

Trust in Decision-Making Authorities Dictates the Form of the Interactive Relationship between
Outcome Favorability and Procedural Fairness

Abstract

Five studies demonstrate that employees' trust in management influences the form of the interactive effect of outcome favorability and procedural fairness on employees' attitudes and behavioral intentions. When trust is high, employees respond particularly negatively when outcome favorability and procedural fairness are both low whereas when trust is low, employees respond especially positively when outcome favorability and procedural fairness are both high. These findings suggest that employees use trust-based expectations of how management will treat them as a lens through which to interpret and respond to their actual treatment. Implications for the organizational justice and trust literatures are discussed.

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It has long been known that employees' reactions to organizational decisions depend upon the outcomes of the decisions -- whether the decisions make them better off or worse off (e.g., Blau, 1964) -- and the procedures accompanying the decisions, that is, whether the decisions were planned and implemented fairly (e.g., Thibaut & Walker, 1975). Employees tend to be more supportive of decisions, of decision-making authorities, and of the organizations that the authorities represent when the outcomes associated with organizational decisions are more favorable, and when the procedures used to plan and implement decisions are more fair (e.g., Lind & Tyler, 1988). In addition to their well-established main effects, outcome favorability and procedural fairness have been shown to interact to influence employees' willingness to support decisions, decision-makers, and organizations (referred to hereafter as employees' system-referenced reactions).

Moreover, the interactive effect of outcome favorability and procedural fairness on employees' system-referenced reactions has been shown to take different forms. Folger and his colleagues originally showed that the joint presence of an unfavorable outcome and an unfair procedure elicited the most negative reactions, relative to all other combinations of conditions (e.g., Folger, Rosenfield, & Robinson, 1983). The same interactive pattern has been found in many studies reviewed by Brockner and Wiesenfeld (1996). Indeed, Colquitt, Greenberg, and Zapata-Phelan (2005) cited this particular process/outcome interaction effect in their review of noteworthy conceptual and empirical contributions to the organizational justice literature.

More recently, several studies have shown that under some conditions the interactive relationship between outcome favorability and procedural fairness takes a different form. Specifically, people may react particularly positively when they receive a favorable outcome accompanied by a fair procedure, relative to all other combinations of conditions (e.g., Chen, Brockner, & Greenberg, 2003; Lin, Che, & Leung, 2009). One way to conceptualize the difference between these two interactive patterns is that in the effect originally found by Folger et al. (1983) and shown many times since (Brockner & Wiesenfeld, 1996), *either* a favorable outcome or a fair procedure is *sufficient* to elicit relatively positive reactions. In contrast, in the effect found under some conditions in more recent studies (e.g., Chen, Brockner & Greenberg, 2003; Lin, Che, & Leung, 2009), *both* a favorable outcome and a fair procedure are *necessary* to elicit relatively positive reactions (see Figures 1a and 1b for a graphic representation of these two different patterns).

It is both theoretically and practically important to understand when the interactive relationship between outcome favorability and procedural fairness takes one form rather than the other. Theoretically, “when informs why.” That is, delineating the conditions under which outcome favorability and procedural fairness are more or less consequential provides insight into why these two factors make a difference. For instance, procedural fairness may be more influential when outcome favorability is relatively low (as in Figure 1a), or relatively high (as in Figure 1b). Hence, by determining when procedural fairness is more or less influential, we can better understand why it is influential. Practically, the form of the interactive relationship has managerial implications as well. In general, managers may elicit more positive reactions if they are seen as giving favorable outcomes and using fair procedures, as suggested by the main effects of these two factors. Furthermore, the different forms of interactive relationships suggest

that there may be times when it is particularly important for managers to deliver *both* a favorable outcome and a fair procedure (as in Figure 1b), whereas in other cases the presence of either one may be sufficient (as in Figure 1a). Understanding these conditions will help managers make more informed decisions about how to enhance employees' system-referenced reactions.

Given the theoretical and practical significance of the different forms of interactive relationships between procedural fairness and outcome favorability, further research is needed to delineate when and why each form is likely to emerge. Accordingly, we seek to provide a unifying explanation of when people may react: (1) particularly negatively to an unfavorable outcome accompanied by an unfair procedure (as shown in Figure 1a), and (2) particularly positively to a favorable outcome accompanied by a fair procedure (as shown in Figure 1b).

Theoretical Grounding for Our Predictions

We draw on several well-established lines of reasoning to predict that employees' *trust in decision-making authorities* will determine the form of the process/outcome interaction. First, inherent to people's trust in decision-making authorities are expectations about how the authorities are likely to behave. For example, Rousseau et al. (1998) defined trust as "a psychological state comprising the intention to accept vulnerability based upon the positive *expectation* of the intention or behaviors of another" (p. 395, our emphasis added). Put simply, people expect to be treated positively by authorities they trust.

Second, employees' reactions to organizational decisions are affected by the relationship between their prior expectations and their actual experiences. According to several well-established frameworks in cognitive social psychology, such as consistency theory (e.g., Abelson et al., 1968), social judgment theory (e.g., Sherif & Hovland, 1961), and theory and research on motivated reasoning (e.g., Lord, Ross, & Lepper, 1979), people generally perceive and respond

to events in ways consistent with their prior beliefs. For example, trusted authorities are likely to be perceived as having acted procedurally fairly, thereby leading employees to exhibit positive system-referenced reactions.

However, there may be instances in which people's actual experiences are clearly discrepant from prior expectations. In the language of social judgment theory, in such instances people's experiences cannot be assimilated to their prior expectations, but rather, are in contrast with their prior expectations. When this is the case, people are less likely to react consistently with their prior expectations and instead will be more apt to react in the direction of their actual experiences.

We use this line of reasoning to predict how employees may respond to a decision-making authority, as a function of how much employees trust the authority and whether the authority uses fair procedures and provides favorable outcomes. Employees who expect to be treated well by a trusted authority are likely to respond relatively positively *unless* they are treated in a way that is clearly different from their expectancies (Lind, 2001). The circumstance that most qualifies as being clearly different from their expectancies is when they receive an unfavorable outcome and an unfair procedure. Hence, among those who are relatively trusting reactions will be particularly negative when they receive an unfavorable outcome with an unfair procedure, relative to all other combinations of outcome favorability and procedural fairness.

The same reasoning may be invoked to predict when people are likely to exhibit the alternative form of process/outcome interaction, in which they respond particularly positively to a favorable outcome accompanied by a fair procedure. This tendency is especially likely to occur when trust in the decision-making authority is low. Employees who expect to be treated poorly by an untrustworthy authority are likely to respond relatively negatively *unless* they are treated in

a way that is clearly different from their prior expectancies. The circumstance that most qualifies as being clearly different from their prior expectancies is when they receive a favorable outcome accompanied by a fair procedure. Thus, among those who are relatively untrusting reactions will be particularly positive when they receive a favorable outcome accompanied by a fair procedure, relative to all other combinations of outcome favorability and procedural fairness.

Another way to conceptualize the predicted findings is that people require more evidence to respond positively when they are less trusting of decision-making authorities (e.g., Gilovich, 1991). When trust is high, people are likely to respond relatively positively provided that either the outcomes are favorable or the procedures are fair. When trust is low, however, people are less forgiving; they will only respond positively if they receive a favorable outcome that is accompanied by a fair procedure.

