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Culture and Procedural Justice: The Influence of Power Distance on Reactions to Voice

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A central premise of the procedural justice literature—based on studies conducted mainly in the United States—is that people react unfavorably when they have little voice in a decision-making process. The studies reported here evaluated whether the magnitude of voice effects varies across cultures. As predicted, Studies 1–3 showed that the tendency for people to respond less favorably (i.e., with lower organizational commitment) to lower levels of voice was greater in low power distance cultures (United States and Germany) than in high power distance cultures (People's Republic of China, Mexico, and Hong Kong). And in a single cultural setting, Study 4 found a similar interactive effect of voice and people's power distance beliefs on employees' work attitudes and job performance. Theoretical implications for the justice and cross-cultural literatures are discussed, as are practical implications and suggestions for future research.

One of the most robust findings in the justice literature is that people react more favorably to decisions based on procedures believed to be fair than those believed to be unfair (for reviews see Cropanzano, 1993; Cropanzano & Greenberg, 1997; Folger & Greenberg, 1985; Greenberg, 1987, 1990a, 1996; Lind & Tyler, 1988). This phenomenon has been observed in legal settings (Lind & Tyler, 1988), and in a variety of organizational decision-making contexts, including performance appraisals (Greenberg, 1986), layoffs (Brockner & Wiesenfeld, 1993), pay cuts (Greenberg, 1990b), pay freezes (Schaubroeck, May, & Brown, 1994), and smoking bans (Greenberg, 1994).

Theory and research have suggested that numerous factors influence people's perceptions of procedural justice. For example, theorists have considered procedures to be fair when they follow certain structural guidelines, such as making decisions in a consistent, unbiased fashion (Leventhal, Karuza, & Fry, 1980). More recently, procedural fairness has been shown to depend on "interactional justice" as well. Interactional justice involves the interpersonal behavior of the people who implement decisions (Bies, 1987; Bies & Moag, 1986; Greenberg, 1993), such as whether they provide explanations for their decisions (Folger & Martin, 1986; Folger, Rosenfield, & Robinson, 1983) and treat the parties affected by a decision with dignity and respect (Folger, 1993).

Of all of the determinants of procedural justice, however, the one that has received the greatest attention is voice, or the extent to which people provide input into the decision process. Various sources of evidence in the procedural justice literature attest to the centrality of voice. For example, Thibaut and Walker (1975) performed seminal studies in which procedural justice was operationalized by manipulating participants' degree of input in the decision process. Greenberg and Folger (1983) later coined the term "the fair process effect" to refer to the pervasive tendency for people to react less favorably to decisions in which they had less voice. And a central conclusion of Lind and Tyler's (1988) extensive theory and research on procedural justice was that people perceive decisions to be less fair (and they react more unfavorably to the decision, the decision makers, and the institution represented by the decision makers) when they have less voice in the decision process.

Given the centrality of voice in the procedural justice literature, it is both theoretically and practically important to understand the conditions under which voice is more or less likely to influence people's reactions to decisions. At a theoretical level, by identifying *when* voice is more vs less impactful, we will gain greater insight into *why* voice affects people's reactions to decisions. At a practical level, by identifying factors that moderate the influence of voice, we may help people (e.g., managers) make more informed judgments about when it is more vs less appropriate to use voice to gain support for their decisions.

The present studies posit that cultural norms are one of the factors that have a moderating influence on people's reactions to voice. Most studies on the effects of voice have been conducted in Western cultures (usually in the United States), which raises questions about the cross-cultural generality of the "fair process effect." Thus, another significant purpose of the present study is to explore cultural differences in the tendency for people to respond less favorably to relatively low levels of voice. Just as the attribution literature has shown that the "fundamental" attribution error is less likely to emerge in Asian than in Western cultures (Morris & Peng, 1994), we evaluate whether a cornerstone finding in the procedural justice literature varies as a function of national culture. In so doing, the present studies may contribute to a broader (and growing) body of literature in both social psychology (e.g., Markus & Kitayama, 1991) and organizational behavior (e.g., Erez & Earley, 1993; Hofstede, 1980) which seeks to explain how national culture influences people's beliefs and behaviors.

THEORETICAL OVERVIEW

The key theoretical principle underlying the present studies is that the tendency for people to respond less favorably to relatively low levels of voice depends on the extent to which they consider voice to be legitimate, that is, sanctioned by cultural norms. The more that cultural norms legitimize voice, the more likely are people to respond unfavorably to relatively low levels of voice. Thus, it is not the lack of voice per se to which people object. It is when the lack of voice violates cultural norms that people respond unfavorably. With several noteworthy exceptions (Lind, Tyler, & Huo, 1997; Tyler, Lind, & Huo, in press) studies on the effects of voice have been conducted in Western cultures in which people often have input in decisions (e.g., being allowed to vote in elections or having a say in deci-

sions in the workplace that affect them). Consequently, people may react particularly unfavorably to a lack of voice because not having voice may be experienced as a violation of cultural norms. In contrast, in cultures in which it is normative for people in positions of high formal power to make decisions with little input from those having less formal power, people may be less adversely affected by low levels of voice.

To examine whether cross-cultural differences in reaction to voice are attributable to the influence of cultural norms, it is necessary to compare cultures that differ in their norms regarding the legitimacy of voice. One such dimension is Hofstede's (1980) construct of power distance. Power distance refers to the extent to which inequality among persons in different positions of formal power is viewed as a natural (and even desirable) aspect of the social order. The norms of high power distance cultures legitimize differences in decision-making power between those who are in high power positions vs those who are in low power positions. In contrast, the norms of low power distance cultures reduce power differences among people in positions of varying levels of formal decision-making power. In low power distance cultures, people in positions with legitimate decision-making power are more likely to share their power with those in lower power positions. Put differently, in low power distance cultures people in lower power positions are more likely to believe that they should have voice in decision processes, or at least more than would be the case in high power distance cultures. All of this suggests that cultural differences in power distance should have a moderating influence on voice. Specifically, the tendency for people to respond unfavorably to low levels of voice should be more pronounced in low power distance cultures than in high power distance cultures.

A few studies have investigated whether cultural differences in power distance moderate the influence of voice, but the results of these studies are mixed. On one hand, that culture does not matter can be found in two studies by Lind, Tyler, and Huo (1997), in which participants were drawn from cultures varying in power distance. These participants rated the fairness of an actual dispute (Study 1) or a hypothetical dispute (Study 2) that they had with another person. They also indicated the extent to which they had voice in that dispute. Replicating previous findings, Lind and his colleagues found that participants' perceptions of voice and fairness were strongly related. However, the relationship between perceived voice and fairness was equivalent in the low and high power distance cultures.

On the other hand, four other studies by the same authors have shown that cultural differences in power distance moderate people's reactions to voice (Tyler, Lind, & Huo, in press). In three of these studies participants from various cultures described their reactions to a third-party authority who was involved in a dispute between themselves and another person. Tyler and his colleagues expected power distance beliefs to moderate the relationship between participants' perceptions of how they were treated by the third party and their (a) evaluations of that person and (b) support for that person's decisions. Some items were included in the measure of third-party treatment specifically related to voice (e.g., "I was given an opportunity to state my views" and "How much consideration was given to your views when decisions were made about how to handle the problem?"). As predicted, all three studies revealed that the tendency for favorable perceptions of third-party treatment to produce greater support for the third party and his/her decisions was stronger among participants with lower power distance beliefs.

