

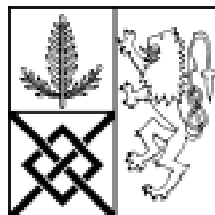
RESEARCH PAPER NO. 1478

When is Criticism Not Constructive?
The Roles of Fairness Perceptions and
Attributions in Employee Rejection of Critical
Supervisory Feedback

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1998

RESEARCH PAPER SERIES



GRADUATE SCHOOL OF BUSINESS

STANFORD UNIVERSITY

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Running head: CRITICISM NOT CONSTRUCTIVE

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Abstract

The effects of justice and dispositional attribution on reactions to negative supervisory feedback were examined in two studies. Study 1 showed that criticism delivered with greater interpersonal fairness resulted in more favorable dispositional attributions about the supervisor, more acceptance of the feedback, and more favorable reactions towards the superior and the organization. The beneficial influence of just treatment was general across various feedback contexts. Study 2 clarified the causal ordering: fair treatment reduced negative dispositional attribution, which in turn increased feedback acceptance and improved attitudes toward the supervisor. Study 2 also distinguished the consequences of perceived fairness in the formal procedures applied to forming the feedback, as opposed to interpersonal treatment during its delivery.

When is criticism not constructive?

The roles of fairness perceptions and attributions in employee rejection of critical supervisory feedback.

In the management literature, giving employees feedback about their job performance is widely recognized as an essential element of supervisory behavior. Theorists suggest that performance feedback is integral to organizational objectives such as providing employees with a clear set of expectancies, encouraging desired or ethical behaviors, and socializing the workforce (Hackman, 1977; Robbins, 1994; Ivancevich and Matteson, 1987). While it is often necessary to inform employees of deficiencies in performance, it is well-known that such negative feedback is less accepted and perceived as less accurate by recipients than positive feedback (e.g., Fedor, Eder, and Buckley, 1989; Snyder and Newburg, 1981). Argyris (1985; 1991) found that executives who gave critical feedback were often perceived to be biased and insensitive, even when they consciously tried not to make recipients defensive. This tendency for recipients to be defensive is a major barrier to the effective use of negative feedback to bring about performance corrections. Not surprisingly, most managers find it unpleasant to deliver negative feedback (Larson, 1989).

Identifying processes that enhance the usefulness of negative feedback remains an imperative in managerial research (Baron, 1993). However, no model of the cognitive process through which employees reject feedback has been systematically explored. The current paper gives particular attention to the effect of unjust interpersonal treatment on reactions to critical feedback, and tests a model of the cognitive processes that lead recipients to discount it.

Making Sense of Feedback: Accepting or Denying Its Content

From a managerial perspective, supervisors deliver critical feedback intending recipients to focus on the content of the message. It is hoped that recipients will gain information about ways of improving job performance. Accordingly, much of the research on feedback has been concerned with learning processes. This line of work suggests that the attention given by the recipient to the content of the feedback (feedback

acceptance) affects whether the feedback will be used to direct corrective changes in behavior (Kluger and DeNisi, 1996; Ilgen, Fisher, and Taylor, 1979).

Unfortunately, negative feedback very often does not have its intended effect. In more than 30% of studies investigating the effect of feedback, performance actually decreases (Baron, 1993; Kluger and DeNisi, 1996). One explanation for such counterproductive outcomes is that, instead of attending to the task-relevant content of the feedback, recipients focus on what the criticism might imply about the supervisor or about their relationship to the supervisor. In a recent review, Kluger and DeNisi (1996) proposed that since critical feedback often has implications for the self, it triggers mental processing that is not task-focused, but is instead focused on the criticism's meta-level meaning. This meta-level process distracts recipients from making use of feedback to improve performance. Although no precise cognitive model of this process has been presented and tested, many models applied to related topics suggest that a critical mediator of reactions to criticism will be the attributions drawn about it. Ross (1977) argued that, in making sense of the behavior of others, perceivers are prone to err in the direction of attributing cause to the stable traits of the other person. In a review of studies of attribution in interpersonal conflict, Pruitt and Rubin (1986) concluded that the negative affect created by a disagreement makes individuals more likely to interpret an ambiguous outcome in terms of the other's traits. In other words, to respond by blaming. Recent studies have found that individuals in conflicts make negative attributions about the traits of the other person even when they have partial information about the situational circumstances causing the behavior (Morris, Larrick, and Su, 1997).

Procedural Justice and Negative Feedback

One condition that seems obviously likely to cause employees to reject feedback is a perception that the criticism is unfair. Most relevant to feedback delivered in workplace contexts are theories of procedural justice. Classical procedural justice research investigates fairness perceptions pertaining to the formal procedures used by an authority or organization (Thibaut and Walker, 1975). Clearly an employee who feels that an organization lacks rigorous procedures for collecting information and making judgments will be more likely to reject criticism. However this process is not the central

focus of our analysis as it is not a process that the average manager can control. Most managers cannot change or control the organization's formal rules for adjudicating conflict.

More recent work in procedural justice has found that people's perceptions of fairness are surprisingly sensitive to the interpersonal treatment received from the authority figure enacting the organizational procedure. Although procedural justice encompasses both the fairness of the formal procedures and the manner in which the authority figure administers the procedures, Tyler and Lind (1992) argued that overall these matters are defined by perceivers primarily in relational terms. Thus, perceivers seem to give primary focus to issues such as whether the authority figure considered their particular needs and concerns, treated them with respect and dignity, and attempted to avoid bias. These assessments of the authority figures' behavior are used by individuals to evaluate their relationships with the authority. One reason that the interpersonal treatment aspect of procedural justice is particularly relevant to managers is that it is under the control of the individual manager. Although one is not generally free to change an organization's formal procedures, one is free to adjust one's style of interpersonal treatment.

While not specific to reactions to negative feedback, this work suggests that fair interpersonal treatment during negative feedback will attenuate negative judgments about the characteristics of the critic. If judgments about the characteristics of the critic lead recipients to give less attention to the content of the feedback, just treatment may also have the desirable effect of encouraging recipients to give more weight to the content of the feedback.

Hypothesis 1: Criticism delivered with more just interpersonal treatment will evoke more receptive responses to the negative feedback. That is, recipients will be less likely to attribute the event to the supervisor's characteristics. Accordingly, recipients will be more likely to accept the truth of the feedback content.

The judgments that individuals make about the behavioral style of the authority figure have important implications. First, it has been demonstrated in the justice

literature that such judgments affect the degree to which an authority figure's decisions are accepted (Lind et al., 1993). Other studies suggest that relational judgments also have implications for more general attitudes and intentions. A number of studies have shown that perceptions of fair interpersonal treatment are conducive to positive reactions from the recipients (for a review, see Tyler and Bies, 1990). For instance, Moorman (1991) found that perceived fairness in interpersonal treatment was positively related to job satisfaction and organizational citizenship behavior.

In a series of studies specific to the feedback context, Baron (1993) showed that constructive criticism led to less negative reactions than destructive criticism. These two types of criticism differ in many dimensions, one of which is relational in nature (whether the tone with which the criticism is delivered is considerate or not). However, since these studies also varied the specificity of the feedback and the inclusion of threats, it is unclear whether relational variables alone would produce the positive reactions that were observed. Thus, a more focused examination of these processes in the feedback context is needed.

Hypothesis 2: Persons who receive negative feedback delivered with more just interpersonal treatment will form less negative attitudinal reactions.

