuke, K. (2012). Demographic question placement: Effect on item response rates and means of a veterans health administration survey. *Journal of Business and Psychology*, 27(3), 281-290.
- Teng, X., Qian, J., & Qu, Y. (2021). My Fault? Coworker Incivility and Organizational Citizenship Behavior: The Moderating Role of Attribution Orientation on State Guilt. *Frontiers in Psychology*, 12, 2524.
- Turnage, A. K. (2007). Email flaming behaviors and organizational conflict. *Journal of Computer-Mediated Communication*, 13(1), 43-59.
- The Impact of Email in the Workplace (2020, August, 29). Retrieved from:
<https://work.chron.com/impact-email-workplace-7915.html>
- Thomas, K. W., & Kilmann, R. H. (1978). Comparison of four instruments measuring conflict behavior. *Psychological Reports*, 42(3_suppl), 1139-1145.
- Top 10 Work Trends 2022 (2022). Retrieved from: <https://www.siop.org/Business-Resources/Top-10-Work-Trends>
- Vahtera, P., Buckley, P. J., Aliyev, M., Clegg, J., & Cross, A. R. (2017). Influence of social identity on negative perceptions in global virtual teams. *Journal of International Management*, 23(4), 367-381.

- Valenzuela, M. A., Jian, G., & Jolly, P. M. (2019). When more is better: The relationships between perceived deep-level similarity, perceived workplace ethnic diversity, and immigrants' quality of coworker relationships. *Employee Relations: The International Journal*.
- Vasconcelos. (2020). Workplace incivility: a literature review. *International Journal of Workplace Health Management*, 13(5), 513–542. <https://doi.org/10.1108/IJWHM-11-2019-0137>
- Vignovic, J. A., & Thompson, L. F. (2010). Computer-mediated cross-cultural collaboration: Attributing communication errors to the person versus the situation. *Journal of Applied Psychology*, 95(2), 265-276.
- Waldvogel, J. (2007). Greetings and closings in workplace email. *Journal of Computer-Mediated Communication*, 12(2), 456-477.
- Wang, Teng, X., Cai, Z., Qu, Y., & Qian, J. (2021). My fault? Coworker incivility and organizational citizenship behavior: The moderating role of attribution orientation on state guilt. *Frontiers in Psychology*, 12, 683843–683843. <https://doi.org/10.3389/fpsyg.2021.683843>
- Wasti, S. A., & Erdaş, K. D. (2019). The construal of workplace incivility in honor cultures: evidence from Turkey. *Journal of Cross-Cultural Psychology*, 50(1), 130–148.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-1070.

- Weingart, L., Behfar, K., Bendersky, C., Todorova, G., & Jehn, K. (2015). The directness and oppositional intensity of conflict expression. *Academy of Management Review*, *40*(2), 235–262. <https://doi.org/10.5465/amr.2013-0124>.
- Welbourne, J., Gangadharan, A., Sariol, A., & Hurrell, Joseph J. (2015). Ethnicity and cultural values as predictors of the occurrence and impact of experienced workplace incivility. *Journal of Occupational Health Psychology*, *20*(2), 205-217.
- West, B., Foster, M., Levin, A., Edmison, J., & Robibero, D. (2014). Cyberbullying at work: In search of effective guidance. *Laws*, *3*(3), 598-617.
- Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting: Knowing what to want. *Current Directions in Psychological Science*, *14*(3), 131-134.
- Worthy, I. (2015, December, 16). SIOP announces Top 10 Workplace Trends for 2016. Retrieved from <https://www.siop.org/Research-Publications/Items-of-Interest/ArtMID/19366/ArticleID/1724/SIOP-Announces-Top-10-Workplace-Trends-for-2016>.
- Wright, K. B. (2011). A communication competence approach to healthcare worker conflict, job stress, job burnout, and job satisfaction. *Journal for Healthcare Quality*, *33*(2), 7-14.
- Wu, L. Z., Zhang, H., Chiu, R. K., Kwan, H. K., & He, X. (2014). Hostile attribution bias and negative reciprocity beliefs exacerbate incivility's effects on interpersonal deviance. *Journal of Business Ethics*, *120*(2), 189-199.
- Yeo, G., & Neal, A. (2008). Subjective cognitive effort: A model of states, traits, and time. *Journal of Applied Psychology*, *93*(3), 617–631. <https://doi.org/10.1037/0021-9010.93.3.617>