In a fourth study, Tyler and his colleagues examined different ethnic groups within a single culture (the United States). Consistent with our reasoning, the relationship between participants' perceptions of how they were treated by the third party, and their willingness to accept the decisions rendered by that person, was stronger among those with relatively low power distance beliefs.

Two aspects of Tyler et al.'s (in press) four studies need to be considered. First, participants' perceptions of how they were treated by the third party authority measured more than just voice. They included voice items, to be sure, but they also included other items measuring neutrality, standing, and trust. The authors viewed all of these as "relational judgments." Second, in none of their analyses did Tyler and his colleagues classify people on the basis of their culture. Rather, participants in those studies always were classified on the basis of their power distance beliefs. Their findings thus revealed that regardless of culture, stronger relationships between perceptions of third party treatment and support for the third party were found among those who were lower in power distance. While such findings are consistent with our reasoning, Tyler and his colleagues never evaluated whether there were cultural differences in people's reactions to voice, and if so, whether such differences were attributable to power distance. Our research is designed both to evaluate whether there are cultural differences in reactions to voice and to determine whether such differences are due to power distance.

One other limitation of the previous studies (which have yielded inconsistent findings) should be noted. In all of these studies, voice was measured in a cross-sectional design. As a result, it is difficult to evaluate the causal impact of voice on the dependent variables. A better way to evaluate that impact in cultures varying in power distance is by manipulating voice. Thus, in several of our studies voice was experimentally manipulated.

The Present Studies

The hypothesis that cultural differences in power distance have a moderating influence on voice was tested in the

present research. In the first three studies participants were drawn from cultures that were expected to vary in power distance. Furthermore, we actually measured participants' power distance beliefs. Voice was manipulated in Studies 1 and 2 and measured in Study 3. We predicted an interaction between culture and voice such that the tendency for people to respond less favorably under conditions of lower voice should be more pronounced in the low (than high) power distance culture. And when participants were classified on the basis of their power distance beliefs, rather than their cultures, we expected the tendency for people to respond less favorably to lower voice to be greater among those with low power distance beliefs. Moreover, further analyses were conducted in Studies 1–3 to evaluate whether cultural differences in power distance beliefs (rather than culture per se) interacted with voice to influence participants' reactions. Study 4 was conducted within a single culture, in which participants were classified on the basis of their power distance beliefs. As in Studies 1–3, we expected the tendency for participants to respond less favorably to lower levels of voice to be stronger among participants with low power distance beliefs.

STUDY 1

Participants in Study 1 came from two cultures whose members were expected to vary in power distance: the United States (low power distance) and the People's Republic of China (high power distance). To evaluate the expected cultural difference in power distance, participants completed a self-report measure of their power distance beliefs. Everyone indicated whether and how their organizational commitment would change in response to some innovations in their organization. The extent to which participants had a voice in these innovations was experimentally manipulated. Three conditions were created. In one, participants had low voice, whereas in another they had high voice. In the third condition, participants received no information about their degree of voice (control condition). We hypothesized an interaction between culture and voice: the tendency for participants to respond less favorably (i.e., losing some of their organizational commitment) in the low voice condition than in the high voice condition should be greater in the low power distance culture (the United States) than in the high power distance culture (the People's Republic of China).

Furthermore, when participants were classified on the basis of their power distance beliefs (rather than their cultures) we expected an interaction between power distance and voice; the tendency for organizational commitment to decline in the low voice condition should be greater among people with relatively low power distance beliefs. Finally, we hypothesized that it was not culture per se, but rather power distance that was actually interacting with voice to influence the participants' organizational commitment. Thus, the interaction between culture and voice should be reduced once we control for the interaction between power distance and voice.

Method

Participants

Participants from the People's Republic of China were students in an intensive international trade program at host universities in the cities of Nanjing, Suzhou, and Tianjin ($N = 118$). Participants from the United States were MBA students at Columbia University ($N = 136$). All participants took part on a voluntary basis.

Procedure

A questionnaire booklet contained all of the stimulus materials, which were written in English. (Because the Chinese trade program was taught in English, all of the participants from the People's Republic of China had a working knowledge of business English.) All participants were instructed to read a vignette describing a hypothetical situation and then to describe their reactions to that situation. Specifically, they were told the following:

> Imagine that you are working in a company that has just undergone major changes. It is now using more advanced technology to manufacture and sell different products in new areas. As a result, your department also changed dramatically. It is smaller now, with fewer employees and managers. There are new reporting structures quite different from what you have been used to. Your own work has been influenced directly. What you do each day is very different from what you used to do and in fact continues to change as the company moves forward. Some employees are excited about the changes being made. Others are not as satisfied. Overall, it is still too early to tell whether these changes will ultimately place the company in a better position than it was before the changes started.[1] As a result of the changes you have a new manager in your department.

The voice manipulation followed. Participants were randomly assigned to one of three conditions. In the *high voice* condition, the style of the manager was described as follows:

> As decisions about the changes are now being made, this new manager repeatedly consults with you and others about what changes are being considered and whether you think they are good ideas. After

[1] Previous research has shown that the impact of procedural justice variables such as voice depends upon the fairness or favorability of the outcomes associated with the decision (Brockner & Wiesenfeld, 1996). Specifically, procedural justice variables such as voice often have more of an impact on dependent variables like the one examined in Study 1 when outcome fairness/favorability is relatively low. To control for the perceived outcomes associated with the changes taking place all participants were given the same information: namely that it was not certain whether the outcomes associated with the organizational changes were positive or negative.

> listening to your ideas and considering other opinions, this manager makes the final decision.

In the *low voice* condition, the manager's style was described as being much less open to input as follows:

> As decisions about the changes are now being made, this new manager does not consult with you or others about what changes are being considered and whether you think they are good ideas. This manager makes the decisions and then announces them.

Finally, participants in the *control* condition were not told anything about the new manager's style.

Power distance. Prior to reading their vignettes, participants completed a measure of power distance. This measure, which we developed, consisted of four items. The items were (a) There should be established ranks in society with everyone occupying their rightful place regardless of whether that place is high or low in the ranking; (b) Even if an employee may feel he deserves a salary increase, it would be disrespectful to ask his manager for it; (c) People are better off not questioning the decisions of those in authority; and (d) Communications with superiors should always be done using formally established procedures. Responses to each item could range from *strongly disagree* (1) to *strongly agree* (5).

While coefficient alpha was low (and equally so) within each culture (.26), it was considerably more respectable (.66) when computed based on the two cultures taken together. One possible explanation of why coefficient alpha was much larger across cultures than within cultures is that there was a sizable difference in power distance between the two cultures. As expected, participants from the People's Republic of China were higher in power distance than were those from the United States [*M*s = 2.71 vs 1.80, respectively; $t(252) = 18.55$, $p < .001$]. Thus, variability in power distance was considerably enhanced in the cross-cultural analysis of internal consistency relative to those conducted within each culture. Coefficient alpha is based on the interitem correlations. Given that a restricted range reduces the magnitude of correlations, it stands to reason that coefficient alpha will be lower in the within-culture calculations of coefficient alpha than in the one computed across the two cultures.