Testing and Developing the Model

Our model of the effects of justice considerations in the specific context of critical supervisory feedback is tested with two complementary studies, designed to explore different issues. In a controlled experiment manipulating descriptions of hypothetical feedback events, the first study assesses the across-context generalizability of the processes proposed in the first two hypotheses. While this design allows us to establish whether robust causal relationships exist, the hypothetical nature of the experiment makes it less ideal for testing the chain of reactions recipients experience in responding to negative feedback. The second study samples workers' reactions to actual criticism events, allowing us to assess these more refined relationships. Causal modeling techniques are used to test the hypothesized relationships among particular judgments made in response to workplace criticism.

Study 1. Responses to Hypothetical Criticism Events in Varying Contexts

From a practical perspective, supervisors need to know whether any positive effects of just interpersonal treatment hold only within limited contexts, or whether they generalize across a wide range of situations. For example, one could imagine that in many circumstances, supervisors are given such great deference that the fairness of their treatment will be unimportant.

With respect to justice reactions in general, Lind and Tyler (Lind and Tyler, 1988; Tyler and Lind, in press) concluded that fairness effects were generalizable across different contexts. However, in the negative feedback literature, the generalizability of just interpersonal treatment has not been examined. One way to test generalizability is to identify other factors important to the feedback context that promote acceptance and positive reactions, and to determine whether just treatment has an effect at high levels of these factors. If the effect of just treatment is qualified by these other factors, it cannot be said to be generalizable. Three characteristics important to the feedback context warrant exploration.

Privacy of feedback. Criticism can be given in public, in full view of other members of the same work group, or in private. In public situations, the impression management motive is heightened and people are more likely to engage in impression management activities (e.g., Arkin, 1981). For instance, Ashford and Northcraft (1992) found that, when in public, individuals tend to avoid feedback-seeking behaviors so that they do not appear to lack self-confidence and competence. This literature suggests that public criticism signals a message of belittlement and ignominy from the authorities and thus makes the already negative reactions even more negative. In contrast, private criticism, even if delivered in an unfair manner, might be easier to swallow because the private nature of the message can be interpreted as the superior's attempt to preserve the reputation of the recipient. Thus, fairness effects may be weaker for private than for public feedback.

Power Differential. Organizations may also make choices regarding which members will deliver the negative feedback. One important choice is whether a relatively

high or low level superior will perform the task. This choice determines the power differential between the superior and the recipient. Ilgen and colleagues (Ilgen et al., 1979) have argued that the status of the source affects the perceived acceptability of feedback. This effect may be related to one of the most general phenomena in social behavior. Even among social animals, the threatening behavior of others whose position in the dominance hierarchy is close to one's own (i.e., rivals) is scrutinized more carefully than that of others who are distant in the dominance hierarchy (Chance, 1967). Thus, unfair criticism may be more tolerated when it comes from a high-status than a low-status source. In other words, the positive effects of fair interpersonal treatment may be less noticeable if the status of the critic is high.

Culture. One cultural dimension clearly relevant to responses to supervisory feedback is generally called "power distance" (Hofstede, 1980). Compared to low power distance societies such as the United States, societies such as Hong Kong have more hierarchical social institutions and power-holders are granted more deference and privileges. Hence, in high power distance societies such as Hong Kong subordinates may be more willing to tolerate criticism from superiors. Bond and colleagues (Bond et al., 1985) reported that after being insulted by a superior, Americans were less likely to accept the insult and evaluated the superior less positively than Chinese. This raises the possibility that the positive effects of interpersonal justice may be inconsequential in cultural contexts where authority figures are granted much automatic deference, and thus that the relationship between interpersonal justice and feedback acceptance will be weaker in Chinese contexts.

We present the following three-part hypothesis to test the generalizability of the positive influence of just interpersonal treatment.

Hypothesis 3a: Just interpersonal treatment will interact with privacy of feedback such that treatment will have a positive effect only when the feedback is delivered in public.

Hypothesis 3b: Just interpersonal treatment will interact with the status of the supervisor such that treatment will have a positive effect only when the supervisor is low in status.

Hypothesis 3c: Just interpersonal treatment will interact with culture such that treatment will have a positive effect only when the feedback is delivered in an American context.

Method

Participants

Participants were 135 MBA students enrolled in a university in the United States West Coast and 127 MBA students enrolled in a university in Hong Kong. All participants were US and Hong Kong citizens, respectively. The demographic characteristics of these two groups are highly similar and are presented in Table 1.

Insert Table 1 about here

Design of the Study

Four variables were manipulated in the study, each with two levels. The first variable was interpersonal treatment. Negative feedback was delivered to participants with either fair or unfair interpersonal treatment. The second variable was feedback privacy. Negative feedback was delivered either in public or in private. The third variable was the power differential between the superior and the subordinate. The feedback came from a superior who was either very senior or only slightly more senior than the recipient. The final variable was culture: American or Chinese. The study employed a 2 (interpersonal treatment) X 2 (feedback privacy) X 2 (power differential) X 2 (culture) factorial design, and all variables were between-subject.

Procedure and Experimental Materials

Participants were invited to participate in the study at the end of a class. The project was described as a study on performance feedback. The scenario method was used, and participants were asked to read a description of the interaction between a superior and a subordinate and to respond to a set of questions following the description. The questionnaire took about 20 minutes to complete.

Eight versions were created by crossing the first three independent variables. The scenarios were written in English, the language widely used in the business sector in Hong Kong and the major medium of instruction in the MBA program at the university in

Hong Kong. The scenario began with an introduction, which asked the participants to assume that they were in their mid 30's and a middle manager in the marketing department of a company that designed and sold casual clothing. They reported to the Marketing Director, as did two other managers of equal rank.

At this point in the scenario, the power differential was manipulated. In the high power differential condition, the superior was described as a man of about 55 years of age. He had held his position for 20 years, was a key executive in the company, and reported to the Chief Executive directly. He had been the superior of the subordinate earlier, when they both worked in a different department. In the low power differential condition, the superior was described as slightly older than the subordinate, and had worked for the company for several years. He was recently promoted and had held his position for a few months only. He worked with the subordinate before in a different department, when they both held the same rank.

The privacy manipulation was then introduced. In the public condition, the superior had called a departmental meeting, which included all the staff of the Department. In the private condition, the superior called the subordinate to a personal, private meeting in his office. It was further stated that the purpose of the meeting was to brainstorm about innovative clothing products. In both conditions, the superior asked the subordinate to describe the subordinate's ideas.

Finally, the fairness of interpersonal treatment was manipulated. This manipulation was based on the current conceptualization of interactional justice (Tyler and Bies, 1990) and the instrument for its measurement (Moorman, 1991). The manipulation centered on the amount of respect shown for the subordinate and the extent to which the superior was being considerate. In the unjust condition, the superior interrupted the subordinate often, did not take the subordinate seriously, and made fun of the subordinate's ideas. In the just condition, the superior paid careful attention to the ideas of the subordinate, showed respect to the subordinate, and was supportive despite not liking the subordinate's ideas. In both conditions, the superior listed several factors that in his opinion would prevent anyone from buying the product and make it difficult to market it.

Dependent Measures and Manipulation Checks

After reading the scenario, participants were asked to assume the role of the subordinate and respond to a set of questions. A variety of dependent variables were used to tap the diverse effects of the criticism. Items used to construct the variables are listed below or in Appendix 1.

Interpretation of criticism.

Two different variables were used to assess how employees interpreted the criticism event. The first variable assessed the extent to which negative dispositional attributions were made about the superior and was measured with three items. The other variable, feedback acceptance, was measured with one item, which asked the participant to judge whether the behavior of the Marketing Director was caused by flaws in the ideas proposed. Each item was based on a 5-point scale, with end points labeled "likely to be a very minor cause" and "likely to be a very major cause".

