How a Gratitude Intervention Influences Workplace Mistreatment: A Multiple Mediation Model

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Despite wide-ranging negative consequences of interpersonal mistreatment, research offers few practical solutions to reduce such behavior in organizations. Given that interpersonal relationships are strengthened and desired employee behaviors are more frequent when individuals purposefully cultivate feelings of gratitude, the present study tests the effectiveness of a 10-day gratitude journaling intervention in reducing workplace incivility, gossip, and ostracism. Because research has not examined the mechanisms by which gratitude interventions influence outcomes, we draw on theory and research from the gratitude literature to propose and test a multiple mediator model. Specifically, we examine the moral affect theory of gratitude, find-remind-and-bind theory, self-regulation theory, and social exchange theory as possible explanations for the effects of the intervention. Two field experiments involving 147 (Study 1) and 204 (Study 2) employees demonstrated that the intervention decreased mistreatment (as reported by coworkers) by enhancing self-control resources. We also found that the effects of the intervention were stronger for individuals who perceive higher norms for gratitude in their workplace. The findings support the resource-building nature of gratitude interventions and demonstrate that a gratitude intervention is one effective way to decrease interpersonal mistreatment in organizations. Implications for theory and practice are discussed.

Keywords: gratitude intervention, incivility, gossip, ostracism, norms

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mons, & Larson, 2001), find-remind-and-bind theory (Algoe, 2012), self-regulation theory (Baumeister, 1998), and social exchange theory (Blau, 1964). We examine the relative influence of each in explaining the influence of a gratitude intervention on workplace mistreatment. Finally, because theory and research suggest a gratitude intervention’s effectiveness can vary based on individual differences in norms regarding emotional expression (Kelly & Barsade, 2001; Winslow et al., 2017), we identified perceived gratitude norms (i.e., perceptions regarding the degree to which organization members express gratitude to one another) as a moderator variable that might establish an important boundary condition on the intervention’s hypothesized effects. As shown in Figure 1, our model explains why and when a gratitude intervention will reduce workplace mistreatment.

This study contributes to the gratitude and workplace mistreatment literatures in three ways. First, we investigate a novel way to reduce interpersonal mistreatment in work organizations—namely, through a gratitude journaling intervention. Despite repeated calls to develop mechanisms to prevent or decrease workplace mistreatment (e.g., Cortina et al., 2017; Schilpzand et al., 2016), scholars have offered few solutions. By testing a simple intervention in the form of a daily journaling exercise to reduce workplace incivility, gossip, and ostracism, the present study could provide scholars and managers a scientifically valid and practical way to reduce the frequency with which mistreatment in organizations occurs.

Second, we develop and test a model that simultaneously explores four mechanisms by which gratitude influences mistreatment. Our simultaneous consideration of multiple mediators allows us to identify the mechanism(s) that account for the effects of a gratitude intervention and their relative strength. Although moral affect theory, find-remind-and-bind theory, self-regulation theory, and social exchange theory have been offered as explanations for the effects of a gratitude intervention, we provide the first empirical test of these accounts. Specifically, we identify and measure mediating variables representing each theory. We likewise provide a constructive replication in a second study in which we explore alternative indicators of each theory, where the same pattern of results emerges. Currently, there are clear lines of discrepant thought regarding the mechanisms underlying the influence of gratitude. Our work advances understanding of gratitude interventions by providing consensus (Hollenbeck, 2008) around the mechanism(s) responsible for the effects. Accounting for multiple mediating mechanisms also allows for strong inference (Platt, 1964) and facilitates theory pruning (Leavitt, Mitchell, & Peterson, 2010). Our examination of mediators is likewise practically important because it reveals why gratitude interventions reduce workplace mistreatment.

Finally, we develop and test hypotheses implicating perceived gratitude norms as an important characteristic that can attenuate or strengthen the intervention’s hypothesized effects. Identifying factors that diminish or enhance the effectiveness of gratitude interventions will clarify the nature and limits of their efficacy. Doing so is also important practically because our findings suggest a way for organizations to further enhance the effectiveness of gratitude interventions. Moreover, we respond to calls to investigate boundary conditions that qualify gratitude interventions’ effects (Emmons & Mishra, 2011). Collectively, our study offers evidence to suggest that a gratitude intervention reduces workplace incivility, gossip, and ostracism by enhancing self-control resources, and that these effects are especially pronounced for individuals who perceive gratitude norms in their workplace to be high.

Theoretical Background and Hypotheses

Defining Gratitude

Although gratitude has a long history in psychology (Emmons & McCullough, 2004), research has only recently been integrated into the management domain. Two types of gratitude are relevant to organizational experiences: state gratitude and trait gratitude. State gratitude refers to a feeling of appreciation in response to an experience that is beneficial to, but not attributable to, the self (Emmons & McCullough, 2004). That is, individuals experience momentary feelings of gratitude in response to kindnesses or benefits received from others (McCullough et al., 2001). Trait gratitude is a stable tendency to recognize and respond with
Grateful emotion to the role of other people’s benevolence in the positive experiences and outcomes that one obtains (McCullough, Emmons, & Tsang, 2002). Because a gratitude journaling exercise asks individuals to recall events and experiences for which they are grateful, it should cultivate feelings of state gratitude. Empirical examinations of gratitude interventions typically check the efficacy of the intervention by determining whether it elevated participants’ state gratitude (e.g., Emmons & McCullough, 2003; Winslow et al., 2017).

**Gratitude Interventions**

Gratitude interventions are exercises used to increase individuals’ attention to the positive things in their lives. Various exercises have been used to increase feelings of gratitude, in both clinical and work settings. Gratitude was first manipulated by clinical psychologists in patients with depression, posttraumatic stress disorder, and sleep disturbances (Jackowska, Brown, Ronaldson, & Steptoe, 2016; Seligman, Steen, Park, & Peterson, 2005). Since the early 2000s, however, the positive psychology movement has brought gratitude interventions to the general population (Bono, Emmons, & McCullough, 2004; Seligman et al., 2005). In a recent meta-analysis of gratitude interventions, Davis et al. (2016) classified interventions into three categories: gratitude journals/lists, behaviorally expressed gratitude, and psycho-educational gratitude groups.

The gratitude journal/list category includes the “classic” gratitude intervention of writing a list of things for which one is grateful. This category also includes the grateful contemplation intervention, which involves not only listing things for which one is grateful but also expressive writing about what an individual is grateful for. Such expressive writing can include, for example, musings about the reasons behind a kindness received. Grateful contemplation can prompt thoughts about activities, events, people, and material objects. Interventions in this category have been shown to increase positive mood (Koo, Algoe, Wilson, & Gilbert, 2008; Watkins, Woodward, Stone, & Kolts, 2003) and well-being (Emmons & McCullough, 2003; Froh, Sefick, & Emmons, 2008; Sheldon & Lyubomirsky, 2006).

Behaviorally expressed gratitude interventions involve instructing individuals to write a letter to a benefactor thanking them for something, and then taking the letter to the benefactor and reading it aloud to him or her (Wood, Froh, & Geraghty, 2010). Empirical findings from this type of intervention showed greater positive affect after treatment (Froh, Kashdan, Ozminkowski, & Miller, 2009; Seligman et al., 2005). These interventions are sometimes referred to as gratitude letters (see Davis et al., 2016).

Finally, a few scholars have used psycho-educational groups designed to promote gratitude (e.g., Froh et al., 2014; Owens & Patterson, 2013; Perez, 2006). These groups generally use structured lesson plans to educate individuals about the situations that elicit gratitude, such as intention to help, cost of helping to a benefactor, and understanding benefits received from benefactors (Froh et al., 2014). These group sessions use discussions, writing assignments, and role-playing activities, and have demonstrated an increase in state gratitude following the session.