In sum, the primary prediction of the present studies is a three-way interaction between trust, procedural fairness, and outcome favorability. When trust in a decision-making authority is high, people are expected to react relatively negatively when they receive an unfavorable outcome accompanied by an unfair procedure. Moreover, when trust in a decision-making authority is low, people are expected to respond relatively positively when they receive a favorable outcome accompanied by a fair procedure. What is perhaps most intriguing or non-intuitive about these predictions is that both outcome *and* procedural information need to be discrepant from extant levels of trust for people to react differently. Unexpected variations in either outcome or procedure alone may not be sufficient to elicit reactions that deviate from their extant trust judgments.

Implications for the Trust Literature

If trust in a decision-making authority is shown to dictate the form of the process/outcome interaction as specified above, it would have implications not only for the organizational justice literature, but also for theory and research on trust (e.g., Kramer, 1999). Trust tends to be self-perpetuating; it causes employees to perceive and respond to their workplace experiences in ways that reinforce their extant trust (for better or for worse). Indeed, a critical challenge for trust scholars has been to understand the conditions under which people's experiences of or reactions to trust in authorities change over time (Kramer & Tyler, 1996; Lewicki & Bunker, 1996). What types of experiences might lead people to react differently from their existing levels of trust? Our reasoning posits that deviations in *both* the outcome and the procedure from extant trust (e.g., high outcome favorability and high procedural fairness in the face of low trust) may induce people to respond differently. Deviations in *either* outcome favorability or procedural fairness alone from extant trust may not be sufficient. If confirmed, such findings would have implications for the longstanding observation in the trust literature about how difficult it is to enhance or restore trust, and what it might take to do so.

Overview of the Present Studies

The predicted three-way interaction between trust, outcome favorability, and procedural fairness was examined in five studies. Whereas Studies 1-4 all consisted of field surveys, they differed in several noteworthy ways. Two of the studies were conducted in the United States, one was done in the Netherlands, and one was done in the United Kingdom. Moreover, the scales and items used to measure the independent variables of outcome favorability, procedural fairness, and trust and the system-referenced dependent variables differed across studies. For example, the outcome variable referred to favorability in two studies and to fairness in two other studies. To

the extent that consistent results emerge despite these differences, we will be more confident of the construct validity and generalizability of the findings (Cook & Campbell, 1979).¹

Whereas Studies 1-4 examine our hypothesis in naturalistic settings (and thereby lend external validity to the findings), their cross-sectional nature raises questions about internal validity. To address this as well as several other methodological concerns of the field surveys, Study 5 consisted of an experimental design in which we orthogonally manipulated the three independent variables. Study 5 and some supplemental analyses accompanying Studies 1-4 also helped to shed further light on the mechanism underlying the obtained results.

Across all five studies we predicted a three-way interaction effect: among the subset of participants who were more trusting of the decision-making authority, their reactions were expected to be particularly negative when both outcome favorability and procedural fairness were low. Among the subset of participants who were less trusting of the decision-making authority, their reactions were expected to be especially positive when both outcome favorability and procedural fairness were high.²

Method of Studies 1-4

All four studies consisted of field surveys in which the independent and dependent variables were embedded. Further details about the participants (e.g., the nature and size of the sample) and the scale items used in Studies 1-4 may be found in Table 1 and in Appendices A-D.

Results of Studies 1-4

Means, standard deviations, coefficient alphas, and zero-order correlations for all variables in all four studies are shown in Table 2.

Confirmatory Factor Analyses

The correlation tables suggest that the independent variables of procedural fairness, outcome favorability, and trust were significantly related to one another. To determine whether they also were meaningfully different, we conducted confirmatory factor analyses (CFAs) in each study, in which we evaluated: (1) how well a three-factor solution fit the data, and (2) whether the three-factor solution provided a better fit to the data than a one-factor solution, or several two-factor solutions (one in which outcome favorability and procedural fairness were combined into one factor with trust serving as the other, and one in which procedural fairness and trust were combined into one factor with outcome favorability serving as the other). As shown in Tables 3-6, the three-factor solution provided an adequate-to-good fit to the data, and the three-factor solution always provided a superior fit than the one-factor solution and both of the two-factor solutions.

Test of Hypothesis

We used hierarchical regression analyses to test for the predicted three-way interaction between procedural fairness, outcome favorability, and trust. In all four studies we regressed the dependent variable on the main effects of procedural fairness, outcome favorability and trust in Step 1. In Step 2 we added all three of the two-way interactions and in Step 3 we added the focal three-way interaction. Using the procedures outlined by Aiken and West (1991), we mean-centered procedural fairness, outcome favorability, and management trust and constructed the interaction terms using the mean-centered scores. The regression results for the four studies are shown in Tables 7-10. All four studies showed main effects of procedural fairness and outcome favorability, and two of the four yielded main effects of trust. The two-way interaction effects were occasionally significant (e.g., the interaction between procedural fairness and trust was significant in two of the four studies and the interaction between outcome favorability and trust

was significant on one occasion). Interestingly, the two-way interaction between procedural fairness and outcome favorability, which was the finding reviewed by Brockner and Wiesenfeld (1996), was not significant in any of the studies, a point to which we will return in the General Discussion.

Of greatest importance, the three-way interaction was significant in all four studies ($p < .05$ in Study 1, and $p < .01$ in Studies 2-4). To illustrate the nature of the three-way interaction, we drew on the procedures recommended by Aiken and West (1991) and generated predicted values for the effects of outcome favorability and procedural fairness on the dependent variable at a high level of trust (one SD above the mean) and at a low level of trust (one SD below the mean). As shown in Figure 2a (Study 1), Figure 3a (Study 2), Figure 4a (Study 3), and Figure 5a (Study 4), among those who were more trusting of decision-making authorities, reactions were particularly negative when both outcome favorability and procedural fairness were low. Moreover, as can be seen in Figure 2b (Study 1), Figure 3b (Study 2), Figure 4b (Study 3), and Figure 5b (Study 4), among those who were less trusting of decision-making authorities, reactions were especially positive when both outcome favorability and procedural fairness were high. A meta-analysis of the three-way interaction across the four studies was highly significant, $z = 5.84, p < .001$.

Decomposing the Three-Way Interaction. We further analyzed the three-way interaction by examining the predicted values of the dependent variable attributable to the two-way interaction between outcome favorability and procedural fairness, within levels of trust. The sign associated with the two-way interaction between outcome favorability and procedural fairness should be negative when trust is high (indicating that procedural fairness is more impactful when outcome favorability is relatively low, as shown in Figure 1a), and the sign should be positive when trust

is low (indicating that procedural fairness is more influential when outcome favorability is relatively high, as shown in Figure 1b). (This pattern should be reversed in Study 2 because unlike in the other studies, the dependent variable of turnover intention was coded such that a higher score reflected a more negative reaction.)

When trust was high, the two-way interaction between outcome favorability and procedural fairness was significant ($p < .05$) in Studies 2 and 4, and took the predicted form (shown in Figure 1a). The two-way interaction was not significant in Studies 1 and 3 but as predicted, its sign was negative. Moreover, a meta-analysis of the process/outcome interaction at low levels of trust across the four studies was significant, $z = 3.13, p < .01$.