After reading their vignettes, participants completed a questionnaire that included a manipulation check for voice, as well as the primary dependent variable: how committed participants would feel toward their organizations if they found themselves in the situation described in the vignettes.

Manipulation check. Participants rated their level of agreement with the following statement: "The new manager in this situation attempts to involve me in decisions that affect me." Responses could range from *strongly disagree* (1) to *strongly agree* (5).

Dependent variable: Organizational commitment. This measure served as a proxy for participants' satisfaction with the enactment of the innovations within their organization. We developed seven items that reflected several attitudes and behaviors associated with organizational commitment (Mowday, Porter, & Steers, 1982). Sample items include "I trust this company," "I am motivated to work for this company," "I would do my best to help this company," and "I am likely to start looking around for a new job (reverse scored). Responses could range from *strongly disagree* (1) to *strongly agree* (5). Coefficient α was .90 and .83 in the United States and the People's Republic of China, respectively; across the two cultures coefficient α was .88. Participants' responses were thus averaged to form an index.

After completing all of the measures, participants were thanked and debriefed.

Results

Manipulation Check

A two-factor analysis of variance (culture × voice) revealed a highly significant main effect of voice, $F(2, 245) = 59.88$, $p < .001$. The manager was seen as involving participants in decision making least in the low voice condition ($M = 2.18$), most in the high voice condition ($M = 3.85$), and at an intermediate level in the control condition ($M = 2.77$). Somewhat unexpectedly, the interaction effect also was significant, $F(2, 245) = 22.98$, $p < .001$. Although the main effect of voice was significant within both cultures, it was stronger in the United States, in which the means in the low voice, high voice, and control conditions were 1.60, 4.06, and 2.30, respectively, than in the People's Republic of China, in which the respective means were 2.90, 3.56, and 3.26.

Organizational Commitment

Culture × voice. A two-factor ANOVA yielded a significant main effect of voice, $F(2, 245) = 26.30$, $p < .001$. As expected, participants responded less favorably in the low voice condition ($M = 2.93$) than in the high voice condition ($M = 3.58$). The mean rating in the control condition ($M = 3.34$) fell between these two extremes. Of greater importance, the interaction between culture and voice also was significant, $F(2, 245) = 4.11$, $p < .02$, and accounted for an additional 3% of the variance. As can be seen in Table 1, the voice effect was more pronounced in the low power distance culture (the United States) than in the high power distance culture (the People's Republic of China).

This interaction effect was clarified through simple effect analyses. The effect of voice was significant and strong in the United States, $F(2, 245) = 24.60$, $p < .001$. It was also significant in the People's Republic of China, $F(2, 245) = 4.73$, $p < .01$, but considerably weaker than in the United States. To state the interaction effect differently, the effect of culture was highly significant in the low voice condition, $F(1, 245) = 23.03$, $p < .001$, but nonsignif-

TABLE 1
Mean Level of Organizational Commitment as a Function of Culture and Level of Voice (Study 1)

Culture	Level of voice		
	Low	High	Control
United States	2.63	3.57	3.17
(low power distance)	(0.72)	(0.56)	(0.66)
People's Republic of China	3.27	3.60	3.52
(high power distance)	(0.68)	(0.43)	(0.55)

Note. Scores could range from 1 to 5, with higher scores reflecting greater organizational commitment. Standard deviations are in parentheses.

icant in the high voice condition, $F(1, 245) = 0.75$. The effect of culture was also significant in the control condition, $F(1, 245) = 6.66$, $p < .025$.

Power distance × voice. Next, participants were sorted on the basis of their power distance beliefs rather than their national culture. A hierarchical multiple regression was then conducted. In the first step we simultaneously entered power distance and voice as predictors of commitment. Then, in the second step, we entered the interaction effect, which proved to be significant, $F(2, 245) = 3.67$, $p < .03$; the interaction accounted for 2% of the variance.

To illustrate the nature of this interaction, we classified participants as relatively high or low in power distance on the basis of a median split. We then computed the mean level of organizational commitment for each of the six groups emanating from the 2 × 3 matrix. As predicted, the tendency for organizational commitment to be lower in the low voice condition was stronger among those relatively low in power distance. Respective means in the low voice, high voice, and control conditions for those lower in power distance were 2.64, 3.57, and 3.22. Among those higher in power distance, the corresponding means were 3.30, 3.69, and 3.44.

Evaluating whether power distance accounts for the effect of culture. An additional hierarchical regression was conducted (see Table 2) to examine whether power distance, rather than culture, interacted with voice to influence participants' organizational commitment. In the first step we entered culture and voice (both coded as dummy variables) as well as power distance as predictors. In the second step we entered simultaneously the interactions between culture and voice and between power distance and voice. As can be seen in Table 2, Step 2, the interaction between culture and voice became nonsignificant ($F < 1$), suggesting that it was cultural differences in power distance (rather than culture per se) that interacted with voice to influence participants' organizational commitment.

Internal analyses. Recall that the manipulation check on voice revealed that the manipulation "took" to a greater extent in the low power distance culture (the United States) than in the high power distance culture (the People's Republic of China), particularly in the low voice condition. As a result, we conducted additional (internal) analyses in which participants were classified on the basis of their ratings on the voice manipulation check (i.e., perceived voice) rather than the voice condition to which they had been assigned.

A series of hierarchical multiple regressions were conducted. In the first, we entered the effects of culture, perceived voice, and the interaction of the two. Of greatest concern, the interaction was significant, $F(1, 245) = 4.38$, $p < .05$, and revealed that the tendency for organizational commitment to be lower among those who perceived lower levels of voice was stronger in the United States than in the People's Republic of China. In the second regression, we entered the effects of power distance and perceived voice and the interaction between the two. Of greatest importance, the interaction was significant, $F(1, 245) = 4.51$, $p < .05$, and showed that the tendency for organizational commitment to be lower among those who perceived lower levels of voice was stronger among those relatively low in power distance.

Finally, to evaluate whether it was power distance rather than culture per se that interacted with perceived voice to influence organizational commitment we conducted an additional hierarchical regression analysis. In the first step we entered simultaneously the effects of culture (coded as a dummy variable), perceived voice, and power distance. In the second step we simultaneously entered the interaction between culture and perceived voice, and between power distance and perceived voice. Once again, the interaction between culture and perceived voice no longer was significant, $F < 1$.

In summary, regardless of whether voice was operationalized as a manipulated variable or as a measure of perceived voice, the results were similar. In separate analyses,

TABLE 2
Multiple Regression Evaluating Whether Power Distance Accounts for Culture (Study 1)

Variable	β	F	p
Step 1			
Voice	−2.23	29.85	.001
	2.78		
Culture	1.47	3.20	.08
Power Distance	0.26	3.26	.08
Overall $F(4, 249) = 20.78$, $p < .001$; total $R^2 = .250$			
Step 2			
Terms added to those entered in Step 1			
Culture × Voice	−2.17	0.74	*ns*
	0.05		
Power Distance × Voice	0.11	0.86	*ns*
	0.42		
Overall $F(8, 245) = 11.83$, $p < .001$; total $R^2 = .279$			

the interactions between country and voice, and between power distance and voice were significant. When the two interaction effects were entered into the same regression equation, however, the interaction between country and voice no longer approached significance. This finding suggests that it was not culture per se, but rather power distance that interacted with voice to influence participants' organizational commitment.

