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# **Repairing trust with individuals vs. groups**

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## **Abstract**

This study incorporates insights from research on group decision-making and trust repair to investigate the differences that arise when alleged transgressors attempt to regain the trust of groups as compared to individuals. Results indicate that repairing trust is generally more difficult with groups than individuals, and both groups and individuals were less trusting when trustees denied culpability (rather than apologized) for a competence-based violation or apologized (rather than denied culpability) for an integrity-based violation. However, the interaction of violation-type and violation-response also ultimately affected the relative difficulty of repairing trust with groups vs. individuals, with the greater harshness of groups dissipating when the transgressors' responses were effectively matched with the type of violation. Persuasive argumentation rather than normative pressure, furthermore, mediated these differences. Thus, the sequencing of individual vs. group assessments mattered, such that subsequent group assessments affected initial individual assessments but not the reverse.

## **Keywords**

Trust, Trust repair, Competence, Integrity, Apology, Denial, Group

“A collectivity has its own ways of thinking and feeling to which its members bend but which are different from those they would create if they were left to their own devices.”  
(Durkheim, 1886: 1973, p. 17).

## **Introduction**

Trust is important in many, if not most, workplace interactions because individuals and groups can often benefit by relying on other parties. Yet trust, which we define in accordance with past research (Rousseau, Sitkin, Burt, & Camerer, 1998) as a willingness to accept vulnerability based on positive expectations of the intentions or behavior of another, is also fragile and easily threatened or broken. Consequently, organizational actors sometimes experience trust violations arising from actual, suspected, or rumored transgressions or even simple accusations. Stories of trust violations abound in the media and business press. However, these high-profile incidents are vastly outnumbered by the many trust violations that occur in the offices and hallways and other arenas of virtually all work organizations. These “everyday” occurrences may not be considered newsworthy, or perhaps as common as when trust is actually honored, but they are certainly noteworthy. And when trust breaks down, the very cooperation and interdependence that are the mainstays of organizational functioning become threatened.

In recognition of the simultaneous importance and fragility of trust, a burgeoning literature on trust repair has emerged which investigates repair from the perspective of accused parties (trustees) and from the perspective of their perceivers (trustors). When trust is violated, the positive expectations regarding the trustee(s) decrease or become negative. Thus, trust repair entails repairing damaged expectations (Kramer & Lewicki, 2010). For trustees, various trust repair tactics have been found to be effective, including apologies (Kim, Dirks, Cooper, & Ferrin, 2006; Tomlinson, Dineen, & Lewicki, 2004), promises (Schweitzer, Hershey, & Bradlow, 2006), denials (Kim, Ferrin, Cooper, & Dirks, 2004), and substantive acts such as penance, regulation, and reparation (Bottom et al., 2002, Desmet et al., 2011, Dirks et al., 2011, Lount et al., 2008), although the efficacy of these strategies often depends on specific characteristics of the violation. For trustors, judgments about trustworthiness after a violation can be biased toward the conclusion that trust is not deserved if cognitive processing of information is incomplete (Ferrin, Kim, Cooper, & Dirks, 2007). Moreover, recent theoretical work has discussed how trustors can facilitate or inhibit the rebuilding of trust through an iterative process (Kim, Dirks, & Cooper, 2009), including being cognizant of emotions such as anger and fear that can affect how information about the trustee is interpreted (Tomlinson & Mayer, 2009).

Although this body of research has substantially enhanced our understanding of trust repair, the picture is far from complete. In particular, we note that in all the existing research on trust repair, the focus has been on how isolated individuals evaluate and respond to trust repair efforts. In contrast, in organizations, trust violation and repair episodes frequently involve a social element, including cases in which groups evaluate individuals, which is the focus of our study. Research on organizational gossip reveals how both trust and distrust can be spread and amplified, for example, as subordinates discuss among themselves how they should react to a manager’s violation of company policy or industry standard, teams discuss how they should react to a member’s alleged free-riding, and supervisors meet to discuss how they should react to a subordinate’s alleged incompetence (e.g., Burt & Knez, 1996). Organizations also formally appoint groups to gather information and form judgments for purposes such as performance appraisal,

hiring, and complaint resolution (Cantano, Darr, & Campbell, 2007) – situations in which concerns regarding trustworthiness and alleged trust violations tend to be salient. Thus, even if isolated individuals make some trust judgments in organizations, many if not most trust judgments are influenced by the social context. In other words, such judgments are often made by groups. Furthermore, the surfacing of trust-related concerns within organizations often sets in motion complex dynamics, as individual judgments are preceded or followed by group judgments, that can materially affect the final trust judgments that are made.

Since the social context often plays an important role in trust judgments after a violation, we need to understand its implications. Our objectives, therefore, are to develop and test hypotheses that explore how groups might differ from individuals in their judgments of an alleged violator's trustworthiness, and understand the social processes driving these differences, by focusing on how the dynamics of group polarization might affect the key judgmental processes of trust repair after a violation is alleged to have occurred. The paper thus seeks to provide theoretical insight and an impetus for future work, by introducing the role of the social context and by integrating group dynamics into current trust repair frameworks.

In this study, we focus on situations in which parties have had limited prior interaction and/or the relationship is in the emergent stages, as opposed to a relationship with a long history. This is based on the recognition that people can exhibit surprisingly high levels of initial trust in those with whom they have not had a history of interaction (e.g., due to their individual dispositions to trust, beliefs in laws and regulations, reputations, affiliations, and stereotypes) and that such high initial trust can be quite fragile due to the tentative and assumption-based nature of its antecedents (McKnight, Cummings, & Chervany, 1998). Due to this focus, our inquiry may not capture the full range of considerations that may pertain to trust repair in more closely knit relationships. We, nevertheless, focus on such early interactions due to their importance for defining the nature and quality of the future relationship, and because the kinds of mechanisms under investigation are likely to play at least some role in longer-term relations as well.

This study is, furthermore, based on evidence that this high initial trust can be damaged even by unsubstantiated allegations and with those who have not been directly harmed (e.g., Ferrin et al., 2007, Kim et al., 2004). Thus, rather than limit the scope of trust violations to those who have been directly harmed by a transgression, we recognize that individuals can learn through inference and/or observation (Bandura, 1986) and that this can make a broader array of parties less willing to make themselves vulnerable to an alleged violator than they would have been had that allegation not occurred. This situation broadens the implications of, and subsequent need to repair, trust violations to a much wider group of bystanders, as well as those only hearing about such allegations well after the fact.

### Groups vs. individuals

Research has shown that groups can often reach very different decisions than individuals. Indeed, the literature has observed that, for many types of tasks, groups have the potential to outperform the average of their individual members (e.g., Laughlin, Bonner, & Miner, 2002). However, an array of problems can lead groups to fall short of their potential, including the temptation for members to expend less effort in a

group than they would have on their own (Kim, 2003, Williams and Karau, 1991), shortcomings in the extent to which groups uncover and discuss the information that might be held by just some of its members (Stasser, Stewart, & Wittenbaum, 1995), coordination problems arising from caucusing or coalition behavior (Kim, 1997a, Mannix, 1993), and various reactions to member familiarity with the task and/or team (Gruenfeld et al., 1996, Kim, 1997b). Hence, much of the focus of this literature has been on how to help groups address these types of impediments to reach their potential.

Yet for matters of judgment – such as evaluations of trustworthiness – where the information available does not enable a right or wrong answer, much less is known (Kerr & Tindale, 2004, p. 633). Research in this arena has tended to focus on the phenomenon of group polarization, which concerns the propensity for groups to be more extreme in their judgments than individuals (Hinsz, Tindale, & Vollrath, 1997). However, when considering the potential implications of this literature for trust repair, it remains far from clear what being “more extreme” would actually entail (i.e., in terms of the specific direction of that polarization, the conditions under which that polarization is more or less likely to arise, and the underlying mechanisms that might explain how and when it occurs). Indeed, careful examination of the groups literature reveals that even the most thorough accounts of how group judgments might differ from those of individuals are unable to address this issue. For example, in their review of the literature comparing the judgments of individuals and groups, Kerr, MacCoun, and Kramer (1996) excluded from their analysis judgments in which normative standards of accuracy could not be established (see p. 690), such as the kinds of trust judgments currently under investigation. Moreover, even for the research they did review, they concluded that, “the relevant empirical literature reveals no clear or general pattern.” These authors make an important contribution by identifying a number of factors that may generally affect the relationship between these individual and group judgments, but their work as well as more recent observations by Kerr and Tindale (2004) also ultimately makes clear that it is only through closer scrutiny of the specific mechanisms underlying trust repair that we can develop clear predictions about how groups may differ from individuals after a violation.