When trust was low the two-way interaction between outcome favorability and procedural fairness was significant at the .01 level in Study 3 and took the predicted form (shown in Figure 1b). The two-way interaction between outcome favorability and procedural fairness was not significant in Studies 1, 2, and 4 but the sign always was in the predicted direction. Furthermore, a meta-analysis of the process/outcome interaction at high levels of trust across the four studies was significant, $z = 2.95, p < .01$.³

Simple slope analyses also were conducted, in which we examined the main effects of procedural fairness and outcome favorability within high and low levels of trust. When trust was high those who experienced unfavorable outcomes and unfair procedures should respond worse than those who experienced: (1) unfavorable outcomes/fair procedures, or (2) favorable outcomes/unfair procedures. Stated differently, when trust was high and outcome favorability was low, the simple slope associated with the main effect of procedural fairness should be positive (except in Study 2 in which the dependent variable (turnover intention) was coded such that higher scores reflected a more negative system-referenced reaction). Indeed, the sign of the

simple slope of procedural fairness took its predicted form in all four studies, and significantly so (at $p < .05$ or better) in Studies 1, 2, and 4. Moreover, a meta-analysis of this simple slope of procedural fairness across all four studies was highly significant, $z = 5.77, p < .001$.

Furthermore, when trust was high and procedural fairness was low, the simple slope associated with the main effect of outcome favorability should be positive, once again, with the exception of Study 2. The sign of the simple slope of outcome favorability took the predicted form in all four studies, and significantly so in Studies 2, 3, and 4 (at $p < .05$ or better). Moreover, a meta-analysis of this simple slope of outcome favorability across all four studies was highly significant, $z = 5.61, p < .001$.

When trust was low, we predicted that those who experienced favorable outcomes and fair procedures should respond better than those who experienced: (1) favorable outcomes/unfair procedures, or (2) unfavorable outcomes/fair procedures. Thus, when trust was low and outcome favorability was high, the simple slope associated with the main effect of procedural fairness should be positive (with the exception of Study 2). In fact, the sign of the simple slope of procedural fairness took its predicted form in all four studies, and was significant at $p < .05$ or better in all four studies. Furthermore, a meta-analysis of this simple slope of procedural fairness across all four studies was highly significant, $z = 6.93, p < .001$.

Finally, when trust was low and procedural fairness was high, the simple slope associated with the main effect of outcome favorability should be positive (except in Study 2). The sign of the simple slope of outcome favorability took its predicted form in all four studies, and was significant at the .05 level or better in Studies 1, 2, and 3. Once again, a meta-analysis of this simple slope of outcome favorability across all four studies was highly significant, $z = 5.20, p < .001$.

In summary, whereas each of the two-way interaction effects between outcome favorability and procedural fairness, and each of the simple main effects of outcome favorability and procedural fairness within a given study were not always significant, the meta-analytic results (across the four studies) provided additional evidence that the focal three-way interaction between trust, outcome favorability, and procedural fairness took its predicted form.⁴

Supplemental Analyses

We also conducted several analyses to better understand the mechanism hypothesized to account for the focal three-way interaction effect between outcome favorability, procedural fairness, and trust. For one thing, we posited that trust reflects people's expectations of how positively the decision-making authority will behave towards them. The survey in Study 3 included an item that allowed us to test this assumption. Participants rated on a seven-point scale the extent to which they agreed with the following statement: "I can expect (Name of Organization) to treat me in a consistent and predictable fashion." Participants' responses to this item were strongly and positively related to trust, $r(151) = .63, p < .001$, in accordance with the fact that the definition of trust includes people's expectations of how positively the trustee will behave towards them (Rousseau et al., 1998).

Furthermore, our reasoning posited that the focal three-way interaction effect was based on people's tendencies to examine their actual experiences (of outcome favorability and procedural fairness) in relation to their (trust-based) expectations. If this reasoning is correct, then the three-way interaction should be more pronounced when people are more strongly engaged in the process of evaluating their experiences in relation to their expectations. The literature on organizational socialization and early job experiences suggests that employees who are relatively new to their positions are especially likely to examine how their actual experiences relate to their

expectations (e.g., Boswell, Shipp, Payne, & Culbertson, 2009; Saks & Ashforth, 1997). For example, providing people with “Realistic Job Previews” is designed to reduce the likelihood of newcomers feeling disillusioned upon discovering that their actual experience falls short of their expectations (Wanous, 1992). Implicit in the rationale for using Realistic Job Previews is that new employees are especially likely to be evaluating their experiences in relation to their expectations. In sum, one way to evaluate the mechanism hypothesized to account for the present findings is by examining whether the focal three-way interaction between trust, outcome favorability, and procedural fairness is stronger among participants who are relatively new to their positions.

Participants in Studies 1 and 3 had indicated how long they had been in their current jobs (Study 1: $M = 9.3$ years, $SD = 8.6$; Study 3: $M = 2.52$ years, $SD = 4.0$). We then conducted an analysis in which the dependent variable (organizational commitment, in both studies) was hierarchically regressed on four independent variables: length of job tenure, in addition to trust, outcome favorability, and procedural fairness. Of greatest importance, the four-way interaction was significant at the .05 level in both studies. As predicted, our focal three-way interaction between trust, outcome favorability, and procedural fairness (that is, the one illustrated in Figures 1a and 1b) was exhibited to a significantly greater extent by those who had been in their positions for shorter periods of time. In other words, the focal three-way interactive effect of trust, outcome favorability, and procedural fairness on organizational commitment showed very different results at high and low levels of job tenure (one SD above and below the mean of job tenure, respectively). When job tenure was low, the focal three-way interaction between trust, outcome favorability, and procedural fairness was significant (and its sign was negative, as expected) in both Study 1 ($t = 3.31, p < .001$) and in Study 3 ($t = 2.94, p < .01$). In contrast, when

job tenure was high the focal three-way interaction did not approach significance in either study (both p values $> .10$). The fact that the focal three-way interaction between trust, outcome favorability, and procedural fairness was more pronounced among employees newer to their positions provides corroborating evidence that the focal three-way interaction emanated from people's tendencies to evaluate their experiences (outcome favorability and procedural fairness) in relation to their trust-based expectations.

Discussion of Studies 1-4

The results of Studies 1-4 supported the prediction that when trust was high, employees would respond particularly negatively when outcome favorability and procedural fairness were both low, and that when trust was low, employees would respond especially positively when outcome favorability and procedural fairness were both high. Importantly, a similar three-way interaction emerged across studies that differed in a variety of ways, such as the country and organization in which the research was conducted, the nature of the dependent variable, and the scale items used to measure all three independent variables. To be sure, there were shortcomings associated with each study. For example, the dependent variable in Study 4 consisted of a single-item measure. However, the fact that the predicted three-way interaction was significant in all four studies is reassuring about at least some of the shortcomings of any given study.

Study 5

Whereas the results of Studies 1-4 supported the predicted three-way interaction between outcome favorability, procedural fairness, and trust, the field survey method common to all studies lends itself to a number of concerns. First, the cross-sectional nature of the surveys raises questions about the internal validity of the findings. Second, all of the independent and dependent variables were assessed with self-reports, which raises concerns about whether the

results emanated from common methods. Third, given that the three independent variables were highly correlated, it is important to evaluate whether the results may emerge in a context in which the three independent variables were more distinct.

