

INDIVIDUAL POWER DISTANCE ORIENTATION AND FOLLOWER REACTIONS TO TRANSFORMATIONAL LEADERS: A CROSS-LEVEL, CROSS-CULTURAL EXAMINATION

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Using 560 followers and 174 leaders in the People's Republic of China and United States, we found that individual follower's "power distance" orientation and their group's shared perceptions of transformational leadership were positively related to follower's procedural justice perceptions. Power distance orientation also moderated the cross-level relationship that transformational leadership had with procedural justice; the relationship was more positive when power distance orientation was lower, rather than higher. Procedural justice, in turn, linked the unique and interactive relationships of transformational leadership and power distance orientation with followers' organizational citizenship behavior. Country differences did not significantly affect these relationships.

Because of both growing diversity in the U.S. workforce (U.S. Census Bureau, 2004) and the globalization of business (Czinkota & Ronkainen, 2005), leaders will increasingly manage individuals with different cultural values. *Cultural values* are defined as a consciously and subconsciously held set of beliefs and norms—often anchored in the morals, laws, customs, and practices of a society—that define what is right and wrong and specify general preferences (Adler, 2002). Recent reviews of the cross-cultural management literature (Gelfand, Erez, & Aycan, 2007; Kirkman, Lowe, & Gibson, 2006; Tsui, Nifadkar, & Ou, 2007) indicate that

cultural value orientations, or individually held cultural values and beliefs, play an important role in how employees react to aspects of their work. In the leadership domain, like implicit leadership theories (Lord, 1985), cultural value orientations can shape beliefs about what behaviors, styles, skills, and personality traits characterize effective leadership (Javidan, Dorfman, de Luque, & House, 2006). Thus, to be effective in managing a culturally diverse workforce, leaders need to understand how individually held cultural value orientations affect reactions to leadership, as well as how various leadership behaviors interact with followers' cultural value orientations to influence follower affective, cognitive, and behavioral outcomes.

Initial evidence suggests that cultural value orientations can play particularly important roles in how followers react to transformational leaders (Spreitzer, Perttula, & Xin, 2005; Walumbwa & Lawler, 2003; Walumbwa, Lawler, & Avolio, 2007). A *transformational leader* is one who articulates a shared vision of the future, intellectually stimulates subordinates, provides a great deal of support to individuals, recognizes individual differences,

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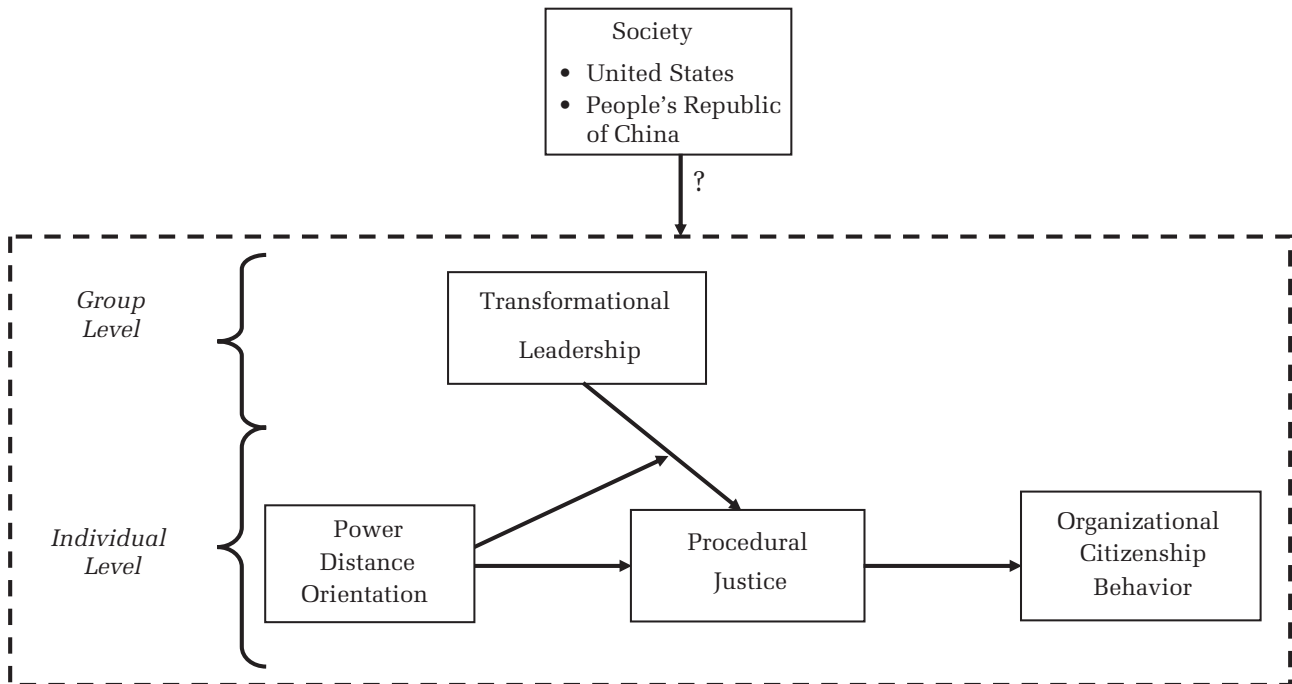
and sets high expectations (Bass, 1985; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Building on previous research on transformational leadership and cross-cultural management and psychology, we sought to more fully examine the unique and combined influences of individually held power distance orientation and transformational leadership on employee cognitive and behavioral reactions to leaders in the People’s Republic of China (PRC) and the United States (U.S.). Power distance is defined as the extent to which one accepts that power in institutions and organizations is distributed unequally (Hofstede, 2001).