#### Mechanisms underlying trust repair

Recent theoretical development in the trust repair literature can help shed light on these issues. Kim et al. (2009) conceptualized the repair of trust as a matter of resolving trustors’ and trustees’ discrepant views. More specifically, they argued that after trust is violated: (a) trustors are likely to advocate the belief that the trustee is untrustworthy, whereas (b) trustees are likely to promote the belief that greater trust is deserved, and that (c) the relative strength of these competing efforts determines whether trust repair is achieved (i.e., with the ultimate level of trust depending on the trustees’ efforts to promote the belief that trust is warranted outweighing the opposing efforts of their trustors). Because it takes into account both the trustor and trustee and attempts to integrate existing work, this conceptualization provides a useful foundation upon which to combine insights from the group polarization and trust repair literatures to determine whether and how the judgments of individuals and groups might differ after a trust violation.

#### Inclinations of trustors

As a starting point, Kim et al.’s (2009) analysis may be combined with insights from the group polarization literature to infer how groups might differ from individuals in general. These insights suggest

that after a trust violation, the presence of multiple trustors (rather than just one) is likely to strengthen trustors' negative views. More specifically, two major theoretical explanations have been offered for why group polarization can occur, persuasive argumentation and social comparison (see Isenberg (1986) for a review). Persuasive arguments theory highlights the notion that some individuals may not have considered arguments that have been considered by others, and that their interaction as a group can afford them exposure to these arguments and an opportunity to assess them on their merits. In contrast, social comparison theory suggests that people are motivated to be seen in a socially desirable light, such that in group discussions they may alter their opinions to be seen more favorably vis-à-vis their perceptions of the group's tendencies and values.

These mechanisms suggest that to the extent individuals each possess reasons not to trust a trustee, the opportunity to share these reasons with others in the group and recognize that others are similarly skeptical may serve to further decrease their trust as a collective. Indeed, this influence has been recognized by Durkheim (1886: 1973, pp. 172–173), who observed that: “To strengthen those sentiments which, if left to themselves, would soon weaken, it is sufficient to bring those who hold them together and to put them into closer and more active relations with one another. . . . The sentiments provoked by his words come back to him, but enlarged and amplified, and to this degree they strengthen his own sentiment.” These notions suggest that groups will be more extreme in their trust-related judgments than individuals following a violation and repair attempt, and that this extremity will involve groups exhibiting less trust.

#### The role of trustees

However, a sole focus on trustors provides an incomplete picture because it overlooks the critical role played by trustees in shaping trustors' reactions (Kim et al., 2009). One of the most robust findings in the literature is that trustees can significantly influence trustors' assessments, but the effect of a given response is contingent upon the type of violation (Dirks et al., 2011, Ferrin et al., 2007, Kim et al., 2004, Kim et al., 2006). This research is based on a schematic model of dispositional attribution (Reeder & Brewer, 1979), which suggests that there are fundamental differences in how people weigh information when making judgments about another's competence (i.e., the extent to which one possesses the technical and interpersonal skills required for a job) vs. integrity (i.e., the extent to which one adheres to a set of principles that a perceiver finds acceptable), with competence and integrity representing two central trusting beliefs (McKnight et al., 1998). In particular, this model and ample supporting empirical evidence indicates that whereas people tend to weigh positive information about competence more heavily than negative information about competence, they tend to weigh negative information about integrity more heavily than positive information about integrity (e.g., Reeder et al., 2001, Reeder et al., 2002).

Trustees may, therefore, capitalize on these attributional tendencies when repairing trust. Specifically, these differences have allowed researchers to predict and find support for a two-fold effect (Ferrin et al., 2007, Kim et al., 2004). For matters of competence, trust is repaired more readily when trustees offer an apology (i.e., a response that conveys both guilt and repentance) rather than a denial (i.e., a response that conveys neither guilt nor repentance), given that the positive signals of intended redemption that might be conveyed by an apology (i.e., highly diagnostic positive information about competence) should outweigh the negative effects of this response confirming guilt (i.e., less diagnostic negative information about

competence). However, for matters of integrity, trust repair is encumbered when trustees offer an apology rather than a denial, given that an apology would then be considered to offer a reliable signal that one lacks integrity (i.e., highly diagnostic negative information about integrity) which should outweigh any positive effects from this response's signal of intended redemption (i.e., less diagnostic positive information about integrity). Thus, this research suggests that it is relatively "effective" to repair a competence-based violation with an apology and an integrity-based violation with a denial, whereas it is relatively "ineffective" to repair an integrity-based violation with an apology and a competence-based violation with a denial. Indeed, the robustness of this finding (across settings, despite evidence regarding innocence vs. guilt, and for different types of populations) (Ferrin et al., 2007, Kim et al., 2004) suggests that this interaction may also be found when trustees attempt to repair trust with a group. That is, we expect that a trustee's attempts to repair trust with a group will be less effective when they deny culpability (rather than apologize) for competence-based violations or apologize (rather than deny culpability) for integrity-based violations, just as these responses have been found to be less effective when directed at solitary individuals.

### Combined implications

Yet, by integrating these insights regarding the inclinations of trustors and the role of trustees, we can ultimately develop a more refined account of how individuals' and groups' trust judgments might differ than when considering either perspective alone. That is, rather than simply expect trust repair to be more difficult to achieve with groups than individuals overall or expect both individuals and groups to exhibit similar levels of trust based on the type of violation and response, one might expect that the relative level of trust repair achieved with individuals vs. groups will also depend on this interaction (i.e., such that, in some cases, groups' lack of trust relative to individuals will be reduced or even magnified based on the type of violation and the type of response). This possibility arises from the notion that, rather than simply induce groups to resist the repair attempts of trustees, group polarization may influence the collective decision-making process by acting as a lever that magnifies whatever inclinations individuals would have exhibited on their own. If so, both the negative implications of offering an "ineffective" response to a trust violation (i.e., by denying culpability for a competence-based violation or apologizing for an integrity-based violation) and the positive implications of offering an "effective" response to a trust violation (i.e., by apologizing for a competence-based violation or denying culpability for an integrity-based violation) should be magnified in groups, resulting in lower and higher trust levels respectively, relative to individuals. Hence, by integrating the phenomenon of group polarization with the schematic attribution processes identified in existing trust repair research, we predict that groups will be less trusting than individuals after an ineffective response, but more trusting than individuals after an effective response, is offered for an alleged transgression.

### **Hypothesis 1**

Groups will exhibit less trust than individuals after an ineffective response, but greater trust than individuals after an effective response, has been offered for an alleged transgression.

Moreover, if these effects are indeed the result of group polarization, they should be reflected in the types of arguments and/or normative concerns that are expressed when groups make their decisions. As

previously mentioned, to the extent that the two major explanations that have been offered for group polarization, persuasive arguments and social comparison (Isenberg, 1986), can explain why individuals and groups might differ after an alleged trust violation, the lower (higher) trust of groups relative to individuals should be mediated by the extent to which arguments are expressed against (in favor of) the trustee and/or the extent to which members feel normative pressure to be against (in favor of) the trustee, respectively. For example, according to persuasive arguments theory, when the aggregate stance of individuals is to (dis)trust after a violation and repair attempt, the group discussion would subsequently involve a higher number of arguments to (dis)trust, pushing the group to be more extreme in their final judgment (due to hearing arguments they had not considered or hearing the same argument from many people, making it seem more valid). Likewise, for normative influence, the initial stance of individuals may shape the group process, such that group members end up more extreme in their stance as a result of the group discussion creating felt pressure to exhibit greater (dis)trust than as individuals.

### **Hypothesis 2a**

The lower (higher) trust of groups relative to individuals will be mediated by the expression of persuasive arguments.

### **Hypothesis 2b**

The lower (higher) trust of groups relative to individuals will be mediated by the extent to which members feel normative pressure.

Finally, in organizational settings, trust judgments are seldom ‘purely’ individual or collective. Rather, group assessments are often made by members who have already performed their own individual assessments, or members may form their own individual assessments after having participated in, and having reflected upon, an earlier group assessment. To the extent that this occurs, it seems important to explore how initially performing one mode of assessment (individual or group) would ultimately affect the other, since this might offer further insight into the conditions under which the individual vs. group differences under investigation might arise. This examination may also help elucidate the group polarization mechanisms in operation since, as we will articulate below, the predicted effects of persuasive arguments processes for sequential judgments differ from the predicted effects of social comparison processes.

Research on the temporal sequencing of individual and group decisions has focused mainly on the effects of prior individual consideration on subsequent group decisions and finds that prior consideration can, in fact, influence the group’s decision. For decision tasks in which a demonstrably correct answer exists, prior consideration of incomplete information by individuals can often lead to ineffective group decisions (Greitemeyer & Schulz-Hardt, 2003). And, for judgment tasks, prior consideration tends to be similarly problematic, with groups being more prone to bias if individuals have given the issue prior consideration (Milch et al., 2009, Moon et al., 2003). Thus, we extend the logic underlying persuasive argumentation and social comparison processes to predict two alternative patterns of temporal effects based on which process (persuasive arguments or normative pressure) plays a more critical role.



