Do you pass it on? An examination of the consequences of perceived cyber incivility

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Abstract

Purpose – The emerging literature on computer-mediated communication at the study lacks depth in terms of elucidating the consequences of the effects of incivility on employees. This study aims to compare face-to-face incivility with incivility encountered via e-mail on both task performance and performance evaluation.

Design/methodology/approach – In two experimental studies, the authors test whether exposure to incivility via e-mail reduces individual task performance beyond that of face-to-face incivility and weather exposure to that incivility results in lower performance evaluations for third-parties.

Findings – The authors show that being exposed to cyber incivility does decrease performance on a subsequent task. The authors also find that exposure to rudeness, both face-to-face and via e-mail, is contagious and results in lower performance evaluation scores for an uninvolved third party.

Originality/value – This research comprises an empirically grounded study of incivility in the context of e-mail at study, highlights distinctions between it and face-to-face rudeness and reveals the potential risks that cyber incivility poses for employees.

Keywords Email, Performance evaluation, Incivility, Workplace communication

Paper type Research paper

Introduction

The context of social interactions in the workplace has evolved dramatically over the past few decades, from an era dominated mostly by face-to-face interaction to the current organizational landscape, where technology-mediated communication reigns. Despite the changing circumstances and context of our workplace interactions, there is limited knowledge of how message medium influences employee communication. The pertinent question then, is how much of what we understand about face-to-face social interaction can be applied to electronic interactions? In the present study, we contribute to the emerging

literature on computer-mediated communication by comparing the effects of incivility experienced face-to-face with incivility encountered via e-mail on both task performance and performance evaluation. The well-known negative effects of workplace incivility, coupled with the frequency of employee interaction through electronic channels at work, make gaining a more complete understanding of the impact of electronic incivility an important research objective.

An emerging field within workplace misbehavior is cyber incivility (Lim & Teo, 2009). Cyber incivility is e-mail behavior perceived by the e-mail recipient as insensitive, disrespectful and a violation of norms for mutual respect within an organization (Porath & Erez, 2007; Lim & Teo, 2009). Research has shown that cyber incivility is a daily stressor for many employees. In a recent study, when employees experienced cyber incivility, they reported higher affective and physical distress at the end of the workday, which leads to higher distress the next morning (Park, Fritz, & Jex, 2015). Additionally, participants in another study responded with more incivility when they had high workloads and us under stress, indicating that high-pressure jobs and insurmountable expectations are likely to perpetuate this type of bad behavior (Francis, Holmval, & O'Brein, 2015). Thus, the negative effects of cyber incivility are known to be insidious and powerful (Krishnan, 2016; Sguera, Bagozzi, Huy, Boss, & Boss, 2016; Geldart, Langlois, Shannon, Cortina, Griffith, & Haines, 2018) and electronic forms of communication such as social media, e-mail, video conferencing and direct messaging applications are unavoidable in our daily work lives, such that their specific features and influence warrant further exploration.

Taken together, existing research provides evidence that face-to-face incivility threatens the well-being of organizations and carries with it serious negative consequences (Giacalone, Riordan, & Rosenfeld, 1997; Griffin, O'Leary-Kelly, & Collins, 1998; O'Leary-Kelly, Griffin, & Glew, 1996; Rosen, Koopman, Gabriel, & Johnson, 2016). Research also suggests that important differences between face-to-face and computer-mediated interaction exist, and it has begun to introduce new forms of rude behavior such as cyber and vicarious incivility (Burgoon, Alvaro, Grandpre, & Voloudakis, 2002; Lim & Teo, 2009; Giumetti, McKibben, Hatfield, & Schroeder, 2012; Williams & Loughlin, 2016). However, despite this recent surge of interest in this topic, our knowledge of the specific consequences of computer-mediated forms of incivility remains limited and needs to be further explored.

This study examines the effect of message medium (face-to-face or e-mail) and message content (rude or neutral tone) on task performance and the performance evaluations of others. Building on prior research, we show that being exposed to rude e-mail behavior decreases one's performance on a subsequent task. Further, we show that exposure to a rude e-mail has a greater negative impact on subsequent task performance than being exposed to rude behavior face-to-face. Finally, we find that exposure to rudeness, both face-to-face and via e-mail, is contagious and results in lower performance evaluation scores for an uninvolved third party. This research contributes to the multidisciplinary theoretical framework of social interactions and builds on our knowledge of face-to-face rudeness to better understand the consequences of e-mail rudeness at work.

Face-to-face incivility
In organizational research, face-to-face rudeness is defined as "insensitive or disrespectful workplace behavior displayed by a person who shows an absence of regard for others" (Porath & Erez, 2007, p. 1181). It is a low-intensity anti-social behavior lacking the intent of the instigator to harm the target (Andersson & Pearson, 1999), while still violating social norms and injuring others (Cortina, 2008). Rude acts are perceived to be offensive by the target and consistent with prior conceptualizations of incivility (Andersson & Pearson, 1999;

Lim & Cortina, 2005). Exposure to rude behavior for both instigators and targets can create negative psychological consequences, including brooding and worry (Porath & Pearson, 2010), increased levels of psychological distress (Cortina, Magley, Williams, & Langhout, 2001), withdrawal and isolation (Pearson, Andersson, & Wegner, 2001) and anxiety (Chen & Spector, 1991; Fox & Spector, 1999; Fox, Spector, & Miles, 2001). Such effects occur because rudeness violates expectations of civility in social settings, disrupts the social equilibrium and is a violation of the person's dignity.