- Yuan, Chan, W., & Bentler, P. M. (2000). Robust transformation with applications to structural equation modelling. *British Journal of Mathematical & Statistical Psychology*, 53(1), 31–50. <https://doi.org/10.1348/000711000159169>
- Zakaria, N., Amelinckx, A., & Wilemon, D. (2013). Mapping a typology for identifying the culturally-related challenges of global virtual teams: A research perspective. In *Enterprise Resource Planning: Concepts, Methodologies, Tools, and Applications* (pp. 883-900). IGI Global.
- Zhu, H., Lyu, Y., & Ye, Y. (2021). The impact of customer incivility on employees' family undermining: A conservation of resources perspective. *Asia Pacific Journal of Management*, 38(3), 1061-1083.
- Zwebner, Y., Sellier, A. L., Rosenfeld, N., Goldenberg, J., & Mayo, R. (2017). We look like our names: The manifestation of name stereotypes in facial appearance. *Journal of Personality and Social Psychology*, 112(4), 527.

Appendix A: Preliminary Survey – Stimulus Development

Qualtrics Survey: Request for Raw Material

Before we start, please tell me what your current role is:

Graduate Student

Faculty/Instructor/Professor

University Administration/Staff

Other: _____

How many years have you been in the workforce (non-student, full time)?

Not applicable

Less than 1 year

1-3 years

3-5 years

5-10 years

More than 10 years

Gender

Female

Male

Non-binary

I prefer not to answer

Other: _____

In the next sections, I will be requesting phrases, excerpts and/or blurbs from emails you have received (or remember receiving) and thought were uncivil.

These submissions are anonymous, and you can share anything from a short phrase to a complete sentence or sentences (you do not have to submit entire emails or sentences if you don't want to, and you are welcome to redact/remove anything). Anything you share here will go through iterations of revision and ultimately be integrated into a completely new context.

Before you begin, **kindly review this information about incivility**: Incivility is subtle, originally defined as “low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect.”

Incivility differs from psychological aggression when behaviors *lack* clear, conscious intentionality...some uncivil behaviors can be attributed to instigator ignorance or oversight, or they can be attributed to target misinterpretation or hypersensitivity.

Uncivil behaviors are characteristically rude and discourteous, displaying lack of regard for

others. Incivility can derive from any level of the organizational structure.

Examples of uncivil language content:

- Low-level, aggravating encounters
- Sarcasm
- Unfriendly tone
- “Over-the-top” or hyperbolic language
- Character criticism
- Offensive language

Please paste/copy/type text from an email you have received that, according to the definition and examples provided, you interpreted as being uncivil.

Briefly describe the context in which the email was sent: what were the circumstances, what was the situation or topic it addressed?

Why exactly do you think this message is uncivil (or civil)?

Specifically, which phrases, words or attributes of the email do you find uncivil, according to the definition and examples provided? How might you rephrase or change the tone of the message to make it civil?

How severe would you rate the degree of incivility of the email?

- Not at all severe
- A little severe
- Moderately severe
- Very severe
- Extremely severe

How would you classify the email sender's organizational status, in relationship to your own?

- Co-worker/Equal/Peer
- Superior/Supervisor
- Employee/Of Lesser Status (Tenure, Position, etc.)

Do you have a personal relationship with this sender outside of the organizational context?

- Yes
- No

How much do you like the sender?

- I don't like them
- I neither like nor dislike them

I like them somewhat
I like them a lot

Would you like to add another email excerpt?

Yes
No

Appendix B: Eligibility Survey

NOTE: Skip logic and other survey functionality is not displayed in this appendix

How old are you (please enter as a whole number, i.e. number of years)?

Are you currently working?

Yes

No

Do you currently work full time (more than 35 hours per week)?

Yes

No

Do you currently work part time (at least 15 hours per week)?

Yes

No

Have you worked more than 15 hours per week in the past 2 years?

Yes

No

Approximately how many years have worked in your life (please enter a whole number)?

At work, currently or in the past, do you/have you used e-mail for work purposes on a regular basis?

Yes

No

At work, currently or in the past, do you/have you used English as one of your primary languages?

Yes

No

How would you rate your proficiency with the reading the English language?

I do not know how to read English

A little proficient

Moderately proficient

Very proficient

I am a native English reader/speaker

Did you take the TOEFL (Test of English as a Foreign Language)?