Power distance and related constructs are found in almost all existing cultural value frameworks (e.g., House, Javidan, Dorfman, Gupta, and GLOBE Associates [2004]; Schwartz [1992] referred to high power distance as “hierarchy” and low power distance as “egalitarianism”). To distinguish between power distance at the country and individual levels of analysis, we use the term *power distance orientation* to indicate an individual-level construct (see Jackson, Colquitt, Wesson, and Zapata-Phelan [2006] for a similar treatment of *psychological collectivism* at the individual level of analysis). In Figure 1, we delineate a multilevel model in which the influence of group-level transformational leadership on followers’ reactions to leaders (i.e., procedural justice perceptions) is moderated by individually held power distance orientation. *Pro-*

cedural justice is defined as perceptions of the fairness of the decision-making criteria used by organizational authorities (Colquitt, 2001). We also argue that procedural justice mediates the relationships that both power distance orientation and transformational leadership have with *organizational citizenship behavior (OCB)*, or extra-role behaviors that go beyond an employee’s formal job duties (LePine, Erez, & Johnson, 2002).

We attempt to provide three extensions to cross-cultural leadership research. First, we know of no studies on culture and transformational leadership that have examined power distance orientation at the individual level of analysis. Spreitzer et al. (2005) examined the interactive effects of traditionality, a cultural value related to power distance (Farh, Earley, & Lin, 1997) and transformational leadership, but the authors used measures of leader supervisors’ traditionality and leader effectiveness and measured neither follower reactions to transformational leadership nor their value orientations. Given that power distance orientation deals with individuals’ beliefs about status, authority, and power in organizations, we are surprised that it has not been examined in conjunction with *follower* reactions to transformational leadership at the individual level of analysis. Power distance orientation has a more theoretically direct relationship to leadership reactions than other cultural values (e.g., “individualism-collectivism,” “uncertainty

FIGURE 1
Hypothesized Model of Relationships



avoidance,” and “masculinity-femininity”). For example, followers with a high power distance orientation expect more, and are more receptive to, one-way, top-down direction from their leaders (Javidan et al., 2006). However, transformational leaders often stimulate followers in challenging ways and expect true, two-way leader-follower relationships (Bass, 1997). Thus, an interesting theoretical and empirical question is whether or not those higher, rather than lower, in power distance orientation would respond the same way to transformational leaders (Schaubroeck, Lam, & Cha, 2007). As Spreitzer et al. noted, “We know little about the extent to which transformational leadership behaviors are effective across those with different cultural values” (2005: 207).

Second, much of the existing cross-cultural research on transformational leadership and cultural value orientations has not addressed the mechanisms through which these constructs relate to behaviors such as OCB (e.g., Spreitzer et al., 2005; Walumbwa & Lawler, 2003; Walumbwa et al., 2007). Thus, little is known about *why* and *how* cultural value orientations and transformational leadership affect individuals’ behavior within and across cultures. We included procedural justice as a mediator to help explain why transformational leadership and power distance orientation affect employee behavior. Regarding transformational leadership effects, we chose procedural justice (over other plausible mediators such as distributive justice or commitment) because procedural justice is typically framed around perceptions of leader behavior; and transformational leaders often enact changes to organizational policies and procedures (Bass, 1997). The important role of leaders in shaping perceptions of procedural justice also positions procedural justice as a likely mediator between followers’ power distance orientation and employee behaviors. Importantly, including a theoretically relevant mediator of power distance orientation effects helps to address Kirkman et al.’s (2006: 310) concern that a black box exists with regard to cultural value orientation effects.

Finally, as three recent reviews of the cross-cultural organizational behavior literature (Gelfand et al., 2007; Kirkman et al., 2006; Tsui et al., 2007) have indicated, the level at which cultural influences operate—individual or country—remains an open research question in many substantive areas. In the cross-cultural leadership literature, arguments for the universal impact of transformational leadership in organizational contexts worldwide (Bass, 1997; Den Hartog, House, Hanges, Ruiz-Quintanilla, Dorfman, & GLOBE Associates, 1999) have received mixed support in previous research,

even among studies comparing the same countries. For example, some studies have shown that transformational leadership influences outcomes similarly in culturally distinct countries (Avolio, Zhu, Koh, & Bhatia, 2004; Kuchinke, 1999; Walumbwa, Orwa, Wang, & Lawler, 2005; Wang, Law, Hackett, Wang, & Chen, 2005), whereas others have found transformational leadership has different effects in such countries (Pillai, Scandura, & Williams, 1999; Yu, Leithwood, & Jantzi, 2002). In addition, there is evidence that within-country (individual-level) variation in cultural values can be larger than country-level cultural differences (Au, 1999; Hofstede, 2001). This notion suggests that cultural differences can meaningfully affect leadership processes at the individual level of analysis, perhaps even to a greater extent than at the country level.