There are also known behavioral consequences of incivility, including retaliation (Bies & Tripp, 1996; Skarlicki & Folger, 1997), counterproductive workplace behavior (Pearson, Andersson, & Porath, 2005), aggression (Tyler & Blader, 2000) and anti-social behavior (Lim & Cortina, 2005). Further, Porath and Erez (2007) found that rude face-to-face behavior negatively affects employee task performance. Similar to face-to-face communication, individuals are likely to try to reduce uncertainty in electronic communication by making exaggerated attributions based on limited information (Walther, 1996). Building on the results of Porath and Erez (2007), we hypothesize that individuals who receive a rude e-mail will perform worse on a task than individuals who receive an e-mail, that is, neutral in tone.

H1. Individuals who receive a rude e-mail will perform worse on a task than individuals who receive the same information in an e-mail with a neutral tone.

E-mail vs face-to-face incivility

Many of the differences between e-mail and face-to-face communication relate to differences in "richness" between these two mediums of communication. According to media richness theory, all communication mediums vary in their ability to enable users to communicate and to change understanding – "richness" refers to the degree of this ability. Media that can efficiently overcome different frames of reference and clarify ambiguous issues are considered to be richer; communication media that require more time to convey understanding are considered less rich (Daft & Lengel, 1986).

While the general population has become more e-mail savvy, the unique characteristics of e-mail reduce the likelihood of effective communication. For example, e-mail is a-synchronous, meaning there is a time gap between when an e-mail is sent and when it is received or read. The e-mail also lacks paralinguistic cues, such as the ability to convey facial expressions, hand gestures, tone, rate of speech and body language. It also lacks back-channeling cues or signals intended to convey that the message is being understood, including head nods and hand motions. In face-to-face communication, back-channeling cues complement a message by providing a wealth of additional information to aid in the interpretation of its meaning (Clark, 1996; Price, Ostendorf, Shattuck-Hufnagel, & Fong, 1991).

There is also increased normative ambiguity through the use of e-mail, as less consensus exists about what constitutes acceptable behavior compared to face-to-face communication. For example, there is less unwritten agreement about what constitutes an acceptable response timeframe and whether a formal salutation is always necessary (McCarthy, 2016). Further, communicating electronically is not private, rather it is public and permanent. Ironically, however, prior studies have shown that communicating via e-mail provides a false sense of privacy, invisibility and minimal authority. This increases the likelihood that employees interacting via e-mail will behave in unethical, deviant and uninhibited ways, and engage in lying, manipulating, cheating, stealing and deception, accompanied by the belief that these types of behavior are acceptable (Caspi & Gorsky, 2006; Naquin, Kurtzberg, & Belkin, 2010). Finally, the distinct physical features of the e-mail including word choice,

font color and style and punctuation, tend to be scrutinized and given meaning, which may or may not be indications of the sender's actual intentions.

Together, the unique characteristics of e-mail create a communication environment where there are more ambiguity and a higher degree of uncertainty from the receiver than in face-to-face communication (Cramton & Webber, 2005). In addition, e-mail may also create an environment where rumination, the repeated focus on the meaning, causes and consequences of an incident (Lyubomirsky & Nolen-Hoeksema, 1993, 1995) is pervasive. Face-to-face interactions happen rapidly often leading to later rumination, but the a-synchronicity of e-mail allows for real-time rumination before responding.

In addition, prior studies have shown that e-mail receivers tend to assume a less optimistic interpretation of message content and e-mail senders are overconfident in their ability to effectively convey their message. For example, Byron (2008) shows that e-mail messages, which the sender intended to be perceived positively in tone were consistently interpreted as neutral, whereas e-mail that was intended to be perceived as neutral, was perceived to be negative. Kruger, Epley, Parker, and Ng (2005) find that participants were much worse at conveying their intended emotional tone and interpreting other's intended emotional tones through e-mail than the senders believed. This overconfidence bias of e-mail senders, in combination with the systematically more negative interpretation of receivers, suggests that rude e-mail may be perceived as ruder than rude face-to-face communication, producing more anger, frustration and stress for the recipient.

A final reason to suspect that e-mail rudeness may lead to lower individual task performance than face-to-face rudeness is because of the increased psychological distance or feeling of abstractness, between electronic message sender and receiver (Trope and Liberman, 2010). Specifically, the greater psychological distance between e-mail senders and receivers compared to that of individuals who communicate in-person could make retaliation by withholding effort on a task more likely. For example, one of the primary differences between face-to-face interaction and e-mail interaction is a lack of social presence or the feeling that other actors are jointly involved (Short, Williams, & Christie, 1976). Social presence theory suggests that a communication medium has a low social presence if the degree of awareness of the others in a communication interaction is low (Sallnas, Rassmus-Grohn, & Sjostrom, 2000). E-mail is characteristically low in social presence because of its lack of nonverbal and back-channeling cues, which help to generate a shared orientation and mutual understanding of the meaning (Kiesler, Siegel, & McGuire, 1984). Further, this lack of social presence corresponds to an increase in psychological distance or the salience of the others in a conversation (Short, Williams, & Christie, 1976).

Thus, we predict that the differences in the richness of e-mail and face-to-face communication make rude behavior experienced via e-mail more ambiguous, uncertain and frustrating, which will have a stronger negative effect on task performance than face-to-face rudeness:

> *H2.* Individuals who receive a rude e-mail will perform worse on a subsequent task than individuals that receive the same rude communication face-to-face.

