

Procedural Fairness, Outcome Favorability, and Judgments of an Authority's Responsibility

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Fairness theory (R. Folger & R. Cropanzano, 1998, 2001) postulates that, particularly in the face of unfavorable outcomes, employees judge an organizational authority to be more responsible for their outcomes when the authority exhibits lower procedural fairness. Three studies lent empirical support to this notion. Furthermore, 2 of the studies showed that attributions of responsibility to the authority mediated the relationship between the authority's procedural fairness and employees' reactions to unfavorable outcomes. The findings (a) provide support for a key assumption of fairness theory, (b) help to account for the pervasive interactive effect of procedural fairness and outcome favorability on employees' attitudes and behaviors, and (c) contribute to an emerging trend in justice research concerned with how people use procedural fairness information to make attributions of responsibility for their outcomes. Practical implications, limitations, and suggestions for future research also are discussed.

Keywords: procedural fairness, judgments of responsibility, Fairness Theory

One of the most pervasive findings in the organizational justice literature is the fair process effect, which refers to people's tendencies to respond more favorably when they are treated with higher degrees of procedural fairness (Greenberg & Folger, 1983; Van den Bos, Bruins, Wilke, & Dronkert, 1999). For example, employees are more likely to support (a) the decisions made by organizational authorities (e.g., as manifested in their work motivation), (b) the decision makers (e.g., as manifested in their trust in authorities), and (c) the organization as a whole (e.g., as manifested in their organizational commitment; Blau, 1964; Lind & Tyler, 1988) when authorities are more procedurally fair. Conversely, people express anger and resentment when decision-making authorities are procedurally unfair. Further research has shown that outcome favorability moderates the fair process effect (Folger, Rosenfield, & Robinson, 1983). That is, the tendencies for procedural fairness to be (a) positively related to employees' support for decisions, decision makers, and organizations and (b) inversely related to their anger and resentment are significantly

more likely to emerge when people's outcomes are relatively unfavorable (Brockner & Wiesenfeld, 1996).

A key construct in justice theorists' attempts to account for the fair process effect, as well as the moderating influence of outcome favorability on the fair process effect, is how much people perceive a decision-making authority to be responsible for their outcomes (Folger & Cropanzano, 1998). As noted by attribution theorists, people seek to understand the reasons for their outcomes, particularly when those outcomes are unfavorable (Walster, 1966; Wong & Weiner, 1981). One source of information that people use to make attributions of responsibility for their outcomes is the authority's procedural fairness. For reasons set forth below, the more that the authority is procedurally unfair, the more likely are people to perceive the authority as responsible for their outcomes, particularly when their outcomes are unfavorable. Furthermore, the more that people perceive the authority as responsible for their unfavorable outcomes, the more likely they are to respond negatively to the decision, to the authority, and to the organization as a whole.¹

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¹ The present studies examine people's tendencies to see a decision-making authority as responsible for their outcomes. Hence, when people's outcomes are unfavorable, they will be making judgments of the authority's blameworthiness, whereas when their outcomes are favorable, they will be making attributions of the authority's creditworthiness. Whereas theoretical considerations led us to focus on people's reactions to unfavorable outcomes (Folger & Cropanzano, 1998), we use the more generic and outcome-independent term *attributions of responsibility* throughout the article.

One justice formulation that assigns a particularly central role to how much people perceive an authority as responsible for their outcomes is fairness theory (Folger & Cropanzano, 1998). Fairness theory posits that people's reactions to decisions are affected by the comparisons they make between their actual experiences and a host of counterfactual events: the "would," the "could," and the "should." The "would" counterfactual is outcome based, in that people evaluate the favorability of their outcomes in relation to easily imagined alternative outcomes. The more that employees judge their actual outcomes to be unfavorable relative to easily imagined alternative outcomes, the more they will be predisposed to react negatively to decisions, decision makers, and organizations.

Fairness theory specifies that unfavorable outcomes by themselves, however, may not ensure that people will react negatively. Also crucial are people's judgments emanating from the other counterfactuals. As Folger and Cropanzano (1998) have suggested, "could" and "should" counterfactuals influence people's judgments of responsibility for their outcomes. Particularly when their outcomes are unfavorable and the authority's procedures are unfair, people are likely to conclude that the authority *could* have used different (i.e., fairer) procedures, which presumably would have yielded better outcomes. Hence, the perception that the authority could have used fairer procedures but did not leads people to hold the authority responsible for the outcomes associated with unfair procedures.

Fairness theory further posits that people react to unfair procedures by comparing them to the ones that authorities *should* have used, according to prevailing moral and ethical standards. As suggested by the expression "common courtesy," social norms based on moral principles prescribe that decisions should be planned and implemented with high procedural fairness. Therefore, when decision makers do not exhibit high procedural fairness, they are likely to be violating social norms based on moral principles. And, as attribution theorists noted long ago, behavior that violates social norms tends to be attributed to something about the actor (Jones & Davis, 1965). Thus, when an organizational authority acts contrary to social norms, those adversely affected by the authority's decisions are likely to hold the authority responsible for the outcomes associated with those decisions.

In sum, fairness theory suggests that when procedures are deemed to be relatively unfair (i.e., less fair than they could have been and than they should have been), people are more likely to see the authority as responsible for their unfavorable outcomes, which, in turn, leads them to react more negatively to decisions, decision makers, and institutions. As Folger and Cropanzano (1998) put it,

holding someone else accountable for injustice, and directing responses toward the accountable party, emerges as an overall integrative theme across various models of justice. Thus, we propose that certain basic processes involving accountability are central for understanding the way individuals react to injustice. (p. 174)

The hypothesized inverse relationship between an authority's procedural fairness and people's tendencies to see the authority as responsible for unfavorable outcomes is central to fairness theory (Folger & Cropanzano, 1998). Given this consideration, it is intriguing that relatively little research has directly tested whether

people are more likely to hold the authority responsible for their unfavorable outcomes when the authority exhibits lower procedural fairness. Hence, one important purpose of the present studies is to test this reasoning.²

More on the Moderating Role of Outcome Favorability

Research on attributional instigation has shown that people are particularly motivated to "ask why" when they receive unfavorable outcomes (Walster, 1966; Wong & Weiner, 1981), which, in turn, leads them to examine the procedures that produced the outcomes. When outcomes are unfavorable, fairness theory posits that procedural fairness will be inversely related to how much people perceive the authority as responsible for their outcomes, as a result of the counterfactual thinking processes set forth above.

When outcomes are favorable, we expect the inverse relationship between procedural fairness and attributions of responsibility to the authority to be significantly reduced. However, this begs the question of the nature of the relationship between procedural fairness and attributions of responsibility that is expected to emerge when outcomes are favorable. About this matter, prior theory and research are more equivocal. On the one hand, it could be argued that in the face of favorable outcomes, people do not ask why. Rather, they happily accept their outcomes at face value, in which case they would not be expected to draw on and, hence, be affected by procedural fairness information. If this were the case, we would expect little or no relationship between procedural fairness and how much people attribute their outcomes to the authority when their outcomes are favorable. On the other hand, it could be argued that people react to evaluative feedback in self-serving ways, wanting to take personal credit when things go well (and deflect blame onto external sources when things do not go well; Zuckerman, 1979). Accordingly, when people receive a favorable outcome as a result of an unfair procedure, they may be more hesitant to attribute their outcomes to the authority. After all, by assigning responsibility to the decision-making authority, people may deprive themselves of the opportunity to make a self-attribution for their outcomes. If this process occurs, procedural fairness may be positively related to attributions of responsibility to the authority when outcomes are favorable.

In summary, when outcomes are favorable, it is difficult to predict the specific nature of the relationship between procedural fairness and attributions of responsibility to the authority. A priori, we can say that when outcomes are favorable the inverse relationship between procedural fairness and attributions of responsibility to the authority (which is expected to emerge when outcomes are unfavorable) should be significantly reduced. Hence, the more precise form of the relationship between procedural fairness and attributions of responsibility to the authority when outcomes are favorable is treated as an exploratory question.

² An exception to this assertion was provided in a recent study by Barclay, Skarlicki, and Pugh (2005). We address how the present studies compare with (and extend) the Barclay et al. findings in the General Discussion.

The Present Studies

All three of the present studies examine the relationship between an organizational authority's procedural fairness and participants' judgments of the authority's responsibility for their outcomes. Study 1 consists of a vignette-based study in which participants responded to an organizational authority who was either procedurally fair or procedurally unfair when making decisions that yielded outcomes of varying degrees of favorability. The dependent variable consisted of how much participants viewed the authority as responsible for their outcomes.

Hypothesis 1: Procedural fairness and outcome favorability will interact to influence how much participants see the authority as responsible for their outcomes, such that procedural fairness and attributions of responsibility to the supervisor are most likely to be inversely related when outcomes are relatively unfavorable.