Accordingly, we examine the role of *individual-level* power distance orientation in transformational leadership effects, while also taking into account possible *country-level* differences between the U.S. and the PRC. Thus, our multilevel approach allows us to tease out possibly different effects of culture at the individual and country levels. Practically speaking, if individual-level power distance orientation goes beyond country-level effects in determining, in part, how followers react to transformational leadership, transformational leaders need to take into account not only the particular country in which they operate, but also the cultural value orientations of the specific *individuals* they lead. Consequently, if our assertions are supported, rather than treating all followers in their group similarly, transformational leaders may have to adopt different sets of behaviors when leading followers with different levels of power distance orientation.

THEORY AND HYPOTHESES

Drawing on our review of the transformational leadership literature and existing meta-analyses, we note that follower fairness perceptions have received relatively little attention compared to other affective and cognitive leader reactions, such as satisfaction with, or trust in, leaders (Judge & Bono, 2000; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996). The lack of attention to procedural justice in the transformational leadership literature (Pillai, Scandura, & Williams [1999] and Pillai, Schriesheim, and Williams [1999] are exceptions) is curious given that procedural justice perceptions are frequently framed as fairness perceptions about leader decision-making criteria (Colquitt, 2001).

Procedural Justice as a Mediator of the Transformational Leadership–OCB Relationship

Like previous transformational leadership researchers (Kark, Shamir, & Chen, 2003; Shamir, Zakay, & Popper, 1998; Wang et al., 2005), we consider transformational leadership to reflect ambient, group-oriented input affecting all members of a leader's unit. That is, we propose that members of the same work unit share similar perceptions regarding the extent to which their leader exhibits transformational leadership behaviors. Although differences among members in perceptions of their leader's transformational leadership behaviors are of course possible (for instance, as a result of the different relationships leaders may develop with different followers), a transformational leader directs many of his/her behaviors toward a follower group as a whole—communicating a vision to the group, motivating the group toward a common direction. Hence, we expect members of the same group (individuals who report to the same leader) to have more similar leadership perceptions than the members of different groups. Thus, we assume that transformational leadership would emerge as a group-level phenomenon, an assumption supported by prior research (Kark et al., 2003; Shamir et al., 1998; Wang et al., 2005).

The role of procedural justice as a mediator of the transformational leadership–OCB relationship would be supported, in part, by links between (1) transformational leadership and procedural justice, (2) transformational leadership and OCB, and (3) procedural justice and OCB. Regarding the first link, social identity and influence theories support the cross-level linkage between group-level transformational leadership and individual- (i.e., follower-) level procedural justice (Pillai, Scandura, & Williams, 1999). According to social identity theory, individuals seek to create a positive social identity by aligning with a collective, and individuals with stronger social identity exert greater effort for the collective (Billig & Tajfel, 1973). Transformational leaders enhance social identity by increasing both employee pride in contributing to a higher, collective cause and their sense of belonging to that effort (Shamir, House, & Arthur, 1993). In turn, a strong social identity should increase follower perceptions of procedural justice because followers will likely view leaders positively (Folger & Konovsky, 1989; Kark et al., 2003). A transformational leader's focus on the collective also aligns with the group value model of procedural justice, which suggests that people favor leader actions and decisions that strengthen their security about membership in a group and their status within the group

(Lind & Earley, 1992; Tyler, 1989). In addition, regarding social influence, since followers of transformational leaders are likely to internalize leader values and beliefs and behave consistently with them, they are also more likely to receive praise and recognition (Wang et al., 2005), which can reinforce followers' perceptions of procedural justice. Cross-cultural research has supported social influence, identity, exchange and procedural justice theories, including in Eastern contexts such as the PRC and Taiwan (e.g., Farh et al. [1997] involves justice; Wang et al. [2005] involves leadership and social exchange; Hui, Lee, and Rousseau, [2004] involves leader-member exchange and OCB; and Farh, Hackett, and Leung [2007] involves perceived organizational support and outcomes). Pillai and colleagues found positive links between transformational leadership and procedural justice in the U.S. and in such countries and regions as Australia, Colombia, India, and the Middle East (Pillai, Scandura, & Williams, 1999; Pillai, Schriesheim, & Williams, 1999).

Social identity theory can also explain the relationship between transformational leadership and OCB. As stated, transformational leadership enhances followers' pride in and sense of belonging to organizations. Such feelings should not only inspire better task performance (i.e., what employees are asked to do), but also motivate employees to go beyond their task requirements in the form of OCB. In addition, transformational leaders heighten employees' sense of personal meaning and their view of the relevance, importance, and impact of their work, which can also increase employees' willingness to engage in OCB (Alge, Ballinger, Tangirala, & Oakley, 2006). In support of our theoretical contention, transformational leadership has been positively linked to OCB in both U.S.-based studies (Pillai, Schriesheim, & Williams, 1999; Podsakoff et al., 1990; Podsakoff, MacKenzie, & Bommer, 1996) and in PRC-based studies (Wang et al., 2005).

Regarding the link between procedural justice and OCB, the social exchange theory prediction is that employees who perceive procedural justice will reciprocate by engaging in behaviors beneficial to their organization (Blau, 1964; Emerson, 1976). Specifically, employees who perceive fair treatment are motivated to reciprocate by engaging in more extrarole behavior. Empirically, research supports the link between procedural justice and OCB (Konovsky & Pugh, 1994; LePine et al., 2002; also see Konovsky [2000] for a review).