Discussion

The results of Study 1 provided support for the hypothesis that cultural differences in power distance have a moderating influence on people's reactions to voice. Although participants responded less favorably (lower levels of organizational commitment) in the low voice condition, this tendency was significantly stronger in the low power distance culture (the United States) than in the high power distance culture (the People's Republic of China). Furthermore, when participants were sorted based upon their power distance beliefs rather than their culture, those lower in power distance were more likely to show reduced organizational commitment in the low voice condition. And the interaction between culture and voice was no longer significant once we controlled for the interaction between power distance and voice, suggesting that it was power distance (rather than culture) that interacted with voice to influence organizational commitment.

Previous studies examining the moderating influence of cultural differences in power distance on reactions to voice yielded mixed results (Lind, Tyler, & Huo, 1997; Tyler, Lind, & Huo, in press). But here, voice was experimentally manipulated, which allowed us to examine cultural differences in the *causal* influence of voice to a greater extent than other researchers have done in the past.

Study 1 does have several shortcomings, however. First, the reliability of the power distance measure was low, particularly in the within-culture analyses. Thus, in Study 2 we used a different measure of power distance, one which has been shown elsewhere to have reasonably good internal consistency (Maznevski et al., 1997).

Second, the results on the voice manipulation check showed that participants from the United States (the lower power distance culture) experienced the manipulation more strongly than did those from the People's Republic of China. This finding may explain at least partially why the voice manipulation had more of an impact on the organizational commitment of those from the United States than the People's Republic of China. More generally, whenever cultural differences emerge in reaction to an independent variable (as measured by the primary dependent variable, in this case organizational commitment), there are two broad categories of processes by which this may occur. First, it could be that the independent variable is *perceived or experienced* more strongly in one culture than in the other. Second, even if the independent variable is perceived or experienced similarly, it could be that people's *reactions to* the independent variable differ. These two possibilities are not mutually exclusive. In fact, the results of Study 1 suggested that both may have occurred. The manipulation check results showed that the tendency for participants to experience less voice in the low voice than in the high voice condition was stronger in the United States than in the People's Republic of China. The results of the internal analyses, in which participants were classified on the basis of perceived voice rather than the voice condition to which they had been assigned, showed that the relationship between perceived voice and organizational commitment was stronger in the United States than in the People's Republic of China and also among those who were lower in power distance rather than higher in power distance.

Thus, another important purpose of Study 2 was to evaluate further whether cross-cultural (and power distance-related) variation in organizational commitment in response to voice was attributable to cultural (and power distance-related) differences in how people perceived the voice manipulation, how they reacted to their perceived level of voice, or both.

STUDY 2

As in Study 1, participants were drawn from two cultures anticipated (and actually shown) to differ in power distance. The basic procedure was very similar to that used in Study 1. Participants were asked to imagine that they were working for a company that was in the process of introducing many significant innovations. Voice in the change process was experimentally manipulated. Half of the participants were led to believe that they had voice in the process (high voice condition), whereas half were informed that they did not have voice (low voice condition). The dependent variable was organizational commitment. Furthermore, measures of power distance and a voice manipulation check were included.

The predictions were the same as in Study 1. Specifically, the tendency for participants to indicate lower organizational commitment in the low voice condition was expected to be stronger (a) in the lower power distance culture and (b) across cultures among participants with lower power distance beliefs. Moreover, it was participants' power distance beliefs (rather than culture per se) which were expected to interact with voice to influence participants' organizational commitment. In other words, the interaction between culture and voice was expected to be reduced once we controlled for the interaction between power distance and voice.

Finally, the presence of the manipulation check measured enabled us to evaluate whether the predicted cultural (and power distance-related) difference in organizational com-

mitment in response to voice was due to the tendency for participants from the different cultures (and participants with different power distance beliefs) to (a) perceive voice differently and/or (b) react differently to their perceptions of voice. The results of Study 1 suggested that both tendencies should be present.

Method

Participants

A total of 297 business students from two different cultures took part in the study, 114 Mexicans (48% female) and 183 Americans (44% female). The Mexican subjects were drawn from the main campus of the largest private university in Mexico, while the United States participants came from a large state university. All subjects took part in the study on a voluntary basis.

Procedure

The procedure was virtually identical to the one employed in Study 1. All participants read the same vignette as the one employed in Study 1, in which they were asked to imagine that they were employed by an organization that was in the process of implementing significant changes. The voice manipulation was identical to the one in Study 1, although unlike in Study 1 there was no "no voice" control condition; only the low voice and high voice conditions were studied. The voice manipulation check was the same as the item used in Study 1.

Several procedural differences between the two studies should be mentioned. First, the high power distance culture was Mexico rather than the People's Republic of China. Second, all participants received scenarios in their native language; versions were translated into Spanish for the Mexican participants and backtranslated to ensure accuracy (Brislin, 1980).

Third, the measure of power distance was adapted from one employed by Maznevski et al. (1997), consisting of seven items. Sample items were (a) People at lower levels in the organization should not have much power in the organization, (b) People at lower levels in organizations should carry out the requests of people at higher levels without question, and (c) People at higher levels in organizations have a responsibility to make important decisions for people below them. Seven-point rating scales appeared after each question with endpoints labeled *strongly disagree* (1) and *strongly agree* (7). Participants' responses to the seven items were averaged into an index. Coefficient alpha for this scale was .75 across cultures, .75 in the United States, and .72 in Mexico.

Fourth, the six-item measure of organizational commitment was adapted from the one developed by Mowday, Porter, and Steers (1982) and differed slightly from the one employed in Study 1. Sample items included (a) I would be loyal to this organization, (b) I would accept almost any type of job in order to keep working here, and (c) I would be proud to tell others that I am part of this organization. Seven-point rating scales were employed with endpoints labeled *strongly disagree* (1) and *strongly agree* (7). Coefficient α for this scale was .78 across cultures and was .84 in the United States and .65 in Mexico.

Results

Cultural Difference in Power Distance

A *t* test evaluated whether participants from the United States were lower in power distance than were their counterparts from Mexico. In fact, this was found to be the case, $t(295) = 6.50$, $p < .001$. The mean level of power distance was 3.16 in the United States and 3.86 in Mexico.

Manipulation Check

A 2 × 2 (voice × culture) ANOVA revealed a highly significant main effect of voice, $F(1, 293) = 525.06$, $p < .001$, showing that voice was perceived to be greater in the high voice than low voice condition (*M*s = 5.96 vs 2.13, respectively). Furthermore, there was a significant interaction between culture and voice, $F(1, 293) = 42.66$, $p < .001$. While the voice effect was highly significant in both cultures, it was more pronounced in the United States, i.e., the lower power distance culture, in which the means were 6.16 and 1.43 in the high voice and low voice conditions, respectively, than in Mexico, in which the respective means were 5.70 and 3.07.