In the current study, we utilize a gratitude list intervention for four reasons. First, meta-analyses on the effectiveness of these three types of interventions indicate that both gratitude lists and gratitude letters were more effective at producing changes in gratitude in participants than educational groups (Davis et al., 2016). Second, research comparing gratitude lists and gratitude letters found that gratitude lists affected a broader set of outcomes than gratitude letters (O’Connell, O’Shea, & Gallagher, 2018). Third, a qualitative review of the gratitude intervention literature indicated that compared with gratitude lists, the effects of gratitude letters are short lived (Wood et al., 2010). Finally, the mission of the current study is to reduce mistreatment (i.e., incivility, gossip, and ostracism) broadly, not just toward a single person, so an intervention that is targeted more broadly—such as the gratitude list—is most appropriate.

**Gratitude and Interpersonal Mistreatment**

Interpersonal mistreatment manifests in uncivil, gossiping, and ostracizing behaviors (e.g., Cortina et al., 2017). Though these forms of interpersonal mistreatment all reflect employee acts of deviance, in that they violate norms for respect, they have been shown to be both theoretically and empirically distinct (Brady, Brown, & Liang, 2017; Ferris, Chen, & Lim, 2017; Tepper & Henle, 2011). Incivility refers to rude and discourteous behaviors that display a lack of regard for others (Andersson & Pearson, 1999). Gossip is negative evaluative talk about someone who is not present (Brady et al., 2017). Ostracism refers to acts that ignore or exclude others (Ferris, Brown, Berry, & Lian, 2008).

Some research has examined gratitude with respect to deviant or counterproductive work behavior. Ford, Wang, Jin, and Eisenberger (2018), for instance, found that individuals who feel gratitude toward their organization on a given day report engaging in fewer deviant behaviors directed at the organization that day (e.g., criticizing organizational policies, taking unnecessary breaks). Research also shows that both trait and state gratitude inhibit destructive interpersonal behavior (e.g., DeWall, Lambert, Pond, Kashdan, & Fincham, 2012). Given that gratitude is associated with improved interpersonal interaction (Algoe, Haidt, & Gable, 2008) and decreased deviance (e.g., Ford et al., 2018), we reasoned a gratitude intervention should reduce workplace mistreatment. Below we describe the core of our conceptual model—the mechanisms that mediate the effects of a gratitude intervention on workplace incivility, gossip, and ostracism.

**Mediating Mechanisms**

Most research examining gratitude interventions has not considered how or why the intervention affects outcomes. That is, scholars have not assessed the theories and mediating mechanisms that might explain why a gratitude intervention influences individuals’ outcomes. For example, of the 26 gratitude intervention studies included in Davis et al.’s (2016) meta-analysis, 16 did not draw on or test theory. The remaining studies relied on the model of sustainable happiness (Lyubomirsky, Sheldon, & Schkade, 2005) to explain why interventions should predict outcomes such as happiness and well-being, but they did not empirically test the processes by which such interventions produce change in individuals. Further, in the few studies that have tested the proposed processes, gratitude researchers typically identify and test a single theoretical mechanism (e.g., Emmons & McCullough, 2003). This approach provides an incomplete understanding of the relationship between gratitude and individual outcomes.
Because gratitude intervention research lacks overarching theory or theories to explain the effects of the intervention, we turned to the broader gratitude literature to find theoretical rationale for the effects of gratitude, and thereby gratitude interventions. Within the growing body of gratitude research, scholars have offered various theoretical explanations to understand how gratitude influences individual outcomes. Although some individual studies have invoked other theories (e.g., affective events theory; Ford et al., 2018), scholars have predominately relied on four theoretical explanations for the influence of gratitude on employee outcomes: the moral affect theory of gratitude (McCallough et al., 2001), find-remind-and-bind theory (Algoe, 2012), resource perspectives such as self-regulation theory (Baumeister, 1998), and social exchange theory (Blau, 1964). In the following sections, we discuss these four theoretical mechanisms and describe how they might explain the relationship between a gratitude intervention and workplace mistreatment.

**Moral affect theory of gratitude.** The moral affect theory of gratitude conceptualizes gratitude as a “moral affect that is analogous to other moral emotions such as empathy and guilt” (McCallough et al., 2001, p. 249). The theory suggests that gratitude stimulates “behavior that is motivated out of concern for another person” (p. 251). Thus, it is a theory of why gratitude produces prosocial feelings and behavior. Indeed, scholars testing the theory have frequently examined gratitude’s effects on prosocial behaviors such as helping (e.g., Bartlett & DeSteno, 2006) and organizational citizenship behavior (e.g., Spence, Brown, Keeping, & Lian, 2014).

Moral affect theory suggests gratitude serves to reduce interpersonal mistreatment by stimulating prosocial motivation (i.e., the desire to benefit others; Grant, 2008). That is, gratitude functions as a motivator by prompting the grateful person to behave prosocially in the future, toward the benefactor and others. The theory suggests grateful individuals are more likely to contribute to the welfare of others in the future because prosocial motives become more salient. Individuals’ desire to benefit others will increase when they cultivate feelings of thanks and appreciation with a gratitude intervention. Research supports the relationship between gratitude and prosocial motivation. For example, Bartlett and DeSteno (2006) demonstrated this link in a series of three experiments. After being helped by a confederate, individuals in the gratitude condition were more likely to help their benefactor (Study 1) and strangers (Studies 2 and 3). Consistent with this work, meta-analytic research has found that both dispositional and state gratitude are related to prosociality, with state gratitude having a stronger relationship overall than dispositional gratitude ($r = .42$ vs. $r = .30$; Ma, Tunney, & Ferguson, 2017).

Because the moral affect theory of gratitude suggests gratitude increases individuals’ prosocial motivation and prosocial behavior toward the benefactor and others, we reasoned that this increased prosocial motivation will inhibit motivations to act destructively (i.e., engage in incivility, gossip, or ostracism) in the workplace. When employees feel grateful at work, they are motivated to contribute to the welfare of others and, therefore, are less likely to put down coworkers, criticize them behind their backs, or exclude them from conversations. In other words, because incivility, gossip, and ostracism harm others’ well-being (Cortina et al., 2001; Lim et al., 2008), gratitude should decrease interpersonal mistreatment through its effect on prosocial motivation. Therefore, we hypothesize the following:

**Hypothesis 1 (H1):** Prosocial motivation will mediate the relationship between a gratitude intervention and (H1a) incivility, (H1b) gossip, and (H1c) ostracism, such that the intervention will increase prosocial motivation, which in turn will decrease incivility, gossip, and ostracism.

**Find-remind-and-bind theory.** The find-remind-and-bind theory of gratitude (Algoe, 2012) grew out of the relationships literature. This theory posits that gratitude is an evolutionary emotion that serves to form, sustain, and strengthen important relationships in one’s life. As such, find-remind-and-bind theory suggests gratitude does not simply generate expectations of repayment but instead fosters close interpersonal relationships (Algoe, 2012). Specifically, the theory suggests gratitude can help individuals find valuable relationship partners who were previously unnoticed and remind them of the good relationships already in their lives. Finally, gratitude serves to bind individuals by strengthening interpersonal relationships.

When individuals notice that another person has been responsive to them (i.e., given them a benefit for which they felt grateful), the resulting gratitude “signals that the person understands, approves, or cares about” them (Algoe, 2012, p. 456). This signal of caring promotes interpersonal bonds. In essence, this finding, reminding, and binding brings individuals closer to relationship partners. Accordingly, empirical investigations of the theory often focus on relationship closeness (e.g., Algoe & Haidt, 2009; Algoe et al., 2008; Kok et al., 2013). Relationship closeness is conceptualized as the strength of the emotional bond between two people (Dibble, Levine, & Park, 2012). Across several relationship partners (e.g., coworkers), strong emotional bonds fostered by feelings of gratitude enable individuals to build a network of valued relationships (Parks & Floyd, 1996).

Tests of find-remind-and-bind theory have found consistent support for the idea that gratitude strengthens relational bonds (Algoe, 2012; Algoe, Kurtz, & Hilaire, 2016). For example, laboratory research has demonstrated that gratitude expressions between romantic partners predict improvements in relationships over six months (Algoe, Fredrickson, & Gable, 2013). Other work shows that gratitude promotes relationship building through behavioral mimicry (i.e., consciously mimicking a partner’s behavior), which serves to increase affiliation (Jia, Tong, & Lee, 2014). Another study examined gratitude between active sorority members and their “little sisters” (i.e., new sorority members) during orientation week. Results indicated that gratitude felt by little sisters during their early initiation period predicted future...
relationship closeness with their big sisters (i.e., the active sorority members; Algoe et al., 2008).