The underlying logic for the mediating role of procedural justice in the relationship between transformational leadership and OCB comes from several sources. For example, we follow the logic of

previous process models of employee behavior, such as the job characteristics model (Hackman & Oldham, 1980), according to which managerial actions first influence employee reactions (i.e., critical psychological states), which in turn affect important employee outcomes. Our model also rests on the assumption that transformational leader behaviors are viewed as more distal and ambient stimuli (Hackman, 1992) than are justice perceptions, because the transformational leader behaviors are directed at all of the individuals of a group (Kark et al., 2003). Conversely, perceptions of procedural justice can differ more from individual to individual than can perceptions of transformational leader behaviors, and thus procedural justice perceptions are more proximal to individual-level follower behavior than group-level transformational leadership. Essentially, our logic is that organizational leaders behave in certain ways, and then individual followers cognitively experience those behaviors as representative of procedural justice, leading them to behave in ways that are consistent with their perceptions. Empirically, Pillai, Schreishem, and Williams (1999) found an indirect, individual-level effect of transformational leadership on OCB through procedural justice in the U.S. In this study, we sought to enhance the generalizability of these findings across the U.S. and PRC in a cross-level model. Thus, we predict:

Hypothesis 1. Procedural justice positively mediates the positive cross-level relationship between transformational leadership and employee organizational citizenship behavior.

Procedural Justice as a Mediator of the Power Distance Orientation–OCB Relationship

Since power distance orientation deals with an individual's values in relation to status, authority, and power in organizations, we argue that procedural justice can also help to explain the relationship between power distance orientation and OCB. The role of procedural justice as a mediator of the power distance orientation–OCB relationship would be supported, in part, by links between (1) power distance orientation and procedural justice, (2) power distance orientation and OCB, and (3) procedural justice and OCB (discussed above). Regarding the first link, those with a high power distance orientation tend to behave submissively around managers, avoid disagreements, and believe that bypassing their bosses is insubordination (Hofstede, 2001). Such employees obey leaders' instructions without question; believe that leaders deserve respect and deference, are superior, and are elite;

and accept their own decision-making limitations while trusting that leaders provide more reliable decisions (Javidan et al., 2006). Therefore, those that are higher, rather than lower, in power distance orientation are likely to view a wider array of leader behaviors as fairer, perceiving more procedural justice (Kim & Leung, 2007; Leung & Lind, 1986; Morris & Leung, 2000). Alternatively, one could also envision low-power-distance individuals feeling more comfortable voicing their opinions, thereby increasing the process control and representativeness elements of procedural justice; thus, the relationship between power distance orientation and procedural justice would be negative. However, there is empirical evidence that power distance orientation and procedural justice are positively correlated (Lee, Pillutla, & Law, 2000).

The rationale for the expected positive relationship between power distance orientation and OCB is similar to that for the power distance orientation–procedural justice relationship. That is, since people who are higher in power distance orientation believe that their leaders are superior and elite, they will be highly motivated to behave in ways that benefit their leaders and their organization as a whole (Javidan et al., 2006). One way to actively achieve these aims is to exhibit behaviors that go above and beyond the normal demands and requirements of specific jobs, or perform OCB. When followers exhibit extrarole behaviors, they are likely motivated by high commitment to their leaders engendered by a high power distance orientation. Admittedly, one could also envision high-power-distance individuals feeling uncomfortable going outside the boundary of their job descriptions, thereby decreasing OCB levels. However, we still believe that obligations to leaders will override tendencies to avoid going beyond formal job requirements (Javidan et al., 2006).

Our argument for procedural justice as a mediator of power distance orientation effects on OCB rests on the assumption that cultural value orientations are presumed to be formed early in childhood, are relatively stable over time, and are less job- or situation-specific than procedural justice perceptions (Adler, 2002; Inglehart & Baker, 2000). As stated earlier, cultural value orientations shape people's reactions at work, including both their interpretation of whether or not leaders exhibit effective or appropriate leadership behaviors (Javidan et al., 2006) and their use of fair decision-making criteria (Morris & Leung, 2000). Once these reactions have been formed, in line with social exchange, people will then behave in ways that are consistent with their cognitive reactions. Consequently, we argue that power distance orientation

will positively relate to OCB *through* perceptions of procedural justice, given that procedural justice is specific to each work context and hence a more proximal driver of work behavior. Although we are not aware of any research attempting to test whether or not procedural justice mediates between power distance orientation and OCB, there is evidence that power distance orientation relates to OCB and other behaviors to a lesser degree than do job- and leader-related attitudes (Farh et al., 2007). Using a similar approach, Kirkman and Shapiro (2001) found that employee reactions to self-management and teams mediated the relationships between various cultural value orientations and individual employee outcomes. Accordingly, we predict:

Hypothesis 2. Procedural justice positively mediates the positive relationship between power distance orientation and organizational citizenship behavior.

Power Distance Orientation as a Moderator of the Transformational Leadership–Procedural Justice Relationship

Extending the arguments for the universality of transformational leadership effects across cultures (see Bass [1997] for a review), we argue that the *strength* of transformational leadership effects on procedural justice is moderated by *individual-level* power distance orientation. Furthermore, in line with our focus on power distance orientation at the individual level, we expect the moderating effect of power distance orientation on the cross-level relationship between transformational leadership and procedural justice to hold both within and across culturally distinct countries (i.e., the U.S. and PRC). Thus, following the substitutes for leadership (Kerr & Jermier, 1978) and more general contingency leadership (Hersey, Blanchard, & Johnson, 2001) paradigms, we suggest that cultural value orientations may serve as *facilitators* or *barriers* to transformational leadership effects (cf. Keller, 2006). Our argument is also consistent with research examining differences in follower reactions to charismatic leaders based on follower value orientations (Ehrhart & Klein, 2001; Howell & Shamir, 2005).

