**Snarky Peers Can Undermine Polite Bosses: Spillover Effects Elicited by Co-Workers’ Interpersonal Disrespect**

**Abstract**

 We examine how workplace peers’ interpersonally disrespectful behavior may spill over to affect people’s organizationally-directed attitudes and behaviors, over and above the direct effects on these dependent variables of the respectful treatment from organizational authorities. In three experiments, we find that disrespectful treatment from peers has a negative effect on recipients’ organizational citizenship behaviors and organizational commitment. Furthermore, we determine that this occurs because peers’ disrespectful behavior conveys information about standing in the eyes of peers, which influences organizationally-directed attitudes and behaviors independently of standing in the eyes of authorities. We discuss the theoretical and practical implications of the intriguing prospect that disrespectful treatment from peers can undermine the benefits authorities gain from treating the same employees with high interpersonal respect themselves.

**Keywords:**

Interpersonally disrespectful behavior; co-worker effects; spillover; undermining.

**Word Count:** 9,425

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A particularly stressful event is being denied a promotion at work that you believe you deserved. Faced with this scenario, you may well appeal the decision to the organization’s authorities. Imagine if your appeal were successful; you are promoted and the authorities apologize for the distress the situation had caused you. You would feel great! Your sense of justice and your commitment to the organization would be restored. That is, until a peer of yours makes a snarky comment about how you didn’t deserve the promotion. How would you feel now? We suspect that not only would you think badly about your peer, but also that your positive feelings about the organization would be deflated. The implications of this scenario are non-trivial: It suggests that the positive effects of respectful treatment by authorities on the attitudes and behaviors that subordinates direct *to the organization* may be vulnerable to the opposing actions of other organizational members whose behavior is out of the authorities’ direct control.

A substantial body of research has noted the effects of peers’ interpersonal behaviors (either supportive or antagonistic) on individuals’ attitudes and behaviors (see Chiaburu & Harrison, 2008 for a meta-analytic review). For instance, antagonistic actions such as peer incivility (Andersson & Pearson, 1999) and social exclusion (Duffy, Ganster, & Pagon, 2002) lead to a host of negative affective and behavioral reactions towards the sources of those behaviors. Furthermore, the organizational justice literature has shown that interpersonal fairness treatment, which refers to the extent to which recipients of decisions are treated with dignity and respect, can influence their work attitudes and behaviors (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Unlike most forms of justice (i.e., distributive, procedural, and informational), which are more at the discretion of authorities, even those who have little to do with the outcome and accompanying procedures can deliver interpersonal fairness (Scott, Colquitt, & Paddock, 2009). When decisions are made about an employee, peers may treat the affected party in ways that are more versus less polite, dignifying, and respectful (Donovan, Drasgow, & Munson, 1998).

In addition to affecting reactions directed towards the peer who is the source of antagonistic behavior, some research has found that peer disrespect can “spillover” to negatively impact recipients’ attitudes and behaviors directed towards the organization, such as organizational commitment and organizational citizenship (Chiaburu & Harrison, 2008). Although some studies consider the effects of peer interpersonal treatment of one kind (e.g., incivility) along with different types of social behavior from leaders (e.g., transformational leadership; (Chiaburu & Harrison, 2008), few if any studies have examined the joint effects of peer and leader behaviors that are conceptually similar to one another, such as the degree of respectfulness exhibited by both parties. In this paper, therefore, we examine the effects of the respectfulness shown by leaders and peers in evaluating whether peers’ interpersonal behavior spills over to affect recipients’ *organizationally*-directed attitudes and behaviors, over and above the impact of the authorities’ interpersonal behavior. A particularly intriguing aspect of this “spillover phenomenon” is that the positive effects elicited by respectful treatment from authorities could be *undermined* by disrespectful treatment from peers.

Our research, thus, is designed to extend past work in several ways. First, we consider how the interpersonal behavior that people receive from both authorities and peers *on the same dimension* jointly affects the attitudes and behaviors they direct towards the organization. Second, we go beyond documenting the spillover phenomenon to delineating the process through which it comes about. Third, we determine the causal nature of the spillover phenomenon by using experimental designs that have more internal validity than the correlational studies included in Chiaburu and Harrison’s (2008) meta-analytic review. As a result, our research produces greater understanding of how the spillover phenomenon works and, in particular, how the intriguing undermining effect may occur.

To these ends, we draw on theoretical models of fairness and social standing. Several justice frameworks suggest that people use information about the respectfulness with which they were treated to make inferences about their standing in collectives (Tyler, 1989; Tyler & Blader, 2003; Tyler & Lind, 1992; Van den Bos & Lind, 2002): The more that individuals perceive that they have been treated with dignity and respect, the more likely they are to feel certain and secure about their standing as organization members. Although much of the research on the relationship between fairness treatment and sense of standing has focused on procedural fairness, we propose that interpersonal fairness treatment also conveys information to people about their standing in the collective. For instance, disrespectful interpersonal treatment indicates to people that they are not held in high regard, which, in turn, may have adverse effects on their organizationally-directed attitudes and behaviors (Blader & Tyler, 2009), such as organizational commitment and organizational citizenship behavior (OCB; (Colquitt et al., 2001).

Interpersonal treatment by authorities influences employees’ beliefs about their standing as organizational members by virtue of the authorities being perceived as representatives of the organization (Tyler & Blader, 2002). However, standing in organizations is not simply a function of the formal roles and power positions designated by authorities, but also of people’s positions in the informal, status hierarchies that are determined by the respect and esteem that is granted by peers (Magee & Galinsky, 2008). Therefore, we posit that peers also may be considered to be representatives of the organization, in which case individuals’ standing in the eyes of peers also may affect their organizationally-directed attitudes and behaviors.

An important implication of our predictions is the possibility of an undermining effect, in which disrespectful treatment from peers can dampen the positive effect of respectful treatment from authorities on organizationally-directed attitudes and behaviors. Ordinarily, we would expect that when people are on the receiving end of respectful treatment from authorities, the attitudes and behaviors they direct towards the organization are considerably more positive than when they have not been treated respectfully by authorities. However, when respectful treatment from authorities is accompanied by disrespectful treatment from peers, people’s organizationally-directed attitudes and behaviors may be much less positive, and, in fact, may not be very different from what would be observed if they had not received respectful treatment from authorities. It is in the latter sense that disrespectful treatment from peers can undermine respectful treatment from authorities; in other words, snarky peers can undermine polite bosses. In sum, we predict that the respectfulness of peers’ behavior influences employees’ sense of standing in the eyes of their peers, which can then spill over to affect employees’ organizationally-directed attitudes and behaviors. We represent our theoretical model in Figure 1.