Social transmission: e-mail vs face-to-face
The idea of the contagion of rudeness is very similar to the notion of emotional contagion, where one person's emotions and behaviors activate similar emotions and behaviors in other people (Hatfield, Cacioppo, & Rapson, 1993). A similar idea, vicarious incivility, has also recently been proposed based on Andersson and Pearson's (1999) seminal conceptualization of the spiral of incivility. More recent research suggests that incivility may have both direct

and indirect social consequences through subsequent spirals of incivility spawned by the initial uncivil incident (Reich and Hershcovis, 2015; Totterdell, Hershcovis, Niven, Reich, & Stride, 2012). This suggests that rude behavior may be socially transmitted to other employees and serve as a social signal to other employees who, in turn, are more likely to treat subsequent people negatively (Porath & Erez, 2007; Polansky, Lippitt, and Redl, 1950; Levy and Nail, 1993).

Several studies provide evidence supporting the social transmission of face-to-face rudeness to third parties. For example, Foulk Woolum, & Erez (2016), found that face-to-face rudeness is socially transferred to a subsequent negotiation partner through the contagion effect, with recipients of face-to-face rudeness being more likely to act rudely toward a new partner in a similar interaction. Porath and Erez (2007) argue that targets of workplace mistreatment displace their aggression, acting aggressively toward individuals unrelated to the initial abuser. In addition, other studies show that experiencing disrespectful behavior can lead to displaced aggression (Denson, Pederson, & Miller, 2006; Hoobler and Brass, 2006), where an individual's behavioral response to a provoking situation can be delayed or transferred to another person (Zillmann, 1979). Further, a robust link has been established between perceived wrongdoing and subsequent aggressive action (Bies and Tripp, 1995, 1996, 2001, 2002; Felson and Steadman, 1983; Luckenbill, 1977; Pruitt and Rubin, 1986; Youngs, 1986; Foulk, Woolum, & Erez, 2016). Andersson and Pearson (1999) propose theoretically that face-to-face incivility could spread or spiral to others.

As an extension of these ideas of the social transmission of incivility, individuals that are the recipients of rude communication might be more likely to negatively evaluate the third-party. Existing research in the area of performance appraisal indicates that people are highly socialized to provide positive feedback when required to evaluate the performance of others (Morrison and Milliken, 2000). This tendency represents a strong norm and a mutual expectation for giving and receiving affirmative feedback, as well as avoiding giving others unfavorable or critical feedback. However, when exposed to rude communication, individuals might not follow the norm for giving and receiving affirmative feedback and this could manifest in more negative evaluations of others. To the extent that individuals are exposed to rudeness, such incivility might be socially transmitted to others in the form of negative appraisals. We build on prior research that examined the contagion of face-to-face rudeness and predicts that exposure to rudeness obstructs the norm for giving and receiving affirmative feedback, resulting in a more negative evaluation of others. Specifically, we expect that exposure to rude communication will result in a lower performance rating for an uninvolved third-party:

H3. Individuals who receive rude communication, both face-to-face and e-mail, will evaluate an uninvolved third-party's performance more negatively than will those who receive the same communication in a neutral tone.

The social transmission of rudeness: e-mail vs face-to-face
Given the differences in the medium between e-mail and face-to-face communication, the effects of rudeness might differ as a function of communication medium. That is, to say, rudeness via e-mail might have a stronger effect on the evaluation of a third-party's performance than face-to-face rudeness. We draw on ego depletion and social presence theory to help explain this effect. Ego depletion is the idea that an individual's ability to exert self-control and willpower draws upon a limited pool of mental resources that can be used up. When individuals experience incivility, they are more likely to experience lowered self-control and might act aggressively or rudely toward a third-party. For example, DeWall,

Baumeister, Stillman, and Gailliot (2007) found that when people are insulted, their self-control weakens and they are more likely to express an intention to act aggressively toward a third-party. Similarly, Rosen *et al.* (2016) found that experiencing incivility earlier in the day reduced levels of self-control, resulting in increased instigated incivility later in the day. In the unique context of electronic communication, a rude message in an e-mail is permanent, which means that it can be easily revisited and re-experienced by the receiver. This creates an environment where the insult may be magnified and the receiver might experience increased ego depletion.

Adding to this argument, the social presence theory suggests that a communication medium has a low social presence if the degree of awareness of others in a communication interaction is low (Sallnas *et al.*, 2000). E-mail is lower in social presence than face-to-face communication because of its perceived invisibility and lack of nonverbal and back-channeling cues, both of which help to generate a shared orientation and mutual understanding of meaning in face-to-face communication (Kiesler, Siegel, & McGuire, 1984). This lack of social presence corresponds to an increase in psychological distance and a sense of having less in common with others (Trope and Liberman, 2010). This could negatively impact evaluations of others, especially with regard to electronic communication with its lowered social presence and increased psychological distance.

Based on the unique features of e-mail communication, we propose that recipients of the rude e-mail will evaluate the performance of third-parties more negatively than will recipients of face-to-face rudeness. We believe that rude e-mail will foster a distancing from those being evaluated, undercutting the normative bias toward positive performance evaluations (Morrison and Milliken, 2000). This will be because of greater ego depletion experienced by recipients of rude e-mail versus recipients of face-to-face rudeness:

> *H4.* Individuals who receive a rude e-mail will evaluate a third party's performance more negatively than individuals that receive the same rude communication face-to-face.

Method: Study 1

Participants and experimental design

Undergraduate students ($n = 254$) from a large university in the western USA participated in Study 1. Students received extra credit in one of their social science courses in exchange for their participation. The participants were randomly assigned to one of four conditions based on a 2 (message content: rude tone vs neutral tone) $\times$ 2 (message medium: face-to-face vs e-mail) between-subjects design.