A second important purpose of the present research (Studies 2 and 3 in particular) is to evaluate the mediating role of attributions of responsibility to the authority on the relationship between the authority's procedural fairness and employees' attitudes and behaviors. For example, Study 2 evaluates whether attributions of responsibility may account for the oft-observed interactive relationship between procedural fairness and outcome favorability (Brockner & Wiesenfeld, 1996; Folger et al., 1983). In their recent historical summary of key contributions to the organizational justice literature, Colquitt, Greenberg, and Zapata-Phelan (2005) included the interaction effect between procedural fairness and outcome favorability, which shows that procedural fairness tends to be more positively related to employees' attitudes (e.g., organizational commitment, as examined in Study 2) and behaviors (e.g., retributive actions, as examined in Study 3) when their outcomes are relatively unfavorable. Given the prominence of the interactive relationship between procedural fairness and outcome favorability in the organizational justice literature, research that helps to account for the interaction effect is of considerable theoretical significance. Hence, in the introductions to Studies 2 and 3 we present additional hypotheses in which how much people judge the authority as responsible for their outcomes is conceptualized as a mediating variable.

Study 1

Method

Participants and Procedure

Participants consisted of 74 undergraduate students (39 women and 35 men) at a northeastern (U.S.) university who volunteered their time and received course credit or compensation for doing so. Given that participants' sex may be related to some of the independent and dependent variables in the present studies (e.g., Sweeney & McFarlin, 1997), we treated sex as a control variable in this and in the other two studies.

On arriving in the research laboratory, participants were escorted to a small, private room and seated in front of a computer, on which all experimental stimuli were presented. Participants

were asked to "put themselves into the shoes of the person who is being described" in the scenario and to give their opinions as to how they would react in this situation. The instructions emphasized that "there are no right or wrong answers."

The scenario then began as follows:

You have been working in your current organization for approximately one year, and it is now time for your performance review. The review process consists of sitting down with your boss, who will give you feedback about your performance for the past year. An obviously important part of the feedback you will receive is what your compensation for the following year will be.

The manipulations of outcome favorability and procedural fairness were introduced in the subsequent paragraph. Previous research has shown that people may be influenced by the order in which outcome favorability and procedural fairness information is presented (Van den Bos, Vermunt, & Wilke, 1997). Accordingly, we counterbalanced the order of presentation of outcome favorability and procedural fairness information. (In our analyses, we collapsed across the order variable because it did not affect the results presented below.)

Experimental Manipulations

Outcome favorability. The unfavorable outcome condition began as follows:

In discussing your compensation for the following year, your boss has some bad news for you. You receive a raise, but it is a much smaller raise than what you thought it would be. By all objective standards, it can only be considered to be a lousy raise.

Participants in the moderate outcome condition were told the following:

In discussing your compensation for the following year, your boss has the following news for you: You are receiving a raise that is basically the amount that you thought it would be. By all objective standards, it can best be considered to be neither a great raise nor a lousy one. "Middle of the road" best describes it.

Finally, those in the favorable outcome condition were informed as follows:

In discussing your compensation for the following year, your boss has some good news for you. Not only are you receiving a raise, but also it is a much larger raise than what you thought it would be. By all objective standards, it can only be considered to be a great raise.

Procedural fairness. To operationalize procedural fairness, we imparted information about the consistency and accuracy of the supervisor's methods of making pay raise decisions (Leventhal, Karuza, & Fry, 1980). One group (high procedural fairness condition) was led to believe that their supervisor was procedurally fair, as follows:

Looking at the procedures your boss used to appraise your performance, you would conclude that they are fair. That is, you have worked closely with your boss, which means that your boss has had ample opportunity to observe your performance. Moreover, you believe that you were evaluated according to the same standards as everyone else.

The low procedural fairness group was informed that their boss was not procedurally fair:

Looking at the procedures your boss used to appraise your performance, you would conclude that they are unfair. That is, you have not worked closely with your boss, which means that your boss has had limited opportunity to observe your performance. Moreover, you believe that you were not evaluated according to the same standards as everyone else.

Measures

After reading the passage, all participants completed a questionnaire consisting of manipulation checks and the dependent measure, namely, how much participants perceived their supervisor to be responsible for their pay raise. All responses were made along a 7-point scale and could range from *strongly disagree* (1) to *strongly agree* (7).

Manipulation checks. Perceived outcome favorability was assessed with two items (e.g., “My pay raise was quite favorable”), which were highly related, $r(72) = .73, p < .001$, and, hence, averaged into an index. Perceived procedural fairness was assessed with the following item: “I feel that the procedures used to decide on my pay raise were fair.”

Attributions of responsibility. The following item measured the extent to which participants viewed their boss as responsible for their pay raise: “I feel that my pay raise was the size it was because of my supervisor.”

Ancillary attribution measures. We asked participants to rate the extent to which their pay raise was attributable to other external factors (besides their supervisor), such as (a) luck and (b) the economy. In addition, in the service of providing a more complete picture of participants’ attributions for their outcomes, we also asked them to indicate the extent to which they believed that their pay raise was due to themselves, in particular (a) how hard they worked (effort) and (b) their ability. Responses were made on 7-point scales, with endpoints ranging from *strongly disagree* (1) to *strongly agree* (7). The two self-attribution measures were highly related, $r(72) = .86, p < .001$, and were averaged into an index.

Results and Discussion

Manipulation Checks

The manipulation checks were subjected to 2×3 analyses of covariance (ANCOVAs), with sex serving as a covariate. Analysis of procedural fairness perceptions yielded a sizable main effect of procedural fairness, $F(1, 67) = 56.44, p < .001$, partial $\omega^2 = 0.457$. Participants judged the procedures to be much more fair in the high procedural fairness condition ($M = 4.98, SE = 0.24$) than in the low procedural fairness condition ($M = 2.45, SE = 0.23$). Similarly, we found the expected main effect of outcome favorability on outcome favorability perceptions to be sizable, $F(2, 67) = 55.46, p < .001$, partial $\omega^2 = 0.623$. Outcomes were judged to be more positive in the favorable outcome condition ($M = 5.78, SE = 0.24$) than in the moderate outcome condition ($M = 4.00, SE = 1.65$), planned contrast $F(1, 67) = 25.81, p < .001$, partial $\omega^2 = 0.278$, and outcomes in that condition, in turn, were judged

as more positive than in the unfavorable outcome condition ($M = 2.10, SE = 0.24$), planned contrast $F(1, 67) = 29.23, p < .001$, partial $\omega^2 = 0.304$. The large magnitude of the partial ω^2 values for the main effects provided further evidence that the two manipulations “took.”

In addition, we found evidence of “cross-over” main effects. Consistent with previous research (e.g., Lind & Tyler, 1988), the outcome favorability manipulation also affected procedural fairness perceptions, $F(2, 67) = 15.69, p < .001$, partial $\omega^2 = 0.319$. Whereas judgments of procedural fairness did not differ in the favorable and moderate outcome conditions ($M = 4.57, SE = 0.28$, and $M = 4.13, SE = 0.29$, respectively), planned contrast $F(1, 67) = 1.25, p > .10$, both of these conditions led to judgments of greater procedural fairness than what was observed in the unfavorable outcome condition ($M = 2.44, SE = 0.28$)—for example, planned contrast between the unfavorable and moderate outcome conditions, $F(1, 67) = 17.45, p < .001$, partial $\omega^2 = 0.207$. Also consistent with prior research showing that procedural fairness influences people’s perceptions of outcome favorability independently of outcome favorability information (Lind & Tyler, 1988; Thibaut & Walker, 1975), outcomes were judged to be more positive when procedural fairness was high rather than low ($M = 4.50, SE = 0.21$ vs. $M = 3.42, SE = 0.20$, respectively), $F(1, 67) = 13.67, p < .001$, partial $\omega^2 = 0.169$.

Furthermore, there was a significant interaction between procedural fairness and outcome favorability on judgments of outcome favorability, $F(2, 67) = 3.31, p < .05$, partial $\omega^2 = .090$, such that the positive relationship between procedural fairness and judgments of outcome favorability was more pronounced when outcomes were moderate ($M = 5.01, SE = 0.35$, and $M = 3.00, SE = 0.35$ in the high and low procedural fairness conditions, respectively) than when outcomes were either unfavorable ($M = 2.61, SE = 0.34$, and $M = 1.59, SE = 0.37$, in the high and low procedural fairness conditions, respectively) or favorable ($M = 5.89, SE = 0.37$, and $M = 5.68, SE = 0.33$, in the high and low procedural fairness conditions, respectively). Finally, the control variable of sex was significantly related to perceived outcome favorability, $F(1, 67) = 4.16, p < .05$, $\omega^2 = .058$, such that women perceived outcomes to be higher than did men ($M = 4.26, SE = 0.20$, and $M = 3.66, SE = 0.21$, respectively).