To the extent that persuasive arguments theory represents the critical mechanism underlying our findings, exposure to arguments from others should provide greater information and certainty than what individuals might hold on their own. Thus, individuals exposed to persuasive arguments in a group after making their own initial individual assessments should shift toward the group's assessment because fellow group members' persuasive arguments would provide additional information beyond that originally considered by the individual. However, the reverse would not be true; individuals making individual assessments after being exposed to persuasive arguments in a group will not have any additional information in the individual context than they had in the group context. This logic, therefore, suggests that whereas initial individual assessments will be significantly altered by the subsequent assessments of groups, initial group assessments will persist by anchoring the subsequent assessments of individuals.

### **Hypothesis 3a**

Initial individual assessments will be altered by subsequent group assessments, but initial group assessments will persist by anchoring the subsequent assessments of individuals.

Alternatively, to the extent that social comparison theory can account for the individual vs. group differences that are found, and people are simply altering their opinions to be seen more favorably by their group, then there is less reason to expect that the normative influences that would exist in the group setting would persist to affect individuals' assessments once they are on their own. Thus, individuals exposed to normative pressures in a group after making their own initial individual assessments should respond by shifting toward the group's assessment due to social comparison processes. And the reverse should also be true; individuals making their own initial individual assessments after being exposed to normative pressures in a group should be liberated to alter their subsequent individual assessment because the normative pressures would be removed. This logic suggests that just as initial individual assessments will be altered by subsequent group assessments, initial group assessments will be altered by subsequent individual assessments.

### **Hypothesis 3b**

Initial individual assessments will be altered by subsequent group assessments, and initial group assessments will be altered by subsequent individual assessments.

## **Method**

To pursue this investigation in a manner that would control for the type of trust violation and response for both groups and individuals, as well as ensure the comparability of those who would respond individually vs. in a group, we conducted a large-scale laboratory experiment. This study implemented a 2 (violation type: competence vs. integrity)  $\times$  2 (violation response: apology vs. denial)  $\times$  2 (decision format: individual decision vs. group decision)  $\times$  2 (decision order: individual first vs. group first) mixed-factorial design. The first two and fourth factors were manipulated between-subjects, whereas the third factor was manipulated within-subjects. Participants were randomly assigned to the conditions.

## Participants

Six hundred seventy-three undergraduate students from several introductory organizational behavior courses participated in this study for course credit. Participants averaged 20 years of age and 2.3 years of part-time work experience; 58% were male. Of these participants, 276 (41%) were Caucasian, 223 (33%) were East Asian, 47 (7%) were Hispanic, 34 (5%) were South Asian (e.g., India, Pakistan), 15 (2%) were African–American, 75 (11%) indicated Other, 1 was Native American, and 2 did not report ethnicity.

## Task

Participants were given materials that asked them to assume the role of a manager who was in charge of hiring, and subsequently managing, a senior-level tax accountant. If hired, the candidate would be offered a 1-year contract because it was the policy of the firm to employ all Senior Tax Accountants under 1-year contracts with renewal contingent upon annual performance evaluations. Participants were told that, to expedite the hiring process, a recruiter from the firm had already interviewed the applicants and that these interviews had been videotaped and transcribed so participants could quickly and conveniently assess the applicant pool. Participants were then given the transcript for one of these interviews and shown the accompanying video clip so they could provide their own evaluation of the applicant. After watching the interview, participants completed a questionnaire. Each participant responded to this questionnaire twice, once as an individual and once as a member of a decision-making group (although the ordering of the individual vs. group decision varied as a within-subjects factor, as described below), with each assessment occurring immediately after the other. At the end of the study, each participant also completed a follow-up survey that assessed the group's process for the group decision and obtained demographic information.

## Manipulations

Four versions of this interview were filmed in a private office with a video crew and actors in accordance with the between-subjects factors of our experimental design. The bulk of each version contained identical video footage (brief introductions, some minor small talk, a request to videotape the interview, and a discussion of the candidate's interest in the firm and job qualifications); only the 2-min segments containing the two between-subjects manipulations differed. Near the end of the approximately 10 min long interview, the recruiter disclosed to the job applicant that she had contacted some of the applicant's references from the previous employer and that these references informed the recruiter that the applicant had been involved in an accounting-related transgression in her previous job. The framing of, and response to, this accusation represented the trust violation and repair attempt.<sup>4</sup> The manipulations for decision format and decision order were derived from the protocol as described below.

## Violation-type

The trust violation was framed as either a competence- or integrity-related matter consistent with the conceptual definitions of competence and integrity presented in the trust literature (Mayer Davis, & Schoorman, 1995). In both conditions, the job applicant was accused of filing an incorrect tax return that understated a client's capital gains income. In the competence condition, the job applicant was accused of

filing the incorrect return due to inadequate knowledge of the relevant tax codes. Specifically, the recruiter in the video recounted a conversation with co-workers from the applicant's previous firm who were called as references: "...they said that you had been asked to resign as a result of incorrectly preparing a tax return for one of your former firm's wealthier clients. In fact, they said it was because you had inadequate knowledge of relevant tax codes." In the integrity condition, the job applicant was accused of filing the incorrect return intentionally: "...they said that you had been asked to resign as a result of incorrectly preparing a tax return for one of your former firm's wealthier clients. In fact, they said you intentionally underreported your client's capital gains earnings." In both cases, the information was hearsay. The recruiter did not have evidence of the candidate's guilt or innocence.

#### Violation-response

Immediately after the violation was mentioned, the candidate attempted to repair trust by either apologizing or denying responsibility for the act in question. In the apology condition, the candidate admitted full responsibility, promised that she would not let it happen again, and stated that the firm would not have any concerns about her competence/integrity if she were hired. In the denial condition, the candidate stated that the allegation was false (i.e., that an incorrect return had not been filed), attributed the allegation to bad office politics at the previous firm, and stated that the firm would not have any concerns about her competence/integrity if she were hired.

#### Decision format

Participants submitted their reactions to the interview via questionnaire twice. In the individual decision condition, each participant responded to the questionnaire on his or her own. In the group decision condition, the participants were placed in groups of 3–6 members and asked to discuss the videotaped interview for 5 min before completing the questionnaire as a group.<sup>5</sup> The items in the group and individual questionnaires were identical.

#### Decision order

Half of the participants completed the questionnaire individually before completing the questionnaire as a group (i.e., the "individual first" condition). The remaining participants completed the questionnaire as a group before completing the questionnaire individually (i.e., the "group first" condition). Regardless of ordering, the instructions on the second questionnaire emphasized that revising their initial responses was acceptable. For example, participants in the "individual first" condition received the following instructions on the subsequent group questionnaire, "Although you had the opportunity to assess the candidate individually, it is possible your individual assessment may or may not reflect your group's collective opinions. Hence, we would like you to tell us what your group's evaluations of this job candidate would be – realizing that these assessments may or may not be similar to your individual evaluations." Participants in the "group first" condition received analogous instructions for their individual questionnaire.

#### Measures

We assessed participants' reactions to the job candidate with measures that have been commonly used in the trust repair literature. These include assessments of the candidate's competence and integrity, as well as the intention to hire the candidate for the position. The competence and integrity scales measure trusting beliefs (i.e., perceived trust-relevant qualities of the trustee), whereas the hiring decision represents a trusting intention (i.e., willingness to make oneself vulnerable to another in the presence of risk) (McKnight et al., 1998). We also included items in the follow-up survey to assess the mediators.

#### Perceived competence

Three items assessing perceptions of the applicant's (Ballou's) competence were drawn from Kim et al. (2004): (1) Ballou is very capable of performing her job, (2) Ballou has much knowledge about the work that needs to be done on the job, and (3) I feel very confident in Ballou's skills. Respondents rated these items on a 7-point Likert scale (1 = strongly agree; 7 = strongly disagree).

#### Perceived integrity

Similar to the competence scale, three items assessing perceptions of the job applicant's integrity were also drawn from Kim et al. (2004): (1) I like Ballou's values, (2) Sound principles seem to guide Ballou's behavior, and (3) Ballou has a great deal of integrity, using a 7-point Likert scale (1 = strongly agree; 7 = strongly disagree).

#### Hiring intention

To capture participants' trusting intentions in a manner specific to the context of this study, we asked participants to rate the likelihood that they would hire the job applicant on a 7-point Likert scale (1 = definitely; 7 = definitely not). This item was reverse-scored.