Procedure

The experimental design and manipulation used in this study closely paralleled prior studies of in-person rudeness (Porath & Erez, 2007, Study 1), with one difference discussed below related to the confederate-participant. Participants were told that they were participating in an on-going research study about the connection between communication style and a person's approach to problem-solving. The experimenter explained that they would be sent two e-mails – the first with a link to a brief assessment of communication style (the assessment was used as a filler to provide the confederate with enough time to ask a question) and the second e-mail with a link to a timed problem-solving activity.

After the overview, the experimenter said:

Because the questionnaires are all online, and we will be emailing you the links to both activities at the times they need to be completed, please have your email open and read all email that comes from me immediately when you receive it. Finally, to minimize distractions to your peers and enable everyone to do their best work, please email me (at an email address written on the board) with any questions that arise during the study instead of raising your hand for help.

The experimenter emphasized it was important to read and follow the directions. The experimenter then returned to a table at the back of the room and e-mailed the communication style assessment to the group.

While participants were completing the communication style assessment, a confederate asked a clarifying question about the directions. Specifically, the confederate asked, "on questions 21-25, does a "1" mean not at all agree or completely agree?" The experimenter then replied to the confederate and the class. The experimenter's response to the question served as the rudeness manipulation (see below). The manipulation, in this study, was prompted by a confederate-participant who had a question about the directions. This was a change to the experimental design used in Porath and Erez (2007), where the manipulation was prompted by a late confederate. However, the change was necessary as a question about the directions could be asked both face-to-face and via e-mail, whereas a late confederate would not prompt the experimenter's e-mails.

After the manipulation, the experimenter sent a second e-mail containing the link to the problem-solving activity, a challenging word scramble used in past research (Erez & Isen, 2002), as the measure of task performance. After 10 min on the problem-solving activity, participants automatically advanced to a final set of questions, which contained study measures and the manipulation check. Participants were then debriefed, thanked and excused.

Manipulations: message content
The message content manipulation was adapted from Porath and Erez (2007). In the neutral tone condition, the experimenter answered the confederate's question with, "may I have your attention, I was just asked a question about the directions [. . .] a '1' means not at all agree on questions 21-25." In the rude tone condition, the experimenter answered the confederate's question with:

> May I have your attention; I was just asked a question about the directions. Is this really that tough? Yes, a '1' means not at all agree on every question. I would think (name of university) students could follow these simple directions. I run this study on high school students and they have never had a problem [. . .] what is with this group?

The display of rudeness was purposely general and abstract, and therefore, not specifically directed toward the participant. In addition, the rude statement was delivered indirectly, as the experimenter used a normal voice level and did not look directly at the participant.

Manipulations: message medium
In the face-to-face medium, the confederate turned to the experimenter (seated at a desk in the back of the room) and loudly asked the clarifying question about the directions. The experimenter then stood up and addressed the class with the answer to the confederate's question (with either the rude or neutral response above). In the e-mail condition, the confederate e-mailed the question to the experimenter, the experimenter replied to the confederate and CC'd all other participants in the room with either the neutral or rude response above.

Dependent measure

Task performance, a common dependent variable in micro organizational behavior research, typically examines the speed or quality with which a participant is able to accomplish a work-related segment of a job. It is a significant piece of information because the speed and quality with which employees are able to accomplish workplace tasks are tied to overall organization performance. Theoretically, increasing or improving task performance should result in an increase in productivity, therefore, it is an important factor to be studied.

Task performance, in this study, was measured following Erez and Isen (2002) and Porath and Erez (2007). We asked participants to complete a complex cognitive task, where performance could be objectively determined. We provided the participants with 10 words where the letters had been scrambled. We asked the participants to unscramble the words and counted the number of anagrams that the participant correctly solved in 10 min. Prior studies have found this task to be moderately difficult. The average number of words unscrambled in this sample of participants was about five ($x = 5.22$, SD = 2.23).

Study 1 results

Manipulation check

A manipulation check is commonly used in experimental research to determine whether the experimental manipulation was successful. In other words, it commonly is a variable, which shows that the study did, in fact, accomplish what it intended to manipulate in terms of the independent variable. For example, if a study tests the effect of hunger on job performance, the manipulation check would confirm that those in the experimental condition were in fact hungry. Alternatively, if a manipulation check is not performed, then doubt could arise in terms of the true cause of the observed difference in behavior. Thus, it is a secondary evaluation performed by the researchers to confirm the difference between conditions, and thus, help establish a causal connection between the independent and dependent variables.

To determine whether the experimental manipulation, in this study, was successful, participants were asked to respond to several questions about whether participants in the rude condition perceived that the experimenter had been ruder than participants in the neutral condition. Participants respond to the following items: "the experimenter was not respectful toward all participants," "the experimenter was polite," "the experimenter acted rudely toward participants" and "participants were treated respectfully at all times during this study" adapted from Porath and Erez (2007). The second and fourth items reverse coded, so a low score indicated more perceived rudeness. These manipulation-check items were measured on seven-point scales with point labels that ranged from strongly disagree to strongly agree and averaged to form the manipulation check measure. The reliability estimate of the perceived rudeness scale was $\alpha = 0.93$, suggesting the participants evaluated the perceived rudeness of the experimenter in a similar manner when responding to all four questions. The results indicated a significant main effect of the message content ($F [1, 253] = 591.16$, $p = 0.00$, $\eta_p^2 = 0.56$). Participants exposed to either type of rudeness (e-mail rudeness or face-to-face rudeness) perceived their treatment to be significantly ruder than participants exposed to neutral communications (e-mail or face-to-face). Means, standard deviations and correlations among Study 1 variables are reported in Table 1. We used IBM SPSS statistics software for our statistical analysis.