*Hypotheses 1a and 1b:* Disrespectful treatment from peers decreases targets’ (a) organizational citizenship behaviors and (b) organizational commitment compared to respectful treatment from peers, over and above the effect of the respectfulness shown by authorities.

*Hypothesis 2:* The effects of peers’ (and authorities’) respectful treatment on participants’ organizationally-directed attitudes and behaviors are mediated by participants’ sense of standing in the eyes of their peers (and the authorities).

Insert Figure 1 about here

**Overview of Studies**

We conducted three experiments in which participants were on the receiving end of an unfavorable decision from authorities. We used experimental designs in all three studies to enhance the internal validity over previous correlational research examining the relationships between peer behavior and people’s organizationally-directed attitudes and behaviors (Chiaburu & Harrison, 2008; Donovan et al., 1998). We chose to examine decisions yielding unfavorable outcomes because prior theory and research have shown that employees’ work attitudes and behaviors are much more likely to be influenced by the respectfulness with which they were treated when they have received relatively unfavorable outcomes (e.g., Brockner & Wiesenfeld, 1996). We drew participants from national samples of adults (via Amazon Mturk) because we expected them to have more relevant work experience than would an undergraduate student sample recruited from a campus subject pool.

In all three studies we orthogonally manipulated the respectfulness exhibited by: (1) the authorities responsible for the decision, and (2) peers who witnessed the decision but had no part in making it. The main dependent variables consisted of attitudinal (organizational commitment) and behavioral (OCB) reactions directed towards the organization or the authority representing it.

The studies also have some noteworthy conceptual and methodological differences from one another. In Study 1, we tested the spillover hypothesis (1a) with a behavioral dependent variable in reaction to variations in the respectfulness with which they were treated. In Study 2, we examined the generalizability of the results of Study 1 to an attitudinal organizationally-directed response (hypothesis 1b), as well as a potential boundary condition of the results of Study 1. In Study 3, we examined various mechanisms through which peers’ respectfulness influences the attitudes participants direct towards the organization (hypotheses 1b and 2). To the extent that results converge across the methodological differences between studies, we gain greater confidence in the validity of the findings.

Across the studies, our spillover hypotheses would be supported if the typical effect of authorities’ respectfulness on organizationally-directed behaviors and attitudes were accompanied by a significant effect of peers’ respectfulness on those same dependent variables. The undermining effect emanating from spillover, in which disrespectfulness from peers can counteract respectfulness from authorities, could manifest itself statistically in the form of main effects of each of authorities’ and peers’ respectfulness, or as an interaction effect between the two. In either case, the reduction elicited by peers’ disrespectful treatment could lead to organizationally-directed attitudes and behaviors that are not appreciably different from what would be observed if the authorities had not been respectful themselves. *A priori*, we have no theoretical reason to believe that the undermining effect will take the form of two main effects or an interaction effect. Hence, we treated this matter as an exploratory question.

We disclose all measures, manipulations, exclusions and sample size determination criteria for the studies.

**STUDY 1**

All participants experienced an unfavorable decision at the hands of an authority in our 2 (the respectfulness shown by the authority: apology versus no apology) x 3 (the respectfulness shown by a peer: respectful treatment versus a control condition versus disrespectful treatment) design. The dependent variable was a laboratory analogue of organizational citizenship behavior: How much participants were willing to do an extra, uncompensated task to help the experimenter who was the authority figure in this context.

**Methods and Measures**

 As this was the first test of our hypotheses, we aimed for 50 observations per cell to have sufficient statistical power (VanVoorhis & Morgan, 2007). We recruited 302 participants from Amazon Mechanical Turk (Mturk) in exchange for $1.00. Sixty-two percent were female, the average age was 33.40 (*s.d.* = 10.71), and 77% were Caucasian.

 Based on the paradigm from Lammers, et al. (2008), participants were told they would be paired with another participant who was accessing the study at the same time for a joint task that included a desirable and an undesirable role (see also Hays & Goldstein, 2015). In reality, the “partners” were computer-generated scripts. The (desirable) *Idea Producer* role was described as, “generating and working with important ideas for the client on behalf of Growth, Inc. The Idea Producer will give instructions to the person in the other role. Prior participants report finding the Idea Producer role to be very interesting because it draws on a variety of skills and abilities in a very engaging way. Therefore, we expect that you would also likely find it to be very interesting.”

 The (undesirable) *Worker* role was described as handling “small clerical tasks such as checking documents for typos. The Worker will not be able to communicate with the Idea Producer, but will follow the Idea Producer's instructions. Prior participants report finding the Worker role quite boring as it doesn’t require you to use many of your skills and abilities. Therefore, we expect that you would also likely not find it to be very interesting.”

 Participants were told that assignment to the desirable versus undesirable roles would be based on who did better on a difficult business aptitude test that all participants completed. Participants always were led to believe that they scored four out of eight questions correctly and their partner scored one out of eight questions correctly. Given this feedback, participants should have believed that they would be assigned to the more desirable role of “Idea Producer.”

However, all participants were told, “[o]ur research requires that we have an even number of males and females in the Idea Producer role. To date, fewer [opposite of participant’s reported gender] have participated and consequently we have not had enough [opposite of participant’s reported gender] participants in the Idea Producer role. Although it may seem unfair, we must assign roles based on gender rather than your performance on the business aptitude assessment.” The partner who seemed to have performed worse on the business aptitude test was then given the much more desirable “Idea Producer” role and the actual participant was given the much less desirable “Worker” role. This was an unfavorable and unfair decision for all participants.

 We manipulated the respectfulness shown by the authorities with an additional message. Participants in the *apology condition* were told, “We are really sorry to have to change the rules at this point. We would much rather not to have done things this way. Frankly, it was a mistake on our part that is causing us to take this action. We hope that this doesn’t present you with too much of an inconvenience, and we sincerely apologize if it has. Thanks for your understanding.” Those in the *no apology condition* did not receive this additional message.