Attitude formation

Two variables measured attitudes directed at the supervisor. Trust in the superior was measured with a 5-item scale developed by Podsakoff and colleagues (Podsakoff et al., 1990). The original scale had 6 items, but only 5 were used because the omitted item was redundant. Satisfaction with the superior was measured with a 2-item scale developed by Bass (1985).

Two additional variables were directed at the organization. Altruistic intention was measured by 4 items, which were adapted from the altruism scale of the Organizational Citizenship Behavior Scale (Podsakoff et al., 1990). The original items in this scale concerned the extent to which an employee is willing to engage in extra-role performance behavior. We modified the items to measure the extent to which an incumbent is willing to engage in extra-role performance behavior. Organizational commitment was measured with 6 items, which were randomly selected from the short form of the organizational commitment questionnaire developed by Mowday, Steers, and Porter (1979). Six items were regarded as adequate in providing a reliable estimate of the level of organizational commitment expressed. All questions were based on five-point scales, with end points labeled "disagree", and "agree".

Manipulation checks.

The manipulation of interpersonal treatment was assessed by three items adapted from previous measures (e.g., Tyler, 1988). The privacy manipulation was checked with one item, which asked participants to choose one of four options to indicate how many people were in the meeting. Power differential was assessed by two items, which asked the participants to indicate the status of the superior in relation to the subordinate. Except for the privacy item, all items were based on 5-point, agree-disagree scales.

Results

Reliability of Measures

Reliability of the measures was assessed by Cronbach's alpha. All scales showed acceptable levels of reliability in the two cultures (see Appendix 1 for details). For those scales containing few items, the coefficient alpha may have underestimated the internal consistency. The average inter-item correlations presented provide another index for internal consistency.

Manipulation Checks

The public-private manipulation was checked first. Five American and 11 Chinese participants chose a wrong answer and were excluded. The public-private manipulation was effective for most of the participants.

A 4-way analysis of variance (ANOVA) was performed on perceived status of the superior. A status main effect was found, $F(1, 230)=65.3, p<.01$, showing that the superior was seen as more powerful and more senior in the high power differential than in the low power differential conditions ($M=4.31$ vs. 3.38). Thus, the status manipulation was very successful. Among all interaction effects involving culture and status, only one was significant. Culture interacted with status, $F(1, 230)=4.14, p<.05$, and the means indicated that the perceived status of the superior differed more across the two power differential conditions in the U.S. ($M=3.18$ vs. 4.36) than in Hong Kong ($M=3.59$ vs. 4.26). Fortunately, this interaction effect showed only that the manipulation was somewhat stronger in the U.S.

A 4-way ANOVA was performed on perceived fairness of interpersonal treatment, and the justice main effect was highly significant, $F(1,230)=85.2, p<.01$. As expected, the just condition was rated as more just than the unjust condition ($M=2.78$ vs.

1.83). Interestingly, there was a privacy effect as well, $F(1, 230)=7.75, p<.01$. The private condition was rated as less unjust than the public condition ($M=2.45$ vs. 2.16). This supports our assertion that feedback privacy has implications for the recipient's impression management concerns, and thus influences how the fairness of the treatment is evaluated. Finally, a culture main effect was found, $F(1, 230)=5.86, p<.05$, which suggests that Chinese participants regarded the treatment as less unjust than did American participants ($M=2.43$ vs. 2.18). This finding is consistent with the argument that Chinese react less negatively to supervisory criticism than do Americans.

Effects of Interpersonal Treatment

A set of 4-way ANOVAs was performed on each of the dependent variables. Hypothesis 1 predicted that recipients of just interpersonal treatment would be more receptive to the content of the feedback, and relevant results are presented in Table 2. Consistent with this prediction, in the just condition, participants were less likely to attribute the criticism to negative dispositions of the superior. Participants were more likely to subscribe to the explanation that flaws in their ideas were responsible for the negative feedback.

Insert Table 2 about here

Hypothesis 2 stated further that recipients of just interpersonal treatment would have more positive attitudes and intentions toward the superior and the organization. Consistent with this prediction, participants expressed a higher level of trust and satisfaction with the superior, and also expressed higher altruistic intention and commitment to the organization. See Table 3 for the means. In sum, justice effects were found for all the dependent variables.

Insert Table 3 about here

Analysis of Robustness Across Contexts

Hypothesis 3 contained three predictions that, if confirmed, would limit the

applicability of the observed justice effects to only certain contexts. Evidence that this hypothesis cannot be supported is strongest if the factor has a significant main effect (indicating an influence in promoting deference to the supervisor), yet does not significantly interact with the just interpersonal treatment manipulation. With respect to the first potential moderator, feedback privacy, the ANOVAs showed that in the private condition, participants expressed more trust toward the superior and showed a higher level of organizational commitment (See Table 3 for means). However, the treatment by privacy interaction was not significant for any of the dependent variables, which suggests that justice effects were not qualified by feedback privacy.

A similar analysis was performed to test the second potential moderator, power distance. The ANOVAs showed that participants in the high power differential condition were less negative toward the superior than those in the low power differential condition. Participants were less likely to attribute the criticism to negative dispositions of the superior, and expressed a higher level of trust and satisfaction toward the superior (see Table 3). As before, interpersonal treatment did not interact with power differential for any of the dependent variables. Thus, justice effects were not qualified by the status of the superior.

Consistent three-way interaction effects involving interpersonal treatment, feedback privacy, and power differential were found for two variables: satisfaction with the superior, $F(1,230)=4.38, p<.05$, and organizational commitment, $F(1, 230)=5.93, p<.05$. Nevertheless, the means show that justice effects were found in all conditions. Fair treatment always produced a more positive reaction than unfair treatment (i.e. there is no cell in which unjust treatment resulted in more favorable ratings than just treatment). The significant interaction was caused by a weaker effect of treatment justice in two conditions: private criticism from a low-status superior and public criticism from a high-status superior. See Table 4 for the means.

Insert Table 4 about here

The third potential moderator was culture, and indeed Chinese participants were less negative about the criticism. Compared to Americans, Chinese expressed a higher

level of trust toward the superior, $F(1, 230)=13.9$, $p<.01$, $M=2.74$ vs. 2.43 , a higher level of satisfaction toward the superior, $F(1, 230)=17.4$, $p<.01$, $M=2.49$ vs. 2.04 , and a higher level of organizational commitment, $F(1,230)=9.17$, $p<.01$, $M=3.04$ vs. 2.80 .

Chinese were also less likely than Americans to regard flaws in their ideas as the cause of the criticism $F(1, 230)=13.5$, $p<.01$. However, this effect should be interpreted in light of a three-way interaction, involving interpersonal treatment, power differential, and culture, $F(1, 230)=7.48$, $p<.01$. Though the justice effect was stronger for American participants when the criticism came from a high-status superior, the cell means showed that fair treatment led to higher acceptance of the feedback for both cultural groups in all conditions. There were no other significant interactions involving culture. Thus, the overall pattern of results indicated that the effects of justice were not moderated by culture. See Table 5 for means.