Study 5 was designed to address all three of these concerns. Rather than measuring the independent variables (as in Studies 1-4), we randomly assigned participants to conditions varying in trust in the decision-making authority, outcome favorability, and procedural fairness. Moreover, because the three independent variables were manipulated orthogonally they were uncorrelated with one another. In addition, common methods were not present in Study 5.

Study 5 also was designed to shed additional light on the mechanism responsible for the focal three-way interaction effect. We previously hypothesized that trust in the decision-making authority dictates the form of the two-way interaction between outcome favorability and procedural fairness because people use the expectancies inherent in their trust judgments as a basis for perceiving and responding to their experiences of outcome favorability and procedural fairness. Whereas the supplemental analyses in Studies 1-4 provided further support for this line of reasoning, alternative interpretations are possible. In a recent vignette-based study, Lin, Che, and Leung (2009) asked participants to imagine that they had applied for a coveted job. Outcome favorability and procedural fairness were experimentally manipulated. Outcome favorability was varied by telling participants whether or not they received the job offer. Moreover, the fairness of the procedure used to arrive at their selection decision was varied to be either high or low. Lin, Che, and Leung also manipulated a third independent variable, which they called “leader morality.” Prior to the manipulations of outcome favorability and procedural fairness, participants were provided information about the manager who was responsible for the hiring

decision in which they were told that he was either high or low in morality. The dependent variable consisted of participants' attraction to the organization.

We believe that the leader morality manipulation used by Lin, Che, and Leung (2009) influenced the extent to which the decision-making authority was seen as trustworthy. However, Lin, Che, and Leung did not consider this possibility. Instead, they hypothesized that leader morality was a proxy for the importance that participants assigned to their relationship with the decision-making authority. Indeed, Lin, Che, and Leung (2009) found a three-way interaction between outcome favorability, procedural fairness, and leader morality, such that when leader morality was relatively high, people responded particularly negatively to receiving an unfavorable outcome accompanied by an unfair procedure. However, Lin, Che, and Leung did not evaluate whether the moderating effect of leader morality (on the process/outcome interaction) was attributable to the degree of importance that participants assigned to their relationship with the decision-making authority. An alternative explanation of the Lin, Che, and Leung findings is the one we are setting forth: people in the high leader morality condition may have reacted particularly negatively to an unfavorable outcome accompanied by an unfair procedure because of the negative discrepancy between how they expected to be treated by a decision maker high in morality and how they were actually treated.

Moreover, if the negative discrepancy between expected and actual treatment accounted for Lin, Che, and Leung's (2009) results when leader morality was high, then when leader morality was low (in which case trust in the leader also was presumably low), the effects of outcome favorability and procedural fairness on attraction to the organization should be quite different: that is, people should respond particularly positively to receiving a favorable outcome with a fair procedure. After all, such conditions entail a positive discrepancy between how people may have

expected to be treated (by a decision-maker low in morality) and their actual experiences. In fact, an examination of the means in the low leader morality condition in Lin, Che, and Leung's vignette study showed that participants responded more positively when they received a favorable outcome with a fair procedure than they did in the other low morality conditions. Lin, Che, and Leung (2009) did not focus on the findings in the low morality condition in the published version of their article. However, a post hoc analysis conducted among participants in the low leader morality condition showed that they were significantly more attracted to the organization when they received a favorable outcome with a fair procedure than they were in all of the other low leader morality conditions, taken together ($p < .05$); we are extremely grateful to Lucy Lin for conducting this analysis, which provides suggestive evidence consistent with our explanation of their findings.

In summary, the Lin, Che, and Leung (2009) findings are consistent with our primary prediction, namely, that when leader morality is high people reacted particularly negatively to the receipt of an unfavorable outcome accompanied by an unfair procedure, and that when leader morality is low, people reacted especially positively to the receipt of a favorable outcome delivered with a fair procedure. Lin, Che, and Leung did not conceptualize leader morality as reflecting the extent to which participants trusted the decision-making authority. Instead, they offered (but did not evaluate) an alternative explanation of their findings, in which leader morality was considered to be a proxy for how much importance people assigned to their relationship with the decision-making authority.

In Study 5 we attempted to extend Lin, Che, and Leung's (2009) findings. All participants took part in a similar vignette study, in which outcome favorability, procedural fairness, and trust in the decision-making authority were manipulated as independent variables and participants'

attraction to the organization served as the dependent variable. In addition, we included measures designed to evaluate whether the moderating effect of trust in the decision-making authority on the interactive relationship between outcome favorability and procedural fairness was attributable to relationship importance as Lin, Che, and Leung hypothesized, and/or whether it resulted from the relationship between prior expectancies and actual treatment, which we proposed.

More specifically, participants rated the extent to which they assigned importance to their relationship with the decision-making authority. If Lin, Che, and Leung's (2009) reasoning is correct, then: (a) participants should assign greater importance to their relationship with the decision-making authority in our high trust condition than in our low trust condition, and (b) of greater significance, the importance that people assign to their relationship with the decision-making authority should moderate the interactive relationship between outcome favorability and procedural fairness.

We also included an additional measure designed to evaluate further whether the relationship between expectancies and actual experience was responsible for the predicted three-way interaction on various system-referenced measures. Our reasoning posits not only that participants in the high trust condition will be particularly unattracted to the organization when the authority metes out an unfavorable outcome with an unfair procedure, but also that they will judge the authority as particularly untrustworthy under such conditions. In other words, the negative discrepancy between how participants initially expected to be treated (given high trust in the decision-making authority) and their subsequent actual experience (the receipt of an unfavorable outcome accompanied by an unfair procedure) may lead them to see the leader as especially untrustworthy.

Moreover, the same reasoning posits that among participants in the low trust condition, the decision-making authority may be seen as particularly trustworthy when the authority delivers a favorable outcome with a fair procedure. In this instance, the positive discrepancy between how participants presumably initially expected to be treated (given low trust in the decision-making authority) and their subsequent actual experience (the receipt of a favorable outcome accompanied by a fair procedure) may not only make them more attracted to the organization, but also may induce them to judge the leader as more trustworthy.

One way to assess this reasoning is to measure the trustworthiness of the decision-making authority, in addition to the primary dependent variable of attraction to the organization. We predicted a three-way interaction effect on the measure of the authority's trustworthiness that was similar in form to the one hypothesized for attraction to the organization. Among participants in the high trust condition the authority will be seen as particularly untrustworthy when they receive an unfavorable outcome accompanied by an unfair procedure. Moreover, among participants in the low trust condition the authority will be seen as especially trustworthy when participants receive a favorable outcome accompanied by a fair procedure.

Method

Participants

Two hundred and forty-seven adults (165 women and 82 men) participated as part of an online survey research program. Slightly more than half of the participants were between 35 and 55 years old. All were voluntary members of a research panel that completed occasional online surveys through internet-based advertisements in return for payment or credits for online retailers.