Test of Hypothesis

The 2×3 ANCOVA on how much participants perceived their supervisor to be responsible for their pay raise yielded only a significant (and sizable) interaction effect between procedural fairness and outcome favorability, $F(2, 67) = 6.87, p < .001$, partial $\omega^2 = 0.170$. Consistent with Hypothesis 1 and as can be seen in Table 1, it was particularly in the unfavorable outcome condition that procedural fairness was inversely related to how much participants attributed the size of their pay raise to the supervisor. In the unfavorable outcome condition, participants were significantly more likely to attribute their pay raise to their supervisor when procedural fairness was low rather than high, simple effect $F(1, 67) = 5.38, p < .05$. In contrast, the simple effect of procedural fairness was not significant in the moderate outcome condition, $F(1, 67) = 1.41, p > .15$, and in the favorable outcome condition there was a significant positive relationship between procedural

Table 1
Adjusted Mean (Standard Error) Ratings of Supervisor
Responsibility as a Function of Procedural Fairness and
Outcome Favorability, Study 1

Procedural fairness	Outcome favorability		
	Unfavorable	Moderate	Favorable
High	4.27 (0.40)	4.19 (0.41)	5.47 (0.43)
Low	5.64 (0.43)	4.89 (0.41)	3.93 (0.38)

fairness and how much participants attributed their pay raise to their supervisor, $F(1, 67) = 7.14, p < .01$.

Ancillary Analyses

Other external attributions. We asked participants to rate the extent to which their pay raise was attributable to other external factors (besides their supervisor), such as (a) luck and (b) the economy. Whereas participants were given no information about these two factors, they still assigned some importance to them. For example, the average rating given to the economy ($M = 4.31, SD = 1.69$) was not appreciably lower than the average rating given to the supervisor ($M = 4.70, SD = 1.54, p > .10$). However, a 2×3 ANCOVA conducted on the economy attribution measure yielded no significant effects (all $ps > .10$). The luck attribution measure was generally considerably lower ($M = 3.16, SD = 1.69$), but it, too, was not affected by the main or interactive effects of procedural fairness and outcome favorability. Thus, participants' tendencies to judge their supervisor as more responsible for their unfavorable outcomes when procedural fairness was relatively low did not reflect a more general tendency for participants to make self-protective external attributions for unfavorable outcomes.

Self-attributions. A 2×3 ANCOVA revealed a main effect for procedural fairness, $F(1, 67) = 8.29, p < .01$, partial $\omega^2 = 0.110$, and a main effect for outcome favorability, $F(2, 67) = 15.39, p < .001$, partial $\omega^2 = 0.315$, but no interaction effect. Participants were more likely to see themselves as responsible for their pay raise when procedural fairness was high ($M = 4.33, SE = 0.26$) rather than low ($M = 3.26, SE = 0.26$). Furthermore, consistent with a self-serving attributional bias (e.g., Zuckerman, 1979), the tendency to make self-attributions was highest when outcomes were favorable ($M = 4.81, SE = 0.31$), lowest when outcomes were unfavorable ($M = 2.43, SE = 0.31$), and in the middle when outcomes were moderate ($M = 4.15, SE = 0.31$).

It is also worth noting that participants' attributions of responsibility to their supervisor were not significantly related to their self-attributions, $r(72) = -.20, p > .05$. Moreover, when we conducted an ANCOVA to analyze how much participants attributed their pay raise to their supervisor (treating self-attributions as an additional covariate), the previously obtained interaction (exhibited in Table 1) was essentially unchanged.

Potential influence of crossover effects. The manipulation check results provided evidence of crossover effects, in that perceptions of outcome favorability were influenced by the experimental manipulation of procedural fairness and perceptions of procedural fairness were influenced by the experimental manipu-

lation of outcome favorability. Whereas these particular crossover effects are commonly found in justice research (e.g., Lind & Tyler, 1988), it is important to evaluate whether they had any effect on the main findings, namely, the interactive effect of procedural fairness and outcome favorability on how much participants judged their supervisors to be responsible for the size of their pay raises.

To evaluate this possibility, we added the manipulation checks as additional covariates in the ANCOVA. If these crossover effects had any influence on the interactive effect of procedural fairness and outcome favorability on attributions of responsibility to the supervisor, then controlling for the manipulation checks should weaken or eliminate the interaction effect. When we added the two manipulation checks to the ANCOVA, we found that the interactive effect of procedural fairness and outcome favorability on judgments of the supervisor's responsibility remained significant; if anything, the F value and effect size were somewhat greater than they were in the original ANCOVA, $F(2, 65) = 7.43, p < .01$, partial $\omega^2 = 0.186$. In sum, the crossover effects did not appear to account for the primary findings in Study 1.

In summary, with the use of a research design high in internal validity, Study 1 lends support to the fairness theory proposition that procedural fairness is especially likely to be inversely related to how much people see an authority as responsible for their outcomes when those outcomes are more unfavorable. However, Study 1 has at least three shortcomings. First, given that the situation to which participants responded was hypothetical, it is unclear whether the interactive effect of procedural fairness and outcome favorability on attributions of responsibility to the authority will emerge in the context of an event that people actually experience. Second, related to the first limitation, participants were given relatively little information in Study 1 from which to make attributions of responsibility. For example, whereas they were given information about their supervisor's procedural fairness, they were not given any information about other external factors, such as the economy and luck. Perhaps the lack of condition differences on these other external factors was an artifact of the rather sparse information provided to participants. Thus, it is important to evaluate whether the attribution findings in Study 1 generalize to a situation in which participants are likely to have much more information about various external and internal determinants of their outcomes. Third, whereas Study 1 shows that attributions of responsibility were influenced by procedural fairness and outcome favorability in the manner set forth by fairness theory, it is important to evaluate the impact of attributions of responsibility on employees' attitudes or behaviors. In other words, how much people see the authority as responsible for their outcomes needs to be examined not only as a dependent variable (as it was in Study 1) but also as a mediator of the interactive effect of procedural fairness and outcome favorability on employees' attitudes or behaviors. Finally, the results within the favorable outcome condition of Study 1 show that procedural fairness was positively related to how much participants saw the authority as responsible for their outcomes. Before speculating about the possible reasons for this finding, we need to evaluate whether it may be replicated in a more naturalistic setting.

Study 2

Study 2 was designed in part to address these various concerns about Study 1. Unlike in Study 1, in which respondents described their reactions to a hypothetical event, participants in Study 2 described their reactions to an event that they actually experienced, namely, the acquisition of their company by another organization. Moreover, participants in Study 2 were much less information constrained—for example, they were likely to have much more information about various external and internal reasons for their outcomes than did participants in Study 1. In accordance with fairness theory (Folger & Cropanzano, 2001) and with Hypothesis 1, set forth previously, we expected procedural fairness and attributions of responsibility to organizational authorities to be inversely related to one another, particularly when employees' outcomes were relatively unfavorable.

Attributions of Responsibility as a Mediator

Participants in Study 2 also were asked to indicate how their affective organizational commitment (Allen & Meyer, 1990; hereafter referred to as *organizational commitment*) had changed, relative to before the acquisition. Organizational commitment is a key work attitude. For example, a recent meta-analysis showed that it is positively related to employees' job performance, both in role and extrarole (Ricketta, 2002). Given the noteworthy consequences of organizational commitment, it is important to understand its antecedents. In fact, previous research has shown that the interactive relationship between procedural fairness and outcome favorability (Folger et al., 1983) emerges on organizational commitment (Brockner & Wiesenfeld, 1996). A similar effect was expected in Study 2.

Hypothesis 2: Procedural fairness and outcome favorability will interact to influence organizational commitment, such that the positive relationship between procedural fairness and organizational commitment will be more pronounced when outcomes are more unfavorable.

Hypothesis 2 essentially consisted of a test of replication of previous findings. Of greater novelty and of greater importance for purposes of the present research is Hypothesis 3:

Hypothesis 3: When outcomes are relatively unfavorable, attributions of responsibility to the authority are expected to mediate the relationship between procedural fairness and organizational commitment. When outcomes are relatively favorable, attributions of responsibility to the authority are not expected to mediate the relationship between procedural fairness and organizational commitment.

Method

Participants and Procedure

A survey was taken of 121 employees of a privately held financial services institution in the midwestern United States. The organization had been acquired by one of the major U.S. banks about 8 months earlier. Approximately half of the participants

were male (50%), and 22% held a management position (consistent with the profile of the acquired organization). The acquisition that had transpired was promoted as friendly (as opposed to hostile).

Two hundred employees received an e-mail request by a senior vice president of the institution to participate voluntarily in a study designed to determine how employees respond to significant organizational events and, more specifically, to the acquisition of their organization. The e-mail was linked to a secure intranet Web site to which employees were invited to complete a survey. All of the study's variables were measured on the survey. Employees were assured that their responses would remain anonymous. Out of the 200 employees who were contacted by the initial e-mail and a follow-up request, 121 (approximately 60%) agreed to take part in the study.

Measures

Procedural fairness. Procedural fairness consisted of three items, derived as in Study 1 from Leventhal et al.'s (1980) conception: "The procedures used to implement this acquisition have been based on accurate information," "I have been able to express my views to management about the implementation of this acquisition," and "The procedures used to implement this acquisition have been applied consistently." Endpoints on the 7-point rating scales were *strongly disagree* (1) and *strongly agree* (7). Coefficient alpha was .69, just slightly lower than the .70 level guideline recommended by Nunnally and Bernstein (1994).