#### Persuasive arguments

The extent to which arguments were expressed in favor of vs. against the alleged transgressor during the group discussion was assessed using four items: (1) During the course of the discussion, to what extent did you speak in favor of Ballou? (2) During the course of the discussion, to what extent did other members of the group speak in favor of Ballou? (3) During the course of the discussion, to what extent did you speak against Ballou? (reverse-scored), and (4) During the course of the discussion, to what extent did other members of the group speak against Ballou? (reverse-scored). Respondents rated these items on a 7-point Likert scale (1 = not at all; 7 = frequently).

#### Normative pressure

The extent to which participants felt normative pressure from their group to alter their opinions was assessed using two items drawn from Kaplan and Miller (1987): (1) How much pressure did you feel to agree with the decision of the group? and (2) How much pressure did you feel not to express your true opinions in the deliberation? Respondents rated these items on a 7-point Likert scale (1 = no pressure at

all; 7 = extremely strong pressure). A third scale item that was initially included was dropped as a result of the confirmatory factor analysis as reported below.<sup>6</sup>

### **Supplemental study**

A supplemental study was also conducted to verify the internal validity of the between-subjects factors by examining three aspects of the stimulus materials. The first objective was to ascertain whether the operationalizations of apology and denial for the main study would differ in their signals of responsibility and regret, as we intended. The remaining objectives involved examining two factors that could serve as alternative explanations for the results: (1) the denial was accompanied by an explanation for the accusation (i.e., the specific reference to “bad office politics”) but the apology did not contain this information and (2) the four conditions might vary in terms of clarity (i.e., creating differences in ambiguity across conditions).

To address these goals, we created a 2 (violation type: competence vs. integrity)  $\times$  3 (violation response: apology vs. denial with politics reference vs. denial without politics reference) between-subjects design, and randomly assigned participants to the study conditions. The 118 participants in the supplemental study were drawn from the same population as the primary study and, as with the primary study participants, received course credit for their participation. Demographics were similar, with participants averaging 20 years of age; 55% were male. The supplemental study was administered online with participants first reading a transcript corresponding to their study condition and then answering questions about it.

First, we evaluated the content of the apology and denial responses. Consistent with their definitions, the apology manipulation was intended to communicate both responsibility and regret, while the denial response was intended to avoid signaling these two factors. Responsibility and regret were each measured using three item scales with acceptable levels of reliability ( $\alpha = .91$  and  $\alpha = .83$ , respectively). As expected, apology signaled more responsibility than denial (MAPOL = 6.28 vs. MDENY = 2.84) and this difference was significant,  $F(1, 77) = 188.74$ ,  $p = .000$ ;  $\eta^2 = .71$ . Apology also signaled more regret than denial (MAPOL = 4.72 vs. MDENY = 3.44) and this difference was significant,  $F(1, 77) = 22.16$ ,  $p = .000$ ,  $\eta^2 = .22.7$

Next, we examined whether the specific reference to “bad office politics” in the operationalization of denial might affect our results. On a theoretical level, attribution theory suggests that dispositional and situational forces operate in a hydraulic fashion, such that as situational forces grow stronger, the role of the individual grows weaker (Kelley, 1973). Thus, based on their definitions, apologies should involve placing greater emphasis on the role of the individual than the situation, whereas denials should involve discounting the role of the individual in favor of the situation. In other words, whether the alleged trust violation is attributed to the person or some aspect of the situation is part of what inherently distinguishes an apology from a denial, and the reference to “bad office politics” in the denial simply explained why the allegation should be attributed to the situation rather than the person. We wanted to ensure, however, that the reference “bad office politics” used in this and prior studies’ manipulation of denial (Ferrin et al., 2007, Kim et al., 2004) was not creating an unintended result. Thus, we assessed whether the implications

of denial vis-à-vis apology would differ depending on whether the reference to “bad office politics” had been included or not and found that the interactive effects of violation-type (competence vs. integrity) and violation response (apologies vs. denials) were virtually identical, irrespective of whether the reference to “bad office politics” had been included in the denial, Wilks’ Lambda = .73,  $F(3, 73) = 8.84$ ,  $p < .0005$ ;  $\eta^2 = .27$ , or had been completely removed, Wilks’ Lambda = .74,  $F(3, 73) = 8.38$ ,  $p < .0005$ ;  $\eta^2 = .26$ .

Finally, to determine whether the four between-subjects conditions in our main study were similarly clear in terms of the information provided (i.e., to confirm that our findings could not be attributed to some pairings of violation-type and violation-response simply being more ambiguous than others), we assessed differences in perceived ambiguity across the four conditions with a three-item scale ( $\alpha = .76$ ). There were no differences in ambiguity reported across different violation-types (integrity vs. competence),  $F(1, 75) = .011$ ,  $p = .916$ ;  $\eta^2 = .00$ . Moreover, although there were differences according to violation response (apology vs. denial), (MAPOL = 4.09 vs. MDENY = 4.55),  $F(1, 75) = 4.47$ ,  $p = .038$ ;  $\eta^2 = .056$ , these differences were washed out when violation and response type were considered concurrently (which is the comparison of interest). The violation-type and response-type interaction was not significant for the ambiguity dependent measure,  $F(1, 75) = .033$ ,  $p = .855$ ;  $\eta^2 = .000$ .

In summary, this supplemental study provided confidence that (a) the apology and denial responses communicated the intended signals, (b) the reference to “bad office politics” in the denial, to explain the accusation, did not affect the results, and (c) our results are not attributable to differences in ambiguity.

## Results

Three manipulation check questions were included on the group and individual questionnaires to assess whether participants recognized the nature of the violation (competence vs. integrity) and the response to the violation (apology vs. denial). The manipulation checks revealed that the manipulations were successful. Of the 169 groups, 142 answered all three questions correctly (84.0%), 24 (14.2%) missed one question, and 3 (1.8%) missed two questions. We included groups who answered all questions correctly, since this indicated they fully understood both the violation-type and violation-response manipulations contained in the video. Thus, the final sample size was 142 groups (570 participants).<sup>8</sup>

Table 1 presents descriptive statistics, reliabilities, and inter-correlations for the study variables. Table 2 reports variable means and standard deviations by condition. To assess convergent and discriminant validity of our measures, we conducted a confirmatory factor analysis (CFA) at the individual level of analysis of the five response scales for the individual survey (IS) and follow-up survey (which was also administered to individual respondents and aggregated). A CFA in which perceived integrity (3 items), perceived competence (3 items), hiring intention (single item), persuasive arguments (4 items), and normative pressure (3 items) were allowed to freely correlate indicated an adequate fit and supported convergent validity for a five-factor model ( $\chi^2(df = 68, N = 570) = 365.76$ , CFI = .93, NFI = .91, TLI = .89, RMSEA = .088). While all item-factor loadings were significant ( $p < .01$ ), one normative pressure item loaded at only .27 and was therefore dropped. All other item-factor loadings were adequate ( $>|0.51|$ ). Follow-up discriminant analyses (Bagozzi & Phillips, 1982) indicated that the hypothesized five-factor model fit the data significantly better than any of the more parsimonious models, providing evidence of

the discriminant validity of the five-factor model. For example, the five factor model fit significantly better than a comparison four-factor model with the correlation between persuasive arguments and hiring set to 1.0,  $\chi^2(69, N = 570) = 724.65$ , CFI = .84, NFI = .83, TLI = .76, RMSEA = .129,  $\Delta\chi^2(df = 1, N = 570) = 358.89$ ,  $p < .001$ . We also conducted a CFA of the three group-level response scales for the group survey (GS). Perceived integrity (3 items), perceived competence (3 items), and hiring (single item) were again allowed to freely correlate with each other and indicated a good fit for a three-factor model ( $\chi^2(df = 12, N = 142) = 12.56$ , CFI = 1.00, NFI = .98, TLI = 1.00, RMSEA = .018, all item-factor loadings  $>|0.76|$  ( $p < .001$ ).

Table 1. Means, standard deviations, reliabilities, and inter-correlations.

Variable	M	SD	1	2	3	4	5	6	7	8
1 Perceived competence (IS)	5.25	0.95	(0.95)							
2 Perceived Competence (GS)	5.32	1.12	.85**	(0.88)						
3 Perceived Integrity (IS)	4.20	1.34	-.18*	-.24**	(0.97)					
4 Perceived Integrity (GS)	3.98	1.64	-.25**	-.26**	.90**	(0.94)				
5 Hiring Intention (IS)	4.48	1.11	.36**	.27**	.53**	.40**	(-)			
6 Hiring Intention (GS)	4.42	1.44	.27**	.27**	.46**	.44**	.82**	(-)		
7 Persuasive Argumentation	3.69	1.01	.35**	.37**	.58**	.55**	.75**	.76**	-0.94	
8 Normative Pressure	2.21	0.58	-0.07	-0.06	-0.02	0.01	-0.02	0.05	-0.01	-0.64

Note:  $N = 142$  groups. Cronbach's alphas appear on the diagonal in parentheses. Dash indicates that the alpha cannot be obtained for the hiring intention variable, given that it is a single-item measure. Reliability for the mediator variables was calculated using only the groups from the 'individuals first' condition ( $N = 74$  groups), since these groups were used for mediation analysis. IS and GS refer to individual survey and group survey, respectively.