Yes

No

What was your TOEFL score (please enter whole number)?

Appendix C: Main Survey

NOTE: Skip logic and other survey functionality is not displayed in this appendix

Which of the following describes you? Select all that apply.

- White
- Black or African American
- Asian
- Hispanic, Latinx, Chicanx
- American Indian or Alaskan Native
- Middle Eastern or North African
- Native Hawaiian or other Pacific Islander
- Some other race, ethnicity or origin
- Prefer to self describe _____
- Prefer not to say

With which gender do you identify?

- Female
- Male
- Non-Binary/genderqueer
- Questioning
- Prefer to self-describe _____
- Prefer not to say

Do you identify as transgender?

- Yes
- No
- Prefer not to say

What is your sexual orientation?

- Straight
- Gay
- Lesbian
- Bisexual
- Questioning
- Asexual
- Pansexual
- Prefer to self-describe _____
- Prefer not to say

Is English your first or primary language?

- Yes
- No

What is your first/primary language?

- Hindi
- Chinese
- Spanish
- Arabic
- French
- Tagalog
- Italian
- Hebrew
- Vietnamese
- Swedish
- Hungarian
- Lithuanian
- Other _____

At what age did you begin studying/learning English (enter as a whole number)?

Approximately how many years have you been speaking English (enter as a whole number)?

Are you bilingual or multilingual?

- Yes
- No

In which languages are you proficient in reading? (select all that apply):

- English
- Spanish
- Chinese
- Mandarin
- Hindi
- Arabic
- Malay
- Bengali
- French
- Russian
- Portuguese
- Italian
- Japanese
- Other _____

In which country were you born?

- United States
- India
- Canada
- Great Britain

Philippines

Germany

Denmark

China

Other _____

Please answer true or false: I was born on February 30th.

True

False

Do you identify as bicultural or multicultural?

Yes

No

[Email Vignette Evaluation Section, See Appendix D]

[Scales listed in Appendix F]

You have now finished the survey. Before exiting, we would like you to respond to three optional items that will help us ensure the integrity of the research. To what extent would you agree with each of the following statements:

Strongly disagree

Somewhat disagree

Neither agree nor disagree

Somewhat agree

Strongly agree

- I didn't pay attention to what the questions in this survey actually meant.
- I thought about the survey questions before answering them.
- I responded carelessly to the questions.

To make sure you are appropriately compensated in a timely manner for your participation, please enter your MTurk ID.

Appendix D: Email Vignettes and Associated Survey Questions

Instructions:

In the next section of this survey, we will be asking you to evaluate four brief hypothetical emails. Try to think about these emails in the context of the workplace. Specifically, we are interested in whether or not you think the email is 'uncivil.'

By uncivil, we mean to ask if you think the email sender has any intent to harm or offend the email recipient (you).

Uncivil behaviors are characteristically rude and discourteous, displaying lack of regard for others.

For example, incivility may look like:

Sarcasm

An unfriendly tone

“Over-the-top” or hyperbolic language

Character criticism

Condescension/Putting someone down

Rudeness

Offensive language

In each of the following scenarios, imagine that you are a member of a project team in an organizational or work setting. You and the email sender are both on the same team and hold the same position, title and status at work. **Please take into consideration that email greetings and closings/email signatures are not included on purpose - what you see here is just the body of the email (the email message only).**

Vignettes Displayed in Survey Version A:

SCENARIO: You are reading over a teammate’s document, and you are having trouble understanding what it means. You reach out for clarification, and the teammate responds with the following email:

EMAIL TEXT: Why can’t you understand this? I was just stating the obvious. This thing is a no-brainer, you should be able to get it on your own, this back and forth is holding up the entire group. You need to start paying more attention or the team is going to think you can’t pull your weight.

SCENARIO: You just sent a few documents to your teammate to look over. This is their email response:

EMAIL TEXT: I am reviewing the material you sent me, and there seem to be a few pieces missing. Are those still in progress? I want to make sure all the pieces get done so you can get

the credit you requested for this part of the project. Our timeline is tight (we have 3 days to have everything completed), so update the whole team on your status so we can stay on top of things.