Insert Table 5 about here

Discussion

Support for Hypotheses

Previous studies on this area of procedural justice have been correlational, recording respondents' evaluations of justice after their experience. Our methodology used experimental controls that enabled us to determine an unambiguous causal relationship between just interpersonal treatment and favorable reactions to negative feedback. Moreover, the experiment crossed just interpersonal treatment with other manipulations, allowing us to test whether the effects of just interpersonal treatment were robust across a wide range of contexts. The positive effects of fair interpersonal treatment were well supported in all the experimental conditions and across both cultural groups. Without exception, perceived fairness cushioned the negative impact of criticism across all the measures studied. While the effectiveness of negative feedback may be impaired by the tendency of perceivers to make self-serving interpretations (e.g., Leung and Li, 1989; Messick et al., 1985; Zuckerman, 1979) and to discount its content, these results show that fairness in interpersonal treatment increases acceptance and promotes

positive attitudes toward the supervisor and the organization.

Other Findings

The results also revealed that higher levels of feedback privacy and superior status resulted in more favorable responses to negative feedback. Criticism delivered in private was regarded as less unjust, and led to a higher level of organizational commitment and trust toward the superior. Criticism by a high-status superior led to less negative dispositional attributions, and to more trust and satisfaction toward the supervisor.

Culture also appears to affect reactions to feedback. Chinese participants reacted less negatively to supervisory criticism. Compared to Americans, they regarded the treatment as less unjust, showed more trust and satisfaction toward the supervisor, and displayed a higher level of organizational commitment.

Study 2. Testing Causal Ordering in Responses to Actual Criticism Events

Study 1 indicates that just interpersonal treatment has a robust effect across a broad range of critical feedback contexts. In Study 2, we attempt to replicate support for the first two hypotheses, this time, with real workplace experiences collected from a diverse group of people working in different contexts. We also develop a more fine-grained model of cognitive processes, which gives special emphasis to respondents' attributions about why they received critical feedback. Thus, the roles played by dispositional attribution and acceptance of feedback in mediating the relationship between justice perceptions and workplace attitudes will be examined.

In addition to measures for justice of interpersonal treatment, Study 2 also adds measures for justice of formal procedures, thus capturing both aspects of procedural justice (e.g., Cropanzano, 1993; Tyler and Bies, 1990). This formal procedures variable focuses explicitly on the methods used by the supervisor to derive the conclusions contained within the feedback. The inclusion of this additional explanatory variable allows us to parse out the unique effects of interpersonal treatment on acceptance of feedback and on workplace attitudes.

For these purposes, three types of dependent variables are examined: attitudes toward the superior, attitudes toward the organization, and a new variable - improvement effort. Since the major objective of feedback is to encourage recipients to improve performance, this new variable is added to assess whether recipients actually attempted to improve their performance afterwards.

The Role of Dispositional Attributions on Social Reactions

In prominent research on procedural justice, justice perceptions about a single event are modeled to directly impact beliefs about the authority figure, or about one's relationship with the authority figure (see Lind and Tyler, 1988; Tyler et al., 1997). No work has been done on the cognitive process through which these longer-term relational expectations result from the evaluation of a single event occurring at a single point in time.

How do perceivers move from justice judgments about a single event to longer-term expectations about the behavior of others? Research on attribution processes provides strong evidence that perceivers spontaneously form dispositional attributions about others immediately after observing their behavior in a single episode (Uleman, 1987). There is also evidence that attributions about the stable behavioral tendencies of others serve as a basis for predicting their future behaviors. In an adversarial context involving a single employment related negotiation, it has been demonstrated that disputants form conclusions about the behavioral traits held by their opponents (Morris, Larrick, and Su, 1997). These trait attributions then affect predictions of how the opponents will perform in different occupational roles and the choice of methods to resolve any future conflicts with them.

Hypothesis 4. Negative dispositional attributions about the superior's behavior mediate the relationship between unjust interpersonal treatment and less favorable future expectations of and intentions toward the supervisor.

A Sense Making Process: Assessing the Accuracy of Critical Comments

Since we are studying feedback, we are particularly interested in whether recipients attend to the evaluative information contained therein, in other words, whether

task-relevant learning has occurred. While current justice research has studied related outcomes such as recipients' willingness to accept proposals and their evaluation of outcome favorability, it has not investigated how they evaluate the factual truth of an authority figure's statements. Primarily, this is because past research has not focused on cognitive processes. Instead, it has focused mostly on motivational processes, arguing, for example, that procedural justice affects one's sense of control (Thibaut and Walker, 1975) or social status in the group (Tyler and Lind, 1992).

How do recipients determine whether critical remarks are accurate? A logical way of assessing the accuracy of another person's statements is to review how that person arrived at his or her conclusions. For example, within the scientific domain, along with presenting their findings, researchers provide details about the methods they employed to collect and evaluate data. This information enables readers and reviewers to assess the findings, and often, to understand why their own current beliefs on the relevant issues are faulty. In the context of feedback about workplace performance, recipients can also assess the methods used by the supervisor to derive the critical remarks. Here, relevant methodological details might be whether the superior collected all relevant information, considered the explanations and clarifications made by the recipient, and applied consistent standards.

Justice research has shown that such details about formal procedures are in fact very important to perceivers. People have been found to care more about the procedural attributes of the decision process than even about the ability to control the process outcome (Lind, Kanfer, & Early, 1990; Lissak & Sheppard, 1983). A consistent finding across many studies is that approval of the attributes of the decision process increases acceptance of the decisions (Thibaut & Walker, 1975; see Lind & Tyler, 1988 for a review), suggesting that people perceive the findings to be more accurate.

Hypothesis 5. Perceptions of unjust formal procedures will decrease acceptance of feedback content.

The findings from the first study indicate that the fairness of a supervisor's interpersonal treatment of the recipient also has consequences for cognitive processes.

Unjust interpersonal treatment decreases acceptance of feedback content. Unjust interpersonal treatment also causes perceivers to focus on social interpretations of the criticism event, namely, to make more extreme negative dispositional attributions about the supervisor. Since dispositional attributions tend to be formed spontaneously and therefore probably prior to attributions about the content of the feedback, it is possible that they mediate the relationship between unjust interpersonal treatment and feedback acceptance.

Aside from providing a basis for predicting a supervisor's future behavior, dispositional attributions also provide recipients with a potential explanation for the negative evaluation. If a supervisor has the disposition of being unfairly critical, he or she might be critical even if the recipient has performed adequately. Thus, the possibility that one has performed poorly constitutes only one causal attribution, which must compete with other causal attributions to explain the event. According to the discounting principle (Kelley, 1972; Morris and Larrick, 1995), recipients who make one causal attribution for the critical feedback become less inclined to make any other attribution. Thus, recipients who form stronger negative dispositional attributions about the supervisor can be expected to be less accepting of the task-relevant conclusions in the criticism.

Hypothesis 6. Negative dispositional attributions will mediate the relationship between unjust interpersonal treatment and the rejection of feedback content (low feedback acceptance).

In hypotheses 5 and 6, we proposed that two different mechanisms affect recipients' acceptance of the feedback. The first mechanism portrays cognition as relatively scientific or logical, attending to the quality of the formal procedures used by a critic. The second portrays cognition as socially influenced, evaluating whether social causes could account for the critical comments of the critic. While we suggest that both portrayals are simultaneously accurate, an important remaining question is what implication, if any, they have on the objective of performance improvement.

Previous research has shown that feedback acceptance is crucial to improvement effort (Ilgen, Fisher, and Taylor, 1979). When recipients do not acknowledge deficiencies in their own performance, they are less likely to make corrective changes in job behavior. Thus, to the extent that justice perceptions promote efforts to improve performance, they must first lead recipients to acknowledge deficiencies in performance.

Hypothesis 7: Feedback acceptance mediates the relationship between justice perceptions and effort to improve performance.