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

Table 2. Means and standard deviations by condition.

	Competence				Integrity			
	Apology		Denial		Apology		Denial	
	M	SD	M	SD	M	SD	M	SD
<i>Individual decision first</i>								
Perceived competence (IS)	4.90	0.60	4.98	0.53	6.05	0.32	5.82	0.31
Perceived competence (GS)	4.57	0.95	4.92	0.88	6.20	0.55	5.88	0.36
Perceived integrity (IS)	5.67	0.53	4.58	0.56	3.29	0.52	4.11	0.86
Perceived integrity (GS)	5.97	1.03	3.96	0.76	2.50	0.62	3.25	0.93
Hiring intention (IS)	4.86	0.75	4.82	0.62	4.52	0.84	4.90	0.68
Hiring intention (GS)	5.09	1.09	4.76	0.83	4.05	1.50	4.81	0.91
Persuasive argumentation	4.18	0.96	3.72	0.60	3.56	0.89	3.61	0.85
Normative pressure	2.07	0.49	2.18	0.67	2.01	0.43	2.35	0.52
<i>Group decision first</i>								
Perceived competence (IS)	4.34	1.17	4.66	0.80	5.67	1.08	5.49	0.68
Perceived competence (GS)	4.44	1.21	4.77	0.86	5.92	1.18	5.85	0.67
Perceived integrity (IS)	5.55	0.91	3.79	1.20	2.57	0.93	3.53	0.85
Perceived integrity (GS)	5.82	0.97	3.50	1.49	2.40	0.72	3.75	1.09
Hiring intention (IS)	4.44	1.13	4.28	1.39	3.60	1.57	4.42	1.24
Hiring intention (GS)	4.32	1.49	3.90	1.79	3.75	1.86	4.56	1.41
Persuasive argumentation	3.89	1.23	3.41	1.29	3.22	1.24	3.74	0.67
Normative pressure	2.34	0.62	2.18	0.85	2.19	0.64	2.42	0.41

Note: IS and GS refer to the individual survey and group survey, respectively.

Except for Hypotheses 2a and 2b (involving mediation), we used MANOVA to analyze the data. MANOVA is an appropriate analytic technique for the current study because (1) we are testing differences in means across categories for a collection of outcome variables that are conceptually, and in all likelihood empirically, related, and (2) we are not making different predictions among the outcome variables. For multiple related outcome variables, ANOVA is not considered a viable strategy because the “multiple ANOVA F tests are not independent” (Huberty & Morris, 1989, p. 306). That said, since

MANOVA output does not specify the direction of any noted differences between categories (e.g., as a positive or negative beta would in regression), we also report means for the outcome measures across the comparison conditions. As these patterns of means will reveal, the results for perceived competence offered far less support for our predictions than those for the other dependent measures.

### **Time 1 comparisons**

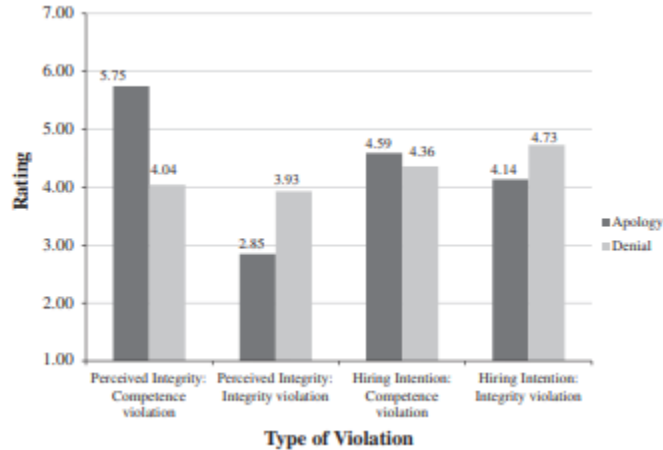
To compare individual and group judgments in a manner that could rule out the influence of prior experience, we first compared the responses of individuals in the “individual first” condition (i.e., at time 1) to those of groups in the “group first” condition (i.e., at time 1) with a 2 (violation type: competence vs. integrity)  $\times$  2 (violation response: apology vs. denial)  $\times$  2 (decision format: individual decision vs. group decision) MANOVA. This analysis revealed a significant main effect of violation-type, Wilks’ Lambda = .31,  $F(3, 132) = 99.93$ ,  $p < .001$ ;  $\eta^2 = .694$ , as well as a significant main effect of violation-response, Wilks’ Lambda = .92,  $F(3, 132) = 3.66$ ,  $p < .05$ ;  $\eta^2 = .077$ . As expected, perceived competence was lower when the violation concerned matters of competence ( $M = 4.77$ ) rather than integrity ( $M = 5.91$ ), and perceived integrity was lower when the violation concerned matters of integrity ( $M = 3.39$ ) rather than competence ( $M = 4.89$ ).

As discussed previously, we expected a general effect of polarization such that groups would report lower trust than individuals. To examine this effect, we interpreted the significance and direction of the decision format manipulation. The MANOVA revealed a significant main effect for decision format, Wilks’ Lambda = .90,  $F(3, 132) = 5.13$ ,  $p < .01$ ;  $\eta^2 = .104$ . As expected, groups were generally less trusting than individuals, with groups reporting lower perceived integrity (3.87 vs. 4.42), perceived competence (5.25 vs. 5.44), and hiring intentions (4.13 vs. 4.78).

Next, given that we expected trustees to be viewed more harshly (by both groups and individuals) when they denied culpability rather than apologized for competence-based violations, but apologized rather than denied culpability for integrity-based violations, we interpreted the significance and pattern of the violation-type  $\times$  violation-response interaction. The MANOVA revealed that the violation-type  $\times$  violation-response interaction was significant, Wilks’ Lambda = .50,  $F(3, 132) = 43.51$ ,  $p < .001$ ;  $\eta^2 = .497$ . The means for perceived integrity and hiring intentions demonstrated the expected pattern and are illustrated in Fig. 1. The patterns reveal that when the violation concerned matters of competence, denial elicited harsher assessments than an apology. However, when the violation concerned matters of integrity, an apology elicited harsher assessments than a denial. The means for perceived competence did not reflect an interaction since there was almost no variation across response types. This finding for perceived competence is consistent with prior empirical research using the same set of dependent measures (Ferrin et al., 2007, Kim et al., 2006), as we will explain in the Discussion.

Fig. 1. Post-hoc subgroup analysis for the effects of violation type and violation response on perceived integrity and hiring intention.





We then tested Hypothesis 1's prediction that groups would be less trusting than individuals when an ineffective response has been offered for the alleged trust violation (i.e., by apologizing for an integrity-based violation or denying culpability for a competence-based violation) but more trusting than individuals when an effective response has been offered for the alleged violation (i.e., by apologizing for a competence-based violation or denying culpability for an integrity-based violation), by interpreting the three-way interaction of the above factors. The MANOVA revealed that the decision format  $\times$  violation-type  $\times$  violation-response interaction was significant, Wilks' Lambda = .92,  $F(3, 132) = 3.90$ ,  $p < .01$ ;  $\eta^2 = .081$ .

Consistent with our findings above, the pattern of means for the perceived integrity and hiring intention dependent measures reflected a similar interaction pattern, whereas the pattern of means for the perceived competence dependent measure exhibited minimal variance across response type and decision format. The pattern of means for perceived integrity and hiring intentions are illustrated in Fig. 2a, Fig. 2b. To clarify the significance of these group-individual differences within the three-way interaction, we conducted post-hoc MANOVAs by splitting the data according to whether an effective vs. ineffective response had been offered. As predicted, groups reported lower trust than individuals when there was a ineffective match between violation-type and violation-response and this difference was significant, Wilks' Lambda = .75,  $F(3, 63) = 6.86$ ,  $p < .01$ ;  $\eta^2 = .25$ . In contrast, groups were expected to be more trusting than individuals if trustees offered an effective response, but this difference was not significant, Wilks' Lambda = .96,  $F(3, 71) = 1.03$ ,  $p = .38$ ;  $\eta^2 = .04$ .

Fig. 2a. Post-hoc subgroup analysis for the effects of decision format on perceived integrity and hiring intention after a competence violation.