Given behaviors associated with transformational leaders, it is likely that individuals lower, rather than higher, in power distance orientation would react better to transformational leaders in the form of greater procedural justice perceptions. Since employees with a high power distance orientation expect their leaders to communicate strong

directives with little explanation or clarification, a transformational leader who strives to intellectually stimulate followers by challenging them to re-examine assumptions about their work or rethink how their jobs can be performed might be met with suspicion by such followers (Hofstede, 2001; Javidan et al., 2006). Essentially, intellectual stimulation requires a form follower participation. Indeed, although followers with a low power distance orientation who value participation and involvement might likely embrace intellectual stimulation and leader challenges to find new solutions, such behaviors might be less motivating for followers who expect specific direction (Kirkman et al., 2006). High-power-distance individuals expect solutions to come from their leader, not from followers (Javidan et al., 2006). In addition, Schwartz (1992) argued that hierarchy values, which are conceptually similar to a higher power distance orientation, are associated with the acceptance of imposed work roles.

Though followers with a high power distance orientation typically obey leader instructions without question, when leaders ask these followers to reexamine assumptions about their work or rethink how their jobs can be performed, the followers may view such requests as paradoxical. That is, on the one hand, these high-power-distance followers expect leaders to provide all direction and ideas for task completion, but on the other hand, transformational leaders ask the same followers to provide their own input. Accordingly, since followers with a high power distance orientation respect leaders and are unlikely to question them, the followers may maintain positive procedural justice perceptions when leaders engage in transformational leadership, even though they do not find such behaviors motivating. Conversely, when leaders exhibit low levels of transformational leadership, we expect that those lower in power distance orientation will have significantly lower procedural justice perceptions than do those higher in power distance orientation because they do not view leaders with the same level of reverence.

To our knowledge, the moderating impact of power distance orientation on transformational leadership effects has not been empirically examined at the individual level, yet indirect evidence in support of our theoretical expectation exists. For example, Eylon and Au (1999) found that employees lower, rather than higher, in power distance orientation responded more positively to a higher, rather than a lower, level of empowerment—a concept with some aspects similar to transformational leadership (cf. Kark et al., 2003). Ehrhart and Klein (2001) found that followers' preference for charis-

matic leadership was positively related to the value they placed on participative management. House et al. (2004), although distinguishing between charismatic/value-based (i.e., transformational) and participative leadership, found that both leadership types were negatively related to power distance at the country level of analysis. Finally, Spreitzer et al. (2005) found that the transformational leader behaviors of managers were viewed as *less* effective by their superiors when the superiors were higher, rather than lower, in traditionality. These findings suggest that employees who have value orientations that are less compatible with certain leadership or management practices will respond less positively to those practices (Kirkman & Shapiro, 1997, 2001; Newman & Nollen, 1996). Consequently, we predict:

Hypothesis 3. Power distance orientation moderates the positive cross-level relationship between transformational leadership and procedural justice: the relationship is more positive for those lower, rather than higher, in power distance orientation.

METHODS

Sample and Procedures

We tested the hypotheses using data collected in the U.S. and the PRC. Our choice was driven primarily by the historically large differences on power distance previously found between these countries (Brockner et al., 2001; Hofstede, 1993; see House et al. [2004] for a more recent comparison of the PRC and the U.S. showing smaller differences). Participants included part-time MBA students and employees reporting directly to them (their "direct reports"). The part-time MBA students came from a midsize university in the southeastern U.S. and a midsize university in northeastern China. All respondents had full-time jobs and supervised at least two subordinates. Prior to administering surveys, we asked each MBA respondent to generate a list of the names of all of his or her subordinates. Including a stamped envelope preaddressed to ourselves, we sent surveys to up to five direct reports for each leader/MBA student. The survey assessed the transformational leadership of their supervisors and their own perceptions of procedural justice and power distance orientation. Questionnaires assessing their subordinates' OCB were hand-delivered to the MBA respondents in classrooms. We used a coding scheme to ensure matched supervisor-subordinate data. Complete data were obtained from 278 subordinates (an 82 percent response rate) and their 74 managers (a 100 percent response rate)

in the U.S. sample (the average was 3.78 subordinates per manager; the range was 2 to 5 per manager), and complete data were obtained from 282 subordinates (an 89 percent response rate) and their 100 managers (a 100 percent response rate) in the PRC sample (the average was 2.82 subordinates per manager; the range was 2 to 3 per manager).

Regarding subordinate data, the U.S. and the PRC samples did not differ significantly in sex, education, and organizational tenure; 56 percent of the subordinates were female; 12 percent had a high school diploma, 24 percent had some college, 11 percent had an associate's degree, 27 percent had a bachelor's degree, 7 percent had some graduate work, and 18 percent had a graduate degree; average organizational tenure was 6.2 years. However, the Chinese subordinates were significantly younger than the U.S. subordinates (19 to 61 years old with a mean age of 31.6, versus 18 to 75 years old with a mean age of 39 years). Regarding the managers' (i.e., MBA) data, the U.S. and the PRC samples did not differ on age, sex, education, or organizational tenure; managers ranged in age from 24 to 63, with a mean of 37; 31.5 percent were female, 91 percent had a bachelor's degree, and 9 percent had a graduate degree; average organizational tenure was 7.3 years.