H1 predicted that recipients of a rude e-mail would perform worse than individuals that received an e-mail with a neutral tone. We used an analysis of variance (ANOVA) to test *H1* and *H2*. We found a significant difference ($F [1, 253] = 15.10$, $p = 0.00$, $\eta_p^2 = 0.13$) between the number of words participants unscrambled in the neutral e-mail condition ($-\S = 5.90$, SD = 2.09) and the number of words participants unscrambled in the rude e-

mail condition ($-\S$ = 4.30, SD = 2.13). This result supports *H1* and suggests that being exposed to rude e-mail behavior has a significantly negative effect on task performance.

H2 predicted that recipients of a rude e-mail would perform worse on a task than participants who received the same rude communication face-to-face. We found significantly lower performance in the rude e-mail condition ($-\S$ = 4.30, SD = 2.13) than in the rude face-to-face condition ($-\S$ = 5.27, SD = 2.12); (*F [1, 253]* = 7.28, p = 0.01, η_p^2 = 0.05), supporting *H2*. See Table 2.

Study 2 method
Participants and experimental design
A new sample of undergraduate students (n = 256) from the same university participated in Study 2. Students received extra credit in one of their social science courses in exchange for their participation. The participants were randomly assigned to one of four conditions based on a 2 (message content: rude vs neutral) $\times$ 2 (message medium: face-to-face vs e-mail) between subjects' design.

Procedure
The procedure used in Study 2 parallels that of Study 1, with one notable difference. Instead of administering a problem-solving task after the manipulation, Study 2 participants completed a performance evaluation of a third-party. Specifically, after participants completed the communication style assessment and received the manipulation, they were shown a short video (5 min 43 s) of a student giving a speech and asked to evaluate her performance.

Dependent measure
Participants evaluated the quality of the speech by rating the speaker on two items as follows: "overall, I thought the speaker did well" and "the speaker was better than most I've seen" using a seven-point scale with point labels that ranged from *strongly agree* to *strongly*

Variable	M	SD	1	2	3
1. E-mail rudeness	1.47	0.50	–		
2. Perceived rudeness	3.19	2.08	0.89	0.93	
3. Task performance	5.96	2.14	−0.40	−0.09	–

Notes: n = 254. Reliabilities are on the diagonal in parentheses. Correlations greater than 0.13 are significant at $p < 0.05$. Correlations greater than 0.17 are significant at $p < 0.01$

Table 1. Means, standard deviations and correlations among Study 1 variables

Source	df	MS	*F*-stat	*p*-value
Message content: rude e-mail vs neutral e-mail	1	67.43	15.10	0.00
Message medium: rude e-mail vs rude face-to-face	1	32.85	7.28	0.01
Residual	252	4.51		

Notes: n = 254. p-values are two-tailed. Our dependent variable is task performance, calculated as the total number of anagrams correctly solved in 10 min

Table 2. Study 1 ANOVA, where the dependent variable is task performance

disagree. The reliability estimate of the two questions related to the quality of the speech was $\alpha = 0.86$, suggesting the participants evaluated the speech in a similar manner when responding to both questions. Means, standard deviations and correlations among Study 2 variables are reported in Table 3.

Study 2 results

Manipulation check

The measures of participants' perceived rudeness of the experimenter in Study 2 are the same measures used in Study 1, and again we used IBM SPSS statistics software for our statistical analysis. The results of the ANOVA indicated a significant main effect of the message content ($F [1, 255] = 273.34$, $p = 0.00$, $\eta_p^2 = 0.52$), suggesting that message content (rude vs neutral) in both the face-to-face and rude e-mail manipulations produced the intended effects.

H3 predicted that participants exposed to rude behavior would rate the performance of an uninvolved third-party as lower than participants who received the same information in a neutral tone. The results of the ANOVA suggest a significant main effect of the message content ($F [3, 253] = 5.42$, $p = 0.02$, $\eta_p^2 = 0.02$) and support *H3*. We found that exposure to rudeness is contagious, weakening the normative bias toward positive performance evaluations and resulting in a lower performance rating for an uninvolved third-party.

H4 predicted that participants who received a rude e-mail would rate the performance of a third-party more negatively, then participants who experienced the same rude communication face-to-face. We tested *H4* using a two-way ANOVA of message content and message medium on the performance ratings. However, we found no significant main effect for message medium ($F [3, 253] = 0.64$, $p = 0.43$, $\eta_p^2 = 0.00$) suggesting that exposure to e-mail rudeness and face-face rudeness resulted in a similar decline in ratings. See Table 4.

Variable	M	SD	1	2	3
1. E-mail rudeness	1.41	0.89	–		
2. Perceived rudeness	2.72	1.83	0.83	(0.93)	
3. Performance evaluation	4.59	1.27	−0.18	−0.20	–

Notes: $n = 256$. Reliabilities are on the diagonal in parentheses. Correlations greater than 0.17 are significant at $p < 0.05$. Correlations greater than 0.23 are significant at $p < 0.01$

Table 3.
Means, standard deviations and correlations among Study 2 variables

Source	df	MS	F-stat	p-value
Message content: rude e-mail vs neutral e-mail	1	8.64	5.42	0.02
Message medium: rude e-mail vs rude face-to-face	1	1.02	0.64	0.43
Message content × message medium	1	0.00	0.00	0.96
Residual	253	1.60		

Notes: $n = 256$. p-values are two-tailed. Our dependent variable is the evaluation of the speakers' performance, calculated as the rating of the speakers' performance