Outcome favorability. Participants completed two sets of six questions referring to the outcomes associated with their job. The only difference between the two sets was that one set pertained to recalled perceptions of the favorability of their job situation prior to the acquisition ($\alpha = .86$; e.g., "Before the acquisition, I felt that my overall level of compensation was ____," "Before the acquisition, I felt that my career prospects (defined as the likelihood of me 'getting ahead' either here or elsewhere) were ____," and "Before the acquisition, my overall work situation was ____"). The other set of outcome favorability questions pertained to perceptions of participants' current outcomes ($\alpha = .83$; e.g., "Since the acquisition, I have felt that my overall level of compensation is ____," "Since the acquisition, I have felt that my career prospects are ____," and "Since the acquisition, my overall work situation has been ____"). Eleven-point rating scales were used, with endpoints labeled *very negative* (1) and *very positive* (11); the midpoint of the rating scale was labeled *neutral/middle of the road* (6).

Attributions of responsibility. After rating the favorability of their prior and current outcomes, participants indicated the extent to which they viewed management as responsible for the change in their outcomes by completing the following item: "The change in my overall situation was due to how much I was favored (or disfavored) by key decision-makers." Responses were made along a 7-point scale, with endpoints labeled *strongly disagree* (1) and *strongly agree* (7). The midpoint of the scale was labeled *neither agree nor disagree* (4).

Organizational commitment. As with the measure of outcome favorability, participants rated the same set of items twice, once in regard to their prior organizational commitment ($\alpha = .91$), and once in regard to their current organizational commitment ($\alpha =$

.92). The eight questions in each set were drawn from the short form of the Organizational Commitment Questionnaire (Mowday, Porter, & Steers, 1982). Sample items were “Before the acquisition, I was proud to tell others that I am a part of this company” and “Since the acquisition, I am now proud to tell others that I am a part of this company.” Eleven-point rating scales were used, with endpoints labeled *strongly disagree* (1) and *strongly agree* (11).

Ancillary attribution measures. Participants were asked to indicate the extent to which the change in their overall situation was due to a host of external factors (other than organizational authorities). The items were (a) “due to luck,” (b) “due to the natural course of events following an acquisition,” and (c) “generally due to external factors” (with those general factors left unspecified).

Participants also rated the extent to which they viewed themselves as responsible for the change in their outcomes, with the following items: (a) “The change in my overall situation was due to my level of skill or ability,” and (b) “The change in my overall situation was due to my level of effort.” Responses to the two self-attribution measures were highly correlated ($r = .75, p < .001$) and, hence, averaged into an index. Responses to all attribution items could range from *strongly disagree* (1) to *strongly agree* (7).

Results and Discussion

Summary statistics are presented in Table 2.

Attributions of Responsibility to Management (Hypothesis 1)

Hypotheses were tested with a hierarchical multiple regression. In the first step, we entered sex as a control variable and then, drawing on the procedures recommended by Edwards (1994), entered the main effects of procedural fairness, outcome favorability prior to the acquisition (prior outcome favorability), and outcome favorability after the acquisition (current outcome favorability). In the second step we added the interaction between procedural fairness and prior outcome favorability to the terms entered in the first step, and in the third step we added the interaction between procedural fairness and current outcome favorability to the terms entered on the second step. Of greatest importance, as can be seen in Table 3, Step 3, the interaction between procedural fairness and current outcome favorability was significant ($p < .01; \beta = .235, 95\%$ confidence interval [CI] =

0.09 to 0.38), and increased the total squared correlation from .088 to .163.

To illustrate the nature of the interaction between procedural fairness and current outcome favorability, we used the methods recommended by Aiken and West (1991), in which predicted values of the relationship between procedural fairness and attributions of responsibility were examined at a high level of current outcome favorability (one standard deviation above the mean) and at a low level of current outcome favorability (one standard deviation below the mean). As can be seen in Figure 1, procedural fairness was inversely related to how much participants perceived management as responsible for their change in outcomes when their current outcomes were more unfavorable; moreover, a simple slope analysis showed this effect to be significant, $\beta = -.81; t(114) = 3.99, p < .001, 95\%$ CI = -1.21 to -0.41 . In contrast, procedural fairness was unrelated to attributions of responsibility when participants’ current outcomes were more favorable, simple slope $\beta = .01; t(114) = 0.04, ns, 95\%$ CI = -0.33 to 0.35 . Thus, the positive relationship between procedural fairness and attributions of responsibility to the authority found in the favorable outcome condition in Study 1 failed to materialize in Study 2.

Organizational Commitment (Hypothesis 2)

A hierarchical regression was conducted on participants’ current level of organizational commitment. In the first step we entered sex and prior organizational commitment as control variables, along with the main effects of procedural fairness, prior outcome favorability, and current outcome favorability. In the second step we entered the interaction between procedural fairness and prior outcome favorability, and in the third step we entered the interaction between procedural fairness and current outcome favorability. Consistent with Hypothesis 2 and as can be seen in Table 4, Step 3, the interaction between procedural fairness and current outcome favorability was a statistically significant effect, $t(113) = 2.31, p < .05$, increasing the total squared correlation from .677 to .691.

Once again, we illustrate the nature of the interaction effect by showing predicted values of the relationship between procedural fairness and organizational commitment at a high level of current outcome favorability (one standard deviation above the mean) and at a low level of current outcome favorability (one standard deviation below the mean). As can be seen in Figure 2, consistent with

Table 2
Means, Standard Deviations, and Intercorrelations Among Study 2 Variables

Variable	M	SD	1	2	3	4	5	6	7
1. Sex	0.50	0.50	—						
2. Attribution of responsibility	4.20	1.54	-.04	—					
3. Procedural fairness	4.19	1.10	.03	-.27**	(.69)				
4. Outcome favorability (prior)	7.42	1.54	-.04	-.07	.18*	(.86)			
5. Outcome favorability (current)	7.01	1.73	-.03	-.08	.40**	.39**	(.83)		
6. Org. commitment (prior)	7.30	1.95	.08	.06	.07	.35**	.05	(.91)	
7. Org. commitment (current)	7.02	2.12	.18	-.22*	.43**	.18*	.59**	.50**	(.92)

Note. Sex was coded as 0 = male, 1 = female. Coefficient alphas are in parentheses. Org. = organizational. * $p < .05$. ** $p < .01$.

Table 3
Hierarchical Regression, Study 2 (Dependent Variable: Attributions of Responsibility)

Variable	Step 1	Step 2	Step 3	95% confidence interval (Step 3 regression)	
				Low	High
Sex	-0.11 (0.28)	-0.09 (0.27)	-0.20 (0.27)	-0.73	0.33
Procedural fairness	-0.38** (0.14)	0.37 (0.57)	-0.25 (0.59)	-1.41	0.91
Outcome favorability (Prior)	-0.03 (0.10)	0.33 (0.28)	0.66* (0.29)	0.08	1.24
Outcome favorability (Current)	0.03 (0.09)	0.05 (0.09)	-0.61** (0.22)	-1.06	-0.16
Procedural Fairness × Outcome Favorability (Prior)		-0.11 (0.08)	-0.24** (0.09)	-0.42	-0.07
Procedural Fairness × Outcome Favorability (Current)			0.24** (0.07)	0.09	0.38
Unadjusted r^2	.07	.09	.16		

Note. Sex was coded as 0 = male, 1 = female. Standard errors are in parentheses.
 * $p < .05$. ** $p < .01$.

previous research (Brockner & Wiesenfeld, 1996), procedural fairness yielded more of a positive relationship with organizational commitment at a low level of current outcome favorability, simple slope $\beta = .66$; $t(113) = 3.92$, $p < .001$, 95% CI = 0.33 to 1.00, than at a high level of current outcome favorability, simple slope $\beta = .17$; $t(113) = 1.20$, $p > .10$, 95% CI = -0.11 to 0.46.

Test of Mediation (Hypothesis 3)

When outcomes were relatively unfavorable, attributions of responsibility were expected to mediate the relationship between procedural fairness and organizational commitment. Conversely, when outcomes were relatively favorable, attributions of responsibility were not expected to mediate the relationship between procedural fairness and organizational commitment. To evaluate this possibility, we took those participants who were in the upper and lower quartiles in current outcome favorability. For those whose outcomes were unfavorable, we first evaluated whether procedural fairness was related both to the hypothesized mediating variable (attributions of responsibility), controlling for prior outcome favorability and sex, and to the dependent variable (current organizational commitment), controlling for prior organizational commitment, prior outcome favorability, and sex. In fact, procedural fairness was (a) inversely related to attributions of responsibility ($\beta = -1.14$, $p < .01$) and (b) positively related to current organizational com-

mitment ($\beta = 1.08$, $p < .01$). Moreover, the hypothesized mediating variable (attributions of responsibility) was inversely related to the dependent variable (current organizational commitment; $\beta = -.57$, $p < .01$) when we controlled for prior organizational commitment, prior outcome favorability, and sex. We then regressed current organizational commitment on (a) procedural fairness, (b) attributions of responsibility, (c) prior organizational commitment, (d) prior outcome favorability, and (e) sex. Of greatest importance, the hypothesized mediating variable of attributions of responsibility remained significant, $t(22) = 2.26$, $p < .05$, whereas the independent variable of procedural fairness was no longer significant, $t(22) = 1.49$, $p > .10$. Moreover, the results of a Sobel test showed that the reduction in the effect of procedural fairness was significant ($z = 2.19$, $p < .05$) when attributions of responsibility were controlled, relative to when they were not. Thus, when people's outcomes were relatively unfavorable, attributions of responsibility mediated the relationship between procedural fairness and organizational commitment.