The find-remind-and-bind theory of gratitude suggests individuals who participate in a gratitude intervention will develop closer relationships with colleagues than those individuals not exposed to such an intervention. It stands to reason that poor interpersonal closeness can drive rudeness, ostracism, and gossip, whereas feeling closer to coworkers will decrease these forms of mistreatment. Thus, we predict that employees who engage in a gratitude intervention will feel closer relational bonds with other organization members, which will decrease the frequency with which these employees engage in uncivil behavior, gossip, and ostracism toward them. Therefore, we hypothesize the following:

Hypothesis 2 (H2): Relationship closeness will mediate the relationship between a gratitude intervention and (H2a) incivility, (H2b) gossip, and (H2c) ostracism, such that the intervention will increase relationship closeness, which will in turn decrease incivility, gossip, and ostracism.

Self-regulation theory. Self-regulation theory (Baumeister, 1998) suggests that self-control resources influence individuals’ behavior. Self-control resources are “the nonmotivational cognitive resources serving as an upper boundary on the effort that can be expended in thwarting a desire” (Lian, Yam, Ferris, & Brown, 2017, p. 706). These resources affect the reactions and impulses of individuals, enabling people to modify their responses to workplace events, including changing their behaviors to follow social norms and other standards (Baumeister, Bratslavsky, Muraven, & Tice, 1998). Some situations drain self-control resources, which are limited and vulnerable to deterioration. At the same time, other situations may help individuals replenish and regain self-regulatory resources (Baumeister, Vohs, & Tice, 2007).

Because various workplace demands serve to deplete resources (Schmidt, Neubach, & Heuer, 2007), an exercise to recover self-regulatory resources would be beneficial to improve employee outcomes during the workday. Scholars have begun to examine what restores self-control resources (see Lian et al., 2017), and though much of this research has focused on rest and recovery, certain intentional activities have also been shown to replenish self-control (e.g., online therapy; Barnes, Miller, & Bostock, 2017). A recent review of resource-building interventions explained that resources can be replenished through gratitude interventions by boosting resources immediately and by producing long-lasting resource increases through changes in behavior (Gilbert, Foulk, & Bono, 2018). Gratitude interventions boost resources because they are designed to “push people to attend consciously to the positive aspects of their lives, counteracting negative attentional biases and hedonic adaptation” (Gilbert et al., 2018, p. 218). When individuals perceive the world through a grateful lens, resources are both protected and built because attention has been directed toward the positive and away from the negative (Lian et al., 2017; Woolum, Foulk, Lanaj, & Erez, 2017).

We therefore suggest that a gratitude intervention will increase self-control resources. As empirical evidence demonstrates that resource loss can lead to negative interpersonal behaviors like incivility, gossip, and ostracism (Meier & Gross, 2015; Rosen, Koopman, Gabriel, & Johnson, 2016; van Jaarsveld, Walker, & Skarlicki, 2010), we predict that a gratitude intervention can reduce interpersonal mistreatment through its ability to increase self-control resources. Stated formally, we hypothesize the following:

Hypothesis 3 (H3): Self-control resources will mediate the relationship between a gratitude intervention and (H3a) incivility, (H3b) gossip, and (H3c) ostracism, such that the intervention will increase self-control resources, which will in turn decrease incivility, gossip, and ostracism.

Social exchange theory. Research on gratitude focuses on its role in developing exchange relationships through the recognition and reciprocation of benefits (e.g., DeSteno, Bartlett, Baumann, Williams, & Dickens, 2010; Ng, 2016). This exchange of benefits reflects principles expressed in social exchange theory. Social exchanges are a series of interactions between partners that generate obligations (Emerson, 1976), but these obligations are generally unspecified (Blau, 1964).

Although there are several ways to conceptualize the quality of social exchange relationships, we focus on perceptions of organizational support (POS), which reflect employee beliefs regarding the extent to which the organization values their contributions and cares about their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986). We focus on POS because gratitude is not just targeted at people; individuals can also feel grateful for their job and employer (Greenbaum, Bonner, Gray, & Mawritz, 2020). Moreover, employees tend to view actions by organization members as actions of the organization itself (Eisenberger et al., 1986; Levinson, 1965). We therefore felt a gratitude intervention would affect the quality of the social exchange between an employee and the organization as a whole.

Drawing on the norm of reciprocity, social exchange theory maintains that employees who perceive organizational support feel obligated to reciprocate toward the organization and are likely to return that support by acting in the organization’s best interests (Eisenberger et al., 1986). Because gratitude interventions encourage employees to focus on benefits (e.g., support) received from the organization and its members, such interventions should enhance perceptions of organizational support. Gratitude interventions might also enhance POS because they help individuals recognize the value and cost of the support they receive (Wood, Maltby, Stewart, Linley, & Joseph, 2008).

Empirical research supports a link between gratitude and perceived support. Although Ford et al. (2018) found that POS predicts gratitude, most gratitude literature proposes and demonstrates that gratitude is an antecedent of perceptions of support, a relationship that has been replicated in multiple samples and countries (e.g., Chen, 2013; Kong, Ding, & Zhao, 2015; Wood, Maltby, Gillett, Linley, & Joseph, 2008). For instance, research has found that gratitude leads to perceptions of social support in adolescent students (Froh et al., 2009) and that feelings of gratitude influence subsequent perceptions of social support over three months in women with metastatic breast cancer (Algoe & Stanton, 2012).

In all, social exchange theory suggests when employees appreciate how they are treated at work, they are likely to feel obligated to return this behavior in kind and to avoid behaviors that belie this support. Conversely, the theory predicts that individuals who perceive their organization is unsupportive will respond with negative reciprocative behavior, such as incivility, gossip, and ostracism.
weaker when such norms are low. Indirect effects of a gratitude intervention on workplace mistreatment are lower. This perspective suggests the intervention is more strongly associated with the hypothesized mediation (i.e., when perceived gratitude norms are high), a gratitude intervention and (H4a) incivility, (H4b) gossip, and (H4c) ostracism, such that the intervention will increase POS, which will in turn decrease incivility, gossip, and ostracism.

The Moderating Role of Perceived Gratitude Norms

Although we predict that gratitude interventions should reduce incivility, gossip, and ostracism through various mechanisms, the effectiveness of gratitude interventions may vary as a function of individual and situational differences (Delvaux, Vanbeselaere, & Mesquita, 2015; Winslow et al., 2017). Whereas several factors could influence (i.e., moderate) a gratitude intervention’s effects, a large body of research demonstrates that organizational norms about emotions guide employees’ emotional experience and expression (Kelly & Barsade, 2001) and socialize employees to adjust their emotional expressions accordingly (e.g., Diefendorff, Erickson, Grandey, & Dahlling, 2011). Workplace norms can similarly govern employees’ expression of gratitude (e.g., Ashforth & Humphrey, 1995; Emmons & Mishra, 2011; Rash, Matsuba, & Prkachin, 2011). We therefore investigate whether the proposed indirect effects of a gratitude intervention in reducing incivility, gossip, and ostracism depend on perceived gratitude norms—that is, individuals’ perceptions regarding the degree to which other organization members express gratitude to one another.

There are two opposing views regarding how perceived gratitude norms could moderate the effects of a gratitude intervention. On one hand, McCullough, Tsang, and Emmons (2004) suggest a “conductance hypothesis,” whereby individuals who are disposed toward gratitude, as one would be in a context where gratitude is the norm, are likely to be more responsive to the effects of a gratitude intervention. According to this perspective, individuals who work in organizations where gratitude is the norm are more attuned to gratitude-relevant experiences and thus would better appreciate the intervention. Providing some support for this view, Emmons and Mishra (2011) suggested that individuals who frequently experience gratitude better recognize benefits they receive from others. From the conductance hypothesis, one would expect that when individuals observe others express gratitude frequently (i.e., when perceived gratitude norms are high), a gratitude intervention is more strongly associated with the hypothesized mediators than it would be among individuals who perceive gratitude norms in the workplace are lower. This perspective suggests the indirect effects of a gratitude intervention on workplace mistreatment will be stronger when perceived gratitude norms are high and weaker when such norms are low.