Table 4.
Study 2 ANOVA, where the dependent variable is performance evaluation

Discussion

In this study, we extend the literature on the consequences of face-to-face rudeness and provide evidence that exposure to e-mail rudeness has a negative effect on individual task performance. We find that e-mail rudeness does not only affect self-reported attitudinal outcomes such as organizational commitment and job satisfaction (Lim and Teo, 2009) but also detrimental to task performance. Our results also indicate that individuals exposed to e-mail rudeness perform worse on the same task than those exposed to face-to-face rudeness. Although we anticipated this outcome based on existing evidence of the seriousness of the effects of rudeness and cyber incivility (Krishnan, 2016; Francis, Holmvall, & O'Brien, 2015; Park, Fritz, & Jex, 2015; Sguera *et al.*, 2016), when considering the problem intuitively, one might expect face-to-face rudeness to be more distressing. After all, it is uncommon and usually startling to be the victim of rude behavior in-person.

Our finding, however, suggests that e-mail rudeness actually has a more negative effect than face-to-face rudeness, which extends our understanding of the impact of this type of workplace misbehavior. Although we did not test the reasons for this effect, it seems likely that the unique characteristics of e-mail intensify the negative effects of rudeness. Specifically, this may be a result of some of its electronic features such as a-synchronicity, psychological distance, lack of back-channeling cues and decreased social presence (Sallnas *et al.*, 2000; Trope & Liberman, 2010). The widespread use of e-mail in workplace communication suggests this area deserves further study.

We also extend the literature on the contagion of rudeness. Prior studies have examined the effect of direct face-to-face incivility on the recipient of the rudeness (Denson, Pederson, & Miller, 2006; Hoobler & Brass, 2006); however, we examine the effect of cyber incivility on uninvolved third-parties. Our findings are consistent with the argument that exposure to rudeness reduces the powerful normative restraint displayed by individuals to provide favorable feedback to others. We show that participants in both the e-mail rudeness and face-to-face rudeness conditions were less inhibited by this norm, giving less favorable evaluations of others after being treated rudely. The results suggest that the negative consequences of exposure to rudeness may damage organizations extensively and that rudeness can facilitate a vicious circle of poor performance and lower evaluation of others' performance.

The results of these studies highlight the threat that e-mail rudeness poses to employees and their organizations. Like other research on this topic (Bies & Tripp, 1995, 1996, 2001, 2002; Felson & Steadman, 1983; Luckenbill, 1977; Pruitt & Rubin, 1986; Youngs, 1986), this study raises more questions than it answers. One question is whether e-mail rudeness can negatively influence employees in ways other than task performance. In other words, does it affect the way people assess risk or their ability to concentrate? This topic may have implications for innovation, entrepreneurship, groups and teams and strategic management. For instance, it would be interesting to determine whether and how investors' decision-making is influenced by exposure to e-mail rudeness or e-mail rudeness contagion.

Limitations and directions for future research

Although we took great care in crafting the design of the study and vigilantly anticipated potential hazards regarding data collection, the study is not without limitations. First, the use of undergraduate students potentially limits the generalizability of the conclusions. It would be interesting to know if the adverse effects of incivility captured here have had the same impact on a more sophisticated sample of managerial-level organizational professionals. There are reasons to believe it might not. Incivility is prevalent within organizations and most mid-career employees are exposed to rude behavior fairly often.

Therefore, the effect of incivility might be mitigated as individuals become more accustomed to this type of treatment. This would be an interesting avenue for future research to explore. Specifically, it would be fascinating to design a longitudinal study of incivility, monitoring its effects on individuals over time and under conditions of varying levels of ambient incivility to flesh out whether the negative effects documented, in this study, would be mitigated under different circumstances. Despite this potential limitation, we believe this research demonstrates an important first step in showing the harmful effects of workplace incivility.

Another potential limitation of this study is its focus on task performance as the primary dependent variable of interest. The aim of the study was restricted in its attention to capturing this sole outcome of incivility, which had benefits, as well as limitations. One reason for the restricted number of dependent variables used here was to maintain a methodically "clean" experimental design. For instance, any other dependent variables would have had to be measured immediately after the manipulation, which would have created a gap between when participants received the rude treatment and when they completed the anagram activity (which already took 10 min). The concern was that it could potentially weaken the study's ability to capture the negative effects of task performance if participants had to wait too long before completing the measure of task performance. Therefore, in this study, we decided to focus this round of data collection on task performance, while holding other interesting dependent variables (i.e. creativity, helpfulness, prosocial behavior, etc.) for subsequent future studies. However, the disadvantage is that the data is somewhat limited in its breadth or the scope of information it provides on the negative effects of incivility. This could be a very fruitful avenue for future incivility research.

While rudeness is known to have adverse consequences, existing research has been dominated by studies of rude behavior in face-to-face encounters at work, despite evidence suggesting that important differences exist between face-to-face and computer-mediated interactions. Another very interesting avenue for future research on this topic is investigating the adverse consequences of cyber incivility on social media. The prevalence of using social media at work is growing exponentially, and it is a medium, that is, not immune to transmitting rudeness. Therefore, future research should investigate incivility through other forms of communication (i.e. applications such as Whatsapp, Twitter, Instagram, Facebook, Snap chat and so on). There are several reasons to suspect that the consequences of incivility through these social media platforms may even be more devastating than e-mail. Future research should try to flesh out these differences and the impact of such behavior on its users.

In conclusion, our research indicates that e-mail rudeness can detrimentally influence employees by decreasing their task performance and that both face-to-face and e-mail rudeness have harmful consequences for third-parties through their negative influence on performance evaluations. Together, these results contribute to our understanding of e-mail rudeness, highlight important distinctions between it and face-to-face rudeness and possess theoretical implications for the fields of cyber incivility, communication studies and information technology.