SCENARIO: You have a teammate who has been emailing you about a project task. The due date for the task is coming up soon. You get this message the day before the due date:

EMAIL TEXT: The deadline for this task is tomorrow, come on, what is taking so long? This is extremely time sensitive, haven't I told you? Now I'm doubting we can get this done before time runs out. You have to stop putting this off or the whole team will get behind. I need a response from you immediately.

SCENARIO: Something on the project went wrong, and it affected the part of the project for which you were responsible. You have emailed the team to explain to them what has happened, and one of your teammates responds in the following way:

EMAIL TEXT: I appreciate the explanation, but I still can't tell exactly why this happened. I haven't experienced this type of issue before. We are going to have to set a separate team meeting to resolve this in person. It would be best if you could coordinate with the others to get that meeting set up.

Vignettes Displayed in Survey Version B:

SCENARIO: You are reading over a teammate's document, and you are having trouble understanding what it means. You reach out for clarification, and the teammate responds with the following email:

EMAIL TEXT: I am not sure which parts are still causing confusion. Would you tell me which parts exactly are giving you trouble? I do not mean this to get over-complicated, so before we keep going back and forth, maybe it is better to get the team all together to figure this out. Let me know how you would like to proceed for maximum clarification.

SCENARIO: You just sent a few documents to your teammate to look over. This is their email response:

EMAIL TEXT: I'm reviewing the material you sent me, and there is a ton of stuff missing. You didn't even bother to read the requirements? I'm getting the impression that you can't handle this even though I thought you wanted to get credit for this part of the project. You have 3 days to finish this or else the whole project timeline is going to fall apart.

SCENARIO: You have a teammate who has been emailing you about a project task. The due date for the task is coming up soon. You get this message the day before the due date:

EMAIL TEXT: The deadline for this task is tomorrow and I am wondering why it is taking longer than planned? The team knows it is time sensitive, but I'm starting to worry that we won't get it done on time. Would you kindly update the team on the status as soon as possible?

SCENARIO: Something on the project went wrong, and it affected the part of the project for which you were responsible. You have emailed the team to explain to them what has happened, and one of your teammates responds in the following way:

EMAIL TEXT: Thanks for all the explaining, but it seems like you are making excuses. I've done projects like this at other companies before and I can tell you this wouldn't have happened there. Now we are going to have to set a new meeting time to fix this in person. Email the team to get that set.

Survey Questions that followed each Email Vignette:

To what extent do you agree with the following statement: This email is uncivil.

- Strongly disagree
- Disagree
- Somewhat disagree
- Somewhat agree
- Agree
- Strongly agree

If you would like to comment, which words, phrases or characteristics of the email did you find uncivil, if any?

If you would like to comment, why did you think this email was uncivil?

If you thought this email was uncivil, what about the email's tone or content was uncivil? Select all that apply.

- Sarcasm
- Unfriendly tone
- "Over-the-top" or hyperbolic language
- Character criticism
- Condescension/Putting someone down
- Rudeness
- Offensive language
- Other _____

Rate how polite you think this email is.

- Very impolite
- Somewhat impolite
- Neither impolite nor polite
- Somewhat polite
- Very polite

If you think this email is uncivil, would you attribute the incivility to the email sender themselves or to the situation?

The email sender themselves

The situation

Not applicable

To what extent would you attribute the incivility in the email sender's message to:
(Not at all – A little – A moderate amount – A lot – Completely – Not applicable).

The email sender themselves.

The situation.

Rate the extent to which you agree or disagree with the following statements:

Strongly disagree

Somewhat disagree

Neither agree nor disagree

Somewhat agree

Strongly agree

- I understood what the sender was saying.
- The message was easy to understand.
- I understood what was important to the sender.
- I had trouble understanding exactly what the sender of the email wanted to express.

Approximately how much mental effort did you invest in evaluating the email?

No mental effort at all

A little bit of mental effort

A moderate amount of mental effort

A lot of mental effort

A great deal of mental effort

Rate the extent to which you agree or disagree with the following statements:

Strongly disagree

Somewhat disagree

Neither agree nor disagree

Somewhat agree

Strongly agree

- I am similar to this email sender.
- I share common values with this email sender.
- I share common goals with this email sender.
- I am similar to this email sender in terms of how I do my work.
- For this statement, select "Somewhat agree."

Rate the extent to which you agree or disagree with the following statements:

Strongly disagree

Somewhat disagree

Neither agree nor disagree
Somewhat agree
Strongly agree

- The email sender was not conscientious about writing the email.
- The email sender is a poor-performing worker.
- The email sender does not communicate well with their co-workers.