On the other hand, McCullough et al. (2004) offered a competing view, referred to as the “resistance hypothesis.” This view suggests individuals who work in organizations where gratitude is the norm already experience the world through a lens of gratitude and, hence, an intervention designed to draw additional attention to positive experiences will not produce further benefits (i.e., they are resistant to the intervention’s effects). Indirectly supporting this perspective, Rash et al. (2011) found that a gratitude intervention enhanced well-being more among individuals who were low in trait gratitude than among their more dispositionally grateful counterparts. Thus, on the basis of this perspective, one would anticipate that a gratitude intervention is more likely to reduce mistreatment (through its effects on the proposed mechanisms) when an individual perceives relatively few expressions of gratitude among organization members (i.e., when perceived gratitude norms are low). In contrast to the conductance perspective, the resistance hypothesis suggests that among individuals who perceive that gratitude norms are high, the intervention’s indirect effects in reducing mistreatment would be weaker. Considering these opposing views and the limited empirical evidence, we offer competing hypotheses regarding the influence that perceived gratitude norms might have on a gratitude intervention’s effectiveness in reducing workplace mistreatment. Specifically, we propose a form of moderated mediation (Hayes, 2017) in which the first stage of the indirect effects—that is, between the gratitude intervention and the hypothesized mediators—varies according to differences in perceived gratitude norms.

Hypothesis 5 (H5): Perceived gratitude norms will moderate the indirect effects of a gratitude intervention on workplace mistreatment through (H5a) prosocial motivation, (H5b) relationship closeness, (H5c) self-control resources, and (H5d) POS, such that the first stage of the indirect effects will be strong and positive among individuals who perceive higher norms for gratitude in their workplace and weaker among those who perceive lower gratitude norms.

Hypothesis 6 (H6): Perceived gratitude norms will moderate the indirect effects of a gratitude intervention on workplace mistreatment through (H6a) prosocial motivation, (H6b) relationship closeness, (H6c) self-control resources, and (H6d) POS, such that the first stage of the indirect effects will be strong and positive among individuals who perceive higher norms for gratitude in their workplace and weaker among those who perceive lower gratitude norms.

Overview of Studies

We tested our hypotheses in two randomized field experiments involving a 10-day gratitude journaling intervention. In Study 1, we tested whether the intervention influenced uncivil behavior through its effects on the hypothesized mediating mechanisms. It therefore allowed us to partially test H1 through H4. In Study 2 we assessed the intervention’s effects on incivility, gossip, and ostracism, and whether the proposed indirect effects were moderated by perceived gratitude norms. In doing so, we tested our full conceptual model as specified in H1 through H6. Both studies were approved by the University of Central Florida Institutional Review Board (Project title: “Influence of Daily Journaling on Employee Behavior”; Project no.: SBE-18–13777).

Study 1

Method

Sample and procedure. We used a panel management company (ROI Rocket, Denver, CO) to recruit participants. To be eligible for the study, participants were required to be at least 18 years old, live in North America, work at least 20 hr per week, and interact with organization members at least weekly. Participants
were predominately Caucasian (63.5%) and female (59.0%). The average job tenure was 10 years (SD = 8.7).

We collected data over a 2-week period. At Time 1 (T1), employees completed an online survey assessing baseline measures. Participants were then randomly assigned to conditions using a random number generator. Once assigned to a condition, participants completed a journaling exercise at the end of each workday (Monday through Friday) for 2 weeks. Participants were sent a survey link via e-mail each day at 3:00 p.m. and were instructed to journal about their workday. Survey links closed at 11:59 p.m. As in prior work on gratitude interventions (e.g., Emmons & McCullough, 2003), participants were required to complete at least 80% of their journals to be included in the study. Following the final journal entry on Day 10, participants completed the Time 2 (T2) survey, which assessed mediators and our manipulation check. These measures referenced participants feelings and attitudes over the last 2 weeks (i.e., during the intervention).

The T2 survey also asked participants to provide the name and contact information of a coworker. The following week, we invited participants’ coworkers to complete a survey reporting on the employee’s uncivil behavior over the last 2 weeks (ensuring the time reference of incivility was not before the mediating mechanisms). After matching employee and coworker data and accounting for attrition, the final sample was 147 matched employee-coworker pairs (see online supplemental material). An a priori power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) indicated that 120 participants (60 individuals in each group) were necessary to detect the expected effects.

Intervention manipulation. Participants were randomly assigned to one of two experimental conditions. In the gratitude condition, participants were given the following instructions, which utilize gratitude lists, as adapted from Emmons and McCullough (2003) and Kaplan et al. (2014):

Try to think about the many things in your job/work, both large and small, for which you are grateful. These might include supportive work relationships, sacrifices or contributions that others have made for you, advantages or opportunities at work, or thankfulness for the opportunity to have your job in general. Think back over the day and write down on the lines below the events that you are grateful or thankful for and why. Try to think of new ideas that you have not focused on in the past.

In the control condition, participants were given the following instructions, also adapted from Emmons and McCullough (2003) and Kaplan et al. (2014):

Try to think about the many things in your job/work, both large and small, that affected you today. These might include work relationships, projects, or your job in general. Think back over the day and write down on the lines below the events that had an impact on you and why. Try to think of new ideas that you have not focused on in the past.

Measures.

Manipulation check. Following prior work (e.g., Emmons & McCullough, 2003; Winslow et al., 2017), we checked our manipulation by assessing state gratitude postintervention using the three-item gratitude adjective checklist (McCullough et al., 2002). We asked participants to report the extent to which they felt “grateful,” “thankful,” and “appreciative” over the last 2 weeks (i.e., during the intervention). Items were anchored on a five-point response scale (1 = none at all, 5 = a great deal).

Prosocial motivation. Consistent with prior research, we used prosocial motivation as our operationalization of moral affect theory (Naito, Wangwan, & Tani, 2005; Wangwan, 2014). Using Grant and Berry’s (2011) measure, participants indicated how prosocially motivated they were to do their work over the last 2 weeks by responding to four statements (α = .95) using a Likert format response ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item is “Because I cared about benefiting others through my work.”

Relationship closeness. Following prior research (e.g., Algoe et al., 2008), we operationalized find-remind-and-bind theory by measuring relationship closeness. We measured relationship closeness with four items (α = .94) from the 11-item measure developed by Dibble et al. (2012). These four items were chosen because other items were inappropriate for work relationships. These items were determined to best represent relationship closeness in a work setting, as demonstrated by confirmatory factor analysis (CFA) from a pilot test (details available upon request). Items were anchored on a seven-point scale (1 = strongly disagree, 7 = strongly agree) and referenced the last 2 weeks. An example item is “My relationships with my coworkers were close.”

Self-control resources. Self-control resources were assessed with a five-item (α = .87) version of Twenge, Muraven, and Tice’s (2004) Self Control Capacity Scale (see Johnson, Lanaj, & Barnes, 2014; Yam, Fehr, Keng-Highberger, Klotz, & Reynolds, 2016). This measure assessed perceptions of the availability of self-control resources over the last 2 weeks (1 = very slightly or not at all, 5 = very much). The scale was coded so that higher scores reflect greater self-control resources. A sample item is “It would take a lot of effort for me to concentrate on something” (reverse-scored).

POS. As is common in applied psychology (Colquitt et al., 2014), we assessed the mediating role of social exchange quality by measuring POS. Following Rhoades and Eisenberger (2002), we assessed POS with the three-item version of Eisenberger et al.’s (1986) measure (α = .90). Items were anchored on a seven-point scale (1 = strongly disagree, 7 = strongly agree) and referenced the last 2 weeks. A sample item is “The organization valued my contribution to its well-being.”