References

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.

Bies, R. J., & Tripp, T. M. (1995). The use and abuse of power: justice as social control. in R., Cropanzano, & M., Kacmar (Eds.), *Organizational Politics, Justice, and Support: Managing Social Climate at Work*, New York, NY: Quorum Press, 131–145.

Bies, R. J., & Tripp, T. M. (1996). Beyond distrust: getting even and the need for revenge. in R. M., Kramer, & T. R., Tyler (Eds.), *Trust in Organizations*, Sage, Thousand Oaks, CA, 246–260.

Bies, R. J., & Tripp, T. M. (2001). A passion for justice: the rationality and morality for revenge. in T., Tyler (Ed.), *Justice in The Workplace*, Mahwah, NJ: Erlbaum, 197–208.

Bies, R. J., & Tripp, T. M. (2002). Hot flashes, open wounds: injustice and the tyranny of its emotions. in S. W., Gilliland, D. D., Steiner, & D. P., Skarlicki (Eds.), *Emerging Perspectives on Managing Organizational Justice*, Greenwich, CT: Information Age, 203–221.

Burgoon, M., Alvaro, E. M., Grandpre, J., & Voloudakis, M. (2002). Revisiting the theory of psychological reactance: communicating threats to attitudinal freedom. in J. P., Dillard, & M., Pfau (Eds.), *The Persuasion Handbook: Theory and Practice*, Thousand Oaks, CA: Sage, 213–232.

Byron, K. (2008). Carrying too heavy a load? The communication and miscommunication of emotion by email. *Academy of Management Review*, *33*(2), 309–327.

Caspi, A., & Gorsky, P. (2006). Online deception: prevalence, motivation, and emotion. *Cyber Psychology and Behavior*, *9*(1), 54–59.

Chen, P. Y., & Spector, P. E. (1991). Negative affectivity as the underlying cause of correlations between stressors and strains. *Journal of Applied Psychology*, *76*(3), 398–407.

Clark, H. H. (1996), *Using Language*, Cambridge: Cambridge University Press.

Cortina, L.M. (2008). Unseen injustice: incivility as modern–day discrimination in organizations. *Academy of Management Review*, *33*(1), 55–75.

Cortina, L. M., Magley, V. J., Williams, J. H., & Langhout, R. D. (2001). Incivility in the workplace: incident and impact. *Journal of Occupational Health Psychology*, *6*(1), 64–80.

Cramton, C. D., & Webber, S. S. (2005). Relationships among geographic dispersion, team processes, and effectiveness in software development work teams. *Journal of Business Research*, *58*(6), 758–765.

Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, *32*(5), 554–571.

Denson, T. F., Pederson, W. C., & Miller, N. (2006). The displaced aggression questionnaire. *Journal of Personality and Social Psychology*, *90*(6), 1032–1051.

DeWall, C. N., Baumeister, R. F., Stillman, T. F., & Gailliot, M. T. (2007). Violence restrained: Effects of self–regulation and its depletion. *Journal of Experimental Social Psychology*, *43*(1), 62–76.

Erez, A., & Isen, A. M. (2002). The influence of positive affect on the components of expectancy motivation. *Journal of Applied Psychology*, *87*(6), 1055–1067.

Felson, R., & Steadman, H. (1983). Aggression and violence between siblings. *Social Psychology Quarterly*, *46*(4), 271–285.

Foulk, T., Woolum, A., & Erez, A. (2016). Catching rudeness is like catching a cold: the contagion effects of low–intensity negative behaviors. *Journal of Applied Psychology*, *101*(1), 50–67.

Fox, S., & Spector, P. E. (1999). A model of work frustration–aggression. *Journal of Organizational Behavior*, *20*(6), 915–931.

Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, *59*(3), 291–309.

Francis, L., Holmvall, C. M., & O'Brien, L. E. (2015). The influence of workload and civility of treatment on the perpetration of email incivility. *Computers in Human Behavior*, *46*, 191–201.

Geldart, S., Langlois, L., Shannon, H. S., Cortina, L. M., Griffith, L., & Haines, T. (2018). Workplace incivility, psychological distress, and the protective effect of co–worker support. *International Journal of Workplace Health Management*, *11*(2), 96–110.

Giacalone, R. A., Riordan, C. A., & Rosenfeld, P.A. (1997). Organizational sabotage: Toward understanding its causes and preventing its recurrence. in R. A., Giacalone, & J., Greenberg (Eds.), *Anti–Social Behavior in Organizations*, Newbury Park, CA, Sage Publications.

Giumetti, G., McKibben, E., Hatfield, A., & Schroeder, A. (2012). Cyber incivility @ work: the new age of interpersonal deviance. *Cyberpsychology, Behavior, and Social Networking*, *15*(3), 148–154.

Griffin, R. W., O'Leary–Kelly, A., & Collins, J. (1998). Dysfunctional work behavior in organizations. in C. L., Cooper, & D. M., Rousseau (Eds.), *Trends in organizational behavior*. New York, NY: Wiley, *5*.

Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1993). Emotional contagion. *Current Directions in Psychological Science*, *2*(3), 96–99.

Hoobler, J. M., & Brass, D. J. (2006). Abusive supervision and family undermining as displaced aggression. *Journal of Applied Psychology*, *91*(5), 1125–1133.

Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer–mediated communication. *American Psychologist*, *39*(10), 1123–1134.

Krishnan, S. (2016). Electronic warfare: a personality model of cyber incivility. *Computers in Human Behavior*, *64*, 537–546.