Comparable analyses conducted on those for whom outcome favorability was relatively high yielded very different results. Whereas procedural fairness was inversely related to attributions of responsibility and positively related to current organizational commitment, those effects were not significant (both p values $> .05$). Moreover, attributions of responsibility were not related to current organizational commitment ($p > .25$). It is not surprising, then, that when procedural fairness and attributions of responsibility were both entered as predictors of organizational commitment, procedural fairness did not exhibit a significant reduction in its ability to account for current organizational commitment, relative to when attributions of responsibility were not controlled (Sobel $z = 0.10$, $p > .50$). In short, when outcomes were relatively favorable, attributions of responsibility did not mediate the relationship between procedural fairness and current organizational commitment.

Ancillary Analyses

One possible explanation of the interactive effect of procedural fairness and outcome favorability on attributions of re-

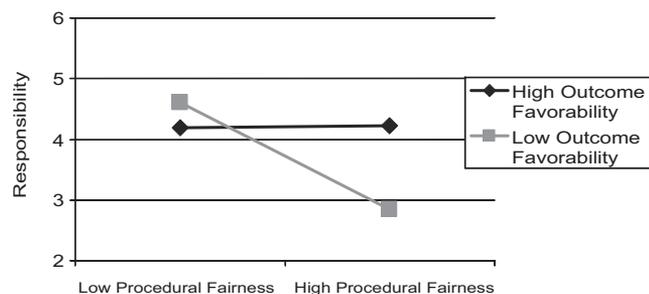


Figure 1. The interactive effect of procedural fairness and outcome favorability on attributions of responsibility (Study 2).

Table 4
Hierarchical Regression, Study 2 (Dependent Variable: Current Organizational Commitment)

Variable	Step 1	Step 2	Step 3	95% confidence interval (Step 3 regression)	
				Low	High
Prior organizational commitment	0.58** (0.06)	0.58** (0.06)	0.59** (0.06)	0.46	0.71
Sex ^a	0.55* (0.23)	0.55* (0.23)	0.61** (0.22)	0.16	1.05
Procedural fairness	0.38** (0.11)	0.30 (0.47)	0.68 (0.49)	-0.30	1.65
Outcome favorability (prior)	-0.37** (0.08)	-0.41 (0.24)	-0.61* (0.25)	-1.11	-0.11
Outcome favorability (current)	0.73** (0.08)	0.72** (0.08)	1.12** (0.19)	0.75	1.50
Procedural Fairness × Outcome Favorability (Prior)		0.01 (0.07)	0.09 (0.07)	-0.05	0.24
Procedural Fairness × Outcome Favorability (Current)			-0.14* (0.06)	-0.26	-0.02
Unadjusted <i>r</i> ²	.68	.68	0.69		

Note. Standard errors are in parentheses.

^a Sex was coded as 0 = male, 1 = female.

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

sponsibility is that it reflects a more general self-serving bias. That is, particularly when their outcomes were unfavorable, participants might have been eager to attribute their outcomes to external factors as a way of protecting their self-esteem. Attributing responsibility to organizational authorities is one such form of externalization. Whereas no support was found for this possibility in Study 1, it could be argued that this lack of support was because participants in Study 1 were given little information from which to make external attributions (other than to their supervisor). Hence, we evaluated this alternative possibility in a less information-constrained research context in Study 2.

Accordingly, we examined whether the interaction between procedural fairness and outcome favorability on attributions to organizational authorities also emerged on participants' attributions to (a) luck, (b) the natural course of events following an acquisition, and (c) general external factors. Using the same hierarchical regression models as reported above (e.g., Table 3), we found the interaction between procedural fairness and outcome favorability to be nonsignificant in all three instances (*p* > .10). These findings suggest that the results on the measure of attributions of responsibility to organizational authorities were not part of a more general tendency for partici-

pants to make self-protective external attributions for unfavorable outcomes.

We also evaluated whether the interactive effect between procedural fairness and outcome favorability emerged on the measure of how much participants made self-attributions for their outcomes. Self-attributions were regressed on the predictors set forth in Table 3. The only significant results were the main effects of current outcome favorability, $\beta = 1.33$; $t(114) = 6.95, p < .01, 95\% \text{ CI} = 0.95 \text{ to } 1.71$, and prior outcome favorability, $\beta = -0.69$; $t(114) = 3.44, p < .01, 95\% \text{ CI} = -1.08 \text{ to } 0.29$, such that participants saw themselves as more responsible for their outcomes when their current outcomes were more favorable and when their prior outcomes were more unfavorable. Stated differently, participants were more likely to see themselves as responsible for the change in their outcomes when the change was in a more favorable direction (Edwards, 1994).

The results in the preceding paragraph also speak to a potential methodological concern of Study 2, namely, the possibility of some form of recall bias in participants' ratings of prior outcome favorability. Given that prior outcome favorability referred to a point in time 8 months earlier, the ratings participants provided on this measure might have been systematically skewed in ways that made the findings artifactual. For example, perhaps participants used their judgments of current outcome favorability to make inferences about their prior outcome favorability. However, the facts that (a) prior and current outcome favorability were differentially related to self-attributions and (b) prior and current outcome favorability were only modestly related to one another ($r = .39, p < .01$) suggest that participants meaningfully distinguished between their judgments of current outcome favorability and prior outcome favorability. Thus, whereas problems associated with retrospective recall bias in Study 2 cannot be eliminated, some of the findings from this study reduce this particular concern.

Taken together, the results of Studies 1 and 2 are consistent with the fairness theory proposition that, particularly in the face of unfavorable outcomes, procedural fairness is inversely related to

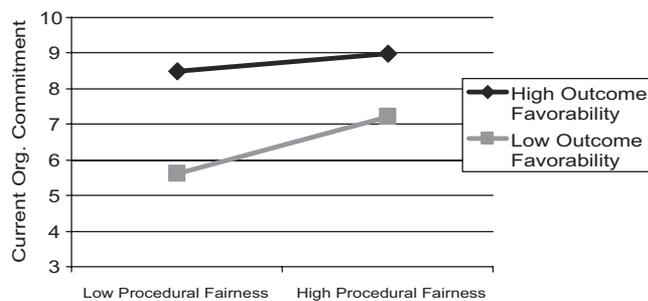


Figure 2. The interactive effect of procedural fairness and outcome favorability on current organizational (org.) commitment (Study 2).

employees' tendencies to perceive an organizational authority as responsible for their outcomes. Given the many contextual and methodological differences between Studies 1 and 2, the convergence in results on how much participants attributed their outcomes to an organizational authority is noteworthy. Moreover, Study 2 extends the results of Study 1 by showing that the mediating effect of attributions of responsibility to the authority on the relationship between procedural fairness and organizational commitment depended on outcome favorability. In support of Hypothesis 3, attributions of responsibility mediated the relationship between procedural fairness and organizational commitment when outcomes were unfavorable but not when outcomes were favorable.³

Study 3

Study 3 was designed to build on the promising results of Studies 1 and 2 in several respects. First, as in Study 2, how much participants judged an organizational authority as responsible for their outcomes was analyzed both as a dependent variable and as a mediating variable. Moreover, to evaluate the generality of the results of Studies 1 and 2, we examined how participants reacted to another situation that they actually experienced: being terminated by their former employer. Given that all participants had been terminated, we assumed that outcome favorability would be low in general (and this assumption was empirically tested and validated, as described below).

We measured (a) participants' perceptions of the procedural fairness with which the termination was implemented by organizational authorities, (b) the extent to which participants judged organizational authorities to be responsible for their termination, (c) their felt anger, and (d) their degree of commitment to filing a legal claim against their former employers. The results of Studies 1 and 2 show that it was particularly in the face of unfavorable outcomes that procedural fairness was inversely related to how much participants saw the authority as responsible for their outcomes. Conceptually analogous results were expected in Study 3. Given that outcomes were generally expected to be unfavorable for the participants in Study 3, we expected procedural fairness and how much participants saw organizational authorities as responsible for their termination to be inversely related.

Attributions of Responsibility as Mediator

Study 2 shows that attributions of responsibility to the authority mediated the relationship between procedural fairness and organizational commitment when outcomes were unfavorable but not when outcomes were favorable. Given that outcomes were generally expected to be unfavorable in Study 3, we expected attributions of responsibility to mediate the relationship between procedural fairness and reactions to being terminated. One such reaction was felt anger. Whereas previous research has shown that lower procedural fairness elicits greater anger and resentment in the face of unfavorable outcomes (e.g., Folger & Martin, 1986; Folger et al. 1983), the hypothesized mediating role of attributions of responsibility to the authority has rarely been examined. Accordingly, Study 3 evaluated whether attributions of responsibility to the

authority mediated the relationship between the authority's procedural fairness and participants' anger.