Rate the extent to which you agree or disagree with the following statements:

Strongly disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Strongly agree

- I would choose to work with this person on similar tasks in the future.
- I would not be able to work with this person.
- I would want to collaborate with this person at work.

Why do you think you would or would not like to work with this person again, if they were actually your co-worker?

Appendix E: MTurk Description & Instructions

We are conducting an academic survey to get your perspective on the emails you receive at work. The purpose of this research is to understand your experience with workplace email communication and to gain a deeper understanding of the aspects of such communication that may affect the nature of the virtual interaction and the subsequent impact on the employees involved. This research is IRB (Institutional Review Board) approved.

You will first answer a short survey (2-3 minutes) that will confirm your eligibility to take the survey. If you are eligible, you will continue on to complete the survey.

Please select the link below to complete the survey.

You will be compensated \$0.10 for completing the short eligibility survey, and then an additional \$3.90 if you are eligible and continue on to complete the full survey. The full survey should take approximately 30-40 minutes to complete. If you are eligible, you will be given a random ID. This is the ID that you will paste into the box below once you complete the full survey.

We sincerely appreciate your full attention and careful reading and response to all questions of the survey. Please note that there are attention checks throughout the survey as well as sophisticated statistical control methods in place to ensure the validity of the data. Responding without much effort, too quickly, and/or failure to complete these checks accurately will result in you not receiving compensation. Thank you in advance for your time, effort and contribution to this important research.

When your submission has been approved, your Amazon Mechanical Turk account will automatically display earnings on your dashboard and earnings pages.

Select the link below to complete the survey.

Appendix F: Other Scales included in Survey

Hostile Attribution Bias

(Adams & John, 1997)

Instructions: *Please rate the extent to which you agree or disagree with the following statements:*

1. I commonly wonder what hidden reason another person may have for doing something nice for me.
2. Most people are honest chiefly through fear of being caught.
3. I think most people would lie to get ahead.
4. I have often found people jealous of my good ideas, just because they had not thought of them first.
5. People pretend to care more about one another than they really do.
6. A person is better off if he or she doesn't trust anyone.

(Items are rated on a scale of 1-5. 1 (*strongly disagree*) to 5 (*strongly agree*))

Organizational Attribution Style

(Kent & Martinko, 1995)

Instructions: *Consider these hypothetical workplace outcomes and rate the extent to which you believe that the outcomes would be due to internal or external causes.*

You(r) _____

1. Received a below average performance appraisal.
2. Suggestions made to the boss were not implemented.
3. Didn't receive a promotion.
4. Failed to achieve all of your goals.
5. Had difficulty getting along with co-workers.
6. Customer complained about your service.
7. Were not selected for advanced training.
8. Were laid off.
9. Received a below average raise.
10. Got negative feedback from your boss.
11. Your co-workers didn't nominate you for a special award.
12. Boss doesn't take you seriously.

(Items are rated on a scale of 1-5. 1 (*Completely due to me*) to 5 (*Completely due to other people or circumstances*))

Cyber incivility scale
(Lim & Teo, 2009)

Instructions: *Rate approximately how often you have experienced any of the following at work:*

Someone _____

1. Said something hurtful to you through email
2. Used emails to say negative things about you that he/she would not say to you face-to-face
3. Made demeaning or derogatory remarks about you through email
4. Inserted sarcastic or mean comments between paragraphs in emails
5. Put you down or was condescending to you in some way through email
6. Sent you emails using a rude and discourteous tone
7. Used CAPS to shout at you through email
8. Not replying to your email at all
9. Ignored a request (e.g., schedule a meeting) that you made through email
10. Replied to your emails but did not answer your queries
11. Used emails for time-sensitive messages (e.g., canceling or scheduling a meeting on short notice)
12. Paid little attention to a statement made by you through email or showed little interest in your opinion
13. Not acknowledging that he/she has received your email even when you sent a “request receipt” function
14. Used email for discussions that would require face-to-face dialogue

Items are rated on a scale of 1-5: 1 (*not at all*) to 5 (*all the time*)

Workplace incivility scale

(Cortina et al., 2013; Cortina et al., 2001, selected items)

Instructions: *Rate approximately how often you have experienced any of the following at work:*

Someone _____

1. Put you down or was condescending to you?
2. Made demeaning or derogatory remarks about you?
3. Addressed you in unprofessional terms, either publicly or privately?
4. Doubted your judgment on a matter over which you have responsibility?
5. Made unwanted attempts to draw you into a discussion of personal matters?
6. Made insulting or disrespectful remarks about you?
7. Accused you of incompetence?