Differentiating Interpersonal Treatment from Formal Procedures

Many studies have shown that positive perceptions of procedural methods elicit a variety of favorable reactions from recipients (e.g., Tyler and Bies, 1990). As we have mentioned, the application of fair formal procedures increases acceptance of an authority figure's decisions. Folger and Konovsky (1989) have also demonstrated that the perception of fair formal procedures has favorable implications for more general attitudes toward the organization, such as promoting organizational commitment.

While perceptions of just interpersonal treatment and just formal procedures both have positive consequences, whether these two facets of justice have an identical effect has not been fully resolved. Two research traditions differ on this issue. One approach regards these two procedural justice constructs as more or less independent. For instance, Moorman (1991) showed that two distinct factors, one procedural and the other interpersonal, emerge when items measuring procedural justice are factor analyzed. Though the effects of these two types of justice on various dependent variables are somewhat similar in direction, researchers in this tradition have found many ways in which they are distinctly independent and different in magnitude (e.g., Leung, Au, and Chiu, 1993; Leung et al. 1996; Moorman, 1991). Alternatively, researchers supporting the group value model (Lind, Tyler, and Huo, 1997; Tyler and Lind, 1992; in press) argue that overall perceptions of procedural justice focus primarily on interpersonal treatment. In this latter tradition, path models are specified so that aspects of procedural justice affect relational judgments, which in turn affect various dependent variables.

Since interpersonal treatment falls more fully under the discretion of individual

supervisors, while formal procedures are usually dictated by the organization, it is reasonable to expect the former to exert a stronger effect on reactions to the supervisor, and the latter on reactions to the organization. However, whether these two facets of procedural justice can be distinguished may be a function of the context that is studied and the variables used to measure recipients' reactions.

Different contexts differ with respect to whether the authority is perceived as distinct from the organization. In contexts such as court or dealings with police, the authority figure often attempts to assume the identity and even sanctity of the organization. In contrast, supervisors in work contexts often distinguish themselves from the organization. One can imagine that executives such as John De Lorean, famed for actively cultivating a counter-culture within General Motors (Martin, 1992), would be perceived as separate from the organization by most employees. Thus, work situations may be more ideal as contexts in which to distinguish reactions to interpersonal treatment and formal procedures.

Since the effects of formal procedures and interpersonal treatment are somewhat similar in direction, the choice of dependent measures is also likely to affect the degree to which their effects can be distinguished. For instance, the dependent variables used in previous research typically pertain to the organization (e.g., organizational commitment theft), or to both the organization and the supervisor (e.g., job satisfaction). Few studies have included variables that focus solely on the supervisor. The use of these more diffused dependent variables may help explain why the effects of these two aspects of procedural justice are often not clearly differentiated. The inclusion of variables that clearly distinguish reactions to the supervisor and the organization may also yield more distinct effects for these two aspects of procedural justice.

This issue also has important practical implications. If justice of interpersonal treatment and formal procedures were identical in consequence, then shortfalls in one could be fully ameliorated by diligent effort in the other. This might suggest that organizations could rely on fair formal procedures to remedy all negative outcomes of unjust supervisory treatment of employees, or vice versa.

Hypothesis 8. Perceptions of fair treatment and fair procedures have distinct effects in the feedback context. Fair interpersonal treatment will impact attributions and attitudes specific to the supervisor, while fair formal procedures will impact attitudes specific to the organization.

It should be noted that in our first study, our manipulation of just interpersonal treatment resulted in significant differences in attitudes toward both the organization and the supervisor. These results are likely to be a reflection of the choice of independent variables. The first study did not manipulate or measure perceptions of just formal procedures. Hence, this approach did not allow us to parse out the unique variance in the dependent variables resulting from perceptions of interpersonal treatment, as distinct from those regarding formal procedures. Moreover, since respondents did not have information about the formal procedures of the organization or the behavior of other supervisors there, it would have been more difficult for them to distinguish the particular supervisor from the organization. The second study is based upon respondents' actual work experiences, a methodology that incorporates the information respondents have about the wider organizational context. Thus, we expect the second study to be more informative regarding the unique effects of interpersonal treatment.

A Causal Process Model

Based on the hypotheses stated above and the results from the first study, a causal model was developed to represent the dynamics underlying justice reactions to negative feedback (see Figure 1).

Insert Figure 1 about here

Hypothesis 4 suggests that negative dispositional attributions about the supervisor mediate the relationship between perceptions of unjust interpersonal treatment and negative attitudes toward the supervisor. Thus, the process model specifies a direct path from unjust interpersonal treatment to negative dispositional attribution, and a direct negative path from the latter to attitudes toward the supervisor. This specification is consistent with results from the first study, where it was found that unfair interpersonal

treatment caused participants to make more negative dispositional attributions and to hold less positive attitudes about the supervisor. In correlational analysis of the data, it was also found that participants who made more extreme negative dispositional attributions were less likely to trust the supervisor, $r = -.53$, $p < .01$, and were less satisfied with the supervisor, $r = -.59$, $p < .01$.

As noted in the presentation of hypothesis 5, past research has found that unjust formal procedures reduce acceptance of an authority figure's decision, an outcome that seems to be related to feedback acceptance. The path model incorporates a negative path from unjust formal procedures to feedback acceptance.

Hypothesis 6 suggests that negative dispositional attributions also mediate the relationship between unjust interpersonal treatment and rejection of feedback content, by providing an alternative explanation for the criticism. Thus, the model also has a direct negative path from negative dispositional attribution to feedback acceptance. This specification is also supported by the results from the first study. Negative dispositional attributions were negatively correlated with acceptance of feedback, $r = -.29$, $p < .01$. Moreover, interpersonal treatment had a stronger effect on dispositional attribution than on acceptance of feedback (effect size as measured by Ω^2 : .181 vs. .073), suggesting that the former occurred prior to the latter.

Hypothesis 7 pertains to the effect of both types of procedural justice perceptions on improvement effort, stating that any effect is mediated by feedback acceptance. Accordingly, there is a direct path from feedback acceptance to improvement effort.

The causal model is also notable for the way it distinguishes between the effects of interpersonal treatment and formal procedures, as suggested by Hypothesis 8. There is no path that would connect unjust interpersonal treatment to attitudes toward the organization. Correspondingly, there is no path from unjust formal procedures to attitudes toward the organization. Since we hypothesize that formal procedures affect attitudes toward the organization, but do not hypothesize a mediator, there is a direct path between these two variables.

Design of the Study

Study 2 was based on a survey of full-time employees, who were asked to recall their actual experiences at work. This approach complements Study 1, which asked

participants to respond to a hypothetical case. The survey was conducted solely in Hong Kong, as Study 1 indicated that the processes we focus on are only minimally affected by culture.

Method

Participants

Participants were approached in public areas in Hong Kong, such as parks and ferries, and asked to respond to an anonymous questionnaire, requiring about 20 minutes to complete. In return, they received a small gift (a gift coupon for a dozen of cakes, which was worth US \$5). Approximately 68% of people approached agreed to participate, resulting in a total of 189 participants. Among the participants, 52% were males, and 48% were females; 53% were between 20-30, 32% were between 31-40, and 14% were above 40; 5% had primary education, 56% had secondary education, and 39% had tertiary education; 42% were in supervisory positions, and 58% were rank-and-file employees. Respondents came from a variety of sectors, notably from services (36%).

Materials

Respondents were asked to recall a recent incident in which they received harsh criticism from their superior. They were asked to respond to a set of questions based on this incident. They also responded to some demographic questions at the end.