We manipulated the respectfulness from peers with a message from the partner in which they said in the *control* condition, “Hi [participant’s initials].” In the *respect* condition the partner said, “Hi **[participant’s initials]. That sucks, you totally deserve to be the Idea Producer!**” In the *disrespect* condition, the partner said, “Hi **[participant’s initials]. I'm glad it was you that got screwed, not me.**”

 Participants were then asked if they would help the experimenters by completing some materials for another study, which consisted of solving anagram puzzles, for no additional compensation. They were explicitly told that the more anagrams they could solve, the more helpful it would be. They could stop and return to the main study at any time. The number of anagrams completed (*M* = 8.17, *s.d.* = 9.50; 89% of participants completed at least one) served as our dependent variable.

 Manipulation checks consisted of two-item scales, “I was treated with respect by [the experimenter/my teammate],” and “I was treated with dignity by [the experimenter/my teammate].” The items correlated at .93 or greater (*p*s < .001) for each target, and so we combined them into two scales. Finally, we controlled for participant’s gender because there is evidence that women and men are concerned about different forms of social standing (e.g., Hays, 2013), and so may differentially attend to respectfulness from different sources. We describe its effects in any analyses in which it has a significant coefficient or if the coefficients of the independent variables change with its exclusion.

**Results**

*Manipulation checks*. A 2 x 3 analysis of covariance (ANCOVA) with gender as a covariate revealed that the respectfulness from authorities significantly affected perceptions of being treated with respect and dignity by the experimenter (*F* = 4.67, *p* = .03; *η2* = .02). Participants in the apology condition reported being treated more respectfully (*M* = 3.72, *s.d.* = 1.73) than did those in the no apology condition (*M* = 3.31, *s.d.* = 1.57).

The effect of the peer’s behavior on perceptions of being treated with respect and dignity also was significant (*F* = 143.88, *p* < .001; *η2* = .49). Planned contrasts reveal that participants in the peer respect condition reported being treated more respectfully by their teammate (*M* = 5.41, *s.d.* = 1.07) than did those in the control condition (*M* = 4.54, *s.d.* = 1.17), *z* = 4.82, *p* < .001. Participants in the peer disrespect condition (*M* = 2.47, *s.d.* = 1.52) reported less respectful treatment from their teammate than did those in the control condition, *z* = 11.62, *p* < .001.

It is worth noting that the magnitude of the effect on the peer manipulation check measure is much larger than that found on the authority manipulation check measure. One explanation of this is that we manipulated the peer’s respectfulness more strongly, with three levels – respectful, disrespectful, and a control condition – whereas the manipulation of the authority’s respectfulness had just two levels – respect and a control condition. We did this for two reasons: (1) The present research was primarily focused on the novel spillover effect on organizationally-directed attitudes and behaviors of peers’ respectfulness rather than on the more well-established influence on these same measures of the authorities’ respectfulness, and (2) we sought to evaluate a potential undermining effect. Given these two purposes of the present research, it was less necessary to include a condition in which the authority exhibited disrespect.

*Anagrams solved.* Because the number of anagrams solved is a count variable that is non-normally distributed, we conducted a full-factorial Poisson regression with coefficients transformed to incidence-rate ratios (*exp(b)* rather than *b*) to indicate effect sizes (Lyles, Lin, & Williamson, 2007). We then conducted planned contrasts to produce χ2 test results of the joint effects of each variable that can be interpreted similar to the results of an analysis of variance and contrasts between conditions (see Table 1 for full results).

The results reveal significant main effects of respectfulness shown by authorities (χ2(1) = 43.92, *p* < .001) and by peers (χ2(2) = 32.78, *p* < .001). Participants solved more anagrams when the authorities offered an apology (*M* = 9.24, *s.e.* = .25) than when they did not (*M* = 7.04, *s.e.* = .22). Participants in the peer disrespect condition (*M* = 6.81, *s.e.* =.27) completed fewer anagrams than did those in the control condition (*M* = 8.76, *s.e.* = .30), *z* = 4.83, *p* < .001. Those in the peer respect condition (*M* = 8.87, *s.e.* = .30), did not differ from those in the control condition, *z* = .25, *p* = .80. [[1]](#footnote-1)

The results of Study 1 offered suggestive evidence of an undermining effect. As can be seen in Figure 2, when the authority apologized but the peer was disrespectful, participants solved no more anagrams than they did in the conditions in which the authority did not offer an apology and the peer was not disrespectful (v. no apology/peer control: *z* = .42, *p =* .63, and v. no apology/peer respect: *z* = .22, *p =* .83). Moreover, the undermining effect manifested itself in the form of two main effects (for each of peer respectfulness and the authority’s respectfulness) rather than as an interaction effect between the two.

Insert Table 1 and Figure 2 about Here

**Discussion**

 We found that relative to the control condition, disrespectful treatment from peers reduced participants’ willingness to engage in citizenship behavior. This effect was over and above the significant effect of the respectfulness shown by the authorities, supporting hypothesis 1a. Moreover, Study 1 provides initial evidence that peers’ disrespectful treatment can undermine the benefit in citizenship behavior that the authority (the experimenter) reaped by treating participants respectfully. Whereas the peers’ interpersonal behavior yielded results consistent with our predictions, the observed effects were due more to the detrimental impact of peers’ disrespectful treatment than to any beneficial effect of peers’ respectful treatment (compared to the control condition).

**STUDY 2**

 In the second study we aimed to conceptually replicate the role of peers’ disrespectful treatment found in Study 1 in a different context and with a different organizationally-directed dependent variable (anticipated organizational commitment). We also sought to evaluate a possible boundary condition of the peer interpersonal fairness effect found in Study 1 by providing people with information about whether the initially unfavorable decision was upheld or overturned.

As in Study 1, participants were asked to imagine that they were on the receiving end of an unfavorable decision and then were treated with varying degrees of respectfulness by the authorities responsible for the decision and by peers who observed the decision. All participants also were given an opportunity to appeal the decision. Half were told that the initially unfavorable decision was upheld whereas the other half were told that the decision was overturned and thus became much more favorable for them.

Whether the respectfulness factors would be more influential when the initial decision was upheld versus overturned lends itself to competing predictions. On the one hand, prior research has shown that the respectfulness with which people are treated is more impactful when they are on the receiving end of unfavorable or unfair decisions (Brockner & Wiesenfeld, 1996; Greenberg, 1994). An unfavorable decision that is upheld is likely to be experienced as more negative than is an unfavorable decision that is overturned; hence, it could be argued that peers’ (and the authorities’) respectfulness will have more of an effect when the initial decision is upheld.