Measures

All items were assessed on Likert-type scales on which 1 represented "strongly disagree" and 7 represented "strongly agree." In the PRC, surveys were translated and back-translated into Chinese in line with established cross-cultural translation procedures (Brislin, 1980). We discuss cross-cultural measurement equivalence below. All items are shown in the Appendix.

Transformational leadership behavior. As has previous research (MacKenzie, Podsakoff, & Rich, 2001), we used a shortened version of Podsakoff et al.'s (1990) measure of transformational leadership, which included three items for the *core transformational leadership behaviors*, three items for *performance expectations*, four items for *individualized consideration*, and four items for *intellectual stimulation*. Also in keeping with previous research (e.g., Kark et al., 2003), we found that the multiple facets of transformational leadership formed an overall, higher-order factor; the average correlation among the subdimensions was .49. Supporting aggregation, mean r_{wg} values (using a uniform null distribution) were .83, indicating "strong agreement" among members within units (LeBreton & Senter, 2008). In addition, the values of ICC(1), ICC(2), and F for transformational leader-

ship were respectively .28, .55, and 2.22 ($df = 173, 386, p < .05$). Although the ICC(2) value was lower than desired, ICC(1) was well above the median .12 that is often observed in organizational field samples, and the F -statistic indicated significant mean differences among units; also, the low ICC(2) stemmed in part from the small unit sizes in the sample (Bliese, 2000). Thus, we had sufficient statistical justification to aggregate the transformational leadership scores to the unit/manager level.

Procedural justice. We used Niehoff and Moorman's (1993) six-item measure of procedural justice, which is one of the most commonly used measures in the justice literature (Colquitt, Conlon, Wesson, Porter, & Ng, 2001).

Power distance orientation. Following previous individual-level research (Brockner et al., 2001; Earley, 1999; Kim & Leung, 2007), we assessed power distance orientation with an eight-item individual-level measure taken from Earley and Erez (1997).

Organizational citizenship behavior. We used Podsakoff et al.'s (1990) 24-item, five-dimension measure of OCB (i.e., conscientiousness, sportsmanship, civic virtue, courtesy, and altruism). This measure has good validity and reliability in a variety of countries (Lam, Hui, & Law, 1999). In line with research showing high correlations and functional equivalency among OCB subdimensions (LePine et al., 2002), we averaged the subdimensions into one score.

Controls. Control measures included employees' as well as managers' age, gender, educational level, and organizational tenure, which are typically included in OCB research (LePine et al., 2002). Analyses revealed that tests of the hypotheses remained unchanged (i.e., the effects and their significance levels were highly similar) when including these control measures, and hence we do not report results with these control measures below (more complete tests with these control measures are available upon request). We did, however, consider the amount of time leaders had managed subordinates (in months) as a control in all analyses, since it related significantly to followers' ratings of transformational leadership.

Plausible Influences of Country-Level Differences

As noted in recent reviews of the cross-cultural organizational behavior literature (Gelfand et al., 2007; Kirkman et al., 2006; Tsui et al., 2007), very little *multilevel* cross-cultural research has been conducted, and research attempting to tease country-level cultural influences out from individual-level cultural influences has been particularly

scarce. Thus, we explicitly considered power distance orientation at the individual level of analysis, while also considering plausible influences of country-level differences between the U.S. and the PRC on the hypothesized model of relationships (Hypotheses 1–3). Although we do not advance formal hypotheses pertaining to country-level differences (see Bass, 1997), we believe exploring the role of country-level differences can strengthen our conceptual and empirical contributions in two important ways. First, given that individuals from the U.S. are likely to be lower on power distance orientation, on average, than individuals from the PRC (Brockner et al., 2001; Hofstede, 1993, 2001), it was important to control for country-level differences when testing Hypotheses 1–3. Use of such controls was intended to help to support our argument that power distance orientation operates meaningfully as an individual-level construct. Second, we also examined whether country-level differences moderated hypothesized relationships (Hypotheses 1–3). Although exploratory, these tests can help to identify whether or not the model tested in this study generalizes across two culturally diverse countries (that is, whether some relationships we examined were stronger or weaker in the U.S. than in the PRC). Thus, considering country differences as both a control and a moderator variable might help us to better isolate individual-level cultural value influences from country-level effects in this study.