Design and Procedure. We employed a 2 (Procedural fairness: high vs. low) \times 2 (Outcome favorability: high vs. low) \times 2 (Trust: high vs. low) between-subjects design. Based on the

vignette used by Lin, Che, and Leung (2009), all participants read a scenario in which they were asked to imagine they were applying for a desirable job. Participants were told that the organization had an extensive process for making hiring decisions which consisted of nine different selection dimensions, including intelligence tests, personality tests, and interviews. Ultimately, however, they were told that the hiring decision would be made by the Human Resources (HR) Manager. In the high trust condition, participants were told that several credible sources gave the following report of the HR Manager:

[The HR manager is] very conscientious and reliable. This person has a reputation for making good on his/her promises, for not abusing power to pursue personal gain, and for caring deeply about choosing the right person for each job.

In the low trust condition, participants were told:

[The HR manager is] neither a conscientious nor a reliable person. This person has a reputation for not making good on his/her promises, for abusing power to pursue personal gain, and for caring little about choosing the right person for each job.

Whereas the vignette and experimental manipulations in Study 5 generally were similar to those used by Lin et al. (2009), the experimental manipulation of trust in the HR manager in Study 5 differed in a subtle but important way from the Lin et al. (2009) manipulation of leader morality. In the previous study participants were given the above information from which they may have concluded that the HR manager was more trustworthy in the high leader morality condition than in the low leader morality condition. Given our focus on trust as a moderator of the process/outcome interaction, however, we wanted to manipulate trust more directly. Thus, we explicitly concluded the description of the HR manager in the high trust condition by saying, “In short, the HR manager is known to be quite trustworthy,” whereas in the low trust condition we concluded by saying, “In short, the HR manager is known to be quite untrustworthy.”

All participants were next told to imagine that they were contacted by the HR manager one week after they had applied for the job. Those in the high outcome favorability condition were told they received a job offer whereas those in the low outcome favorability condition were told they did not receive a job offer. Procedural fairness information followed next.

In the high procedural fairness condition, participants were told:

You also learned at that time that the hiring decision was based on a thorough analysis of what the organization learned about you during the selection process; that is, they used information about your performance on all nine components of the selection process that you completed.

In the low procedural fairness condition, participants were told:

You also learned at that time that the hiring decision was based on a very limited review of the selection criteria you completed. Specifically, even though they had information about you from nine different components in the selection process, they only used information about your performance on one of the nine components.

Measures

After reading the vignette participants responded to a brief survey which included various measures, all of which were rated on seven-point scales.

Manipulation Checks. To assess outcome favorability, we asked participants: “The outcome of the hiring decision was favorable to me,” whereas for procedural fairness the item was, “The selection process used to make the hiring decision was fair.” Endpoints ranged from “strongly disagree” (1) to “strongly agree” (7).

The manipulation check on whether the participants trusted the manager more in the high trust condition than in the low trust condition consisted of trait attributions of the HR manager, in which the manager was rated along six dimensions related to trustworthiness (e.g., integrity, morality, and well-intentioned). Scale endpoints were “not at all” (1) and “very much” (7).

Coefficient alpha for was .98.

Attraction to the Organization. This measure was based on the two items used in the Lin, Che, and Leung (2009) study (e.g., “I will recommend this organization to my friends,” with anchors of “strongly disagree” (1) and “strongly agree” (7)), and one additional item that we created. Coefficient alpha was .96.

Relationship Importance. This measure consisted of three items, for example, “How important is your relationship with the HR manager?” Anchors consisted of “Not important at all” (1) and “Extremely important” (7). Coefficient alpha was .77.

Results

All of the measures were subjected to a three-factor (Outcome Favorability x Procedural Fairness x Trust in the HR Manager) analysis of variance (ANOVA).

Manipulation Checks

As expected, each of the manipulation checks yielded a highly significant main effect of its respective manipulation. Participants in the high outcome favorability condition reported that their outcome was more favorable than participants in the low outcome favorability condition ($M_s = 5.93$ vs. 2.40 , respectively; $F(1, 239) = 282.39, p < .001$). In addition, participants in the high procedural fairness condition made higher assessments of procedural fairness than did those in the low procedural fairness condition ($M_s = 5.04$ vs. 3.61 respectively; $F(1, 239) = 40.40, p < .001$). Furthermore, participants saw the HR manager as more trustworthy in the high trust condition than in the low trust condition ($M_s = 5.14$ and 3.10 , respectively; $F(1, 239) = 108.65, p < .001$).

Attraction to the Organization

The main effects of all three independent variables were significant. Attraction to the organization was higher when participants received a more favorable outcome, $F(1, 239) =$

50.75, $p < .001$, $\eta^2 = .17$), when procedural fairness was relatively high, $F(1, 239) = 18.06$, $p < .001$, $\eta^2 = .07$, and when the HR manager was higher in trust, $F(1, 239) = 21.40$, $p < .001$, $\eta^2 = .08$). The only other significant effect, and one of far greater importance, was the predicted three-way interaction, $F(1, 239) = 6.28$, $p < .02$, $\eta^2 = .03$. As can be seen in Figure 6a (the high trust condition), participants showed the lowest level of attraction to the organization in one condition (low outcome favorability/low procedural fairness) relative to each of the others in Figure 6a. The simple two-way interaction between outcome favorability and procedural fairness was significant in the high trust condition, $F(1, 239) = 4.64$, $p < .05$, $\eta^2 = .02$. Furthermore, analogous to the simple slope main effect tests conducted in Studies 1-4, attraction to the organization in the low outcome favorability/low procedural fairness condition ($M = 2.90$) was significantly lower than it was in: (1) the low outcome favorability/high procedural fairness condition ($M = 4.94$; $F(1, 239) = 23.25$, $p < .001$), and (2) the high outcome favorability/low procedural fairness condition ($M = 5.25$; $F(1, 239) = 30.85$, $p < .001$). Attraction to the organization also was significantly lower in the low outcome favorability/low procedural fairness condition than it was in the high outcome favorability/high procedural fairness condition ($M = 6.00$; $F(1, 239) = 53.68$, $p < .001$).

In the low trust condition, as can be seen in Figure 6b, participants showed the highest level of attraction to the organization in one condition (high outcome favorability/high procedural fairness), relative to each of the others in Figure 6b. The simple interaction between outcome favorability and procedural fairness, while directionally consistent with predictions, was not significant, $F(1, 239) = 1.93$, $p < .20$. However, analogous to the simple slope main effects done in Studies 1-4, we found that attraction to the organization in the high outcome favorability/high procedural fairness condition ($M = 5.03$) was significantly higher than it was

in: (1) the high outcome favorability/low procedural fairness condition ($M = 4.02$; $F(1, 239) = 5.70$, $p < .05$), and (2) the low outcome favorability/high procedural fairness condition ($M = 3.15$; $F(1, 239) = 19.74$, $p < .001$). Attraction to the organization also was significantly higher in the high outcome favorability/high procedural fairness condition than it was in the low outcome favorability/low procedural fairness condition ($M = 2.97$; $F(1, 239) = 23.70$, $p < .001$).

Relationship Importance

We then conducted several analyses to evaluate Lin, Che, and Leung's (2009) untested implications that: (1) trust in the HR manager was a proxy for the amount of importance that people assigned to their relationship with the decision-maker, and (2) relationship importance moderated the interactive effect of outcome favorability and procedural fairness on attraction to the organization. In fact, there was support for the first assertion: the three-factor ANOVA yielded a main effect of trust, such that participants assigned greater importance to their relationship with the HR manager in the high trust condition than in the low trust condition, $F(1, 239) = 4.76$, $p < .05$, $\eta^2 = .02$.