A recent study by Groth, Goldman, Gilliland, and Bies (2002) identified an additional important consequence of people's attributions of responsibility to the authority that is particularly relevant to the job termination context of Study 3. More specifically, Groth et al. found that claimants who perceived their supervisor or organization to be more responsible for the alleged wrongdoing were more committed to filing legal claims against the organization. The notion that people will seek retribution against harmdoers who are perceived to be responsible for the harm that they have caused has been well established in psychological (e.g., Ferguson & Rule, 1983), organizational (e.g., Folger & Cropanzano, 1998), and sociolegal writings (e.g., Felstiner, Abel, & Sarat, 1980–1981).

Hypothesis 4: Participants' attributions of responsibility to organizational authorities will mediate the relationship between procedural fairness and their (a) anger and (b) commitment to filing a legal claim against their former employers.

Method

Participants and Procedure

A total of 583 employees who had been terminated from their job were approached while waiting at various unemployment offices and Equal Employment Opportunity Commission district offices of two East Coast states in the United States. Participants were asked to indicate whether they had gone through standard procedures in the organization for dealing with terminations, such as "specific people to talk to or a grievance procedure of some sort." Those who answered in the affirmative ($N = 203$) were eligible to take part in the study, in that the procedural fairness questions pertained to various aspects of the standard procedures. Each participant received \$5 on completion of the survey. Surveys were completely confidential. Numbers were used to identify surveys; participants' names were not used or even solicited. Fifty-six percent of the respondents were male, with an average age of approximately 39 years and an average job tenure of slightly less than 5 years.

³ The main difference in the results of Studies 1 and 2 was observed among the subset of participants who viewed their outcomes as favorable. Within the favorable outcome condition in Study 1, procedural fairness was positively related to how much participants saw the authority as responsible for their outcomes. In Study 2, however, those who perceived their outcomes to be favorable exhibited no relationship between procedural fairness and attributions of responsibility to the authority. Further research is needed to account for this inconsistency. For example, one possibility is that the favorable outcomes in Study 1 (the great raise) were perceived as more positive than the favorable outcomes in Study 2. The more positive the favorable outcomes are, the less inclined people who received those outcomes via an unfair procedure may be to attribute the outcomes to the authority. That is, for self-serving purposes, people may want to see the authority as less responsible and/or themselves as more responsible for favorable outcomes. In any event, it should be noted that the findings within the favorable outcome condition are somewhat tangential to the main thrust of the present research, which is to evaluate whether the inverse relationship between procedural fairness and attributions of responsibility to organizational authorities is particularly apt to emerge in the face of unfavorable outcomes, a result that was found in both studies.

The survey began as follows:

We need your help in order to understand what caused you to come here today. This survey asks questions about the organization that recently terminated you; that is, in which you were recently laid off, fired, forced to resign, or indefinitely suspended.

Of these various bases of termination, 56 participants said that they were laid off, 95 said that they were fired, 17 said that they were forced to resign, and 18 said that they were indefinitely suspended. The results presented below were not moderated by the reasons for participants' termination; hence, we collapsed across this factor in all of the upcoming analyses. An additional reason (selected by 17 other persons) was "other"; the data of these 17 people were not included in the analyses (which left us with a total usable sample size of 186) because the circumstances of their departure from the organization could not be discerned. The survey contained questions that addressed the respondents' recent termination experience.

Outcome Favorability

To evaluate the assumption that outcome favorability generally would be low in Study 3, we presented participants with the following two items: "The termination was painful," and "The termination has made my life difficult." Responses to these questions were made along 7-point scales, with endpoints labeled *strongly disagree* (1) and *strongly agree* (7). The middle (or neutral) point of the scale was labeled *neither agree nor disagree* (4). The two items were averaged into an outcome favorability scale, $r(184) = .53, p < .001$. The scale was reverse scored such that lower values indicated lower outcome favorability. On average, outcome favorability was rated as low ($M = 2.70, SD = 1.87$). Moreover, the average rating of outcome favorability was significantly lower than the scale midpoint of 4, $t(183) = -9.42, p < .001$.

Measures

All responses were provided on a 7-point scale, with endpoints labeled *strongly disagree* (1) and *strongly agree* (7). We formed composite measures by taking the average of all items composing the dimension.

Procedural fairness. As in Studies 1 and 2, the measure was based on the Leventhal et al. (1980) conception of procedural fairness. It was modified slightly from the measure used by Moorman (1991) to pertain to participants' perceptions of the fairness of

the organization's standard procedures for dealing with terminations ($\alpha = .88$). Sample items included "The standard procedure was useful to collect correct information about the termination" and "The standard procedure was useful to make sure that all decisions concerning the termination were made consistently."

Attributions of responsibility. The extent to which employees perceived organizational authorities to be responsible for their termination was assessed with two items: (a) "The reason I was terminated was mostly because of my supervisor's fault," and (b) "The reason I was terminated was mostly because of the organization's fault." These two questions were asked because participants might have represented the agent of the procedure to be (a) a specific individual, such as their supervisor, or (b) a more generic entity, such as the organization as a whole. Given that responses to the two questions were related, $r(176) = .51, p < .001$, they were averaged into an index.

Anger. Participants were asked to indicate how they felt at the time that their former employer responded to their complaint about the termination. They were explicitly instructed to indicate "how you felt *at that moment* and NOT how you feel now." Four items were used to measure feelings of anger (e.g., "I felt angry," and "I was mad"; $\alpha = .90$).

Commitment to claiming. We assessed participants' current commitment to filing a legal claim using the scale developed by Groth et al. (2002). The scale consisted of three items ($\alpha = .79$). Sample items included "I plan to carry on a legal case even if it costs me a lot of time and money" and "It is likely that I will go to court to get my job back."

Ancillary attribution measures. The extent to which participants saw themselves as responsible for their termination was assessed with the following item: "The reason I was terminated was mostly because of my own fault." Participants also indicated the extent to which their job termination was due to "bad luck." Responses to both of these items could range on a 7-point scale, with endpoints labeled *strongly disagree* (1) and *strongly agree* (7).

Results and Discussion

Summary statistics are presented in Table 5. Prescriptions set forth by Baron and Kenny (1986) were used to test the hypothesis that attributions of responsibility mediated the relationship between people's perceptions of procedural fairness and (a) their anger and (b) their commitment to filing a legal claim. A series of

Table 5
Means, Standard Deviations, and Intercorrelations Among Study 3 Variables

Variable	M	SD	1	2	3	4	5	6	7
1. Sex	0.44	0.50	—						
2. Self-attributions	2.24	1.83	-.13	—					
3. Luck attributions	3.26	2.20	-.03	.19*	—				
4. Procedural fairness	3.95	1.85	-.02	-.01	.18*	(.88)			
5. Attributions of responsibility	4.83	2.04	.00	-.13	-.06	-.25**	(.67)		
6. Anger	4.69	1.92	.04	-.07	-.05	-.20**	.46**	(.90)	
7. Commitment to legal claim	3.04	1.83	-.07	-.01	-.16*	-.27**	.47**	.21**	(.79)

Note. Sex was coded as 0 = male, 1 = female. Coefficient alphas are in parentheses.
* $p < .05$. ** $p < .01$.

regression analyses was conducted. (Sex was treated as a control variable in all of them.) In the first analysis, we found that procedural fairness was inversely related to the dependent variables of anger, $\beta = -.20$; $t(176) = -2.76$, $p < .01$, 95% CI = -0.35 to -0.06 , and participants' commitment to the legal claim, $\beta = -.27$; $t(179) = -3.77$, $p < .001$, 95% CI = -0.41 to -0.13 . Next, we found that procedural fairness was significantly inversely related to the hypothesized mediating variable (how much participants viewed the decision-making authorities as responsible for their termination), $\beta = -.25$; $t(177) = -3.44$, $p < .001$, 95% CI = -0.40 to -0.11 . Then, we found that the hypothesized mediating variable was significantly positively related to each of anger, $\beta = .46$; $t(177) = 6.95$, $p < .001$, 95% CI = 0.33 to 0.59 , and commitment to legal claiming, $\beta = .47$; $t(180) = 7.23$, $p < .001$, 95% CI = 0.34 to 0.60 . In the final analyses used to test for mediation, the independent variable and hypothesized mediator were entered simultaneously as predictors.

Anger

Consistent with the mediation hypothesis, (a) attributions of responsibility continued to be significantly (and positively) related to participants' felt anger, $\beta = .45$; $t(174) = 6.54$, $p < .001$, 95% CI = 0.32 to 0.59 , and (b) the relationship between procedural fairness and participants' felt anger was no longer significant, $\beta = -.07$; $t(174) = -1.05$, $p > .25$, 95% CI = -0.21 to 0.06 . Moreover, the Sobel (1982) test showed that the relationship between procedural fairness and anger was significantly less pronounced when the hypothesized mediating variable was statistically controlled, relative to when it was not ($z = 3.05$, $p < .01$), suggesting complete mediation.

Commitment to Claiming

Once again, attributions of responsibility continued to be significantly (and positively) related to participants' commitment to claiming, $\beta = .42$; $t(177) = 6.20$, $p < .001$, 95% CI = 0.28 to 0.55 . Procedural fairness also continued to bear a significant inverse relationship with commitment to claiming, $\beta = -.18$; $t(177) = -2.72$, $p < .01$, 95% CI = -0.31 to -0.05 . However, the Sobel test showed that the relationship between procedural fairness and commitment to claiming was significantly less pronounced when the mediating variable was statistically controlled, relative to when it was not ($z = 3.01$, $p < .01$), suggesting that attributions of responsibility partially mediated the relationship between procedural fairness and commitment to claiming.