On the other hand, the peers’ and the authority’s respectfulness could have more of an influence on participants’ organizational commitment when the initially unfavorable decision was overturned. The uncertainty management model posits that respectfulness is more impactful when people are uncertain about their standing as organization members (Van den Bos & Lind, 2002). Although it is more positive, an unfavorable decision that is overturned may engender greater uncertainty than is an unfavorable decision that is upheld due to the inconsistency between the initial and later outcome. Hence, it is possible that peers’ (and the authority’s) respectfulness will have more of an effect when the initial decision is overturned. Given these competing predictions, in Study 2 we examined on an exploratory basis if the effects of peers’ (and the authority’s) respectfulness are stronger on participants’ organizational commitment when the initially unfavorable decision was upheld or overturned.

**Methods**

Study 2 consisted of a 2 (respectfulness from authorities: apology v. no apology) x 3 (respectfulness from peers: respect v. control v. disrespect) x 2 (outcome: upheld or overturned) between-subjects factorial design. Due to the large number of conditions, we targeted at least 35 observations per cell for sufficient statistical power (VanVoorhis & Morgan, 2007). Accordingly, the sample consisted of 454 participants from Mturk (each paid $2.00). Fifty-five percent were female, and they were 35 years old on average (*s.d.* = 10.85).

Participants read a scenario in which they were asked to imagine that they were a female Associate at a law firm who extended the firm’s probationary period prior to an up-or-out promotion to Partner decision by one year in accordance with the firm’s maternity policy. The Associate was denied promotion to Partner based on a sub-committee that failed to adjust its cohort comparison to account for her leave. She appealed the decision to a committee comprised of Managing Partners.

At this point we varied the outcome information participants’ received pertaining to their appeal. Half of the participants learned that the Managing Partners had *overturned* the decision (overturned condition) whereas the other half learned that the Managing Partners *upheld* the decision (upheld condition).

In the manipulation of respectfulness from authorities, participants in the control condition received *no apology* accompanying the committee’s decision (whether overturned or upheld), “When announcing their decision, the Managing Partners did not say anything about the mis-characterization of your performance.” If they were in the *apology* condition and the decision was *overturned*, participants read, “[w]hen announcing their decision, the Managing Partners apologized for the mis-characterization of your performance and stated that when considered over the appropriate period of time, you are clearly in the top-third of your cohort on all dimensions.” If participants were in the apology condition and the decision was *upheld*, participants read “[w]hen announcing their decision, the Managing Partners apologized for not being able to make a decision that would have been more to your liking. They acknowledged that you have been a committed employee and thanked you for the time you've spent at the firm.”

To set the stage for the respectfulness manipulation from peers, participants were next asked to imagine that they happened to encounter the next day a peer who was also being considered for promotion to Partner. The peer said one of the following things about the Managing Partner’s appeal decision. In the *control* condition, the peer said, “I heard the news that they upheld [overturned] the promotion decision.” In the *respect* conditions: (1) when the decision was overturned, the peer said, "I heard the news that they overturned the decision and you've been promoted. I’m glad because I think you deserved this outcome," and (2) when the decision was upheld, the peer said, “I heard the news that they upheld the decision not to promote you. I’m really disappointed, because I don’t think you deserved this outcome.” In the *disrespect* conditions: (1) when the decision was overturned, the peer said, "I heard the news that they overturned the decision and you are getting promoted. I’m disappointed because I don’t think you deserved this outcome," and (2) when the decision was upheld the peer said, “I heard the news that they upheld the decision not to promote you. I’m glad because I think you deserved this outcome.”

The dependent variable consisted of anticipated organizational commitment based on the six-item version of the Mowday, Steers, and Porter (1979) scale (e.g., “I would be proud to tell others that I am part of this organization;” α = .98, *M* = 3.30, *s.d.* = 1.91). Once again, in all analyses, we included participants’ gender as a covariate. We checked the effectiveness of our manipulations with two-item scales referencing either the statements made by the authorities or the peer, comprised of “[t]he announcement [comment] made by the Managing Partner’s Committee [my colleague] was supportive of me” and “[t]he announcement [comment] made by the Managing Partner’s Committee [my colleague] was respectful towards me.” The two items had correlations of at least .90 (*p* < .001) for both targets. We also asked if the Managing Partner’s Committee upheld or overturned the original decision as a comprehension check of the outcome manipulation.

**Results**

 *Manipulation checks.* The participants reported that the Managing Partner’s Committee upheld the original promotion decision in the upheld condition 98% of the time and that the Committee overturned the original promotion decision in the overturned condition 99.6% of the time (*χ*2(1) = 426.64, *p* < .001).

 A 2 x 3 x 2 ANCOVA with gender as a covariate revealed that participants reported more respect and support from the authorities when they received an apology (*M* = 4.34, *s.e.* = .08) than when they did not receive an apology (*M* = 3.32, *s.e.* = .08), *F* = 76.82, *p* < .001; *η2p*= .15, and when the decision was overturned (*M* = 5.69, *s.e.* = .08) than when it was upheld (*M* = 1.94, *s.e.* = .08), *F* = 1052.66, *p*<.001; *η2p*=.70. No other effects were significant.

Responses to the measure referencing the colleague’s comment were significantly affected by the peer respectfulness manipulation (*F* = 621.18, *p* < .001, *η2p*=.74) and by outcome condition (*F* = 59.65, *p*<.001; *η2p*=.12). Participants in the peer respect condition (*M* = 6.35, *s.e.* = .10) were more positive than were participants the control condition (*M* = 3.66, *s.e.* = .10), *z* = 19.08, *p* < .001. Those in the disrespect condition (*M* = 1.44, *s.e.* = .10) were more negative than were those in the control condition, *z* = 16.23, *p* < .001. In addition, participants were more positive when the decision was overturned (*M* = 4.15, *s.e.* = .08) than when it was upheld (*M* = 3.28, *s.e.* = .08). Additionally, a significant interaction between the peer respectfulness and the outcome conditions (*F* = 14.30, *p*<.001; *η2p*=.06) revealed that although perceptions of peer respect were higher in the peer respect (*M* = 6.67, *s.e.* = .15) and control (*M* = 4.49, *s.e.* = .14) conditions when the decision was overturned than when it was upheld (*M* = 6.02, *s.e.* = .14; *z* = 3.22, *p* < .001 and *M* = 2.80, *s.e.* = .14; *z* = 8.66, *p* < .001, respectively), the levels were the same in the two peer disrespect conditions (overturned: *M* = 1.58, *s.e.* = .13, upheld: *M* = 1.30, *s.e.* = .14; *z* = 1.46, *p* = .15). In sum, the respectfulness manipulations were successful, and the outcome manipulation also affected participants’ perceptions of being treated with respect and support by both authorities and peers.