To evaluate whether relationship importance moderated the interactive relationship between outcome favorability and procedural fairness, we conducted a hierarchical regression on attraction to the organization in which the independent variables were relationship importance, outcome favorability, and procedural fairness. In the first step we entered all three main effects, in the second step we entered all three two-way interaction effects, and, in the third step we entered the three-way interaction effect. Of greatest importance, relationship importance did not moderate the interactive relationship between outcome favorability and

procedural fairness; the three-way interaction effect was not significant, $F(1, 239) = 1.01$, $p > .30$.

Whereas the latter findings do not support the relationship importance explanation set forth by Lin, Che, and Leung (2009), the research method used in Study 5 may have made for a less than ideal test of this explanation. Given that participants were responding to a hypothetical situation, it may have been difficult for them to answer questions about the importance of their “relationship” with the decision-making authority, when, in fact, they had none. Thus, the relationship importance explanation was further examined in one of the field surveys (Study 1) in which participants responded to their actual encounters with decision-making authorities in the workplace, with whom they actually had relationships. The measure of relationship importance consisted of three items, e.g., “How important is your relationship with management?” with endpoints of “not at all important” (1) and “very important” (7). Coefficient alpha was .84. Responses were averaged into an index.

Analogous to the aforementioned results found in Study 5, participants’ trust in management in Study 1 was positively related to the amount of importance they assigned to their relationship with management, $r(218) = .28$, $p < .001$. However, there was no evidence that relationship importance moderated the interactive relationship between outcome favorability and procedural fairness. To evaluate the latter possibility, we hierarchically regressed participants’ organizational commitment on outcome favorability, procedural fairness, and relationship importance; the three-way interaction effect was not significant, $F < 1$.

Trustworthiness Attributed to the HR Manager

Whereas the preceding analyses showed that relationship importance did not explain why trust in the HR manager moderated the interactive effect of outcome favorability and

procedural fairness on attraction to the organization, it still needs to be determined whether there is converging support for the mechanism we hypothesized to account for the three-way interaction. We reasoned that among participants in the high trust condition, the HR manager would be judged as particularly untrustworthy when s/he acted in a manner that clearly violated participants' positive expectations of how they would be treated, namely, when the HR manager delivered an unfavorable outcome with an unfair procedure. Moreover, we posited that among participants in the low trust condition, the HR manager would be judged as especially trustworthy when s/he acted in a manner that clearly violated participants' negative expectations of how they would be treated, namely, when the HR manager delivered a favorable outcome with a fair procedure.

In the manipulation check section we reported that there was the expected main effect of manipulated trustworthiness on how much the manager was seen as trustworthy. The above reasoning suggests that over and above the significant main effect of manipulated trustworthiness on perceived trustworthiness, there should be a three-way interaction effect on judgments of the HR manager's trustworthiness. Indeed, this three-way interaction was significant, $F(1, 239) = 4.31, p < .05, \eta^2 = .02$. Moreover, the form of the three-way interaction supported our reasoning. As shown in Figure 7a (the high trust condition), the HR manager was seen as significantly less trustworthy in the low outcome favorability/low procedural fairness condition relative to each of the other conditions in Figure 7a. For example, the mean level of trust in the HR manager in the low outcome favorability/low procedural fairness condition ($M = 3.62$) was significantly lower than it was in the low outcome favorability/high procedural fairness condition ($M = 5.38; F(1, 239) = 20.97, p < .001$), and the high outcome favorability/low procedural fairness condition ($M = 5.04; F(1, 239) = 13.65, p < .001$). Trust in

the HR manager also was significantly lower in the low outcome favorability/low procedural fairness condition than it was in the high outcome favorability/high procedural fairness condition ($M = 6.18$; $F(1, 239) = 44.37$, $p < .001$).

In addition, as shown in Figure 7b (the low trust condition), the HR manager was seen as significantly more trustworthy in the high outcome favorability/high procedural fairness condition relative to each of the others in Figure 7b. Thus, the mean in the high outcome favorability/high procedural fairness condition ($M = 4.11$) was significantly higher than it was in the high outcome favorability/low procedural fairness condition ($M = 2.82$; $F(1, 239) = 11.27$, $p < .001$), and the low outcome favorability/high procedural fairness condition ($M = 2.75$; $F(1, 239) = 12.52$, $p < .001$). Trust in the HR manager also was significantly higher in the high outcome favorability/high procedural fairness condition than it was in the low outcome favorability/low procedural fairness condition ($M = 2.43$; $F(1, 239) = 19.11$, $p < .001$).

Discussion

The results of Study 5 provided further support for our predictions. First and foremost, we conceptually replicated the results of the field surveys using a research design that, unlike in the field surveys: (1) was high in internal validity, (2) did not entail common methods, and (3) ensured that outcome favorability, procedural fairness, and trust were uncorrelated.

Second, we extended the findings of Lin, Che, and Leung (2009) by providing evidence on the mechanism underlying our focal three-way interaction. Lin, Che, and Leung argued that leader morality was a proxy for relationship importance, which, in turn, influenced the form of the interactive relationship between outcome favorability and procedural fairness. Whereas participants in Study 5 assigned greater importance to their relationships with the HR manager in the high trust condition than in the low trust condition, relationship importance did not influence

the interactive relationship between outcome favorability and procedural fairness.

Rather, the findings were more consistent with the notion that participants judged their experience (as reflected in the combination of outcome favorability and procedural fairness) in relationship to their expectations (as reflected in trust). Among those in the high trust condition the HR manager was seen as least trustworthy when she delivered an unfavorable outcome accompanied by an unfair procedure. This finding may have emanated from the negative discrepancy between participants' expectations of how they would be treated and their actual experience. Moreover, among those in the low trust condition the HR manager was seen as most trustworthy when s/he delivered a favorable outcome accompanied by a fair procedure. This finding also may have resulted from the positive discrepancy between how participants' expected to be treated and their actual experience. Thus, how much people trusted the HR manager did not depend only on the experimental manipulation of trust. Trust in the HR manager also was an interactive function of manipulated trust, outcome favorability, and procedural fairness. It appears that people updated their trust judgments when their actual experiences (as reflected in the combination of outcome favorability and procedural fairness) were clearly discrepant from their extant levels of trust.

General Discussion

Taken together, the results of all five studies provided strong support for the hypothesis that the form of the interactive relationship between outcome favorability and procedural fairness depends on people's trust in the decision-making authority. Importantly, similar results emerged across very different research settings. Studies 1-4 consisted of surveys about participants' actual work experiences while Study 5 was based on an experimental design. Whereas the experimental design of Study 5 allowed for high internal validity, the fact that participants were merely

responding to a hypothetical vignette limited the external validity of the results. Studies 1-4, on the other hand, were of questionable internal validity, but showed that the results of Study 5 generalized to people's actual work experiences. Furthermore, the external validity of the results of Study 4 was further enhanced by the fact that participants were drawn from a highly representative sample of working adults in the United States population.