Kruger, J., Epley, N., Parker, J., & Ng, Z. (2005). Egocentrism over e–mail: can we communicate as well as we think?. *Journal of Personality and Social Psychology*, *89*(6), 925–936.

Levy, D. A., & Nail, P. R. (1993). Contagion: a theoretical and empirical review and reconceptualization. *Genetic, Social, and General Psychology Monographs*, *119*(2), 233–284.

Lim, S., & Cortina, L. (2005). Interpersonal mistreatment in the workplace: the interface and impact of general incivility and sexual harassment. *Journal of Applied Psychology*, *90*(3), 483–496.

Lim, V. K. G., & Teo, T. S. H. (2009). Mind your e–manners: impact of cyber incivility on employees' work attitude and behavior. *Information and Management*, *46*(8), 419–425.

Luckenbill, D. F. (1977). Criminal homicide as a situated trans–action. *Social Problems*, *25*(2), 176–186.

Lyubomirsky, S., & Nolen–Hoeksema, S. (1993). Self–perpetuating properties of dysphoric rumination. *Journal of Personality and Social Psychology*, *65*(2), 339–349.

Lyubomirsky, S., & Nolen–Hoeksema, S. (1995). Effects of self–focused rumination on negative thinking and interpersonal problem solving. *Journal of Personality and Social Psychology*, *69*(1), 176–190.

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.

Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: a barrier to change and development in a pluralistic world. *Academy of Management Review*, *25*(4), 706–725.

Naquin, C. E., Kurtzberg, T. R., & Belkin, L. Y. (2010). The finer points of lying online: e–mail versus pen and paper. *Journal of Applied Psychology*, *95*(2), 387–394.

O'Leary–Kelly, A. M., Griffin, R. W., & Glew, D. J. (1996). Organization–motivated aggression: a research framework. *Academy of Management Review*, *21*, 225–253.

Park, Y., Fritz, C., & Jex, S. M. (2015). Daily cyber incivility and distress: the moderating roles of resources at work and home. *Journal of Management*, *44*(7), 2535–2557.

Pearson, C. M., Andersson, L. M. and Porath, C. L. (2005). Workplace incivility. in S., Fox, & P. E., Spector (Eds.), *Counterproductive Work Behavior: Investigations of Actors and Targets*, Washington, DC: American Psychological Association.

Pearson, C. M., Andersson, L. M., & Wegner, J. W. (2001). When workers flout convention: a study of workplace incivility. *Human Relations*, *54*(11), 1387–1419.

Polansky, N., Lippitt, R., & Redl, F. (1950). An investigation of behavioral contagion in small groups. *Human Relations*, *3*(4), 319–348.

Porath, C. L., & Erez, A. (2007). Does rudeness really matter? The effects of rudeness on task performance and helpfulness. *Academy of Management Journal, 50*, 1181–1197.

Porath, C. L., & Pearson, C. M. (2010). The cost of bad behavior. *Organizational Dynamics, 39*(1), 64–71.

Price, P. J., Ostendorf, M., Shattuck–Hufnagel, S., & Fong, C. (1991). The use of prosody in syntactic disambiguation. *The Journal of the Acoustical Society of America, 90*(6), 2956–2970.

Pruitt, D., & Rubin, J. (1986), *Social Conflict: Escalation, Stalemate, and Settlement*, Random House, New York, NY.

Reich, T. C., & Hershcovis, M. (2015). Observing workplace incivility. *Journal of Applied Psychology, 100*(1), 203–215.

Rosen, C. C., Koopman, J., Gabriel, A. S., & Johnson, R. E. (2016). Who strikes back? A daily investigation of when and why incivility begets incivility. *Journal of Applied Psychology, 101*(11), 1620–1634.

Sallnas, E. L., Rassmus–Grohn, K., & Sjostrom, C. (2000). Supporting presence in collaborative environments by haptic force feedback. *ACM Transactions on Computer–Human Interaction, 7*, 461–476.

Sguera, F., Bagozzi, R. P., Huy, Q. N., Boss, R. W., & Boss, D. S. (2016). Curtailing the harmful effects of workplace incivility: the role of structural demands and organization–provided resources. *Journal of Vocational Behavior, 95*, 115–127.

Short, J., Williams, E., & Christie, B. (1976), *The Social Psychology of Telecommunications*, John Wiley and Sons, London.

Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology, 82*(3), 434–443.

Totterdell, P., Hershcovis, M. S., Niven, K., Reich, T. C., & Stride, C. (2012). Can employees be emotionally drained by witnessing unpleasant interactions between coworkers? A diary study of induced emotion regulation. *Work and Stress, 26*, 112–129.

Trope, Y., & Liberman, N. (2010). Construal–level theory of psychological distance. *Psychological Review, 117*(2), 440–463.

Tyler, T. R., & Blader, S. L. (2000), *Cooperation in Groups: Procedural Justice, Social Identity, and Behavioral Engagement*, Psychology Press, Philadelphia, PA.

Walther, J. B. (1996). Computer–mediated communication: impersonal, interpersonal, and hyperpersonal interaction. *Communication Research, 23*(1), 3–43.

Williams, K. S., & Loughlin, C. (2016). Cyber incivility: experiences of Canadian non–profit leaders. *Academy of Management Annual Meeting Proceedings*, 1.

Youngs, G. (1986). Patterns of threat and punishment reciprocity in a conflict setting. *Journal of Personality and Social Psychology, 51*(3), 541–546.

Zillmann, D. (1979), *Hostility and Aggression*, Hillsdale, NJ: Erlbaum.

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