Interpersonal treatment and formal procedural fairness. The scales developed by Moorman (1991) for measuring interactional justice and procedural justice were adapted to measure the fairness of interpersonal treatment and formal procedures, respectively. These two scales have been used in China before with very satisfactory results (Leung et al, 1996). The interactional justice scale contained 4 items and asked, when delivering the criticism, whether the superior was sincere, polite, treated the subordinate with dignity, and respected his/her rights. The formal procedural justice scale contained 5 items, and asked whether the superior collected all relevant information, allowed clarifications and explanations, considered the opinions of the subordinate, and applied consistent standards. To facilitate the presentation of results, these variables were reverse-coded so that higher values indicate more unjust treatment and formal procedures.

Mediating variables. Negative dispositional attributions about the supervisor were measured with the 3 items used in Study 1. Feedback acceptance was measured by two items. The first item asked to what extent respondents regarded the criticism as reflecting their own poor performance. The second item was used in Study 1 and probed the extent to which respondents regarded their poor performance as a cause of the criticism.

Dependent Variables. Performance improvement was based on two items. The first item asked whether respondents had made an effort to improve their performance after the criticism. The second item asked whether respondents looked for ways to improve their performance after the criticism. The remaining scales were identical to those in Study 1: trust in the supervisor, satisfaction with the supervisor, organizational commitment, and altruistic intention. To reduce the number of parameters to be estimated, we used the trust and satisfaction scales as indicators for the latent construct “attitudes toward the supervisor”, and the scales for organizational commitment and altruistic intention as indicators for “attitudes toward the organization”. The use of scales as indicators is common when estimating complex causal models (e.g., Hom and Griffeth, 1994).

Results

Model Specification

LISREL 8 was used to test the causal model presented in figure 1.¹ The fit of the model was good, but the modification indices suggested a change that would improve the fit significantly. There was a significant path from attitudes toward the organization to attitudes toward the supervisor. In other words, respondents who held more positive attitudes toward the organization were also more positive about the supervisor. The resulting model had a good fit to the data, providing support for the direct relationships contained in the hypothesized causal model.

To check that our model was not too sparsely specified, we tested for the remaining direct paths that were not specified, as these might affect our mediation and

¹ Both the measurement and the structural models were simultaneously estimated. The covariance matrix was used as the input. Following the standard procedure, the factor loading of the first indicator was fixed as 1.

distinctiveness hypotheses. Since a large number of relationships were being tested, we adopted a .01 critical value, which is conventional in such instances.

We first assessed any remaining paths going from the two types of procedural justice perceptions to the two mediating variables. Neither the path from interpersonal treatment to feedback acceptance, nor that from formal procedures to dispositional attribution, produced a significantly better fit and were not added to the model, $\Delta\chi^2=.01$, ns, and $\Delta\chi^2=1.15$, ns, respectively.

We then tested any remaining paths that would directly link justice perceptions to the three dependent variables. The path from interpersonal treatment to attitudes toward supervisor was added to the model, $\Delta\chi^2=9.86$, $p<.01$. The other paths in this set did not significantly improve fit to this new model: interpersonal treatment to improvement effort, $\Delta\chi^2=4.10$, ns; interpersonal treatment to attitudes toward the organization, $\Delta\chi^2=.85$, ns; formal procedures to attitudes toward the supervisor, $\Delta\chi^2=.00$, ns; and formal procedures to improvement effort $\Delta\chi^2=.38$, ns.

Finally, we assessed any remaining paths from the two mediating variables to the three dependent variables, and found that none significantly improved fit. These included: dispositional attribution to improvement effort, $\Delta\chi^2=.05$, ns; dispositional attribution to attitudes toward the organization, $\Delta\chi^2=4.21$, ns; feedback acceptance to attitudes toward the supervisor, $\Delta\chi^2=.16$, ns; and feedback acceptance to attitudes toward the organization, $\Delta\chi^2=.11$, ns.

The fit statistics for the final model were good: $\chi^2=276.7$, $df=161$, $p<.01$, $\chi^2/df=1.72$, GFI=.86, CFI=.93. All the path coefficients were significant at the .01 level (See Figure 2).

Insert Figure 2 about here

Discussion

The causal modeling analysis provided strong support for our hypotheses. The hypothesized direct paths were all confirmed. However, several of the hypotheses specified that certain variables would mediate other causal relationships, requiring us to consider the non-hypothesized paths. In our statistical model, the strongest support for mediation is provided when two conditions are met. First, the hypothesized direct paths from the first variable to the mediating variable and from the mediating variable to the final variable are both supported. And second, a direct path from the first variable to the final variable can be ruled out. Fortunately, for the most part, these non-hypothesized paths were not significant.

The results support an attributional explanation for how evaluations about the supervisor's behavior in a single event could affect longer-term attitudes and intentions toward the supervisor. Hypothesis 4 predicted that negative dispositional attributions would mediate the relationship between interpersonal treatment and reactions to the supervisor. As the final path shows, perceptions of unjust interpersonal treatment directly increased negative dispositional attribution. Attribution to the stable negative traits of the superior, in turn, led to less positive attitudes toward the superior. However, we should also note that the non-hypothesized path from interpersonal treatment to attitudes toward the superior was significant. Nevertheless, the path coefficients show that the effect of dispositional attribution on attitudes toward the supervisor was stronger than the effect of interpersonal treatment. These results suggest that negative dispositional attribution was a partial, but important, mediator in this relationship. Thus, the inferences made by recipients about stable negative behavioral dispositions help to explain why fair treatment during the one event affected longer term attitudes and intentions.

Study 2 is also informative regarding cognitive processes affecting whether recipients accept the task-relevant content of the feedback. The portrayal of recipients as scientific analysts of information-processing methods was supported by the data. As predicted in hypothesis 5, the direct negative path from unjust formal procedures to feedback acceptance was significant.

The alternative portrayal of recipients as analysts of the social situation was also supported. Hypothesis 6 proposed that negative dispositional attributions would mediate

the relationship between interpersonal treatment and feedback acceptance. According to the final path model, perceptions of unjust interpersonal treatment increased the amount of negative dispositional attribution, which in turn reduced feedback acceptance. The non-hypothesized path from interpersonal treatment to feedback acceptance was not significant, providing strong evidence of mediation.

Importantly, it should be noted that our model estimated the simultaneous influence of the two cognitive processes. The results indicate that negative dispositional attributions reduced feedback acceptance even when the fairness of formal procedures was controlled. Thus, recipients' social interpretations of the event, as encapsulated in the negative dispositional attributions they made, must be considered to fully explain acceptance or rejection of feedback content.

Our results also show that these cognitive processes have important practical consequences. Hypothesis 7 stated that feedback acceptance would mediate the relationships between the two types of justice perceptions and improvement effort. The final model shows that feedback acceptance increased improvement effort. No direct paths from interpersonal treatment, formal procedures, and negative dispositional attribution to improvement effort were significant, providing strong evidence of mediation.

Distinctiveness of Justice Effects

The results indicate that the two facets of procedural justice have relatively distinct paths, as predicted in hypothesis 8. The final model shows that perceptions of just interpersonal treatment had both direct and indirect paths to attitudes toward the supervisor, while perceptions of just formal procedures had a direct path to attitudes toward the organization. There were no significant direct or indirect paths that could connect interpersonal treatment to attitudes toward the organization. Correspondingly, the direct path from formal procedures to attitudes toward the supervisor was not significant, and there were no significant indirect paths through the two cognitive mediating variables. However, there is a significant path from attitudes toward the organization to attitudes toward the supervisor. This path was unexpected, and does indicate that fairness of formal procedures can affect attitudes toward the supervisor, but

only because of its effect on attitudes toward the organization. Overall, the two facets of procedural justice have distinct outcomes, with interpersonal treatment more directly affecting attitudes toward the supervisor and formal procedures affecting attitudes toward the organization.