As shown in the Appendices, the items used to measure the independent variables of procedural fairness, outcome favorability, and trust in Studies 1-4 were similar but not identical. The fact that consistent results emerged across the field surveys and Study 5 bodes well for the reliability and generality of the findings. Moreover, the supplemental analyses presented subsequent to the main findings of Studies 1-4, and the results on the measure of trust in Study 5 provided converging evidence that the three-way interaction resulted from people's tendencies to use their trust-based expectations as a lens through which to interpret and respond to the outcome favorability and procedural fairness with which they were treated.

Implications for the Literature on Organizational Justice

Many previous studies have shown that outcome favorability and procedural fairness interact to influence employees' system-referenced reactions, which is a finding of considerable theoretical significance (Colquitt, Greenberg, & Zapata-Phelan, 2005). Moreover, the form of the interactive relationship has been shown to differ across studies. As originally demonstrated by Folger (e.g., Folger et al., 1983), and replicated many times since (e.g., Brockner & Wiesenfeld, 1996), one pervasive tendency is for people to react particularly negatively when they receive an unfavorable outcome accompanied by an unfair procedure. Given that this "original" process/outcome interaction effect has been found on so many occasions it is worth noting that it did not emerge across all participants in any of the five present studies. Rather, the original

process/outcome interaction effect materialized only among the subset of participants in the present studies who were more trusting of their decision-making authorities. One possible explanation of why the original process/outcome interaction effect did not emerge across participants in the present studies is that people have become generally less trusting of decision-making authorities, relative to when the earlier studies were conducted. Indeed, evidence of a decline in trust in decision-making authorities has been found in a number of survey studies (Center for Public Leadership, 2009; Pew Research Center, 2009). If participants in the present studies were generally less trusting of decision-making authorities relative to the participants in the earlier studies, it may explain why it was only those who were relatively high in trust in the present studies who exhibited the “original” process/outcome interaction. Of course, this speculation needs to be examined in future research.

Moreover, other studies have shown that under certain conditions people react especially positively when they receive a favorable outcome accompanied by a fair procedure (e.g., Chen, Brockner, & Greenberg, 2003; Lin, Che, & Leung, 2009). Given these divergent forms of the process/outcome interaction, it is important to delineate when and why one form rather than the other is likely to emerge. The present findings shed light on these theoretically and practically important questions. When trust is high, the form of the interactive relationship between procedural fairness and outcome favorability is different, relative to when trust is low. These findings emanated from people’s tendencies to examine their experiences (of outcome favorability and procedural fairness) in relation to their prior expectancies (inherent in their trust judgments). That is, people interpreted and responded to their experiences in ways consistent with their trust-based expectations, unless their experiences were so discrepant that they could not be assimilated.

Relationship to Previous Research. In Footnote #2 we reported that previous research has examined the effects of the independent variables in the present studies (i.e., trust, outcome favorability, and procedural fairness) on the dependent variables in the present studies (i.e., employees' system-referenced reactions; Brockner et al., 1997). The results of the earlier studies suggested that people use procedural fairness information to make inferences about how much to trust decision-making authorities, particularly when their outcomes are more unfavorable (in which concerns about decision-makers' trustworthiness are likely to be more salient). The results of the earlier studies showed that it was not procedural fairness *per se* that interacted with outcome favorability to influence employees' system-referenced reactions (in the manner shown in Figure 1a). Rather, it was the trust elicited by procedural fairness information that interacted with outcome favorability. Put differently, the role played by trust in the "original" process/outcome interaction (Brockner & Wiesenfeld, 1996; Folger et al., 1983) was one of mediated moderation: Procedural fairness led to trust, which, in turn, interacted with outcome favorability to influence employees' system-referenced reactions. Thus, the key effects in the earlier studies were the two-way interactions between: (1) procedural fairness and outcome favorability (along the lines exhibited in Figure 1a), and (2) trust and outcome favorability, both of which were significant when examined in separate regression analyses. Moreover, when the two interaction effects were examined in the same regression, the former one dropped out whereas the latter one remained significant, suggesting that it was the trust associated with procedural fairness that interacted with outcome favorability.

The present studies, in contrast, evaluated whether trust dictated the nature of the interactive relationship between outcome favorability and procedural fairness. Hence, the key effect in the present studies was the three-way interaction between trust, outcome favorability, and procedural

fairness. In addition to focusing on different statistical effects, the earlier studies and the present research are guided by distinct conceptualizations. The previous research was based on the notion that people use procedural fairness information to make inferences about how much to trust decision-making authorities (which, in turn, interacts with outcome favorability). The present studies posit that people use their extant trust as a lens through which to perceive and respond to their actual experiences. Whereas the previous studies showed that procedural fairness shapes trust judgments, which, in turn, interact with outcome favorability to influence employees' system-referenced reactions, the present studies posited that people use their extant trust as a basis of perceiving and responding to the outcome favorability and procedural fairness with which they are treated. Thus, we are not questioning the validity of the conceptualization or the results of the earlier studies. Rather, we are suggesting that the prior research essentially committed an "error of omission," in that it did not consider that people also may use their levels of trust as a lens through which to interpret and respond to the outcome favorability and procedural fairness directed towards them by decision-making authorities.

Taken together, then, the previous and present findings point to a reciprocal relationship between procedural fairness and trust. Previous research has shown that employees use procedural fairness information to make inferences about how much to trust decision-making authorities (e.g., Konovsky & Pugh, 1994; Van den Bos, Wilke, & Lind, 1998), which, in turn, interacts with outcome favorability to influence their system-referenced reactions (Brockner et al., 1997). The present findings suggest that trust also provides a lens through which people interpret and respond to their actual experiences, comprised of both procedural fairness and outcome favorability. In considering avenues for future research below, we will offer an informed speculation about when the effect of trust, procedural fairness and outcome favorability

on employees' system-referenced reactions may take the form that it did in the previous studies or the one that it did in the present research.

Implications for the Literature on Organizational Trust

The present findings also have implications for theory and research on trust, in particular by delineating when people may respond differently from their existing levels of trust. A well-established premise of the present studies is that people generally perceive and respond to events in ways consistent with their prior expectations. Furthermore, trust incorporates people's expectations about how they will be treated (Rousseau et al., 1998). Whereas people generally perceive and respond to events consistently with their trust-based expectations, they do not always do so. The present findings specify when people may react differently from their extant levels of trust, namely, when their experience (comprised of *both* outcome favorability and procedural fairness) differs from their level of trust. Such findings also have implications for the enhancement or reparation of trust. When trust is low, employees only may respond relatively positively when they receive both favorable outcomes and fair procedures. Such findings also help us to understand why it is so difficult to enhance relationships characterized by low levels of trust; the receipt of either favorable outcomes or fair procedures alone may not be sufficient to elicit more positive reactions.

Limitations/Suggestions for Future Research

Whereas the present studies offer contributions to both the justice and trust literatures, they do have limitations. In calling attention to them, we also are suggesting some avenues for additional research. For example, although the present studies produced consistent results across various operationalizations of procedural fairness, we need to determine whether such results would emerge if other aspects of fairness were examined, such as informational and interpersonal

fairness (Colquitt, 2001). Furthermore, future research needs to provide additional evidence (beyond what we have already presented) on the mechanism hypothesized to account for the present findings, namely, people's tendencies to compare their actual experiences to their expectations. For example, in a field setting it may be possible to conduct a prospective (rather than cross-sectional) study in which baseline measures of employees' trust in their managers are taken early in their working relationship. At a later point in time, researchers could then assess employees' perceptions of the outcome favorability and procedural fairness associated with certain decisions. Presumably, employees who were more trusting would be predicted to react particularly negatively if they received an unfavorable outcome with an unfair procedure. Moreover, employees who were less trusting would be predicted to react particularly positively if they received a favorable outcome with a fair procedure.