 *Ecological validation.* We conducted some additional analyses to evaluate whether participants who read our scenario reacted in ways consistent with what we would expect of people who actually experienced a situation like the one described. More specifically, we measured participants’ affective reactions with the PANAS measures of positive and negative affect (Watson, Clark, & Tellegen, 1988). ANCOVA of negative emotions with participant gender as a covariate produced significant coefficients for all three manipulations (outcome: *F* = 436.92, *p* < .001; *η2p* = .49; authorities’ respectfulness: *F* = 18.77, *p* < .001; *η2p* = .04; peer’s respectfulness: *F* = 3.62, *p* = .03; *η2p* = .02), such that participants reported more negative affect when they were treated less respectfully (by peers and by authorities), and also when their unfavorable outcome was upheld rather than overturned. Participant gender was also significant *F* = 8.19, *p =* .004; *η2p* = .02, with women (*M* = 4.58, *s.e.* = .10) reporting higher negative emotions than men (*M* = 4.21, *s.e.* = .09). Conceptually analogous results emerged on the measure of positive affect; (condition effects: outcome: *F* = 846.30, *p* < .001; *η2p* = .65; authorities’ respectfulness: *F* = 9.56, *p =* .002; *η2p* = .02; peer’s respectfulness: *F* = 3.95, *p* = .02; *η2p* = .02. gender: *F* = 3.49, *p* = .06, *η2p* = .01). In sum, these findings provide evidence that the experimental manipulations elicited affective responses from this online sample consistent with what we would expect from people who actually experienced the situation described in the scenario.

 *Hypotheses tests.* ANCOVA of organizational commitment with gender as a covariate (Table 2) revealed that the main effects of outcome (*F* = 592.01, *p* < .001; *η2p* =.57), authorities’ interpersonal treatment (*F* = 20.29, *p* < .001; *η2p* =.04), and peer’s interpersonal treatment (*F* = 5.50, *p* <.01; *η2p* =.02) were significant. The outcome effect reflected higher organizational commitment among those whose decision was overturned (*M* = 4.70, *s.e.* = .08) than among those whose decision was upheld (*M* = 1.86, *s.e.* = .08). An apology from authorities generated higher organizational commitment (*M* = 3.55, *s.e.* = .08) than that produced in the absence of the apology (*M* = 3.04, *s.e.* = .08). Peer disrespect (*M* = 3.05, *s.e.* = .10) produced lower organizational commitment than did the peer control condition (*M* = 3.35, *s.e.* = .10), *z* = 2.05, *p* = .04. As in Study 1, responses in the peer respect condition (*M* = 3.52, *s.e.* = .10) did not differ from those in the peer control condition, *z* = 1.22, *p* = .22. There was also a significant effect of gender (*F* = 4.51, *p* = .03; *η2p* =.01), such that female participants (*M* = 3.41, *s.e.* = .08) reported higher organizational commitment than did male participants (*M* = 3.16, *s.e.* = .09).[[2]](#footnote-2)

There was also a significant three-way interaction effect among conditions (*F* = 3.34, *p* = .04; *η2p* =.02). As can be seen in Figure 3, there were stronger effects of the respectfulness from authorities and from peers when the decision was overturned than when it was upheld. In fact, within the upheld condition, none of the main or interaction effects associated with the authorities’ and the peers’ respectfulness was significant. Within the overturned condition, however, there were significant effects of authorities’ respectfulness (*F* = 19.83, *p <* .001; *η2p* =.08) and peers’ respectfulness (*F* = 2.99, *p =* .05; *η2p* =.05). Participants who received an apology (*M* = 5.08, *s.e.* = .13) had higher organizational commitment than did those who did not receive an apology (*M* = 4.30, *s.e.* = .13). Those with a respectful peer (*M* = 4.93, *s.e.* = .17) reported the same organizational commitment as did those in the control condition (*M* = 4.79, *s.e.* = .16), *z* = .59, *p* = .55, whereas those with a disrespectful peer reported less (*M* = 4.41, *s.e.* = .15), *z* = 1.77, *p* = .08.

Figure 3 illustrates further that when the decision was overturned, peer disrespect undermined the effect of respectful treatment from the authorities. Comparing the mean of the cell in which authorities apologized and the peer was disrespectful (bar 12), to the conditions in which the authorities did not apologize (bars 7 – 9) revealed no significant differences (all *p*-values > .42). That is, when an apologetic authority was accompanied by a disrespectful peer, participants’ organizational commitment was brought down to the same level shown by those who had not received an apology from the authority.

Insert Table 2 and Figure 3 about Here

**Discussion**

 The results of Study 2 showed that the main effect of the peer’s respectfulness affected organizational commitment not only over and above the effect of respectfulness shown by the authorities but also over and above the effect of the outcome manipulation. The undermining effect of peers’ disrespectful treatment when authorities were respectful occurred only when the initial decision was overturned. Moreover, as in Study 1 this undermining effect manifested itself as two main effects rather than as an interaction effect between the peer’s and the authority’s respectfulness.

 At first blush, it appears that the results of Study 2 may differ from those found in Study 1 in two ways. First, in the overturned condition in Study 2 when the authority did not apologize there were non-significant differences among the three peer treatment conditions; see Figure 3. In contrast, in Study 1 when the authority did not apologize, participants exhibited lower citizenship behavior when the peer was disrespectful relative to the other two conditions; see Figure 2. One possible reason for these different results is that the outcomes all participants received in Study 1 were unfair/unfavorable. They had performed better than the other person, and yet were assigned to do the undesirable task. In contrast, in the overturned condition in Study 2 the outcomes participants received were *ultimately* favorable; they were granted the promotion. Participants in the overturned condition may have been less concerned with peers’ respectfulness, consistent with a more general tendency for people to be less influenced by respectfulness when their outcomes are favorable rather than unfavorable (Brockner & Wiesenfeld, 1996; Greenberg, 1994).