Organizational Commitment

Culture × voice. A 2 × 2 (culture × voice) ANOVA yielded a highly significant main effect of voice in the expected direction, $F(1, 293) = 158.98$, $p < .001$, which was qualified by a significant interaction, $F(1, 293) = 6.41$, $p < .02$ (which accounted for an additional 2% of the variance). The interaction effect is depicted in Table 3: whereas members of both cultures indicated significantly less organizational commitment in the low voice than in the high voice condition, this tendency was more pronounced in the United States than in Mexico.

To state the interaction effect differently, simple effect analyses revealed significant differences between cultures in the low voice condition, $F(1, 293) = 28.29$, $p < .001$, such that the United States participants were less committed than their counterparts from Mexico. In the high voice condition, however, the simple effect of culture was not significant, $F(1, 293) = 1.29$.

Power distance × voice. Across all cultures participants were classified on the basis of their power distance

TABLE 3
Mean Level of Organizational Commitment as a Function of Culture and Level of Voice (Study 2)

Culture	Level of voice	
	Low	High
United States	3.05	4.56
(low power distance)	(0.82)	(0.74)
Mexico	3.80	4.81
(high power distance)	(1.08)	(0.65)

Note. Scores could range from 1 to 7 with higher scores reflecting greater organizational commitment. Standard deviations are in parentheses.

beliefs. A hierarchical multiple regression was conducted. In the first step, we simultaneously entered power distance and voice as predictors of organizational commitment. In the second step we added the interaction between the two. Of greatest importance, the interaction effect was significant, $F(1, 293) = 10.24$, $p < .001$, and accounted for an additional 2% of the variance.

To illustrate the nature of this interaction, we classified participants as relatively high or low in power distance on the basis of a median split. We then computed the mean level of organizational commitment for each of the four groups emanating from the 2 × 2 matrix (power distance × voice). As expected, the tendency for participants to be less committed in the low voice than in the high voice condition was more pronounced among those lower in power distance (*M*s = 3.12 vs 4.61) than among those higher in power distance (*M*s = 3.63 vs 4.69).

Evaluating whether power distance accounts for the effect of culture. An additional hierarchical regression was conducted to evaluate whether power distance, rather than culture, interacted with voice to influence participants' organizational commitment. In the first step we entered culture and voice (both as dummy variables) and power distance as predictors of organizational commitment. In the second step, we entered simultaneously the interactions between culture and voice and between power distance and voice. As can be seen in Table 4, Step 2, the interaction between culture and voice, became nonsignificant ($p > .10$). Moreover, the interaction between power distance and voice was still statistically significant ($p < .02$). These findings suggest that it was power distance rather than culture that interacted with voice to influence participants' organizational commitment.

Internal analyses. Because the manipulation check results revealed that the voice manipulation was more pronounced in the United States (the lower power distance culture) than in Mexico (the higher power distance culture), we conducted internal analyses on the dependent variable of organizational commitment in which participants were classified on the basis of their perceived level of voice (rather than the voice condition to which they had been assigned). As in Study 1, three hierarchical regression analyses were conducted. In the first, we examined the effects of culture, perceived voice, and the interaction of the two. While the interaction effect suggested that the relationship between perceived voice and organizational commitment was stronger in the United States than in Mexico, it was not significant, $F(1, 293) = 2.24$, $p < .15$. In the second we evaluated the effects of power distance, perceived voice, and the interaction of the two. In this case the interaction was significant, $F(1, 293) = 6.24$, $p < .02$, and revealed that the relationship between perceived voice and organizational commitment was stronger among those with relatively low power distance beliefs.

Finally, to evaluate whether it was power distance rather than culture which interacted with perceived voice to influence organizational commitment, we entered the effects of culture, power distance, perceived voice, and the interactions between (a) culture and perceived voice and (b) power distance and perceived voice. Although the interaction between culture and perceived voice interaction was not significant in the previous analysis ($p < .15$), it became considerably weaker ($p < .50$) when we added the interaction between power distance and perceived voice into the same regression equation. Moreover, the interaction between power distance and perceived voice remained significant, $F(1, 291) = 4.59$, $p < .05$.

Discussion

In general, the results of the first two studies were quite consistent. Both showed that the tendency for participants to exhibit lower organizational commitment in the low voice condition was stronger (a) in the low power distance culture than in the high power distance culture and (b) across cultures among those with relatively lower power distance beliefs. Moreover, both studies showed that the interaction

TABLE 4
Multiple Regression Evaluating Whether Power Distance Accounts for Culture (Study 2)

Variable	β	F	p
Step 1			
Voice	.593	176.36	.001
Culture	.192	16.24	.001
Power Distance	.107	4.97	.05
Overall $F(3, 293) = 70.78$, $p < .001$; total $R^2 = .420$			
Step 2			
Terms added to those entered in Step 1			
Culture × Voice	−.116	2.48	*ns*
Power Distance × Voice	−.472	6.59	.02
Overall $F(5, 291) = 31.53$, $p < .001$; total $R^2 = .446$			

between culture and voice was no longer significant when we controlled for the interaction between power distance and voice. Such findings suggest that it was power distance (rather than culture) that interacted with voice to influence participants' organizational commitment. If anything, the results of Study 2 provide even stronger support for the latter assertion than did the results of Study 1 in that the interaction between power distance and voice *remained* significant in the regression analysis in which the interaction between culture and voice was included (and found to be nonsignificant).

Both studies also showed that the voice manipulation took to a greater extent in the low power distance cultures (and, across cultures, among those with lower power distance beliefs). More specifically, participants in the low voice condition in both studies *perceived* that they had less voice if (a) they came from the lower power distance culture than the higher power distance culture and (b) they had lower power distance beliefs regardless of their cultures. The results of internal analyses suggested, however, that differences in how the low voice condition was perceived did not entirely account for the results on the primary dependent measure of organizational commitment. In both studies the relationship between perceived voice and organizational commitment was stronger (a) in the lower power distance culture than in the higher power distance culture (although this effect was not significant in Study 2) and (b) across cultures among those relatively low in power distance.

STUDY 3

Aside from their strengths, Studies 1 and 2 had some weaknesses. For instance, in both studies the method was a scenario-based, role-playing study in which participants indicated how they would have responded to a situation described for them. Consequently, it is uncertain whether cultural differences in power distance would moderate people's reactions to voice in real situations. Moreover, the results of the first two studies may have been at least partly due to cultural (and power distance) differences in how people perceived the voice manipulation. While the results of the internal analyses generally suggested that culture (and power distance) interacted with perceived voice in the same way that culture (and power distance) interacted with the voice manipulation, we chose to reduce ambiguity by operationalizing voice solely on the basis of participants' perceptions in Study 3.

Participants in Study 3 were drawn from two cultures who were expected (and actually shown) to differ in power distance. To avoid capitalizing on comparisons between specific cultures, we sought participants from two cultures that were also expected to vary in power distance, but which differed from the cultures examined in Studies 1 and 2. Specifically, the low power distance culture was Germany and the high power distance culture was Hong Kong. To the extent that the results of Study 3 are conceptually analogous to those found in Studies 1 and 2, we can be more confident that the differences between cultures in response to voice are attributable to power distance. To avoid the problems associated with studying reactions to hypothetical situations, we asked participants to describe their reactions to an event that they actually experienced, namely a recent dispute with another person.