General Discussion

Implications for Theory

Both studies provide consistent evidence that just interpersonal treatment during negative feedback promotes positive responses. The first study demonstrates that just interpersonal treatment has a robust causal effect that is not moderated by relevant contextual factors such as power distance, privacy, and culture. The second study demonstrates that the positive effect of just interpersonal treatment are also robust in the actual experiences of people in a diverse range of work settings.

Our most important findings, however, go beyond demonstrating that procedural justice considerations are important in the specific context of critical supervisory feedback. The two studies indicate that cognitive processes play an important role in determining how recipients respond to the fairness of interpersonal treatment. Specifically, they show that recipients who attribute the critical comments to the supervisor's negative behavioral dispositions are less likely to acknowledge the content of the criticism. In other words, social interpretations of the feedback event reduce a recipient's willingness to accept the task-relevant details contained therein. These cognitive consequences in turn affect attitudes toward the supervisor and, importantly, whether recipients made efforts to improve performance. These results represent a useful addition to the procedural justice literature. Whereas past procedural justice research has focused primarily on motivational processes, our results suggest that an examination of cognitive processes is necessary.

Our results also add to the procedural justice literature by helping to distinguish its two recognized components, justice of formal procedures and justice of interpersonal treatment. Study 2 provides a context in which these two considerations have distinct and unique consequences.

Unresolved Theoretical Issues

The finding of distinct responses to the two procedural justice components seems to contradict earlier research, where it is found that overall reactions to procedural justice can be agglomerated into a common body of relational concerns (Tyler and Lind, 1992, in press). In part, this discrepancy may be due to differences in specification of variables and data-analytic methods, driven by different theoretical orientations and hypothesis testing goals. We suggest that contextual differences also help to explain the disparate findings. The evidence marshaled in support of the relational model is based on actual interactions with civil servants, such as police and legal authorities. In contrast, the data in Study 2 was based upon the actual interactions of employees with a supervisor in their work setting.

We offer some contextual differences that could account for the differences in findings. First, the deliberate management of organizational boundaries is different in the two contexts. Civil servants and police derive authority from their organizational membership. Civilians, in contrast, do not hold positions in the organization and thus have no formal authority. In this context, officials have an incentive to make the distinction in organizational membership salient, as it imbues them with authority and others with an obligation to defer. At the same time, different members of civil organizations derive benefits from blurring distinctions within the organization. Lower level officials benefit by being able to assert more authority, which in turn benefits higher level officials, as fewer cases will have to be referred to them. Such purposeful management of organizational boundaries encourages perceivers to attribute the behaviors of individual officials to their organizations. In contrast, in the work context, employees do have formal positions in the organization, and the management actually attempts to emphasize common membership (Martin, 1992). This makes it more difficult to associate the unfair interpersonal behavior of one supervisor with the entire organization, as this might mean that oneself and all other lower level employees in the organization are also blameworthy.

Second, the nature of interactions with civil servants and those with workplace superiors result in different levels of familiarity with the behavioral variation within the

respective organizations. Most people have few interactions with any particular civil organization. Impressions about a civil organization tend to be formed from a more limited knowledge base, and a single experience with a particular official is more likely to influence beliefs about the entire organization. In contrast, employees interact with others in the workplace on a daily basis. This provides access to information about the behavior of many people in the organization. Research in attribution theory indicates that perceivers are attuned to differences in variation (Kelley, 1967), attributing cause to individuals when their behavior is discrepant from that of others, and attributing cause to the environment when it is similar. With the broad knowledge base about one's work setting, perceivers are more likely to distinguish between the particular behaviors of individual supervisors and the procedures which tend to be uniformly applied in the organization.

These context differences may help to explain why some studies of procedural justice have failed to replicate the effect of relational issues on behavior directed at the organization. For example, in a work context, Shapiro, Trevino, and Victor (1995) contrasted the effects of procedural, interactional, and distributive justice on employee theft, and found that interactional justice did not have a significant effect. Our analysis suggests that the relational model may be conditional upon context. Thus, the systemic examination of the relationship between these contextual differences and justice reactions represents a promising area of future research.

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Authors' Note

We thank Michael Bond for his insightful comments on an earlier draft of this paper.

Table 1

Demographic profiles of the two cultural groups

	U.S.	Hong Kong
Age	26.4	26.9
% of Female	32.8%	34.5%
Married	23.1%	17.2%
Full-time working experiences (months)	48.3	43.9

Table 2

Receptive and defensive responses as a function of the style of interpersonal treatment, feedback privacy, and power differential during supervisor criticism (Main effects only)

	Treatment		Location		Power differential	
	Just	Unjust	Private	Public	High	Low
<hr/>						
Feedback						
acceptance	4.36	3.47	----	----	----	----
Dispositional						
attribution	3.84	5.03	----	----	3.84	5.03
<hr/>						

Note. All effects are significant at .05 level. Higher scores indicate higher levels of feedback acceptance and dispositional attribution. Group means are not reported when there is no significant main effect of feedback privacy, location, or power differential.

Table 3

Employee attitudes as a function of treatment, feedback privacy, and power differential
(Main effects only)

	Treatment		Location		Power differential	
	Just	Unjust	Private	Public	High	Low
Trust	2.79	2.36	2.70	2.47	2.79	2.36
Satisfaction	2.54	1.95	----	----	2.54	1.95
Altruistic intention	3.82	3.53	----	----	----	----
Organizational commitment	3.03	2.79	3.00	2.84	----	----

Note. All effects are significant at .05 level. Higher scores indicate higher levels of altruistic intention, trust, satisfaction, and organizational commitment. Group means are not reported when there is no significant main effect of feedback privacy, location, or power differential.

Table 4

Means for three way interactions involving interpersonal treatment, feedback privacy, and power differential

	Power differential			
	Low		High	
	Public	Private	Public	Private
<hr/>				
<u>Treatment</u>				
	Satisfaction			
Just	2.41	2.27	2.52	3.00
Unjust	1.64	2.02	2.06	2.13
	Organizational commitment			
Just	2.94	3.02	2.94	3.24
Unjust	2.62	2.99	2.85	2.70

Note. Higher scores indicate higher levels of satisfaction and organizational commitment.