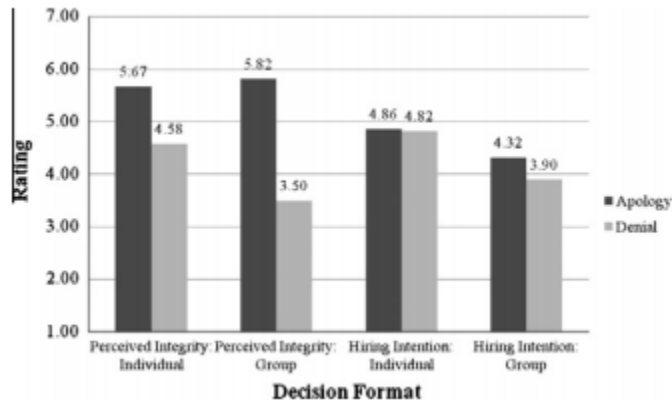
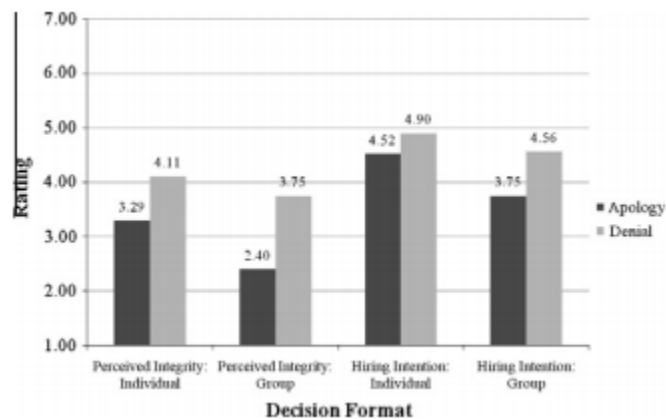


Fig. 2b. Post-hoc subgroup analysis for the effects of decision format on perceived integrity and hiring intention after an integrity violation.



On the whole, these findings suggest that the tendency for groups to be less trusting than individuals after a repair attempt is even more robust than anticipated. That said, the fact that groups were significantly less trusting than individuals after an ineffective response but this effect disappeared after an effective response provides at least general support for Hypothesis 1.

### Mediation analyses

To test Hypotheses 2a and 2b, which predicted that differences in trust between individuals and groups would be driven by persuasive argumentation and normative pressure, we conducted mediation analyses by using the individual and group assessments in the “individual first” condition (time 1 individuals vs. time 2 groups). This condition was most appropriate for the mediation analyses for two reasons. First, the assessment of individuals and groups in the “individual first” condition represents a within-subjects comparison – the same participants completed the questionnaire individually before doing so as a group and then reported on their group experience in the follow-up survey. This allowed the use of group process information that would not have been relevant for the between-subjects comparisons of time 1 individuals and time 1 groups used to test Hypothesis 1. Second, the results from this within-subjects

comparison of time 1 individuals vs. time 2 groups were virtually identical to those from the between-subjects comparisons of time 1 individuals vs. time 1 groups (see “Temporal dynamics” below). This not only demonstrates the robustness of the individual vs. group differences we have reported, but also helps justify our use of the within-subjects comparison to understand why such individual vs. group differences would arise.

For the mediation analyses, individuals’ aggregated responses for each of the primary measures (perceived competence, perceived integrity, and hiring intention) served as the independent variable and the corresponding group assessment on each measure served as the dependent variable. Measures of the mediators were also aggregated to the group level for analysis.<sup>10</sup> We tested Hypotheses 2a and 2b simultaneously in a multiple mediator model estimated via bootstrapping (Preacher & Hayes, 2008). This multiple mediator methodology has certain advantages compared to the traditional causal steps approach (i.e., Baron & Kenny, 1986), including the ability to: (1) specify and test a single model with both proposed mediators rather than separate models for each, (2) compare the ability of each variable to mediate while controlling for the other, (3) include covariates rather than splitting data into subsamples, (4) relax assumptions of normality, and (5) generate more reliable results with smaller samples. Groups across all four conditions were included in the analysis for each of the three primary measures. Since the group-individual difference in the ineffective response conditions was mitigated in the effective response conditions, we included a covariate for effective response. Table 3 reports the results of these tests.

Table 3. Mediation of groups’ greater harshness or leniency relative to individuals.

	Perceived competence		Perceived integrity		Hiring intention	
	Coeff.	SE	Coeff.	SE	Coeff.	SE
Total effect of individual → group ratings	1.15**	0.10	1.22**	0.10	.90**	0.15
Direct effect of individual → group ratings	1.12**	0.09	1.06**	0.11	.53**	0.17
Indirect effect of mediators (BCa 95% CI)	Lower	Upper	Lower	Upper	Lower	Upper
Total indirect effects	-0.03	0.13	0.03	0.28	0.16	0.65
Persuasive argumentation	-0.03	0.11	0.03	0.27	0.15	0.62
Normative Pressure	-0.02	0.04	-0.02	0.06	-0.02	0.11
Persuasive argumentation vs. normative pressure	-0.04	0.11	0.02	0.27	0.14	0.61

SE, Standard error; BCa, bias corrected and accelerated; 5000 bootstrap samples. \*\* p < .01.

The first row reports the total effect of the independent variable on the dependent variable (i.e., the X → Y relationship). The significant coefficients indicate that the individual ratings significantly predict the group ratings for all three variables of interest. The second row reports the direct effects of the independent variable on the dependent variable, which are all still significant but smaller in magnitude than the total effect for each of the three variables. The difference between the total and direct effects is the total indirect effect of the mediators as a pair. This total indirect effect is significant for perceived integrity and hiring intentions as evidenced by the fact that the 95% confidence interval does not include zero. The total indirect effect of the mediators is not significant, however, for perceived competence. These results reveal that persuasive argumentation and normative pressure mediate the effects for perceived integrity and hiring intentions, but the total indirect effect does not specify whether one or both mediators are responsible.

Thus, to evaluate Hypotheses 2a and 2b, the specific indirect effects of each mediator must be considered. Again, this requires examination of the confidence intervals. If the interval for the specific indirect effect does not include zero, then we can conclude the construct mediates the relationship between the independent and dependent variables. Persuasive argumentation, thus, mediates the relationship for perceived integrity and hiring intentions, but not perceived competence. Normative pressure, in contrast, does not mediate any of these relationships. These findings support Hypothesis 2a but not 2b.

### **Temporal dynamics**

Finally, to test the predictions of Hypotheses 3a and 3b regarding whether prior individual (group) trust appraisals would be affected by the subsequent assessments of groups (individuals), we examined whether the individual vs. group differences in trust noted above would be affected by how the decision process is managed (i.e., the ordering or timing of the decision) and the format used (i.e., individual vs. group). Specifically, we investigated two questions: (1) whether initial individual assessments would be altered by subsequent group assessments and (2) whether initial group assessments would be altered by subsequent individual assessments. If initial individual trust assessments are altered by subsequent group assessments, but not the reverse, then Hypothesis 3a is supported. If both types of initial trust assessment are altered by the subsequent assessment, then Hypothesis 3b is supported.

#### **Individuals → groups**

Since the “individual first” condition measured individuals’ reactions (at time 1) and then their group reactions (at time 2), we looked within this condition to see whether initial individual assessments would be altered by subsequent group assessments. We used repeated measures MANOVA to analyze the data, because the comparison of individuals (at time 1) with groups (at time 2) represents a within-subjects comparison. The MANOVA revealed a significant main effect for time, Wilks’ Lambda = .62,  $F(3, 68) = 14.18$ ,  $p < .001$ ;  $\eta^2 = .385$ . Consistent with prior analyses, groups (at time 2) were less trusting than individuals (at time 1), with groups reporting lower perceptions of integrity (MT1 indivs = 4.42 vs. MT2 groups = 3.92), competence (MT1 indivs = 5.44 vs. MT2 groups = 5.39), and hiring intentions (MT1 indivs = 4.78 vs. MT2 groups = 4.68).

We also examined the time  $\times$  violation-type  $\times$  violation-response interaction from this analysis to evaluate whether the tendency for groups to be much less trusting than individuals after an ineffective response compared to an effective response would be found after groups had made initial individual assessments. The repeated measures MANOVA revealed that this interaction was significant, Wilks’ Lambda = .84,  $F(3, 68) = 4.31$ ,  $p < .01$ ;  $\eta^2 = .160$ . Although the means for perceived competence are not supportive, the means for perceived integrity and hiring intention in this three-way interaction are very similar to those from the individuals (at time 1) vs. groups (at time 1) comparison reported earlier (see Table 4). Thus, both the general tendency for groups to be less trusting than individuals and the dependence of that polarization on whether an effective or ineffective response has been offered (Hypothesis 1) occurred in groups after they made initial individual trust judgments.

Table 4. Post-hoc means comparison of the three-way interaction for perceived integrity and hiring intention.