All participants rated as an independent variable the extent to which they had voice in the dispute. The dependent variable in this study was how satisfied participants were with how their dispute was resolved. We expected the relationship between voice and satisfaction to be stronger in the low power distance culture. And once again, the relationship between voice and satisfaction across cultures should be stronger among those with relatively low power distance beliefs. Finally, as in Studies 1 and 2, we expected that it was power distance rather than culture that interacted with voice to influence satisfaction; that is, the hypothesized interaction between culture and voice should be reduced once we control for the interaction between power distance and voice.

Method

Participants

Participants were undergraduate students from the Chinese University of Hong Kong ($N = 206$) and Osnabruck University in Germany ($N = 244$). They completed the study in the context of a course in which they were enrolled.

Procedure

Participants were asked to think about a recent dispute that they had with another person. To make their recall of the dispute more vivid, they were asked a series of questions about the causes of the dispute, such as the extent to which the other person owed them money, broke a promise, or was rude and impolite. After thinking about various details of the dispute, participants completed a questionnaire that included measures of power distance, voice, and satisfaction with the resolution of the dispute. The procedure was administered in participants' native language. Backtranslation (Brislin, 1980) was used to ensure equivalence in meaning across the two cultures.

Power distance. The power distance measure consisted of a three-item scale. Participants indicated their degree of agreement, on 5-point scales (higher scores = greater agreement), with each of the following statements: (a) An organization is most effective if it is clear who is the leader and who is the follower; (b) If followers trust their leaders wholeheartedly, the group will be most successful; and (c)

It is best for our society to let the elites decide what is good for us. Coefficient α for this scale was .54 in Germany, .42 in Hong Kong, and .60 across the two cultures. As expected, power distance was significantly higher in Hong Kong than in Germany [*M*s = 3.13 vs 2.32, respectively; $t(448) = 11.51$, $p < .001$].

Voice. The three items measuring voice were (a) I had a lot of opportunity to present my views about how this dispute should be resolved, (b) My views were considered and taken into account, and (c) What I wanted was considered in arriving at a solution. Responses to the 5-point items could range from *strongly disagree* (1) to *strongly agree* (5). Coefficient α for this scale was .83 in Germany, .82 in Hong Kong, and .83 overall.

Satisfaction with the resolution of the dispute. The dependent variable was measured using two items: (a) I was satisfied with the way the dispute was resolved and (b) I was satisfied with the outcome of the dispute. Five-point agreement scales were used to make these judgments, and ratings on the two items were averaged to create a scale. Coefficient α for this scale was .73 in Germany, .77 in Hong Kong, and .75 overall.

Results

All hypotheses were tested using hierarchical multiple-regression analyses. As in Studies 1 and 2, we examined the interaction between culture and voice, and between power distance and voice, in separate analyses. Also as in Studies 1 and 2, we then conducted an analysis in which both interactions were examined simultaneously to evaluate whether it was power distance (rather than culture) that interacted with voice to influence participants' satisfaction.

Culture × Voice

The effects of culture and voice were entered simultaneously on the first step of the regression; then their interaction was added on the second step. The voice main effect was significant, $F(1, 426) = 275.99$, $p < .001$, and in the expected direction. More importantly, the interaction between culture and voice was also significant, $F(1, 426) = 5.73$, $p < .025$, and accounted for an additional 1% of the variance. To explore the nature of the interaction, we conducted within-culture correlations between voice and satisfaction. Although the relationship between voice and satisfaction was positive and significant in both cultures, the correlation was (as predicted) higher in Germany (the low power distance culture) than in Hong Kong (the high power distance culture); *r*s = .70 vs 50, respectively.

Power Distance × Voice

Power distance and voice were entered simultaneously on the first step of this regression; their interaction was added on the second step. As in the previous analysis, only the voice main effect was significant ($p < .001$). But, the interaction between power distance and voice was also significant, $F(1, 426) = 10.98$, $p < .001$, and accounted for an additional 2% of the variance. To explore the nature of this interaction, we classified participants as high or low in power distance on the basis of a median split. We then computed separate correlations between voice and satisfaction for the low and high power distance groups. As predicted, the correlation was greater among the lower power distance participants ($r = .64$, $p < .001$) than among the higher power distance participants ($r = .44$, $p < .001$).

TABLE 5
Multiple Regression Evaluating Whether Power Distance Accounts for Culture (Study 3)

Variable	β	F	p
Step 1			
Voice	.632	274.80	.001
Culture	.013	0.00	*ns*
Power Distance	.022	0.26	*ns*
Overall $F(3, 426) = 93.70$, $p < .001$; total $R^2 = .398$			
Step 2			
Terms added to those entered in Step 1			
Culture × Voice	.168	1.44	*ns*
Power Distance × Voice	−.398	6.55	.02
Overall $F(5, 424) = 60.06$, $p < .001$; total $R^2 = .415$			

Evaluating Whether Power Distance Accounts for the Effect of Culture

As Table 5 shows, the effects of culture (coded as a dummy variable), voice, and power distance were entered on the first step of a regression analysis. On the second step we entered the interaction between culture and voice and the interaction between power distance and voice. As in Studies 1 and 2, the interaction between culture and voice no longer was significant, $p > .20$. But as in Study 2, the interaction between power distance and voice remained significant ($p < .02$), and took the same form as we saw previously. The latter finding suggests that it was not culture per se, but rather power distance that moderated participants' reactions to voice.

Discussion of Studies 1–3

Taken together, the results of Studies 1–3 provide clear evidence that cultural differences in power distance have a moderating influence on reactions to voice. All three studies showed that voice was more strongly related to commitment/satisfaction (a) in the low power distance cultures than in the high power distance cultures and (b) across cultures

among those with relatively low power distance beliefs. Moreover, in all three studies it was found that the interaction between culture and voice was no longer significant once we controlled for the interaction between power distance and voice (and in Studies 2 and 3 the latter interaction remained significant).

The many methodological differences between the three studies are worth noting. These included (a) the cultures representative of relatively low vs high power distance (the United States and the People's Republic of China in Study 1, the United States and Mexico in Study 2, and Germany and Hong Kong in Study 3), (b) the general context in which the effects of voice were assessed (reactions to hypothetical organizational changes in Studies 1 and 2 and reactions to an actual interpersonal dispute in Study 3), (c) the way in which voice was operationalized (manipulated and measured in Studies 1 and 2 and measured in Study 3), and (d) the nature of the dependent variable (organizational commitment in Studies 1 and 2 and satisfaction with the resolution of the dispute in Study 3). The fact that consistent results emerged in all three studies bodes well for the generality of our findings.

STUDY 4

The purpose of Study 4 was to evaluate further the generality of the moderating influence of power distance on people's reactions to voice. The study differed from its predecessors in at least two noteworthy respects. First, whereas participants in Study 3 reacted to an actual rather than hypothetical event, the event had transpired at a previous point in time. As a result, participants' recall of the event and their reactions to it may not have been entirely accurate. In contrast, participants in Study 4 described their reactions to perceived voice in the context of an ongoing exchange relationship, which should have made biased recall less of a consideration. Second, whereas the previous studies drew on participants from different cultures (whose members were expected and shown to differ in power distance), all participants in Study 4 came from the same culture (the People's Republic of China). Participants completed a measure of their power distance beliefs. They also indicated the extent to which they perceived having voice in decisions within their work unit. Dependent variables were also more extensive than in the previous studies and included measures of organizational commitment, job satisfaction, intention to remain with the organization, and job performance. As in Studies 1–3 we expected participants to respond less positively (e.g., with lower organizational commitment and less favorable job performance) when perceived voice was relatively low. Of greater importance, we predicted an interaction between power distance and voice such that the tendency for participants to respond less favorably to lower levels of voice should be stronger among those relatively low in power distance.