Incivility. Coworkers were asked to indicate how frequently the focal employee engaged in uncivil behaviors in the last 2 weeks (i.e., postintervention) using the four-item (α = .95) measure developed by Lim and Cortina (2005). An example item is “How often in the last 2 weeks has your coworker put down others or been condescending to others in some way?” Items were anchored on a five-point response scale (0 = never, 4 = most of the time).

Control variables. To examine the change in each of the mediators, we controlled for baseline (T1) mediators using the same measures as reported above. Including the controls did not...

2 To test find-remind-and-bind theory, scholars have also examined relationship quality. Because we strove to ensure our mediators were conceptually and empirically distinct (Preacher & Hayes, 2008), we elected not to assess relationship quality, which might overlap both conceptually and empirically with indicators of social exchange (Colquitt et al., 2014).
change the direction of effects or significance levels. We nonetheless retained the controls to demonstrate the intervention’s incremental validity (i.e., beyond the baseline measures).

Results and Discussion

Manipulation checks. To ensure the gratitude intervention elicited responses of gratitude over and above that of the control condition, we checked the manipulation by examining differences in state gratitude at T2. State gratitude is commonly used as a manipulation check (see Emmons & McCullough, 2003). An independent samples t test found a significant difference in postintervention state gratitude, t(169) = −3.90, p < .001, between the gratitude condition (M = 4.17) and the control condition (M = 3.62).

We also checked the manipulation by content analyzing the individual journal entries for number of gratitude expressions. To do so, we used CAT Scanner (McKenny & Short, 2012) because it was developed by management researchers and has been used to analyze many management constructs (McKenny, Aguinis, Short, & Anglin, 2018). The dictionary to analyze gratitude expressions (see Table 1) was created and validated for the purposes of this study, following the recommendations of Short, Broberg, Cogliser, and Brigham (2010). A gratitude expression was counted each time a word in the dictionary was used in a journal entry. An independent samples t test was significant, t(135) = −8.15, p < .001, revealing that the gratitude condition elicited more gratitude expressions (M = 13.87) than the control condition (M = 4.41).

Finally, we wanted to rule out the possibility that the gratitude intervention’s effects were explained by the degree to which entries were positive or negative in nature. This test is important because some gratitude interventions have been criticized on the grounds that the control condition stimulates negative feelings or complaints (Davis et al., 2016). We therefore examined the degree of positive and negative tone found in the journal entries, using validated dictionaries created by Henry (2008). Positive tone was indicated by words like “positive,” “accomplish,” and “high,” whereas negative tone was indicated with words such as “negative,” “fail,” and “worst.” Results showed no significant differences in positive tone, t(135) = 0.95, p = .36, or negative tone, t(135) = 1.73, p = .09, between the two conditions. Additionally, positive and negative tone were not significantly related to gratitude expressions (r = .10 for positive tone; r = .07 for negative tone, both ns). Therefore, the effects of the intervention were not explained by differences in tone of the content represented in the journals of each group.

The results of these analyses demonstrate that the gratitude intervention does not change the kind (positive/negative) of reflection in which individuals engage. That is, individuals in the gratitude and control conditions wrote about an equivalent number of positive and negative things in their jobs. Collectively, the results show that the manipulation was successful in eliciting gratitude and that the control condition was a neutral alternative to the gratitude condition.

Preliminary analyses. Means, standard deviations, alpha reliability coefficients, and zero-order correlations appear in Table 2. CFA results indicated that a five-factor model (prosocial motivation, relationship closeness, self-control resources, POS, and incivility) fit the data, χ²(160) = 291.82, CFI = .97, RMSEA = .05, SRMR = .04, and fit better (ps < .05) than a one-factor model and four-factor models in which any of the two mediators were combined.

Tests of indirect effects. To test H1 through H4, we used multiple mediation analyses as outlined by Hayes (2017) using Mplus 8.0 (Muthén & Muthén, 2017). Hypotheses were tested using 10,000 bootstrapped samples and 95% bias-corrected and accelerated confidence intervals. Our hypotheses proposed that a gratitude intervention would decrease incivility through the mechanisms of prosocial motivation (H1), relationship closeness (H2), self-control resources (H3), and perceived organizational support (H4). Table 3 shows the results for the multiple mediation analyses. Results demonstrated the indirect effect of the gratitude intervention via prosocial motivation was not significant, as the confidence interval contained zero (ab = −.01, 95% CI [−.04, .00]). Thus, H1 was not supported. Results similarly indicated a nonsignificant indirect effect through relationship closeness (ab = .00, 95% CI [−.04, .03]). Thus, H2 was not supported. However, results revealed support for H3; the confidence interval for the indirect effect via self-control resources did not contain zero (ab = −.10, 95% CI [−.20, −.01]). Finally, H4 predicted that POS would carry the influence of a gratitude intervention to incivility. This hypothesis was not supported, as the indirect effect was not significant (ab = .02, 95% CI [−.01, .08]).

Study 2

Method

Sample and procedure. The procedures for Study 2 were largely the same as those used in Study 1. As in Study 1, we used ROI Rocket to collect data. The company assigns each panel member an internal identification number to maintain anonymity. We used these identification numbers to verify that no panel member participated in both studies. Data were collected over a 2-week period in which employees first completed a survey assessing baseline measures and our hypothesized moderator (gratitude norms), and then completed a 10-day journaling exercise at
the end of each workday (Monday through Friday). Again, participants were randomly assigned to one of two experimental conditions, which were identical to those used in Study 1. As in Study 1, the T2 employee survey (which assessed mediators and requested coworker contact information) was distributed on Day 10 of the intervention, immediately after participants completed the final journal entry. And again, the mediators were measured with reference to the last 2 weeks. Unlike Study 1, however, in Study 2 we distributed the coworker survey two weeks after the T2 employee survey. To further ensure temporal separation of mediators and outcomes, we asked coworkers to report on the employee’s behavior over the last 2 weeks. After matching employee and coworker data and accounting for attrition, the final sample was 204 matched employee-coworker pairs (see online supplemental material). Participants were predominately Caucasian (78.6%) and female (67.4%). The average job tenure was 8.3 years ($SD = 6.7$).

Measures. We used the same measures from Study 1 to assess prosocial motivation ($\alpha = .93$), relationship closeness ($\alpha = .94$), self-control resources ($\alpha = .90$), POS ($\alpha = .91$), and incivility ($\alpha = .94$). We likewise checked our manipulation with the same measure of state gratitude ($\alpha = .92$) used in Study 1. We measured additional variables as follows.

Gossip. We used Brady et al.’s (2017) five-item ($\alpha = .96$) measure to assess negative workplace gossip about coworkers. Coworkers were asked to indicate how frequently (1 = never, 7 = more than once per day) the focal employee engaged in gossip over the last 2 weeks (i.e., postintervention). An example item is “How often in the last 2 weeks has your coworker criticized a coworker while talking to another work colleague?”

Ostracism. We assessed ostracism with Ferris et al.’s (2008) measure ($\alpha = .96$). Coworkers were asked to indicate how frequently (1 = never, 5 = always) the focal employee ostracized others over the last 2 weeks (i.e., postintervention). An example item is “How often in the last 2 weeks has your coworker shut others out of the conversation?”

Perceived gratitude norms. We adapted an existing validated measure of gratitude expressions (Sheridan, 2017) to assess perceived gratitude norms. Items ($\alpha = .93$) were adapted to reflect perceptions of the extent to which other organization members express gratitude (instead of the respondent). Using a five-point response scale (1 = never, 5 = always), participants reported how often members of their organization “express their appreciation to one another,” “thank one another,” “provide recognition when someone does something nice,” “publicly express gratitude to one another,” and “do nice things to express their thanks to one another.”