Results Involving Self-Attribution and Luck

Whereas participants' tendency to see organizational authorities as responsible for their termination played a pivotal role in Study 3, the same could not be said about the extent to which participants saw themselves as responsible for their terminations. In fact, participants' self-attributions for their termination were unrelated to procedural fairness ($r = -.01$). Procedural fairness was significantly related to how much participants attributed their termination to bad luck ($p < .05$); however, that correlation was positive, unlike the relationship between procedural fairness and how much

participants attributed their termination to organizational authorities. In other words, a particular type of attribution of responsibility for being terminated (namely, to organizational authorities) mediated the relationship between procedural fairness and each of participants' anger and commitment to their legal claims.

In summary, the results of Study 3 provide further evidence that in the face of unfavorable outcomes, procedural fairness was inversely related to how much participants judged organizational authorities to be responsible for their outcomes. Furthermore, Study 3 provides evidence that attributions of responsibility mediated the relationship between employees' judgments of procedural fairness and (a) their feelings of anger (in whole) and (b) their commitment to file a legal claim (in part).⁴

Limitations

One potential problem in Study 3 is that participants recounted events that occurred, on average, approximately 6 weeks earlier. This raises the possibility of a retrospective recall bias. In rebuttal to this possibility, concerns about retrospective recall bias may be lessened when the event continues to be salient to individuals (Crutcher, 1994). Given that the respondents were unemployed at the time they were completing the survey, the events leading up to the termination might have continued to be salient to them.

Relatedly, we conducted further analyses to determine whether the length of time since termination affected any of the main findings. Earlier in the survey, participants had been asked to indicate how long it had been since they left their job. Responses were made along an 8-point scale ranging from *less than four days* (1) to *more than eight weeks* (8). A series of hierarchical regressions was conducted to evaluate whether length of time since termination moderated the relationships between (a) procedural fairness and attributions of responsibility, (b) procedural fairness and anger, (c) procedural fairness and commitment to claiming, (d) attributions of responsibility and anger, and (e) attributions of responsibility and commitment to claiming. In the first step of these regressions, we entered the respective main effects (e.g., for the first analysis above, the main effects consisted of procedural fairness and length of time since termination), and in the second step we entered the interaction between the two variables entered in the first step (i.e., for the first analysis above, the interaction was between procedural fairness and length of time since termination). The main effect of length of time since termination was never

⁴ Whereas the vast majority of participants in Study 3 viewed their outcomes as unfavorable, we evaluated whether outcome favorability moderated any of the relationships between procedural fairness and attributions of (a) responsibility, (b) anger, and (c) commitment to claiming. That is, we tested for the interaction effect between procedural fairness and outcome favorability on (a) how much participants attributed their termination to organizational authorities, (b) felt anger, and (c) how committed they were to their legal claims. In each instance, the interaction between procedural fairness and outcome favorability was not significant. We speculate that the absence of an interaction effect in Study 3 was due to the restricted range of outcome favorability. Consistent with this conjecture, Studies 1 and 2 found evidence of an interactive relationship between procedural fairness and outcome favorability in settings in which the range of outcome favorability was considerably greater than it was in Study 3.

significant (all $ps > .05$). Of perhaps greater importance, none of the interaction effects was significant (all $ps > .05$). In short, the findings from Study 3 did not vary as a function of the amount of time that had transpired since participants had been terminated. In other words, the participants for whom the event was quite recent (i.e., having occurred within the past week and therefore unlikely to be influenced by a retrospective recall bias) showed the same pattern of relationships between variables as did those for whom the event was more distal.

A second potential shortcoming of Study 1 pertains to the external validity of the results. In addition to the 186 participants for whom we had usable data, we had originally approached 380 people who indicated that they were willing to complete the survey. However, because these individuals had not gone through the organization's standard procedures for dealing with terminations, their data were incomplete and therefore could not be used. Of course, this raises the question of whether there was something unique about the Study 3 participants that may limit the generalizability of their findings. In response to this potential selection bias, it is worth mentioning that the results on the attribution measure in Study 3 were similar to those found in Studies 1 and 2, and the mediational evidence found in Study 3 was conceptually analogous to that observed in Study 2.

General Discussion

Taken together, the results of all three studies show that when people's outcomes were unfavorable, procedural fairness was inversely related to how much they judged the organizational authority to be responsible for their outcomes. Whereas the external validity of the results of the vignette study conducted in Study 1 may be questioned, an important strength of this method is its internal validity. The internal validity of Studies 2 and 3, conversely, may be questioned, but those studies show that the inverse relationship between procedural fairness and judgments of the authority's responsibility for unfavorable outcomes found in Study 1 generalize to circumstances in which participants respond to an actual, rather than to a hypothetical, situation. In short, the designs of the studies complement one another. Furthermore, the fact that highly consistent results emerged across not only different research methods but also across different decision contexts (pay raise decisions, organizational change, and employee termination) bodes well for the generality and reliability of the findings.

It is important to note that attributions of responsibility to the authority also were shown to play a mediating role in Studies 2 and 3. In Study 2, attributions of responsibility to the authority mediated the relationship between procedural fairness and organizational commitment when outcomes were unfavorable but not when outcomes were favorable. In Study 3, in which participants generally perceived their outcomes to be unfavorable, attributions of responsibility accounted for the relationship between procedural fairness, on the one hand, and participants' anger and commitment to a legal claim, on the other.

Implications for Prior Theory and Research

Fairness Theory

The notion that an authority's procedural fairness is inversely related to people's attributions of the authority's responsibility for

their unfavorable outcomes is an important tenet of fairness theory (Folger & Cropanzano, 1998). The present studies tested and found considerable support for the notion that people are more likely to attribute their unfavorable outcomes to an organizational authority when the authority exhibits lower procedural fairness. Moreover, ancillary analyses conducted in all three studies suggest that the moderating effect of outcome favorability on the inverse relationship between procedural fairness and judgments of the authority's responsibility was not part of a more general tendency for people to make self-protective external attributions for unfavorable outcomes.

Relationship With Previous Research

A recent and well-done study by Barclay et al. (2005) also provided evidence consistent with the present research. In fact, one of Barclay et al.'s four hypotheses was conceptually analogous to portion (a) of Hypothesis 4 in the present Study 3, in which they predicted and found that attributions of responsibility to organizational authorities mediated the relationship between the authorities' procedural fairness and the participants' anger. However, the present findings extend those of Barclay et al. in at least three respects. First, in Studies 1 and 2 we found that procedural fairness and outcome favorability interacted to influence how much employees judged the authority responsible for their outcomes. Barclay et al. did not test for the interactive effect of procedural fairness and outcome favorability on attributions of responsibility. Second, in Study 2 we found that attributions of responsibility to organizational authorities mediated the relationship between procedural fairness and employees' organizational commitment when outcomes were unfavorable but not when outcomes were favorable; Barclay et al. did not test for these effects.

Third, the present research enhances both the internal and the external validity of the Barclay et al. (2005) findings pertaining to the relationship between authorities' procedural fairness and judgments of their responsibility. The experimental design employed in Study 1 helped to establish the causal effect of procedural fairness on people's tendencies to hold an organizational authority responsible for unfavorable outcomes. In contrast, the research design used by Barclay et al. was correlational in nature. Furthermore, the present research adds considerable generality to Barclay et al.'s single-study finding of an inverse relationship between procedural fairness and attributions of responsibility to an organizational authority in the face of unfavorable outcomes. We have shown the effect in three separate studies spanning different work contexts.

Fairness Information as a Basis of Causal Attributions

Research in organizational justice seeks to delineate the psychology of people's reactions to fairness information. For example, relational theories suggest that people use fairness information to make a number of inferences about the other party and/or their relationship with the other party, such as neutrality, standing, and trust (Tyler & Lind, 1992). Along with the findings of Van den Bos et al. (1999), the present findings provide evidence that people may use procedural fairness information for an additional sense-making purpose: to make inferences about the causes of their outcomes. Particularly when their outcomes are unfavorable, people are more likely to judge a decision-making authority as re-

sponsible for their outcomes when the authority exhibits lower levels of procedural fairness.

Limitations

In Studies 1 and 2 the measure of attribution of responsibility to organizational authorities consisted of a single item. The fact that conceptually analogous results emerged in both studies, however, provides suggestive evidence of the construct validity of the single-item measures. Moreover, in Study 3, the measure of attribution of responsibility consisted of more than a single item. To be sure, further research is needed using more developed measures of how much people judge an organizational authority to be responsible for their outcomes. For the present purposes, however, the converging findings across all three studies suggest that the measures of attribution of responsibility to the authority were valid.

In addition, Studies 2 and 3 have the potential problem of common method bias, in that in both studies all of the variables (independent, mediating, and dependent) were assessed via self-report (and also at the same point in time). Whereas common method bias cannot be summarily dismissed, evidence from the three studies taken together runs counter to it. Consider, for example, the interactive relationships found in Study 2 between procedural fairness and outcome favorability on the measures of (a) attribution of responsibility to the authority and (b) organizational commitment. Whereas procedural fairness, outcome favorability, attributions of responsibility, and organizational commitment always were operationalized with the same method, it is not clear how common method bias can account for the fact that the relationship between procedural fairness and (a) attributions of responsibility and (b) organizational commitment was significantly more pronounced when outcomes were unfavorable rather than favorable.