Method

Participants

Participants were employees of a Sino–Hong Kong joint venture in Guangzhou, People's Republic of China. The company is one of the largest pharmaceutical manufacturers in South China. Some of the participants had supervisory responsibilities ($N = 102$), whereas others (hereafter referred to as subordinates) did not ($N = 253$). The supervisory sample had an average age of 41.45 years, an average educational level of 12.78 years, and an average organizational tenure of 17.45 years. First-line supervisors made up of 54.3% of the supervisory sample, while the percentages of middle managers and top managers were 42.1 and 3.6%, respectively. Approximately 57% of the supervisors were women. The subordinate sample had an average age of 38.06 years, an average educational level of 12.00 years, and an average organizational tenure of 13.76 years. Sixty-one percent of the subordinates were women. All participants completed their respective survey voluntarily.

Procedure

Separate questionnaires were administered to the supervisors and the subordinates. Each of the supervisors selected three of their subordinates to take part in the study. To protect confidentiality all participants were asked to seal their completed survey into the envelopes which had been provided and then to return the sealed envelopes to the company's human resource department.

A total of 106 supervisory surveys and 288 subordinate surveys were completed and sent back to us, representing response rates of 80 and 74%, respectively. After deleting the data that had come from unmatched supervisor/subordinate pairs, we were left with a total of 253 dyads (253 subordinates and 102 supervisors).

The subordinate and supervisor surveys contained the various measures used in Study 4. The subordinate survey included the independent variables of perceived voice and power distance and the dependent variables of organizational commitment, job satisfaction, and intention to remain with the organization. The supervisor survey included the other dependent variable, namely their evaluations of their subordinates' job performance. All items were measured on 7-point scales, with endpoints labeled *strongly disagree* or *very little* (1) and *strongly agree* or *very much* (7). The surveys were administered in Chinese based on the back-translation procedure (Brislin, 1980).

Perceived voice. This variable was measured using a four-item scale developed by Vroom (1959). A sample item is, "In general, how much say or influence do you have in

what goes on in your work unit?" Coefficient α for this scale was .75.

Power distance. Power distance was assessed with a seven-item scale, six of which came from the measure developed by Earley and Erez (1997). Sample items include, "In work-related matters, managers have a right to expect obedience from their subordinates" and "Employees should highly respect their supervisors." Coefficient α for this scale was .74.

Organizational commitment. This eight-item measure was taken from the scale developed by Allen and Meyer (1990). A sample item is, "I feel emotionally attached to this organization." The coefficient α for this scale was .91.

Job satisfaction. This variable was measured by a four-item scale adopted from Brayfield and Rothe (1951). A sample item is, "I feel that I am happier in my work than most other people." Coefficient α for this scale was .87.

Intention to remain. This construct was assessed with the four-item scale used by Farh, Tsui, Xin, and Cheng (1998). A sample item is, "I often think of quitting my present job" (reverse scored). Coeeficient α for this scale was .80.

Job performance. Subordinates' job performance was evaluated by their immediate supervisor based on a four-item scale used by Farh and Cheng (1997). A sample item is, "This subordinate makes an important contribution to the overall performance of our work unit." The coefficient α was .80.

Results and Discussion

Correlations between the Dependent Variables

While all four dependent measures were significantly related to each other, the average correlation among the attitudinal measures of organizational commitment, job satisfaction, and intention to remain was considerably higher ($r = .62$, $p < .001$) than was the average correlation between job performance and each of the attitudinal measures ($r = .20$, $p < .05$).

Tests of Hypothesis

Separate hierarchical multiple regressions were run on each of the four dependent variables. In the first step we entered the effects of subordinate demographic factors as control variables, including age, education, tenure, gender, and position (whether the subordinate also had supervisory responsibility). The first three factors were entered as continuous variables, whereas the two (categorical) factors were coded as dummy variables. In the second step we entered the effects of perceived voice and power distance, and in the third step we added the interaction between the two. Of greatest relevance, the interaction effect was significant on the measures of (a) organizational commitment, $F(1, 207) = 3.87$, $p < .05$, accounting for an additional 2% of the variance; (b) job satisfaction, $F(1, 207) = 10.47$, $p < .001$, accounting for an additional 4% of the variance; and (c) intention to remain with the organization, $F(1, 207) = 8.15$, accounting for an additional 3% of the variance. And a marginally significant interaction emerged on the measure of job performance, $F(1, 207) = 2.86$, $p < .10$, accounting for an additional 1% of the variance.

To illustrate the nature of the interaction effects we divided participants into high and low power distance groups on the basis of a median split. We then computed the relationship between perceived voice and the dependent variables for both the low and high power distance groups. As predicted, perceived voice was more strongly related to the dependent variables among those with lower power distance beliefs. In fact, the correlations were always positive and significant among those lower in power distance, (rs = .38, .35, .27, and .21, on the measures of organizational commitment, job satisfaction, intention to remain with the organization, and job performance, respectively). In contrast, the correlations were always nonsignificant among people higher in power distance (rs ranging from .04 to .08).

The results of Studies 3 and 4 show that power distance has a moderating influence on voice when participants' reactions to an actual (rather than hypothetical) event are assessed. Moreover, voice was operationalized on the basis of participants' perceptions in Studies 3 and 4. Thus, unlike in Studies 1 and 2, which showed that (cultural differences in) power distance moderated the effect of the voice manipulation on participants' *perceptions* of voice, Studies 3 and 4 showed that power distance beliefs moderated people's *reactions to* their perceptions of voice.[2]

Study 4 extends the earlier findings in at least two respects. First, the notion that power distance has a moderating influence on voice was supported in the context of an ongoing relationship between employees and employers. In contrast, participants in Study 3 described their retrospective perceptions of and reactions to an interpersonal dispute, raising questions about the reliability or accuracy of those perceptions. Second, the predicted interaction between voice and power distance emerged on a host of dependent variables, further attesting to the generality of the findings.

Furthermore, the results of Studies 1–3 suggested that it was the psychological variable of power distance beliefs (and not culture) that interacted with voice to influence participants' commitment/satisfaction. Such findings imply that it should be possible to find an interactive relationship between voice and power distance on a within-culture basis, in addition to the between-culture bases shown in Studies

[2] Of course, the internal analyses in Studies 1 and 2 also showed that culture (and power distance) moderated people's reactions to their perceptions of voice.

1–3. Indeed, the results of Study 4 reveal that the tendency for low power distance persons to react more unfavorably to low levels of voice is not limited to between-culture analyses.

GENERAL DISCUSSION

Taken together, the results of all four studies paint a highly consistent picture. Regardless of whether voice is operationalized as an experimental manipulation or as a perceptual measure, the effect of voice on an assortment of dependent variables was more pronounced among those with low rather than high power distance beliefs. This is true both between cultures (Studies 1–3) and within a single culture (Study 4).