Comparisons	Effective Competence-apology	Effective Integrity-denial	Ineffective Competence-denial	Ineffective Integrity-apology
<i>Perceived integrity</i>				
Individual (T1) vs. group (T1)	5.67 vs. 5.82	4.11 vs. 3.75	4.58 vs. 3.50	3.29 vs. 2.40
Individual (T1) vs. group (T2)	5.67 vs. 5.97	4.11 vs. 3.25	4.58 vs. 3.96	3.29 vs. 2.50
Group (T1) vs. individual (T2)	5.82 vs. 5.56	3.75 vs. 3.53	3.50 vs. 3.79	2.40 vs. 2.57
Individual (T1) vs. individual (T2)	5.67 vs. 5.56	4.01 vs. 3.57	4.61 vs. 3.72	3.29 vs. 2.58
<i>Hiring intention</i>				
Individual (T1) vs. group (T1)	4.86 vs. 4.32	4.90 vs. 4.56	4.82 vs. 3.90	4.52 vs. 3.75
Individual (T1) vs. group (T2)	4.86 vs. 5.10	4.90 vs. 4.81	4.82 vs. 4.77	4.52 vs. 4.05
Group (T1) vs. individual (T2)	4.32 vs. 4.44	4.56 vs. 4.42	3.90 vs. 4.28	3.75 vs. 3.60
Individual (T1) vs. individual (T2)	4.87 vs. 4.48	4.83 vs. 4.47	4.83 vs. 4.21	4.49 vs. 3.59

Finally, to explore whether initial individual assessments would in any way mitigate the effects of making assessments in a group, we compared groups in which members have not conducted a prior individual assessment (time 1 groups) with those that have (time 2 groups). For this comparison, we used standard MANOVA to analyze the data because we are examining between-subjects, rather than within-subjects, differences. The MANOVA indicated no significant main effect for decision order, Wilks' Lambda = .96,  $F(3, 132) = 2.05$ , n.s.;  $\eta^2 = .044$ . Groups had similar levels of trust for the trustee, regardless of whether they had assessed the candidate individually prior to the group assessment. Moreover, the three way interaction for decision order  $\times$  violation-type  $\times$  violation-response interaction was also non-significant, Wilks' Lambda = .98,  $F(3, 132) = 0.81$ , n.s.;  $\eta^2 = .018$ . These findings reveal that initial individual assessments exerted little influence on the subsequent assessments of groups.

#### Groups $\rightarrow$ individuals

Since the "group first" condition measured groups' reactions (at time 1) followed by participants' individual reactions (at time 2), we then looked within this condition to see whether initial trust assessments made in a group would be altered by subsequent individual assessments. We used repeated measures MANOVA for this within-subjects comparison, and found a significant main effect for time, Wilks' Lambda = .86,  $F(3, 62) = 3.30$ ,  $p < .05$ ;  $\eta^2 = .138$ . Individuals (at time 2) were less trusting than groups (at time 1), with individuals reporting lower perceived competence (MT2 indivs = 5.04 vs. MT1 groups = 5.25). This main effect suggests that, rather than revert back to how they might have initially assessed the trustee as individuals, the harsher initial group assessment (relative to what would have been observed by individuals at time 1) became an anchor that was then magnified by the individuals when they subsequently made assessments on their own (at time 2). However, the MANOVA result for time appears to be driven by the perceived competence outcome measure, since the means for perceived integrity and hiring intention hardly varied across time (perceived integrity: MT2 indivs = 3.86 vs. MT1 groups = 3.87; hiring intention: MT2 indivs = 4.18 vs. MT1 groups = 4.13). This repeated measures MANOVA, furthermore, revealed a significant three-way time  $\times$  violation-type  $\times$  violation-response interaction, Wilks' Lambda = .80,  $F(3, 62) = 5.23$ ,  $p < .01$ ;  $\eta^2 = .202$ , which suggests that the tendency for individuals to be more lenient than groups after an ineffective response dissipates if they made an initial group assessment and provides further support for the notion that members anchored on the harsher initial group assessment when making subsequent assessments as individuals (see Table 4).

Finally, we evaluated whether making a trust assessment initially as part of a group would affect subsequent individual assessments by comparing individuals who have not been part of a prior group

assessment (time 1 individuals) with those who have (time 2 individuals). A standard MANOVA was appropriate for this between-subjects comparison. This analysis revealed a highly significant main effect for decision order, Wilks' Lambda = .94,  $F(3, 558) = 13.01$ ,  $p < .001$ ;  $\eta^2 = .065$ . Means indicate that individuals (at time 1) reported more trust than individuals (at time 2) by noting higher perceptions of competence (MT1 indivs = 5.23 vs. MT2 indivs = 5.03), perceptions of integrity (MT1 indivs = 4.39 vs. MT2 indivs = 3.86), and hiring intentions (MT1 indivs = 4.75 vs. MT2 indivs = 4.19). This MANOVA, furthermore, revealed a significant three-way decision order  $\times$  violation-type  $\times$  violation-response interaction, Wilks' Lambda = .98,  $F(3, 558) = 3.14$ ,  $p < .05$ ;  $\eta^2 = .017$ . The means for perceived competence were again not supportive of this interaction, but the means for perceived integrity and hiring were. As reported in Table 4, individuals at time 2 always report lower perceived integrity and hiring intentions than individuals at time 1 and, notably, the extent of the differences between them was also affected by whether an effective or ineffective response was offered. After ineffective responses, the mean differences between time 1 and time 2 individuals ranged from .62 to .90 (with time 2 individuals as less trusting). Although time 2 individuals still reported lower perceived integrity and hiring intentions than time 1 individuals after effective responses, the harshness of their ratings dissipated, reducing the differences in means between time 1 and time 2 individuals (Mdiff ranged from .11 to .44). This evidence provides further support for the notion that individuals who had made prior group assessments anchored on this harsher group evaluation when making subsequent assessments as individuals.

## Summary

Both Hypotheses 3a and 3b predicted that individuals would revise their trust assessments when responding later as part of a group (the individual  $\rightarrow$  group condition). This tendency is supported by the significant repeated measures MANOVA results for the "individual first" condition. The comparison of groups (at time 1) and groups (at time 2), then, further corroborated this finding. Since no difference was found across groups regardless of whether prior individual discussion had taken place, it appears that individuals revised their trust assessments when under subsequent group influence.

Next, to differentiate support for Hypothesis 3a vs. 3b, we needed to determine whether initially participating in a group decision would anchor individual responses (supporting 3a) or whether individuals would revert back to their initial tendencies, usually towards more leniency than groups (supporting 3b). Results from the "groups first" condition indicate significant differences between groups (at time 1) and individuals (at time 2) with individuals (at time 2) offering even harsher assessments than their initial groups. Thus, it appears that individuals anchored on their groups' initial tendencies when later judging alone. This tendency is further illustrated when comparing individuals with and without prior group discussion (time 1 vs. time 2 individuals). Exposure to group discussion led individuals to be much less trusting. Again, the group discussion effect lingers even when individuals are no longer in the group.

In sum, these results reveal that prior individual trust assessments were significantly altered by subsequent group assessments, but prior group assessments lingered to affect the subsequent trust assessments of individuals. These findings provide support for Hypothesis 3a over Hypothesis 3b.

## **Discussion**

The purpose of this study was to investigate how the repair of trust might differ with individuals vs. groups and the conditions under which such differences might arise. This research can be seen as part of a broader, and much needed, effort to better situate the study of trust repair into the realm of organizations. The vast majority of trust repair research has taken an extremely focused approach, by studying interactions between a trustor and trustee as isolated individuals. In reality, virtually all organizationally-related trust judgments (repair or otherwise) are made in a social context (e.g., Ferrin, Dirks, & Shah, 2006). In this regard, the present study's efforts to assess the influence of group context on trust repair have allowed us to identify several notable effects.

As expected, trust was generally more difficult to repair with groups than individuals. Moreover, both groups and individuals were less trusting when trustees denied culpability (rather than apologized) for a competence-based violation or apologized (rather than denied culpability) for an integrity-based violation. However, the results ultimately reveal that the relative levels of trust reported by groups vs. individuals also depended on this interaction. Specifically, groups were less trusting than individuals when trustees offered an ineffective response (i.e., denying culpability for a competence-based violation or apologizing for an integrity-based violation), but this effect dissipated when trustees offered an effective response (i.e., apologizing for a competence-based violation or denying culpability for an integrity-based violation). Moreover, the extent to which groups were less trusting than individuals was mediated by the extent to which arguments in favor of vs. against the trustee had been expressed. As a result, whereas initial individual assessments of trust were significantly altered by subsequent group assessments, initial group assessments tended to persist by anchoring subsequent individual assessments.