Second, in the upheld condition in Study 2, in which participants ultimately received an unfavorable outcome, there were no effects for the peer’s and the authority’s interpersonal fairness. These results seem inconsistent with the results of Study 1, in which we found significant effects for both the peer’s and the authority’s interpersonal fairness in a context in which all participants received an unfavorable outcome. One way to account for this difference is that the appeal process in Study 2 may have introduced the specter of the unfavorable decision being overturned, possibly raising participants’ hopes of a more favorable outcome. The hopeful counterfactual possibility was dashed in the upheld condition of Study 2, whereas there was never a positive counterfactual possibility in Study 1. The failure of the counterfactual to materialize may have made the upheld condition of Study 2 more psychologically impactful than the unfavorable/unfair outcome that all participants received in Study 1 without ever having had the possibility of an alternative outcome. In contexts like Study 2, in which outcomes are highly impactful, or what Mischel (1973) would call a “strong situation,” it may have been difficult for other factors such as peers’ interpersonal treatment to exert influence. Consistent with the notion that the unfavorable outcome was quite impactful in the upheld condition in Study 2, it can be seen in Figure 3 that in the upheld condition participants’ level of organizational commitment was quite low across the board (i.e., regardless of not only the peers’ interpersonal fairness but also the boss’s interpersonal fairness).

**STUDY 3**

Study 3 was designed to replicate Study 2 and also to extend it by evaluating if the mechanism through which peers’ disrespectful behavior spills over to influence organizational commitment is their sense of standing in the eyes of their peers and the authorities (Hypothesis 2). Thus, in Study 3, we seek to delineate more precisely how peers’ respectfulness creates spillover and thereby lead to an undermining effect on participants’ organizational commitment.

At least two pathways to spillover are possible. As can be seen in Option A in the top half of Figure 4, spillover may occur at the point that people determine their sense of standing in the eyes of peers and authorities. That is, perhaps employees do not entirely differentiate their standing in the eyes of authorities from that in the eyes of peers. Rather, they may consider the respectfulness shown by one organizational representative as information about their sense of standing with the other organizational representative, which ultimately influences their level of organizational commitment.

A second possibility, shown in Option B in the bottom half of Figure 4, is that spillover does not occur at the point of judgments about standing. Rather, peers’ and authorities’ respectfulness may have separate effects on people’s sense of standing among peers and authorities, respectively. Spillover may therefore occur because standing in the eyes of their peers influences employees’ organizationally-directed work attitudes (organizational commitment) independently of standing in the eyes of authorities.

Insert Figure 4 about Here

Distinguishing between the two pathways set forth in Figure 4 is theoretically and practically important. At a theoretical level, it would deepen our understanding of the process through which peers’ respectfulness spills over to influence the attitudes and behaviors that people direct towards their employers. At a practical level, if the spillover were found to occur when people make judgments about their standing (Option A in Figure 4), then knowing that peer disrespect has taken place should motivate authorities to show that they hold the victimized parties in high regard. Doing so may not only lead to a positive sense of standing in the eyes of authorities but also may counteract any negative inferences that victims may be making about their sense of standing in the eyes of their peers. Alternatively, if spillover occurred subsequent to judgments about standing (Option B in Figure 4), then the challenge for authorities is not only to treat subordinates respectfully themselves, but also to create conditions in which subordinates *treat one another* respectfully. Whereas authorities may not be able to exert direct control over the respect with which their subordinates treat one another, authorities may be able to do so indirectly by affecting the climate for respectful treatment (Roberson & Colquitt, 2005).

**Methods**

We used the same scenario and design as in Study 2, with one important exception: Given that the authorities and peers’ respectfulness were more consequential when the initial decision to not promote participants was overturned, all participants in Study 3 were told that the initial decision to not promote them was overturned. Thus, Study 3 consisted of a 2 (authorities’ respectfulness: apology v. no apology) x 3 (peer respectfulness: disrespect v. control v. respect) factorial design. We aimed for approximately 50 participants per cell recruited from Mturk (in exchange for $1 each), and 307 participants completed the study. Fifty-four percent of the participants were female, and their average age was 34.43 years (*s.d.* = 10.27).

We measured the same manipulation checks as in the previous studies (authorities: α = .91, *M* = 5.73, *s.d.* = 1.46. peers: α = .99, *M* = 4.34, *s.d.* = 2.41). The dependent variable was the same measure of organizational commitment used in Study 2 (α = .97, *M* = 3.30, *s.d.* = 1.91).

The measures of standing in the eyes of both peers and the authorities were based on Tyler and Blader’s (2002) eight-item scale, which targeted authorities (α =.94, *M* = 4.33, *s.d.* = 1.13) and the peer (α = .98, *M* = 3.44, *s.d*. = 1.93) separately (e.g., “I believe I have a good reputation in the eyes of the Managing Partners [my colleague].” In all analyses, we controlled for participants’ gender. We report descriptive and inter-item correlation statistics in Table 3.

Insert Table 3 About Here

**Results**

*Manipulation checks.* An ANCOVA with gender as a covariate of the perceived interpersonal treatment from the authorities indicated that the manipulation of respectfulness from authorities was effective (*F* = 39.05, *p* < .001, *η2p* = .12), with those in the apology condition (*M* = 6.21, *s.e.* = .11) reporting better treatment than did those in the no apology condition (*M* = 5.24, *s.e.* = .11). The peer respectfulness manipulation also exerted a smaller but still significant effect (*F* = 3.56, *p* =.03, *η2p* = .02), such that participants reported feeling like they were treated less respectfully by the authority in the peer disrespect condition (*M* = 5.45, *s.e.* = .14) than in the peer respect condition (*M* = 5.96, *s.e.* = .14; neither condition differed significantly from the control condition).

The peer respectfulness manipulation significantly affected how well participants felt treated by the peer (*F* = 431.80, *p* < .001, *η2p*= .74) in the expected directions: disrespect (*M* = 1.58, *s.e.* = .12) lower than control (*M* = 4.82, *s.e. =* .12), *z* = 18.72, *p* < .001, and respect (*M* = 6.60, *s.e.* = .12) higher than control, *z* = 10.31, *p* < .001. No other effects were significant.

*Hypotheses tests*. Because we are testing a multiple-mediator model, we conducted a structural equation model of the predicted indirect paths laid out in Figure 4, controlling for gender. We allowed the errors of the two measures of standing to be correlated. The model fit indices are excellent (*χ*2 = 6.55, *p* = .09; RMSEA = .06 (.00 – .13); CFI = .99).[[3]](#footnote-3)

Insert Figure 5 about here

We report the results with standardized coefficients in Figure 5. As can be seen, the results were consistent with Option B in Figure 4, in which spillover occurred downstream from the point at which standing was assessed. The authorities’ respectfulness treatment affected standing in the eyes of the authorities (*β* = .26, *p* < .001, [.15 - .36])but not standing in the eyes of peers (*β* = .03, *p* = .40, [-.04 - .09]). The peers’ respectfulness treatment affected standing in the eyes of peers (*βrespect v. control* = .26, *p* < .001, [.19 - .33]; *βdisrespect v. control* = -.67, *p* < .001, [-.73 - -.62])but not standing in the eyes of authorities (*βrespect v. control* = .06, *p* = .38, [-.07 - .18]; *βdisrespect v. control* = -.06, *p* = .37, [-.18 - .07]). Standing in the eyes of both authorities (*β* = .60, *p* < .001, [.52 - .67]) and peers (*β* = .11, *p* = .02, [.02 - .20]) had significant, positive effects on organizational commitment.