Table 3

<table>
<thead>
<tr>
<th>Mediator (Time 2)</th>
<th>Decomposed effects</th>
<th>Partial effects of controls on $M$ (SE)</th>
<th>Indirect effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$a$</td>
<td>$b$</td>
<td>$c$</td>
</tr>
<tr>
<td>Dependent variable = Incivility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prosocial motivation</td>
<td>.13 (.09)</td>
<td>-.06 (.05)</td>
<td>-.10 (.12)</td>
</tr>
<tr>
<td>Relationship closeness</td>
<td>.24 (.08)**</td>
<td>-.00 (.06)</td>
<td>-.10 (.12)</td>
</tr>
<tr>
<td>Self-control resources</td>
<td>.16 (.07)**</td>
<td>-.65 (.12)**</td>
<td>-.10 (.12)</td>
</tr>
<tr>
<td>POS</td>
<td>.11 (.07)</td>
<td>-.19 (.09)**</td>
<td>-.10 (.12)</td>
</tr>
</tbody>
</table>

Note. Reported results control for baseline mediators. Boot $ab$ refers to bootstrapped indirect effect; bootstrap sample size = 10,000. Unstandardized regression coefficients reported are based on bias-corrected and accelerated 95% confidence intervals ($BC\alpha$ CI). $BC\alpha$ CIs that do not include zero indicate support for indirect effects. After inclusion of baseline mediators, $\Delta R^2 = .02$. POS = perceived organizational support.

$p < .05$. ** $p < .01$. 

Table 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>11</th>
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</thead>
<tbody>
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<td>1. Experimental condition</td>
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<td>0.50</td>
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</tr>
<tr>
<td>2. Prosocial motivation T2</td>
<td>5.79</td>
<td>1.12</td>
<td>.07</td>
<td>(.95)</td>
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</tr>
<tr>
<td>3. Relationship closeness T2</td>
<td>5.49</td>
<td>1.21</td>
<td>.18**</td>
<td>.59**</td>
<td>(.94)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. Self-control resources T2</td>
<td>2.21</td>
<td>1.01</td>
<td>.05</td>
<td>.26**</td>
<td>.22**</td>
<td>(.87)</td>
<td></td>
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</tr>
<tr>
<td>5. POS T2</td>
<td>4.02</td>
<td>0.95</td>
<td>.10</td>
<td>.51**</td>
<td>.58**</td>
<td>.37**</td>
<td>(.90)</td>
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<td>6. Coworker-rated incivility</td>
<td>1.46</td>
<td>0.83</td>
<td>-.07</td>
<td>-.10</td>
<td>-.04</td>
<td>-.51**</td>
<td>-.10</td>
<td>(.95)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. State gratitude T2</td>
<td>3.96</td>
<td>0.91</td>
<td>.22**</td>
<td>.40**</td>
<td>.45**</td>
<td>.28**</td>
<td>.44**</td>
<td>.02</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Prosocial motivation T1</td>
<td>5.88</td>
<td>0.96</td>
<td>.00</td>
<td>.60**</td>
<td>.44**</td>
<td>.35**</td>
<td>.37**</td>
<td>-.31**</td>
<td>.33**</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Relationship closeness T1</td>
<td>5.35</td>
<td>1.13</td>
<td>.05</td>
<td>.43**</td>
<td>.65**</td>
<td>.18**</td>
<td>.43**</td>
<td>-.10</td>
<td>.31**</td>
<td>.42**</td>
<td>(.92)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Self-control resources T1</td>
<td>2.23</td>
<td>0.91</td>
<td>.11**</td>
<td>.24**</td>
<td>.17**</td>
<td>.57**</td>
<td>.35**</td>
<td>-.37**</td>
<td>.19**</td>
<td>.32**</td>
<td>.22**</td>
<td>(.83)</td>
<td></td>
</tr>
<tr>
<td>11. POS T1</td>
<td>4.05</td>
<td>0.88</td>
<td>.00</td>
<td>.38**</td>
<td>.46**</td>
<td>.33**</td>
<td>.66**</td>
<td>-.14</td>
<td>.33**</td>
<td>.40**</td>
<td>.60**</td>
<td>.34**</td>
<td>(.89)</td>
</tr>
</tbody>
</table>
unidimensional factor structure, measure reliability, and construct validity.

**Control variables.** As in Study 1, we controlled for baseline (T1) mediators using the same measures reported above. Although including them did not substantially affect the results of hypothesis tests, we retained them to demonstrate the incremental variance explained by the intervention.

**Results and Discussion**

**Manipulation checks.** As in Study 1, we checked the manipulation by examining postintervention differences in state gratitude. An independent samples t test found a significant difference in state gratitude, \( t(452) = -4.57, p < .001, \) between the gratitude condition (\( M = 4.07 \)) and the control condition (\( M = 3.68 \)). Thus, the manipulation was successful in eliciting gratitude. We also checked the manipulation by content analyzing the journal entries for number of gratitude expressions and positive and negative tone. Results confirmed that the gratitude intervention was successful in eliciting gratitude and that there was no significant difference in tone between the experimental and control groups.

**Preliminary analyses.** Descriptive statistics and bivariate correlations among Study 2 variables appear in Table 4. CFA demonstrated that an eight-factor model (prosocial motivation, relationship closeness, self-control resources, POS, incivility, gossip, ostracism, and gratitude norms) fit the data, \( \chi^2(674) = 1308.85, \) CFI = .93, RMSEA = .05, SRMR = .06, and fit better (\( ps < .05 \)) than seven-factor models in which any two dependent variables were combined, seven-factor models in which any two mediators were combined, and a three-factor model in which all three dependent variables were combined and all four mediators were combined.

**Tests of indirect effects.** We tested H1 through H4 using the same analyses as in Study 1. We tested whether a gratitude intervention would decrease incivility, gossip, and ostracism through the mechanisms of prosocial motivation (H1), relationship closeness (H2), self-control resources (H3), and POS (H4). Table 5 shows results for the multiple mediation analyses. As in Study 1, the indirect effects through prosocial motivation and relationship closeness were not significant. Although the confidence intervals surrounding the indirect effects on incivility and gossip via POS did not contain zero, the effects were not in the predicted direction. Thus, H1, H2, and H4 were not supported. Results did reveal support for H3, however, as the confidence intervals for the indirect effects via self-control resources did not contain zero for incivility (\( ab = -.08, 95\% CI [-.17, -.03] \)), gossip (\( ab = -.11, 95\% CI [-.22, -.03] \)), or ostracism (\( ab = -.04, 95\% CI [-.10, -.01] \)). Of course, these results need to be considered in the context of the conditional indirect effects.

**Tests of conditional indirect effects.** We hypothesized that perceived gratitude norms would moderate the proposed indirect effects such that the impact of the intervention could be either stronger (H5) or weaker (H6) for individuals who perceive strong norms for gratitude. To test these hypotheses, we used moderated multiple mediation in Mplus 8.0, again estimating conditional indirect effects and bias-corrected and accelerated 95% confidence intervals from 10,000 bootstrapped samples.

As seen in Table 6, bootstrapping results revealed that the indirect effects of the gratitude intervention on the three mistreatment outcomes were not significantly different from zero at low or

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**Note.** Reliability coefficients are shown on the diagonal in parentheses. Experimental condition: 1 = gratitude, POS = perceived organizational support.