## **Theoretical implications**

These findings provide the basis for a number of theoretical contributions. For the trust repair literature, these results offer important insights by moving beyond its focus on the reactions of individuals to consider how those reactions would, or would not, differ for groups. The present study supports the notion that, in the aftermath of a trust violation, by increasing the number of trustors (i.e., by having those assessments made by groups rather than individuals) the balance of opposing forces in the negotiation of trust shifts to strengthen trustors' inclinations to consider the trustee untrustworthy. Even further, the study provides additional support for the role of information diagnosticity in shaping these perceptions (Reeder & Brewer, 1979), not only by demonstrating that the same kinds of interactions between the type of violation and type of response that have been reported to affect the repair of trust with individuals (Ferrin et al., 2007, Kim et al., 2004) would generalize to groups, but also by revealing how the relative trust levels of groups vs. individuals can depend on this interaction as well. These findings, thus, underscore the importance of both framing (i.e., whether a violation is attributed to matters of competence vs. integrity) and context (i.e., whether trust is being judged by an individual vs. a group) for determining the efficacy of trust repair efforts.

For the groups literature, although a substantial amount of research has been conducted, much uncertainty remains regarding the nature of their judgments (see Kerr and Tindale (2004) for a review). Moreover, the studies that have investigated group judgments have generally been limited to documenting the notion

that groups, relative to individuals, can be more extreme (Hinsz et al., 1997). The present study, thus, contributes to this literature by offering insight into a particular type of group judgment (i.e., whether, and how much, to trust someone again). In doing so, we advance this literature by moving beyond more generic predictions that groups would be more extreme than individuals to provide a theoretical basis for predicting specific directions in which, as well as specific conditions under which, that greater extremity would occur in the context of trust violations.

These findings can also help inform research on the group discontinuity effect, which indicates that, in the context of mixed-motive situations, relations between groups tend to be more competitive, or less cooperative, than relations between individuals (Insko, Schopler, Holye, Dardis, & Graetz, 1990). This research suggests that the group discontinuity effect may at least in part be due to trust being lower in contexts involving groups than individuals. However, this literature has been based on how the relations between two groups vs. two individuals might differ, rather than on how a given individual might be treated by an individual vs. a group. For this reason, the trust mechanism underscored by the group discontinuity literature has been based on the notion that trust tends to be lower when the trustee happens to be a group than an individual, rather than on whether an individual trustee is being evaluated by an individual vs. group trustor. Moreover, even though researchers have recently shown that the group discontinuity effect can be extended to cases in which individuals vs. groups relate to a target individual (Meier & Hinsz, 2004), this research was focused on acts of aggression and simply referred to group polarization as a possible explanation for why this occurred. The present findings can, thus, contribute to this literature in several ways. It provides additional evidence that the group discontinuity effect can be extended to cases in which the target is an individual and the focal actor is either an individual or group. It suggests that these differences can be extended beyond matters of aggression to individual vs. group receptivity to trust repair attempts. It raises the possibility that differences in trust might help explain group discontinuity effects even when the target remains an individual. Finally, it highlights the need for research on group discontinuity to move beyond documenting this individual vs. group effect to consider when that difference might arise.

Beyond these insights, this inquiry also offers implications for research on temporal dynamics. Prior research in this arena has identified a wide variety of ways in which past experience can meaningfully influence subsequent behavior (e.g., Gruenfeld and Hollingshead, 1993, Kim, 1997b, Kim et al., 2003, Kim et al., 2005, Milch et al., 2009, Moon et al., 2003). However, the disparate nature of those inquiries makes it difficult to identify a convergent set of insights that would explain how, for those experiencing a violation of trust, their reactions might be influenced when one mode of assessment (individual vs. group) is then followed by another. The current study overcomes this obstacle by extending the logic of persuasive arguments and social comparison theories, and the results ultimately underscore the importance of persuasive argumentation for this group polarization effect (i.e., by revealing that prior individual assessments were significantly altered by subsequent group assessments, but prior group assessments exerted lingering effects on subsequent individual assessments).

### **Practical implications**

The present study, furthermore, offers several practical implications. At the most fundamental level, our study clearly demonstrates that trust judgments are not context free, but instead are biased by the social



processes through which they are generated. Groups were found to be harsher than individuals in judging trust worthiness after an alleged transgression. And this harshness is even further exacerbated when a trustee provides an ineffective response. Thus, managers and other organizational actors should bear in mind that, in the aftermath of an alleged trust violation, group decision processes are likely to deepen rather than dampen the negative trust judgments, which in turn could result in unjustly negative conclusions and lower chances of repair and reconciliation. In contrast, when trustees offer an effective response, the challenge posed by group decision processes appears to be mitigated.

We also found that initial individual trust assessments exerted little influence on subsequent group assessments, but initial group trust assessments persisted by anchoring subsequent individual assessments. This result suggests that if a trustee plans to offer a response to a group that the trust repair literature has found to be ineffective, individual appeals before or after the group assessment are unlikely to help. Indeed, given that persuasive arguments mediated the aforementioned individual vs. group differences, perhaps the only options for trustees in such cases would be to find a way to limit the group discussion, or alternatively to participate in the group discussion in order to introduce persuasive arguments in their own favor.

### **Limitations and future directions**

Despite these contributions, a number of questions remain unanswered by this study that future research might seek to explore. First, across our results, we found the predicted pattern of means for perceived competence far less frequently than we did for the other measures. This lack of findings for perceived competence is consistent with prior research using the same experimental paradigm (Ferrin et al., 2007, Kim et al., 2006). As documented in those earlier studies, the materials were carefully designed and pretested to avoid being biased toward issues of integrity vs. competence. Given these steps, and given that prior research has noted that these perceptions are independent (Mayer et al., 1995), it is not obvious why the results for perceived competence are less robust. One reason may be that, in the context chosen for our study, conclusions about competence may be less relevant than other trusting beliefs. Another possibility, given that people often view trust violations in a somewhat holistic manner, is that stronger effects for competence would be found if the transgression encouraged people to make cleaner distinctions about the type of trusting belief that had been violated. It is also possible that perceived competence is subject to cognitive processes that the schematic model of dispositional attribution cannot explain and that, for this reason, the theory needs to be amended. Overall, we recommend caution in interpreting the results for perceived competence and recommend future research to clarify the issue.

A second issue that may be raised about the present methodology is that it has focused on trust violations in newly formed, rather than longer term, relationships. This focus should not raise concerns regarding whether initial levels of trust existed and had been subsequently violated, as prior studies that have used this methodology (Dirks et al., 2011, Ferrin et al., 2007, Kim et al., 2004) have offered clear evidence that initial trust levels were dramatically lowered by allegations of untrustworthy behavior. This focus on newly formed relationships should also not limit its relevance for managerial settings, given that a significant proportion of our business interactions tend to occur with those whom we have formed weak, rather than strong, ties (Granovetter, 1995). Readers, furthermore, should not conclude that studying newly formed relationships represents a weak test of trust repair, as evidence suggests that it may actually

be easier to repair trust in long-standing relationships, due to victims' greater pro-relationship motivation (Finkel, Rusbult, Kumashiro, & Hannon, 2002). Nevertheless, the question of whether the mechanisms of trust repair that have been examined by this study might differ in relationships of longer duration is an important one that remains unanswered and deserves attention in future research.

Third, although our results generally support the notion that persuasive argumentation would mediate the observed differences between individuals and groups, mediation by normative pressure was not found. It should be noted that our normative pressure scale was relatively low in terms of reliability, and this may have attenuated the results for this variable. Future research might, therefore, explore whether other measures of normative pressure would achieve different results. Moreover, additional mechanisms not assessed in the current research, such as the perceived magnitude of a violation, the extent to which the transgression is perceived as a threat, or the proliferation of emotions (Hatfield et al., 1994, Thompson and Kim, 2000), might help explain the individual vs. group differences that have been observed. These possibilities should not, however, detract from the fact that the kinds of inter-temporal effects we had observed would be quite difficult to explain without persuasive argumentation playing a more meaningful role than normative pressure, as the theoretical rationales for Hypotheses 3a and 3b described.

Finally, one might explore whether the findings from this study would depend on different features of the group. Whereas the present inquiry has considered the implications of groups in the most generic sense, group differences in culture, diversity, longevity, geographical distribution, mode and synchrony of communication, and a host of other factors have been found to exert profound effects on their behavior. Such findings suggest that we may obtain additional insight into how individuals and groups might differ in their reactions to alleged transgressions by moving beyond the nature of groups as a general category to consider the type of group involved. One might also consider whether differences might arise if the trustee was male rather than female and whether this might depend on the group's gender composition as well.

Despite a burgeoning interest in the area of trust repair, research to date has not considered how trust judgments made by groups would differ from those made by individuals, the processes underlying such effects, or how such individual and group judgments might influence one another. By incorporating group polarization research into the trust literature, and examining the persuasive argumentation and social comparison processes that might drive such differences, this paper provides a valuable extension of the trust literature into a domain that is practically important but theoretically unexplored.

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