The indirect paths reflected the predicted relationships. Based on bias-corrected bootstrap 95-percent confidence intervals that did not span zero (with 5,000 replications. Preacher & Hayes, 2008), we found a significant positive indirect path from respectfulness shown by authorities (apology v. no apology) through standing in the eyes of authorities to organizational commitment (*β* = .45 [.24 - .67]), but not through standing in the eyes of peers (*β* = .07 [-.09 - .24]). We also found a significant negative indirect path from peer disrespect (v. control) through standing in the eyes of peers to organizational commitment (*β* = -.22 [-.44 - -.02]). In contrast, the indirect path through standing in the eyes of authorities was not significant (*β* = -.11 [-.35- .12]). The indirect path from peer respect (v. control) through standing in the eyes of peers to organizational commitment was significant and positive (*β* = .09 [.01 - .19]), but not the path through standing in the eyes of authorities (*β* = .10 [-.12 - .34]). Thus, unlike in Studies 1 and 2, there was a positive effect of the peers’ behaving respectfully on participants’ organizationally-directed reactions (in addition to a negative effect of the peers’ behaving disrespectfully, found in all three studies), relative to what was observed in the control condition.

**GENERAL DISCUSSION**

The results of three experiments together provide evidence that peers’ disrespectful behavior spills over to affect organizationally-directed reactions of recipients. Most notably, disrespectful treatment from peers elicited negative reactions above and beyond the effects of respectfulness shown by authorities. The present research not only provides evidence of a peer disrespect spillover effect but also offers a glimpse as to how it occurred. In Study 3 we showed that peers’ respectfulness did not spillover to affect standing in the eyes of the authority and that the authority’s respectfulness did not spillover to affect standing in the eyes of peers. Rather, each type of standing accounted for a significant portion of variance in participants’ organizational commitment. This reflects a spillover effect of standing in the eyes of peers and a more direct effect of standing in the eyes of authorities.

Another noteworthy finding is that when peers were disrespectful, it undermined the positive effect of the authorities’ respectfulness. As illustrated in Figures 2 and 3, when authorities behaved respectfully but peers behaved disrespectfully, reactions to the authorities were virtually identical to those when the authorities failed to behave respectfully themselves.

**Theoretical Implications**

The present findings contribute to a more complete understanding of how the respect with which employees are treated influences their work attitudes and behaviors. There has been a pervasive tendency to examine how respectfulness shown by those in positions of authority affects subordinates. Whereas much has been learned from such a top-down approach, it also has lent itself to an error of omission. The respectfulness shown by other actors, such as peers, also influences the attitudes and behaviors that employees direct towards their organizations. Our research builds on the uncertainty management (Van den Bos & Lind, 2002) and relational models of organizational justice (Tyler, 1998; Tyler & Lind, 1992) by showing that the respectfulness shown by peers, by influencing people’s sense of standing in the organization, affects employees’ organizationally-directed attitudes and behaviors (also see Scott et al., 2009).

Of course, the present studies are not the first to show that people’s organizationally-directed attitudes and behaviors are affected by their peers. Given the meta-analytic findings of Chiaburu and Harrison (2008), which showed that supportive peers engender more positive work attitudes and behaviors than do antagonistic peers, it is important to consider the conceptual, empirical, and methodological extensions offered by the present studies. Conceptually, we provide insight into the process through which peers’ disrespectful behavior spills over to influence employees’ organizationally-directed attitudes and behaviors, as illustrated in Option B in Figure 4 and in Figure 5. Empirically, Chiaburu and Harrison (2008) suggested that peers are more likely to exert influence when they behave positively (supportively) than negatively (antagonistically). The present findings challenge that conclusion. Relative to the control condition in the manipulation of the peer’s behavior, all three studies showed that participants reacted significantly more negatively when peers were disrespectful, whereas it was only in Study 3 that participants also directed more positive attitudes towards the organization when they were treated respectfully. Clearly, further research is needed to delineate when and why the influence of peers will be greater when they behave supportively versus antagonistically towards their co-workers. Methodologically, the present studies address Chiaburu and Harrison’s (2008) call for research designs entailing high levels of internal validity. By randomly assigning participants to experience different levels of peers’ respectful treatment in all three studies, we can draw causal inferences more confidently than we could from the correlational studies included in Chiaburu and Harrison’s meta-analysis.

**Limitations/Suggestions for Future Research**

The limitations of the present studies lend themselves to potentially fruitful areas for future research. First, whereas significant effects of peers’ disrespecftul behavior emerged in vignette studies in Studies 2 and 3 in which participants were asked to indicate how they think they would behave, as well as in Study 1 in which participants’ reacted behaviorally to a situation they actually experienced, additional field research is needed to evaluate whether the present findings generalize to organizational settings and to other populations.

Second, because our primary goal was to examine whether *peers*’ disrespectful behavior can spillover to affect organizationally-directed attitudes and behaviors, we did not examine how participants may be affected by a “snarky” boss. Put differently, we manipulated the peer’s interpersonal treatment more strongly (with respect and disrespect conditions) than we manipulated the authority’s interpersonal treatment. This design decision means that we could not ascertain which source of interpersonal treatment explains more variance in organizationally-directed dependent variables, or how peers’ interpersonal treatment affects those same variables when the boss was disrespectful. These are both interesting questions for future research that were beyond the scope of the current research.

Finally, for both theoretical and practical purposes we need to learn more about when and why peers’ disrespectful behavior influences employees’ organizationally-directed attitudes and behaviors. For instance, future research should more directly investigate the moderating role of uncertainty that was suggested by the results of Study 2. In addition, research could examine if certain peers are more influential than others. The degree of respect shown by peers with greater credibility (e.g., those known to have wisdom or experience, or those known to be trustworthy) may provide recipients with more compelling information about their standing as organization members, thereby more strongly influencing recipients’ organizationally-relevant attitudes or behaviors.