Table 5

Feedback acceptance as a function of interpersonal treatment, power differential, and culture

	Power differential			
	High		Low	
Treatment:	Just	Unjust	Just	Unjust
U.S.	5.25	3.50	4.23	3.97
Hong Kong	3.67	3.19	4.20	3.19

Figure 1

Causal model of reactions to procedural justice during feedback

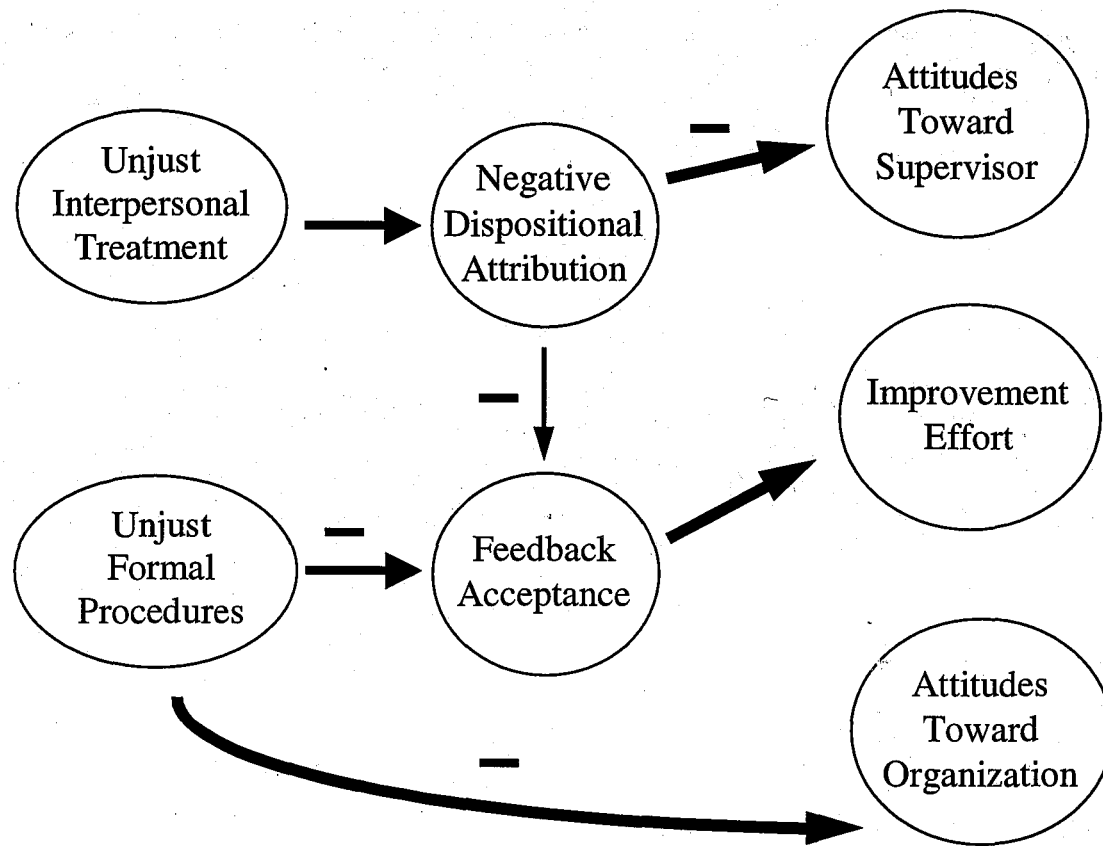
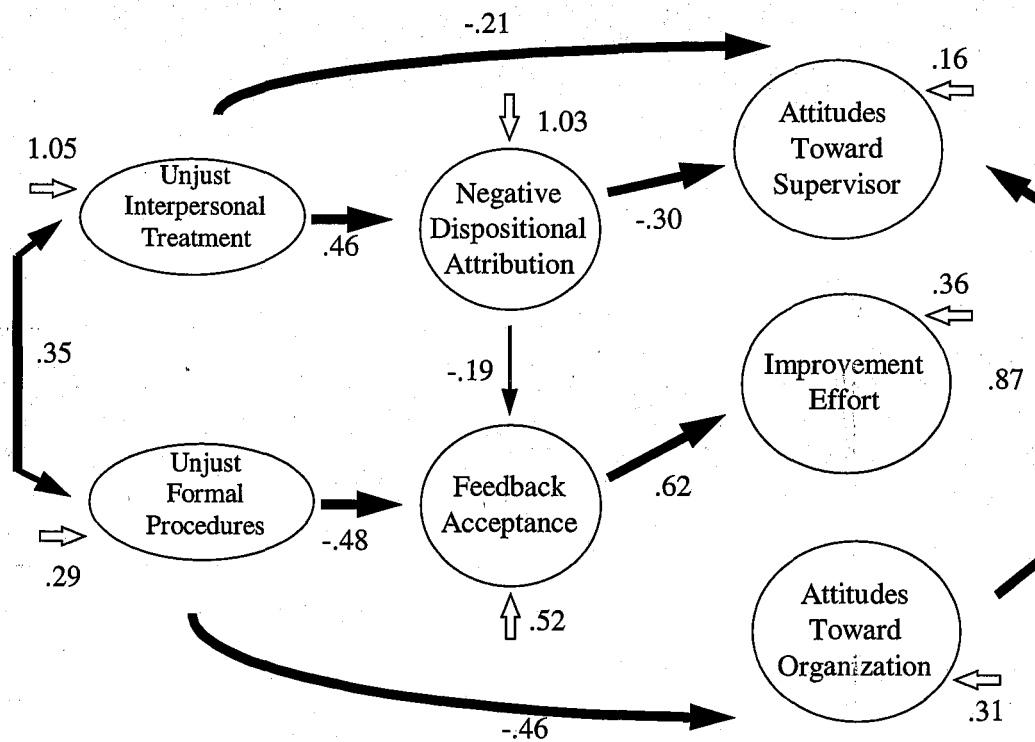


Figure 2

Standardized path coefficients for the final model



Appendix 1

Scales used in Study 1 and their internal consistency

Perceived Status of Superior

Alpha: U.S. = .76; Hong Kong = .48

Mean inter-item correlation: U.S. = .62; Hong Kong = .32

- (1) The Marketing Director is much more powerful than me in the department.
- (2) In the hierarchy of this organization, the Marketing director is a lot more senior than me.

Interpersonal Treatment

Alpha: U.S. = .89; Hong Kong = .89

Mean inter-item correlation: U.S. = .74; Hong Kong = .73

- (1) The Marketing Director is kind to me.
- (2) The Marketing Director treats me with respect.
- (3) The Marketing Director respects my right as a subordinate.

Dispositional Attribution

Alpha: U.S. = .84; Hong Kong = .70

Mean inter-item correlation: U.S. = .65; Hong Kong = .44

- (1) The Director has an arrogant personality.
- (2) The Director is a person who lacks sensitivity to other people's feelings.
- (3) Deep inside, the Director is an insecure, competitive man.

Trust

Alpha: U.S. = .81; Hong Kong = .75

Mean inter-item correlation: U.S. = .47; Hong Kong = .39

- (1) I feel quite confidently that the Marketing Director will always try to treat me fairly.
- (2) The Marketing Director would never try to gain an advantage by deceiving workers.
- (3) I have complete faith in the integrity of the Marketing Director.
- (4) I feel a strong loyalty to the Marketing Director.
- (5) I would support the Marketing Director in almost any emergency.

Satisfaction

Alpha: U.S. = .82; Hong Kong = .77

Mean inter-item correlation: U.S. = .69; Hong Kong = .63

- (1) In general, I am satisfied with the Marketing Director as a supervisor.
- (2) In general, I am satisfied that the methods of leadership used by the Marketing Director are the right ones for getting the group's job done.

Altruistic Intention

Alpha: U.S. = .66; Hong Kong = .58

Mean inter-item correlation: U.S. = .33; Hong Kong = .25

- (1) I would assist the Marketing Director with his work.
- (2) I would make innovative suggestions to improve the Department.
- (3) I would volunteer for things that are not required.
- (4) I would help others who have heavy workload.

Organizational Commitment

Alpha: U.S. = .77; Hong Kong = .70

Mean inter-item correlation: U.S. = .35; Hong Kong = .30

- (1) I would accept almost any type of job assignment in order to keep working for this organization.
- (2) I would talk up this organization to my friends as a great organization to work for.
- (3) I would be proud to tell others that I am part of this organization.
- (4) I really care about the fate of this organization.
- (5) This organization really inspires the very best in me in the way of job performance.
- (6) I would be willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.