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**Table 4.** Means, Standard Deviations, and Correlations Among Study 2 Variables (n = 233)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Experimental condition</td>
<td>0.51</td>
<td>0.50</td>
<td>-</td>
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</tr>
<tr>
<td>2. Prosocial motivation</td>
<td>5.71</td>
<td>1.18</td>
<td>-0.10</td>
<td>-</td>
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</tr>
<tr>
<td>3. Relationship closeness</td>
<td>2.54</td>
<td>1.04</td>
<td>0.35</td>
<td>-</td>
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</tr>
<tr>
<td>4. Self-control resources</td>
<td>3.65</td>
<td>1.06</td>
<td>-</td>
<td>0.35</td>
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</tr>
<tr>
<td>5. POS T1</td>
<td>2.00</td>
<td>0.66</td>
<td>-0.03</td>
<td>-0.03</td>
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</tr>
<tr>
<td>6. Gossip T3</td>
<td>1.61</td>
<td>1.00</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-</td>
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<tr>
<td>7. Incivility T2</td>
<td>1.80</td>
<td>1.30</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.03</td>
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<tr>
<td>8. Relationship closeness</td>
<td>2.61</td>
<td>1.09</td>
<td>-0.03</td>
<td>-0.03</td>
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</tr>
<tr>
<td>9. Gratitude norms T1</td>
<td>3.75</td>
<td>0.82</td>
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<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
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</tr>
<tr>
<td>10. State gratitude T2</td>
<td>3.89</td>
<td>0.96</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
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</tr>
<tr>
<td>11. Gratitude norms T1</td>
<td>5.68</td>
<td>1.13</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
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<tr>
<td>12. Relationship closeness</td>
<td>5.28</td>
<td>1.29</td>
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<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
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</tr>
<tr>
<td>13. Self-control resources</td>
<td>2.89</td>
<td>1.09</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
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</tr>
<tr>
<td>14. POS T2</td>
<td>3.75</td>
<td>0.96</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.04</td>
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</tr>
</tbody>
</table>

*Note.* Reliability coefficients are shown on the diagonal in parentheses. Experimental condition: 1 = gratitude, POS = perceived organizational support.
high levels of perceived gratitude norms through prosocial motivation, relationship closeness, or POS. Therefore, neither the conductance hypothesis (H5) nor the resistance hypothesis (H6) was supported for these mechanisms.

H5c and H6c predicted that the indirect effects via self-control resources would be moderated by perceived gratitude norms. Results revealed that the indirect effects were significantly different from zero at higher levels of perceived gratitude norms for all three mediators.
outcomes but not at lower levels of perceived gratitude norms (see Table 6). These results support the conductance hypothesis predicted in H5c, in which the intervention’s effects via self-control resources are stronger for individuals who perceive that organization members express gratitude relatively frequently (i.e., when perceived gratitude norms are high).

**Supplementary analyses.** We tested the robustness of our predictions with various supplemental analyses. Specifically, as positive affect is commonly associated with gratitude, we included positive affect as a mediator. We also estimated indirect effects for each focal mediator (including positive affect) independently, and we also tested our hypotheses by operationalizing each theory with a different corresponding mediator. For example, social exchange theory can also be operationalized by assessing felt obligation toward coworkers (Wo, Ambrose, & Schminke, 2015) or with a measure that explicitly asks whether relationships with other organization members are characterized by the sentiments Blau (1964) described in his theorizing: mutual obligation, trust, commitment, and significance (Colquitt et al., 2014). Finally, as there may be conceptual overlap between find-remind-and-bind theory and social exchange theory, we assessed a model that reflected moral affect theory, find-remind-and-bind theory, self-control resources, and positive affect as the mechanisms. Regardless of whether we tested the mediators independently or simultaneously, whether we included positive affect or excluded social exchange, and no matter how we operationalized the mediators, self-control resources was the only variable to transmit the effects of the gratitude intervention to reduce incivility, gossip, and ostracism. Details of all analyses and results can be found in the online supplemental material.

**General Discussion**

The current research tested the efficacy of a simple gratitude intervention for decreasing workplace mistreatment. Building on prior gratitude research, in two studies we competitively tested four theories of gratitude to explore the mechanisms through which a gratitude intervention functions. Results demonstrated that a gratitude intervention, as compared with a control group, decreased workplace mistreatment by increasing participants’ self-control resources. These findings yield support for gratitude interventions as resource-building exercises. We did not find support for the intervention’s effects in reducing mistreatment as transmitted via the mechanisms of prosocial motivation, relationship closeness, or POS. These results stand in contrast to theory and research from the moral affect theory of gratitude (McCullough et al., 2001), find-remind-and-bind theory (Algoe, 2012), and social exchange theory (Blau, 1964).

The research also explored an important boundary condition of the intervention’s effectiveness. Because theory and research suggest gratitude interventions function differently for individuals who work in organizations where members express their gratitude more or less frequently, we predicted that perceived gratitude norms would influence (i.e., moderate) the effectiveness of the intervention. Results demonstrated that perceived gratitude norms did indeed moderate the indirect effects of the gratitude intervention on interpersonal mistreatment through self-control resources. That is, individuals who perceived higher norms for gratitude reported greater gains in self-control resources from the intervention than did individuals whose organizations were perceived to be lower in gratitude norms. Individuals who perceived higher gratitude norms were subsequently less likely to engage in incivility, gossip, or ostracism. These results contribute to the gratitude literature by providing support for the conductance hypothesis (McCullough et al., 2004), and they advance the mistreatment literature by highlighting how differences in individuals’ norm perceptions affect their negative interpersonal behavior at work (Hershcovis & Reich, 2013; Pearson & Porath, 2004).

Collectively, our studies offer evidence to suggest that a gratitude journaling intervention reduces uncivil, gossip, and ostracizing behavior by enhancing self-control resources, which is more likely to result among individuals who perceive the norms for expressing gratitude in their workplace are higher. The results highlight that resource perspectives are important theoretical mechanisms to consider in future research on gratitude and gratitude interventions, and that perceived gratitude norms are an important boundary condition governing the intervention’s effectiveness. By demonstrating that a simple, affordable gratitude journaling intervention can reduce mistreatment among some employees (i.e., those who perceive high workplace norms for gratitude), our study offers several implications for theory, practice, and future research.

**Theoretical Contributions and Future Research Directions**

The results of this study have implications for research on workplace mistreatment. Interpersonal mistreatment in the workplace is widespread and costs organizations millions of dollars each year (e.g., Porath & Pearson, 2013). Nevertheless, there have been few efforts to decrease such behavior. A notable exception is the Civility, Respect, and Engagement at Work (CREW) intervention, in which trained facilitators meet weekly with employees for 6 months to improve interactions and relationships among organization members. Although CREW has been shown to enhance civility immediately (Leiter et al., 2011) and one year after the intervention (Leiter, Day, Oore, & Spence Laschinger, 2012), it is limited in important ways. First, CREW is a large-scale, top-down intervention that is expensive in terms of time and money. Second, CREW has demonstrated limited efficacy. Across multiple studies, CREW has enhanced civility and decreased incivility experienced from supervisors, but neither incivility experienced from coworkers nor self-reported instigated incivility were affected (e.g., Leiter et al., 2011, 2012; Spence Laschinger, Leiter, Day, Glin-Oore, & Mackinnon, 2012). The gratitude intervention used in our study provides a straightforward way to decrease incivility, gossip, and ostracism in the workplace. Our results suggest gratitude interventions can be used in the larger effort toward curbing workplace mistreatment.

Our results also contribute to theory and research on gratitude. Perhaps most notably, the current study provides the first empirical examination of multiple mechanisms by which gratitude interventions function to impact outcomes. This has long been called for in the gratitude literature (e.g., Emmons & McCullough, 2004; Emmons & Mishra, 2011), but most research has not examined
mediators. Our tests of the indirect effects advance theory and research on gratitude by shedding light on the process by which gratitude influences individuals’ mistreatment of others. Our study demonstrates that a gratitude intervention impacts employees’ interpersonal mistreatment by building self-control resources. Although prior research has demonstrated a link between self-control resources and uncivil behavior (Rosen et al., 2016), our study departs from and extends this work in important ways. Whereas Rosen et al. found that employees who experienced incivility earlier in the day were more likely to engage in incivility later in the day because they experienced diminished self-control, they noted that “there may be other mechanisms” (p. 1629) and that future research should examine multiple mechanisms jointly to fully understand incivility or other types of workplace mistreatment.

In this respect, our study advances knowledge by investigating multiple mechanisms by which a gratitude intervention influences mistreatment. A lack of understanding of these mediating processes not only constrains the research area from further development, but also hinders understanding of the practical implications for those interested in harnessing the power of gratitude and reducing workplace mistreatment. Given that resource explanations are the perspectives least relied upon in the gratitude literature, demonstrating the resource-building nature of gratitude interventions makes an important contribution to the literature. Further, our research suggests mediators derived from other theoretical approaches (e.g., prosocial motivation, relationship closeness) do not transmit the effects of a gratitude intervention to employees’ interpersonal mistreatment. These findings are likewise important in that they demonstrate that the most frequently invoked theories in the literature do not explain why a gratitude intervention reduces mistreatment. If the field is to move forward, it is important to gain clearer understanding of which process (or processes) drive the hypothesized effects (Leavitt et al., 2010).