Confirmatory Factor Analyses

We conducted confirmatory factor analyses using LISREL (Jöreskog & Sörbom, 1993) to (1) establish the discriminant validity of the measures in each country separately and (2) support the equivalence of the measures in the U.S. and the PRC. To form the measurement models, we randomly created three parcels of items each for power distance orientation and procedural justice. For transformational leadership and OCB, we used scale scores of specific subdimensions to form the respective factors. The hypothesized four-factor measurement model (consisting of transformational leadership, power distance orientation, procedural justice, and OCB) fit the data well using both the U.S. data ($\chi^2_{84, n=278} = 182.45$, RMSEA = .06, CFI = .97) and the PRC data ($\chi^2_{84, n=282} = 176.75$, RMSEA = .06, CFI = .98). We contrasted the hypothesized four-factor model with an alternative two-factor measurement model in which all employee-collected data (transformational leadership, power distance orientation, and procedural justice) were loaded onto a single factor, and supervisor-collected data (OCB) were loaded

on a second factor. The two-factor model fit the data significantly more poorly for both the U.S. ($\Delta\chi^2_{3, n = 278} = 315.05, p < .05, RMSEA = .13, CFI = .87$) and the PRC data ($\Delta\chi^2_{3, n = 282} = 231.27, p < .05, RMSEA = .11, CFI = .92$). These results supported the discriminant validity of the measures across the two countries and suggested same-source variance did not affect measure validity.

Tsui et al. (2007) argued that translation/back-translation is a necessary but not sufficient method for ensuring cross-cultural construct validity. To test for equivalence of measures between the U.S. and the PRC, we contrasted the four-factor model in which factor loadings, factor correlations, and error variances were set to be equivalent in the U.S. and the PRC data to a less constrained model in which factor loadings were estimated freely in the two countries (see Vandenberg & Lance, 2000). Results showed good support for both the more constrained model ($\chi^2_{204} = 475.29, RMSEA = .07, CFI = .96$) and the less constrained model ($\chi^2_{189} = 453.65, RMSEA = .07, CFI = .96$). Furthermore, the chi-square difference between the models was not statistically significant ($\Delta\chi^2_{15} = 21.64, n.s.$). Thus, there was sufficient evidence that the measures captured the same constructs in the U.S. and the PRC and that different response biases in the U.S. and PRC samples were unlikely to impact the validity of any U.S.-PRC comparison based on these measures.¹

¹ Since prior research suggested that OCB might differ in Chinese and Western societies (Farh et al., 1997), we also tested whether the OCB measure alone exhibited measurement invariance, using all OCB items as indicators of their respective five OCB dimensions (conscientiousness, sportsmanship, civic virtue, courtesy, and altruism). Results (available upon request) fully supported measurement invariance between the U.S. and PRC samples.

RESULTS

Table 1 shows the correlations and reliabilities for all of the variables. As expected, PRC employees scored significantly higher than U.S. employees on power distance orientation, with similar variability ($\text{mean}_{\text{PRC}} = 3.91, \text{s.d.}_{\text{PRC}} = 0.92; \text{mean}_{\text{U.S.}} = 3.29, \text{s.d.}_{\text{U.S.}} = 0.83; t = 8.26, p < .05$). Also, in line with our hypotheses, transformational leadership and power distance orientation were significantly and positively related to procedural justice, which in turn was positively and significantly related to OCB. Below we report more complete multilevel tests of our hypotheses.

Analyses

Given the multilevel nature of our data, we tested the hypotheses using random coefficient modeling (RCM; also termed hierarchical linear modeling, or HLM; see Bliese [2002]) with version 3.0 of the Nonlinear and Linear Mixed Effects (NLME) program for S-PLUS and R (Pinheiro & Bates, 2000). Using RCM also accounted for the fact that the employees in our sample were nested under supervisors, and hence the data were nonindependent. Following the analytical procedures outlined by Bliese (2002), we analyzed transformational leadership at the group level of analysis (level 2) and power distance orientation, procedural justice, and OCB at the individual level of analysis (level 1). We first tested Hypotheses 1 and 2 using the cross-level mediation procedures outlined by Mathieu and Taylor (2007), which are in line with Baron and Kenny's (1986) mediation test. Since research suggests that Baron and Kenny's mediation test can be overly conservative, we also tested the mediation hypotheses using the more powerful Sobel (1982) test of indirect effects (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). We then tested Hypothesis 3, the cross-level interaction effect of

TABLE 1
Descriptive Statistics and Correlations^a

Variable	Mean	s.d.	1	2	3	4	5	6
1. Country (0 = U.S., 1 = PRC)	0.50	0.50						
2. Time with manager	40.69	32.77	.13*					
3. Transformational leadership	5.14	0.70	-.07	.10*	(.91)			
4. Power distance orientation	3.60	0.93	.33*	.08	.16*	(.71)		
5. Procedural justice	4.73	1.26	-.04	.04	.56*	.17*	(.90)	
6. Organizational citizenship behavior	5.19	0.87	-.27*	-.05	.19*	-.10*	.27*	(.93)

^a $n = 560$ employees and 174 managers. Transformational leadership scores were calculated as group-level means, assigned back to individuals. Reliability coefficients (alpha) are on the diagonal.

* $p < .05$

transformational leadership and power distance orientation on procedural justice.

In the cross-level direct effect and mediation tests, we used the raw score variables, without centering, to allow for examination of unique individual-level and group-level effects (Hofmann & Gavin, 1998). For the cross-level interaction tests, however, we group-mean centered power distance orientation to remove the potential confounding effect of the between-group interaction between transformational leadership and power distance orientation (see Hofmann & Gavin, 1998). Note that we rely on common HLM notations below, indicating the unstandardized individual level estimates using beta (β) coefficients and the unstandardized cross-level estimates using gamma (γ) coefficients. In all analyses, we controlled for country effects to determine whether or not country had any impact on the outcomes in our model. We also report results from additional analyses in which country served as a moderator of the relationships we tested. Finally, although estimates of effect sizes are tenuous in cross-level models, we report Snijders and Bosker's (1999) pseudo- R^2 ($\sim R^2$) for the models, a statistic that is based on proportional reduction of level 1 and level 2 errors due to predictors in the model.