Furthermore, whereas the present studies extend previous findings about the role of trust in the interactive relationship between procedural fairness and outcome favorability (Brockner et al., 1997), further research is needed to delineate when trust is likely to serve as a lens through which people interpret and respond to their experience of procedural fairness and outcome favorability (as in the present studies), or as an inference people draw from the procedural fairness with which they are treated (as in the previous studies of Brockner et al., 1997). Whereas the two conceptions are not logically inconsistent with one another, it may be that each conception is more applicable under some conditions rather than others. For example, several of the earlier studies were conducted in the context of organizational changes, such as a downsizing or a relocation. The uncertainties elicited by such changes may have induced employees (especially those who received unfavorable outcomes) to re-evaluate their trust in decision-making authorities, thereby making them susceptible to influence by procedural fairness information.

The present studies, in contrast, were not conducted in the context of organizational changes. Hence, participants may not have been actively re-evaluating their trust in decision-making authorities, but rather using their extant trust as a basis for interpreting and responding to their actual experiences.

Concluding Comments

The notion that people's judgments of outcome favorability and procedural fairness are viewed in relation to the trustworthiness of the decision-making authority helps clarify when and why the interactive relationship between outcome favorability and procedural fairness takes one form rather than the other. Practically speaking, the present findings suggest that in the current difficult economic climate, when trusted managers are forced to mete out unfavorable outcomes, employees may continue to respond relatively positively provided that managers are procedurally fair. However, managers perceived as relatively untrustworthy may need to deliver both favorable outcomes and fair procedures in order to elicit more positive reactions in their employees.

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Footnotes

1. Outcome favorability and outcome fairness are conceptually distinct. Outcome favorability refers to how much people stand to benefit (economically, psychologically, or both) as a result of the decision that was reached. Outcome fairness refers to the extent to which the outcome is consistent with the prevailing norm or basis for making allocation decisions, such as equity, equality, and need (Deutsch, 1985). Though conceptually distinct, outcome favorability and outcome fairness are highly related to each other (with correlations in the .70s, e.g., Brockner et al., 2003). Moreover, the two constructs have been shown to interact similarly with procedural fairness to influence employees' work attitudes and behaviors, both across studies (Brockner & Wiesenfeld, 1996) and within studies (Brockner et al., 2003). The theoretical grounding for the present studies suggests that outcome fairness (which was examined in Studies 2 and 3) also may behave similarly to outcome favorability (which was examined in Studies 1 and 4) in the context of the focal three-way interaction. In particular, among the participants who are more trusting of decision-making authorities, reactions should be particularly negative when they experience low outcome fairness and low procedural fairness. Among those who are less trusting of decision-making authorities, reactions should be especially positive when they experience high outcome fairness and high procedural fairness. For purposes of simplicity, we will refer hereafter to the outcome variable as favorability rather than fairness.

2. The main prediction of the present studies is that the joint effects of outcome favorability and procedural fairness will differ among people *within* varying levels of trust in the decision-making authority. Hence, among the subset of people who are relatively trusting of the authority, reactions should be particularly negative when both outcome favorability and procedural fairness

are low, *relative to other members of that subset*. Moreover, among the subset of people who are relatively untrusting of the authority, reactions should be especially positive when both outcome favorability and procedural fairness are high, *relative to other members of that subset*. For example, we are not necessarily suggesting that the reactions of people in the high trust/low outcome favorability/low procedural fairness condition will be the most negative relative to all other conditions in the study. Relatedly, we are not necessarily predicting that the reactions of people in the low trust/high outcome favorability/high procedural fairness condition will be the most positive relative to all other conditions in the study. Whereas our reasoning leads to clear predictions about the effects of outcome favorability and procedural fairness *within* varying levels of trust, it is less definitive about what to expect *across* levels of trust.

It also is worth mentioning that previous research has examined the influence of trust, outcome favorability, and procedural fairness on employees' system-referenced reactions (Brockner et al., 1997). The results found in these earlier studies were different from, though not necessarily mutually exclusive of, the present predictions. We will return to the distinction between the two sets of results in the General Discussion, in which we also will speculate about when the results may take one form rather than the other.

3. Whereas the three-way interaction was significant in all four studies and took its predicted form, within-study differences did emerge. For example, the two-way interaction between outcome favorability and procedural fairness was significant in the high trust (but not in the low trust condition) in Study 2, whereas the two-way interaction was significant in the low trust (but not in the high trust) condition in Study 3. Perhaps this difference emanated from the fact that the overall ratings of outcome favorability and procedural fairness were higher in Study 3 than in

Study 2 (even taking into account that ratings were made on seven-point scales in Study 3 and on six-point scales in Study 2.) Consequently, “high” outcome favorability and “high” procedural fairness may have been higher in Study 3 than in Study 2, causing the results in the high outcome favorability/high procedural fairness condition to stand out positively when trust was low. Put differently, “low” outcome favorability and “low” procedural fairness may have been lower in Study 2 than in Study 3, causing the results in the low outcome favorability/low procedural fairness condition to stand out negatively when trust was high. (The four-point rating scales used in Study 4 may have been too crude to capture possible differences between samples on the independent variable dimensions.) Clearly, further research is needed to evaluate these possibilities.

4. We reasoned that when trust is high, participants would respond particularly negatively when they received unfavorable outcomes with unfair procedures, relative to all other combinations of outcome favorability and procedural fairness. Moreover, when trust is low, participants were expected to respond particularly positively when they received favorable outcomes with fair procedures, relative to all other combinations of outcome favorability and procedural fairness. The results shown in Figures 2a through 5b are based on predicted values, not on means. Hence, when trust is high, it was not possible to compare the predicted value of the low outcome favorability/low procedural fairness group to the predicted value of the high outcome favorability/high procedural fairness group. We only could compare the predicted value of the low outcome favorability/low procedural fairness group to the predicted values for both the low outcome favorability/high procedural fairness and the high outcome favorability/low procedural fairness groups. Indeed, the simple main effects of outcome favorability and procedural fairness

in the high trust condition that we reported above reflected these comparisons.

Similarly, when trust is low, it was not possible to compare the predicted value of the high outcome favorability/high procedural fairness group to the predicted value of the low outcome favorability/low procedural fairness group. It was only possible to compare the predicted value of the high outcome favorability/high procedural fairness group to both the high outcome favorability/low procedural fairness group and the low outcome favorability/high procedural fairness groups. In fact, these particular comparisons were captured by the simple main effects of outcome favorability and procedural fairness in the low trust condition that were reported above.

However, given that the results of Study 5 are based on means (rather than predicted values), we will be able to compare: (1) the results in the low outcome favorability/low procedural fairness group to each of the others in the high trust condition, and (2) the results in the high outcome favorability/high procedural fairness group to each of the others in the low trust condition.