A related implication concerns our application of theory. Although some of the theories we draw on suggest multiple functions of gratitude or have multiple distinct components, prior research has often used a single operationalization of the theory. Take find-remind-and-bind theory, for example. Only the “bind” function has been tested empirically. To better represent the theory, we also operationalized the “find” function via support seeking because gratitude motivates individuals to seek out high-quality relationship partners that “enrich one’s life” (Algoe, 2012, p. 458), and we operationalized the “remind” function with a measure of relationship reflection because it captures how gratitude sustains an individual’s existing relationships (Algoe, 2012). Our research recognizes this complexity in the theories we drew on and we strove to more fully assess the domains of the constructs of interest by examining multiple operationalizations (see online supplemental material). Although we observed the same pattern of results with these other operationalizations, we advance the theories we draw on in the present study by applying and operationalizing them in novel ways. As Leavitt et al. (2010) state, doing so provides a stronger test of the theories and demonstrates “the robustness of one theoretical orientation over another” (p. 659).

Finally, our study enhances knowledge surrounding gratitude norms. Rosen et al. (2016) suggested that future research should build on their work by examining features of the social context that may serve as boundary conditions affecting uncivil behavior (see also Schilpzand et al., 2016). Accordingly, the present research demonstrates that gratitude norms, as one aspect of the (perceived) social context, play an influential role in employees’ psychological and behavioral responses to a gratitude intervention. Thus, employee beliefs about how frequently other organization members express gratitude (i.e., perceived gratitude norms) are essential to fully understand gratitude interventions and workplace mistreatment. Given that little empirical research has examined gratitude norms, we believe this is an especially promising area of study.

Our findings highlight at least two additional directions for future research. First, future research would benefit from further study of the role of emotion in the process by which a gratitude intervention influences workplace mistreatment. Although supplementary analyses did not find a reduction in mistreatment through generalized positive affect, research suggests gratitude interventions might produce other positive emotions (Neumeier, Brook, Ditchburn, & Schopke, 2017; Sheldon & Lyubomirsky, 2006). Research likewise suggests a gratitude intervention could also reduce negative emotions like envy and resentment (Emmons & Mishra, 2011). Scholars should therefore examine various affective outcomes of gratitude interventions and whether they might also function as mechanisms to reduce workplace mistreatment. This could allow for tests of the emergence of persistent (i.e., more trait-like) gratitude from state gratitude, as theorized by Fehr, Fulmer, Awtrey, and Miller (2017).

Second, in this research we were interested in the relationships between a gratitude intervention, four theoretically derived mediators, and interpersonal mistreatment—a negative outcome. In this context, only self-control resources mediated the effect of the gratitude intervention. This is an important finding, but it is important to consider that these relationships might be different for positive outcomes. For example, the intervention was successful in increasing relationship closeness in both studies. These significant relationships provide preliminary support for find-remind-and-bind theory, showing that a gratitude intervention did function as the theory proposed. Whereas this did not translate into decreases in incivility, gossip, or ostracism, positive outcomes such as helping behaviors, work engagement, or employee resilience may be more strongly affected by gratitude interventions through the mechanism of relationship closeness. Future research should examine the indirect effects of gratitude interventions on alternative outcomes.

**Practical Implications**

For managers seeking to improve the work environment and decrease interpersonal mistreatment among employees, a gratitude intervention may provide one practical solution to do so. Existing interventions to reduce workplace mistreatment tend to be costly and time-consuming programs that require top management commitment and are therefore beyond the reach of many managers and organizations. In contrast, gratitude journals and books of gratitude exercises are becoming increasingly popular products to improve employee attitudes and well-being (see Emmons & McCullough, 2004). In light of the current results, managers might also use these journals in their work teams and organizations as a useful tool to foster more respectful behavior and interactions among employees. Our results suggest the implications of using gratitude journals
span beyond well-being outcomes, as they can also reduce employee incivility, gossip, and ostracism.

Our results also suggest efforts to enhance employees’ feelings of gratitude will be especially effective in reducing incivility, gossip, and ostracism when employees perceive that other members of the organization frequently express gratitude to one another. Thus, managers should not only communicate expectations of respectful behavior to establish norms for civility (Walsh et al., 2012), but they should also convey the importance of expressing thanks and appreciation to establish gratitude norms. Managers play an important role in the development of the norms in their workgroups (e.g., Kozlowski & Doherty, 1989; Lewin, Lippitt, & White, 1939). Thus, managerial efforts to develop and strengthen gratitude norms, whether through formal programs or informal interactions, would go a long way toward reducing workplace mistreatment.

Study Limitations

As with all studies, ours has some limitations. One potential limitation concerns our use of a “psychologically active” journaling exercise for the control condition. Although this design has been used in previous research on gratitude journaling interventions (Emmons & McCullough, 2003), an active comparison condition (i.e., journaling about something else) can increase positive affect and well-being (e.g., Davis et al., 2016). This might minimize differences between the gratitude and control groups. Alternatively, a waitlist-control design might provide a more appropriate comparison group. In a waitlist-control group, participants wait to receive the treatment (i.e., the gratitude journaling intervention) until after the treatment group receives it. Once the treatment group has concluded the intervention, both groups are assessed for comparison purposes, and then the control group receives the intervention. This type of design has the benefit of allowing waitlisted participants to receive the intervention (i.e., at a later date). Future gratitude journaling intervention studies may benefit from employing a waitlist or measurement-only control group.

Another potential limitation concerns the size of the observed effects. To put these effects in context, we note that Preacher and Kelley (2011) defined indirect effects of .01, .09, and .25 as small, medium, and large, respectively. Whereas Preacher and Kelley (2011) drew on Cohen’s (1988) guidelines to set these definitions, more recent research has demonstrated that Cohen’s benchmarks “present unrealistically high values for the applied psychology context” (Bosco, Aguinis, Singh, Field, & Pierce, 2015, p. 441). The small effects observed in the present study should also be considered in light of the difficulty in explaining variance in deviant work behaviors (Zhang & Shaw, 2012). Indeed, Aguinis, Gottfredson, and Culppepper (2013) observed that “if an effect seems small in terms of the proportion of variance explained, it does not automatically mean that it is unimportant in terms of theory or practice” (p. 30). The prevalence and costs of workplace mistreatment highlight the importance of finding mechanisms to prevent or reduce it, thereby underscoring the theoretical and practical implications of our findings.

A final limitation concerns the timing of our measurement. Although the theories we draw on and past empirical research provide little guidance about the specific timing of the hypothesized processes (see also George & Jones, 2000; Mitchell & James, 2001; Ployhart & Vandenberg, 2010), it is possible that the theoretical mechanisms we examined could evolve over different time frames. For instance, it could be that self-control resources are affected soon after the gratitude journaling intervention, whereas another mechanism (e.g., social exchange quality) changes more gradually. Whereas research suggests each of the mediators can vary daily and can therefore be influenced in a relatively short period of time (Podsakoff, Spoolma, Chawla, & Gabriel, 2019), additional follow-up measurements (e.g., at 1 month, 6 months) would likewise provide insights into the lasting effects of a gratitude intervention. Scholars may therefore wish to examine the hypothesized processes over different time periods.

Conclusion

As organizational scholars continue to produce research demonstrating that interpersonal mistreatment is associated with a host of negative outcomes for individuals and organizations, little attention has been devoted to finding mechanisms to prevent these harmful workplace behaviors. By demonstrating the efficacy of a gratitude journal as a simple, practical intervention to reduce workplace mistreatment, identifying the mechanism by which it functions, and illustrating a boundary condition governing its effectiveness, the current research offers clear contributions to theory and practice. We encourage continued investigations along these lines to better understand how to reduce interpersonal mistreatment in organizations.

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