Implications for Cross-Cultural Studies of Justice

In addition to supporting our hypothesis that power distance has a moderating influence on reactions to voice, Studies 1–3 have implications for a more general issue of importance to cross-cultural scholars. For a variety of reasons (e.g., the increased globalization of the workplace), there has been a great deal of interest recently in the effect of culture on employees' work attitudes and behaviors (e.g., Adler, 1997). Studies 1–3 illustrate a conceptual strategy that may be used to explain how procedural justice factors like voice can influence people from various cultural backgrounds differently. Central to this strategy is the need to analyze how cultural norms influence the legitimacy of a given procedural justice factor (Heuer, Blumenthal, Douglas, & Weinblatt, 1999; James, 1993). Just as cultural differences in power distance influence the extent to which people feel that they should have voice, so too may other culturally induced psychological factors affect people's beliefs about the extent to which they should experience procedural justice factors other than voice.

Consider, for example, the possible relationship between the cultural dimension of uncertainty avoidance (Hofstede, 1980) and the procedural justice factor of consistency (Leventhal, Karuza, & Fry, 1980). The norms of a high uncertainty avoidance culture may lead to the enactment of procedures that deviate little from one time or situation to the next. Uncertainty is thus avoided. Members of high uncertainty avoidance cultures may believe that new procedures should be consistent with older procedures. If so, then the impact of the procedural element of consistency (Leventhal et al., 1980) may interact with the cultural dimension of uncertainty avoidance so that people from high uncertainty avoidance cultures are more influenced by procedural consistency than their counterparts in low uncertainty avoidance cultures. In particular, people from high uncertainty avoidance cultures may react especially unfavorably to a lack of procedural consistency.

Further research is needed to examine whether other norm-relevant cultural dimensions (besides power distance) and other procedural justice elements (besides voice) combine interactively to influence people's reactions. For the present, however, we have shown one way to conceptualize how cultural dimensions and elements of procedural justice jointly influence people's beliefs and behaviors.

Implications for Procedural Justice Theory

Our studies contribute to a growing literature that seeks to establish the conditions under which elements of procedural justice (such as voice) will be differentially important. A recent review of studies has shown that voice, as well as other determinants of procedural justice, often are more influential when the outcomes that people experience seem unfair or unfavorable (Brockner & Wiesenfeld, 1996). Our findings suggest that aside from the outcomes that people receive *during* a situation, perceptions of norms pertaining to voice that people *bring to* the situation also have a moderating influence on reactions to voice.

By identifying some of the conditions under which procedural justice factors like voice are especially important, we have attempted to complement existing conceptualizations of procedural justice that have overlooked the impact of moderating factors (e.g., Leventhal et al., 1980; Thibaut & Walker, 1975). By taking norms associated with procedural justice into account, future investigators should be better able to identify the conditions under which procedural justice factors (including, but not limited to voice) have more (or less) impact on people's beliefs and behaviors. In general, procedural justice factors should be more influential when they have been legitimized by norms.

Of course, the norms that legitimize procedural justice factors need not only be the product of national culture. The legitimization of procedural justice factors also may depend on norms specific to an institution or small group. For example, in a single cultural setting, Greenberg, Eskew, and Miles (1991) examined the effect of student voice in a grading process on their perceptions of the fairness of the process. Some of the participants were led to believe that it was normative for students to have voice into the grading process (high legitimacy condition), whereas others were informed that it was normative for students not to have voice into the grading process (low legitimacy condition). As might be expected, participants responded more negatively (i.e., they perceived fairness to be lower) when voice was relatively low. Of greater concern, the tendency for low voice to lead to less favorable perceptions than high voice was greater in the high legitimacy than in the low legitimacy condition.

Implications for Cross-Cultural Theory and Research

Studies 1–3 exemplify a general research strategy that should be employed in future research on cross-cultural

differences in people's beliefs and behaviors. In many previous studies, researchers have made two related assumptions, namely that (a) people from various cultures differ on a given psychological dimension and (b) culturally induced variation on that dimension accounts for the observed differences on the primary dependent variable(s). Unfortunately, these assumptions often are not evaluated. For example, Morris and Peng (1994) showed that the fundamental attribution error was stronger in an individualistic culture than in a collectivistic culture. But, Morris and Peng did not actually measure participants' individualism–collectivism orientation, so the psychological mediation of the cultural difference they observed was less clear.

In contrast, Studies 1–3 included measures of participants' power distance beliefs. Not only were we able to verify that people from the People's Republic of China, Mexico, and Hong Kong had higher power distance beliefs than people from the United States and Germany, but also that cultural differences in response to voice were attenuated once participants' power distance beliefs were controlled. More generally, by measuring the factor presumed to account for cultural differences, we were able to provide a more convincing explanation of cross-cultural differences in beliefs or behaviors (Bierbrauer, 1994; Tyler, Lind, & Huo, in press).

Limitations and Suggestions for Future Research

Despite the convergence in their findings, our studies have limitations. In calling attention to these limitations, we are also suggesting avenues for future research. First, Studies 1 and 2 used a scenario-based methodology in which participants were asked to indicate how they (or a target person) would respond in the situations described to them. While Studies 3 and 4 assessed participants' reactions to an actual rather than hypothetical situation, additional research is needed to evaluate whether cross-cultural differences in power distance moderate people's reactions to voice in the context of an event that they actually experience rather than a hypothetical event.

Second, although the present findings suggest that it was power distance rather than culture per se that interacted with voice to influence participants' reactions, we cannot entirely eliminate the possibility that other cultural dimensions (instead of, or in addition to power distance) may have interacted with voice to influence participants' reactions. While it is not entirely clear how or why other differences between cultures (e.g., individualism vs collectivism) should interact with voice, the present studies do a more convincing job of affirming the significance of power distance than they do of ruling out other possible explanations of the influence of culture. The latter represents an important challenge for future research.

Finally, while the interactions between culture and voice and between power distance and voice were highly consistent in form and statistically significant in all four studies, they accounted for relatively small amounts of variance (1–4%). If future research yields improved measures of power distance, then the interaction observed in the present studies between power distance and voice may explain an even greater portion of the variance in people's attitudes and behaviors.

Practical Implications

Our research also offers guidance to managers seeking to maximize the favorability of subordinates' reactions to significant organizational changes. In particular, we have identified the conditions under which managers must pay particular attention to the level of voice provided to their subordinates. When considering how much voice to give their subordinates, managers need to consider whether contextual norms lead their subordinates to believe that they should have voice. Moreover, one (but not the only) factor that influences people's beliefs about whether they should have voice in a decision process is national culture. The results of all four studies suggest that if managers do not give subordinates voice when the latter's power distance beliefs imply that it is normative for them to have voice, then subordinates are likely to respond unfavorably.

The practical implications of previous research on procedural justice suggested that managers need to pay attention to both the *how* and the *what* of their decisions—that is, that managers should be procedurally and distributively fair (e.g., Brockner & Wiesenfeld, 1996). We take the viewpoint that managers often are under considerable time pressure and therefore will need to *prioritize* the amount of attention they pay to various procedural elements. In particular, managers should make extra efforts to ensure the real or apparent presence of procedural justice factors like voice when contextual norms legitimize the presence of such factors.

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