It is also worth mentioning that the interactive effect of procedural fairness and outcome favorability on attributions of responsibility to an organizational authority emerged in Study 1, in which the research design did not entail common methods. For that matter, the results of Study 1 were not threatened by retrospective recall bias, yet the results of Study 1 are consistent with those found in Studies 2 and 3, in which the threat of retrospective recall bias could not be eliminated. Research methodologists (e.g., Cook & Campbell, 1979) have suggested that one of the most effective ways to address various methodological concerns is to conduct multiple studies with different research designs, in which the weaknesses of any one method are addressed by the strengths in others. To the extent that converging results emerge across such studies (as was the case here), the concerns about specific threats to external and internal validity within each study are lessened.

Future Research

Further research is needed to explain why lower procedural fairness heightens perceivers' judgments of an authority's responsibility for their unfavorable outcomes. Like others (e.g., Cropanzano, Byrne, Bobocel, & Rupp, 2001; Folger & Cropanzano, 1998), we suggested that the relationship between procedural fairness and judgments of the other party's responsibility may reflect a more basic tendency for people to attribute causality to an actor when the actor's behavior is incongruent with how he or she

should behave, according to social norms (Jones & Davis, 1965). Because it may be normative in our society for people to be procedurally fair toward others (Folger & Cropanzano, 2001), outcomes emanating from behavior that is inconsistent with the norm to exhibit high procedural fairness may be attributed to the actor. Future research needs to evaluate this possibility. For example, it would be instructive to evaluate the extent to which people believe it is normative for an organizational authority to exhibit high procedural fairness and whether people who believe high procedural fairness to be more normative are more likely than others to hold the authority responsible for their unfavorable outcomes when the authority exhibits low procedural fairness.

Finally, future research needs to integrate the various ways people use procedural fairness information for sense-making purposes. The present and previous studies (e.g., Van den Bos et al., 1999) suggest that people use procedural fairness information to make attributions of causality for their outcomes. Other research (e.g., Tyler & Lind, 1992) has shown that people use procedural fairness information to make relational judgments (e.g., how much they are valued by the other party). Whereas these two sense-making purposes of procedural fairness information may not be mutually exclusive, they appear to have different consequences. For example, how much people hold an authority responsible for their unfavorable outcomes may affect their feelings of anger, whereas how much they feel valued by the authority may affect their self-esteem. Thus, future research is needed to delineate the conditions under which people may be more versus less predisposed to use procedural fairness information for one of these sense-making purposes, the other, or possibly even both.

Practical Implications

An ongoing challenge for organizational authorities is to maintain employee support in the face of decisions yielding unfavorable outcomes as well as to avoid retaliation from current and former employees. The extent of support and retaliation depends to a significant degree on employees' attributions of responsibility for their outcomes. Whereas unfavorable outcomes cannot always be avoided, organizational authorities may be able to influence employees' attributions of responsibility for those outcomes. As the present studies suggest, by being procedurally fair when doling out unfavorable outcomes, authorities may reduce the likelihood of being held responsible for those outcomes, which, in turn, is likely to engender greater employee support or less retaliation. Thus, when outcomes are unfavorable, authorities need to either (a) be procedurally fair or, if that is not possible, (b) take additional steps to reduce the likelihood that they will be held responsible for the outcomes.

Regarding the latter prescription, fairness theory implies that when implementing a decision yielding unfavorable outcomes, authorities should communicate that other (and presumably fairer) procedures could not or should not have been used in this particular instance. For example, authorities may say that they considered seeking employee input but that a lack of time prevented them from doing so. Alternatively, they may say that they were aware of the imperfections of the information used to make the decision but that it was the best that they had (and could reasonably be expected to acquire) in the time needed to make the decision. In another situation, they may say that whereas they generally prefer transparency in their decision processes, in this

case transparency would have introduced even greater complications than those caused by being seen as procedurally unfair. Of course, these or other accounts need to be seen as sincere and credible (Bies, 1987). Sincere and credible accounts may sever the link between possible misgivings employees maintain about an authority's procedures (e.g., perceptions of unfairness) and their tendency to hold the authority responsible for unfavorable outcomes resulting from the procedures. As a consequence, authorities may elicit greater employee support for decisions, for decision makers, and for the organization as a whole.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, *63*, 1–18.
- Barclay, L., Skarlicki, D. P., & Pugh, S. D. (2005). Exploring the role of emotions in injustice perceptions and retaliation. *Journal of Applied Psychology*, *90*, 629–643.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.
- Bies, R. J. (1987). The predicament of injustice: The management of moral outrage. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 9, pp. 289–319). Greenwich, CT: JAI Press.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- Brockner, J., & Wiesenfeld, B. M. (1996). An integrative framework for explaining reactions to decisions: The interactive effects of outcomes and procedures. *Psychological Bulletin*, *120*, 189–208.
- Colquitt, J. A., Greenberg, J., & Zapata-Phelan, C. P. (2005). What is organizational justice: A historical overview. In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice* (pp. 3–56). Mahwah, NJ: Erlbaum.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Boston: Houghton-Mifflin.
- Cropanzano, R., Byrne, Z. S., Bobocel, D. R., & Rupp, D. R. (2001). Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior*, *58*, 164–209.
- Crutcher, R. J. (1994). Telling what we know: The use of verbal report methodologies in psychological research. *Psychological Science*, *5*, 241–244.
- Edwards, J. R. (1994). The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes*, *58*, 51–100.
- Felstiner, W. L. F., Abel, R. L., & Sarat, A. (1980–1981). The emergence and transformation of disputes: Naming, blaming, and claiming. *Law & Society Review*, *15*, 631–654.
- Ferguson, T. J., & Rule, B. G. (1983). An attributional perspective on anger and aggression. In R. G. Geen & E. I. Donnerstein (Eds.), *Perspectives on aggression: Theoretical and empirical reviews* (Vol. 1, pp. 41–74). New York: Academic Press.
- Folger, R., & Cropanzano, R. (1998). *Organizational justice and human resource management*. Beverly Hills, CA: Sage.
- Folger, R., & Cropanzano, R. (2001). Fairness theory: Justice as accountability. In J. Greenberg & R. Cropanzano (Eds.), *Advances in organizational justice* (pp. 1–55). Stanford, CA: Stanford University Press.
- Folger, R., & Martin, C. (1986). Relative deprivation and referent cognitions: Distributive and procedural justice effects. *Journal of Experimental Social Psychology*, *22*, 531–546.
- Folger, R., Rosenfield, D., & Robinson, T. (1983). Relative deprivation and procedural justification. *Journal of Personality and Social Psychology*, *45*, 268–273.
- Greenberg, J., & Folger, R. (1983). Procedural justice, participation, and the fair process effect in groups and organizations. In P. B. Paulus (Ed.), *Basic group processes* (pp. 235–256). New York: Springer-Verlag.
- Groth, M., Goldman, B. M., Gilliland, S. W., & Bies, R. J. (2002). Commitment to legal claiming: Influences of attributions, social guidance, and organizational tenure. *Journal of Applied Psychology*, *87*, 781–788.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 219–266). New York: Academic Press.
- Leventhal, G. S., Karuza, J., & Fry, W. R. (1980). Beyond fairness: A theory of allocation preferences. In G. Mikula (Ed.), *Justice and social interaction* (pp. 167–218). New York: Springer-Verlag.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum Press.
- Moorman, R. H. (1991). The relationship between organizational justice and organizational citizenship behavior: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, *76*, 845–855.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Riketta, M. (2002). Attitudinal organizational commitment and job performance: A meta-analysis. *Journal of Organizational Behavior*, *23*, 257–266.
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). San Francisco: Jossey-Bass.
- Sweeney, P. D., & McFarlin, D. B. (1997). Process and outcome: Gender differences in the assessment of justice. *Journal of Organizational Behavior*, *18*, 83–98.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Erlbaum.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 115–192). San Diego, CA: Academic Press.
- Van den Bos, K., Bruins, J., Wilke, H. A. M., & Dronkert, E. (1999). Sometimes unfair procedures have nice aspects: On the psychology of the fair process effect. *Journal of Personality and Social Psychology*, *77*, 324–336.
- Van den Bos, K., Vermunt, R., & Wilke, H. A. M. (1997). Procedural and distributive justice: What is fair depends more on what comes first than on what comes next. *Journal of Personality and Social Psychology*, *72*, 95–104.
- Walster, E. (1966). Assignment of responsibility for an accident. *Journal of Personality and Social Psychology*, *3*, 73–79.
- Wong, P. T. P., & Weiner, B. (1981). When people ask “why” questions, and the heuristics of attributional search. *Journal of Personality and Social Psychology*, *40*, 650–663.
- Zuckerman, M. (1979). Attribution of success and failure revisited: or The motivational bias is alive and well in attribution theory. *Journal of Personality*, *47*, 245–287.

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