**Practical Implications**

The results of all three studies suggest that employees’ organizational attitudes and behaviors are vulnerable to disrespectful treatment from their peers, which poses a significant challenge to those in authority positions. Whereas authorities sometimes find it hard to behave respectfully themselves (Brockner, 2006; Molinsky & Margolis, 2005), their task is made even more vexing by the fact that subordinates’ organizational attitudes and behaviors also are susceptible to influence by the respectfulness of peers, over which it may be even harder for authorities to maintain control. Therefore, the present findings provide yet another reason for those in authority positions to create organizational conditions that emphasize fairness, trust, and morality. When they do, peers may be less likely to treat *one another* disrespectfully.

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Table 1:

*Poisson regression incidents-rate ratios (effect sizes) and planned contrasts, Study 1.*

|  |  |  |
| --- | --- | --- |
| Anagrams Completed | IRR (*s.e.*) 95% CI | Post-estimation χ2 planned contrasts of total effects |
| Gendera  | 1.08 (.04) [.99 – 1.17] | χ2(1) =3.40+ |
| Authorities’ Interpersonal Treatmentb  | 1.29 (.09) [1.13 – 1.48] | χ2(1) =43.92\*\* |
| Peer’s Interpersonal Treatmentc v. Respect | 1.02 (.09) [.87 – 1.18] | χ2(2) =32.78\*\* |
| v. Disrespect | .75 (.06) [.64 - .87] |
| Authority X Peer Treatmentv. Apology/Respect | .98 (.10) [.82 – 1.20] | χ2(2) = .69 |
| v. Apology/Disrespect | 1.07 (.11) [.87 – 1.32] |
| Constant | 6.87 (.56) [5.86– 8.07] |  |
| Pseudo R2 | .03 | LR χ2(6) = 97.77\*\* |

+ *p* < .10; \* *p* < .05; \*\* *p* < .01

a Female is excluded category

b No Apology is excluded condition

c Control is excluded condition

Table 2:

*ANOVA results, Study 2. F-statistics (η2p) reported.*

|  |  |
| --- | --- |
| Variables | Organizational Commitment |
| Outcome  | 592.01\*\* (.57) |
| Authorities’ Interpersonal Treatment | 20.29\*\* (.04) |
| Peer’s Interpersonal Treatment | 5.50\* (.02) |
| Outcome x Authorities’ Treatment | 5.85\* (.01) |
| Outcome x Peer’s Treatment | .25 (.00) |
| Authorities’ Treatment x Peer’s Treatment | 1.14 (.01) |
| Outcome x Authorities’ Treatment x Peer’s Treatment  | 3.34\* (.02) |
| Gender | 4.51\* (.01) |
| Model | 23.16\*\* |
| R2 | .59 |

+ *p* < .10; \* *p* < .05; \*\* *p* < .01

Table 3:

*Descriptive and Correlation Statistics, Study 3.*

|  |  |  |  |
| --- | --- | --- | --- |
|   | 1 | 2 | 3 |
| 1    Organizational Commitment | 1 |  |  |
| 2 Standing: Authorities | .61\*\* | 1 |  |
| 3 Standing: Peers | .18\*\* | .13\* | 1 |
| Mean | 4.79 | 4.27 | 3.46 |
| S.D. | 1.45 | 1.17 | 1.91 |

+ *p* < .10; \* *p* < .05; \*\* *p* < .01

Figure 1:

*Overview of the hypotheses*

Interpersonal treatment from authorities

Interpersonal treatment from peers

Organizational commitment and

Organizational citizenship behavior

Standing in eyes of authorities and peers

Figure 2:

*Conditional effects on number of anagrams solved, Study 1. Whiskers indicate 95% confidence intervals.*

4

6

8

10

12

Number of Anagrams Solved

No Apol./ Control

No Apol./ Respect

No Apol./ Disrespect

Apology/ Control

Apology/ Respect

Apology/ Disrespect

Figure 3:

*Predicted means of organizational commitment, Study 2. Whiskers indicate 95% confidence intervals.*

0

2

4

6

3

4

5

6

1

2

8

9

10

11

12

Upheld

Overturned

Organizational Commitment

7

**Legend:**

1 = upheld, no apology, control

2 = upheld, no apology, respect

3 = upheld, no apology, disrespect

4 = upheld, apology, control

5 = upheld, apology, respect

6 = upheld, apology, disrespect

7 = overturned, no apology, control

8 = overturned, no apology, respect

9 = overturned, no apology, disrespect

10 = overturned, apology, control

11 = overturned, apology, respect

12 = overturned, apology, disrespect

Figure 4:

*Alternative hypothesized spillover pathways*

Option A: Spillover occurs at point of perceptions about standing.

Interpersonal treatment from authorities

Interpersonal treatment from peers

Organizational commitment

Standing in the eyes of Authorities

Standing in the eyes of Peers

Option B: Spillover is transmitted through standing and manifests in organizational commitment.

Interpersonal treatment from authorities

Interpersonal treatment from peers

Organizational commitment

Standing in the eyes of Authorities

Standing in the eyes of Peers

Figure 5:

*SEM results of path model in Study 3. Solid lines represent significant paths at p < .05; dotted lines represent paths that are not significant.*



1. In post-hoc tests we found an unexpected moderating effect of gender on treatment from authorities (χ2(2) = 10.69, *p* =.001), such that the tendency for participants to solve more anagrams in response to respectful treatment from the authority was stronger among women than men. Also unexpected was a significant three-way interaction among peer treatment, authority treatment, and gender (χ2(2) = 8.01, *p* =.01). Given the unexpected and complex nature of the three-way interaction, we thought it best to see if it replicated in subsequent studies; it did not.. [↑](#footnote-ref-1)
2. Post-hoc tests revealed that the moderating effect of gender on the authorities’ interpersonal fairness that we found in Study 1 did not emerge in Study 2 (nor did it in Study 3 to follow). Therefore, we will not discuss it further. [↑](#footnote-ref-2)
3. Post-hoc modification indices suggested that we could add a direct effect from the authorities’ treatment manipulation to organizational commitment. It is a significant path *β* = .10, *p* = .05, [.01 - .19] and improves the model fit indices to (*χ*2 = 1.55, *p* = .46; RMSEA = .00 (.00 – .10); CFI = 1.00). However, none of the other coefficients or indirect effects change substantially with this modification, so we opted to present the model we had theorized *a priori*. Detailed results from this alternative model are available upon request from the first author. [↑](#footnote-ref-3)