Items are rated on a scale of 1-5: 1 (*once or twice a year*) to 5 (*everyday*)

Politeness item

(Danescu-Niculescu-Mizil et al., 2013)

1. Indicate how polite you think this email is.

Items are rated on a scale of 1-5: 1 (*very impolite*) to 5 (*very polite*)

Sensitivity to interpersonal treatment

(Bunk & Magley, 2011)

Instructions: *Please rate the extent to which you agree with the following:*

1. I would remember when my coworkers treat me with respect
2. It makes me angry if my coworker lies to me
3. If my coworkers trust me, it stays on my mind
4. I would remember when my coworkers lie to me
5. If my supervisor appreciates my co-workers' hard work, it stays on my mind
6. It is upsetting to me if my supervisor yells at my co-workers
7. It is important to me that my coworkers trust each other
8. If my coworkers do not treat each other with respect, it stays on my mind

Items are rated on a scale of 1-5: 1 (*strongly disagree*) to 5 (*strongly agree*)

Personal culture orientation

(Sharma, 2010)

Instructions: *Please rate the extent to which you agree or disagree with the following statements.*

Ambiguity Intolerance

1. I find it difficult to function without clear directions and instructions.
2. I prefer specific instructions to broad guidelines
3. I tend to get anxious easily when I don't know an outcome.
4. I feel stressful when I cannot predict consequences.

Power

1. I easily conform to the wishes of someone in a higher position than mine.
2. It is difficult for me to refuse a request if someone senior asks me.
3. I tend to follow orders without asking any questions
4. I find it hard to disagree with authority figures.

(Items are rated on a scale of 1-5: 1 (*strongly disagree*) to 5 (*strongly agree*)).

Positive and Negative Affect Schedule (PANAS)

(Watson, Clark & Tellegen, 1988)

Instructions: *Below are a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word.*

Indicate to what extent you generally feel this way, that is, how you feel on average.

1. Interested
2. Distressed
3. Excited
4. Upset
5. Strong
6. Guilty
7. Scared
8. Hostile
9. Enthusiastic
10. Proud
11. Irritable
12. Alert
13. Ashamed
14. Inspired
15. Nervous
16. Determined
17. Attentive
18. Jittery
19. Active
20. Afraid

Items rated on a scale of 1-5: 1 (*Very slightly or not at all*), 2 (*a little*), 3 (*moderately*), 4 (*quite a bit*), 5 (*extremely*).

Scoring: Positive Affect Score: Add the scores on items 1, 3, 5, 9, 10, 12, 14, 16, 17, and 19. Scores can range from 10 – 50, with higher scores representing higher levels of positive affect. Negative Affect Score: Add the scores on items 2, 4, 6, 7, 8, 11, 13, 15, 18, and 20. Scores can range from 10 – 50, with lower scores representing lower levels of negative affect.

Mini-IPIP

(Donnellan, Oswald, Baird & Lucas, 2006)

Instructions: *Please think about yourself when evaluating the statements below. In general, to what extent do you agree with the following statements about yourself?*

- I am the life of the party. (E)
- I sympathize with others' feelings. (A)
- I get chores done right away. (C)
- I have frequent mood swings. (N)
- I have a vivid imagination. (I)
- I don't talk a lot. (E – rev)
- I am not interested in other people's problems. (A – rev)
- I often forget to put things back in their proper place. (C – rev)
- I am relaxed most of the time. (N – rev)
- I am not interested in abstract ideas. (I – rev)
- I talk to a lot of different people at parties. (E)
- I feel others' emotions. (A)
- I like order. (C)
- I get upset easily. (N)
- I have difficulty understanding abstract ideas. (I – rev)
- I keep in the background. (E – rev)
- I am not really interested in others. (A – rev)
- I make a mess of things. (C – rev)
- I seldom feel blue. (N – rev)
- I do not have a good imagination. (I – rev)

Items are rated on a scale of 1-5: 1 (*strongly disagree*) to 5 (*strongly agree*); “I” indicates intellect/imagination instead of label ‘openness.’