Tests of Hypotheses 1 and 2: Analyses of Procedural Justice as a Mediator

Per Hypothesis 1, procedural justice mediates between transformational leadership and OCB, and similarly, Hypothesis 2 positions procedural justice as a mediator between power distance orientation and OCB. According to Baron and Kenny (1986), mediation is supported if four criteria are met: (1) the independent variables (i.e., transformational leadership and power distance orientation) significantly relate to the mediator (i.e., procedural justice); (2) the independent variables significantly relate to the dependent variable (i.e., OCB);² and, when examined simultaneously, (3) the mediator significantly relates to the dependent variable; while (4) the independent variables no longer relate to the dependent variable (see also Mathieu & Taylor, 2007). Sobel's (1982) test of indirect effects

² Note that in some cases, this second condition may not be met and yet mediation can still be supported. For example, in some instances, the direct effect of the independent variable on the dependent variable is nonsignificant, because the direct and indirect effects are opposite in sign, or there could be two or more mediators that are of opposite signs (MacKinnon et al., 2002).

indicates further whether or not the estimate linking the independent variable to the dependent variable drops significantly once the mediating variable has been introduced. Table 2 summarizes our results for the Baron and Kenny (1986) mediation tests, whereas Table 3 summarizes the Sobel test results.

As shown in Table 2, analyses of procedural justice indicated that transformational leadership ($\gamma = .98, p < .05$) and power distance orientation ($\beta = .13, p < .05$) were uniquely and positively related to procedural justice, hence meeting the first mediation criterion, accounting for a $\sim R^2$ of .34. In step 1 of our analyses of OCB (Table 2), transformational leadership was significantly related to OCB ($\gamma = .22, p < .05$), supporting the second step for mediation. Supporting the third and fourth steps, in step 2 of our analyses of OCB (Table 2), procedural justice was significantly related to OCB ($\beta = .18, p < .05$), but transformational leadership was not ($\gamma = .04, n.s.$), fully supporting Hypothesis 1. In addition, the indirect effect of transformational leadership on OCB through procedural justice was also significant ($z = 5.50, p < .05$), also supporting Hypothesis 1. In contrast, power distance orientation was not significantly related to OCB ($\beta = -.04, n.s.$), failing to meet Baron and Kenny's (1986) criteria. However, as Table 3 shows, the indirect effect of power distance orientation on OCB through procedural justice was significant ($z = 2.36, p < .05$), providing some support for Hypothesis 2. The ini-

TABLE 2
Results of Cross-Level Mediation Analyses of
Organizational Citizenship Behavior^a

Step and Predictors	Estimate	s.e.	$\sim R^2$
<i>Procedural justice</i>			
1. Country	-.08	.10	
Time with manager	.00	.00	
Power distance orientation	.13*	.05	
Transformational leadership	.98*	.07	.34
<i>OCB</i>			
1. Country	-.42*	.09	
Time with manager	.00	.00	
Power distance orientation	-.04	.04	
Transformational leadership	.22*	.06	.30
2. Country	-.41*	.09	
Time with manager	.00	.00	
Power distance orientation	-.06	.04	
Transformational leadership	.04	.07	
Procedural justice	.18*	.03	.33

^a $n = 560$ individuals and 174 managers.

* $p < .05$

TABLE 3
Results of Tests of Indirect Effects^a

Variables	Indirect Effect	<i>z</i>
Transformational leadership → procedural justice → OCB	.18	5.50*
Power distance orientation → procedural justice → OCB	.02	2.36*
Leadership × power distance orientation → procedural justice → OCB	-.06	-2.79*

^a *n* = 560 individuals and 174 managers.

* *p* < .05

tial and final models of OCB yielded $\sim R^2$ s of .30 and .33, respectively, indicating that procedural justice accounted for ~ 3 percent of OCB variance above and beyond that accounted for by transformational leadership, power distance orientation, and the controls. Note that country was significantly related to OCB (Table 2), irrespective of procedural justice, indicating that U.S. employees received higher ratings of OCB. However, the mediated analyses were supported despite our controlling for country differences.

Tests of Hypothesis 3: Analyses of Power Distance Orientation as a Moderator

Hypothesis 3 suggests a cross-level interaction between transformational leadership (a group-level variable) and power distance orientation (an individual-level variable) on individual-level procedural justice. To test Hypothesis 3, we tested a RCM model in which we regressed procedural justice simultaneously on transformational leadership, group-mean-centered power distance orientation, and the interaction between leadership and power distance orientation (along with the two controls, country and time with manager). As shown in Ta-

TABLE 4
Results of Cross-Level Interaction Analysis of Procedural Justice^a

Predictors	Estimate	s.e.	$\sim R^2$
Country	.00	.09	
Time with manager	.00	.00	
Power distance orientation	1.82*	.51	
Transformational leadership	1.01*	.06	
Leadership × power distance orientation	-0.32*	.10	.36

^a *n* = 560 individuals and 174 managers. Power distance orientation was group-mean-centered in these analyses.

* *p* < .05

ble 4, the interaction effect was significant ($\beta = -.32$, $p < .05$), and the model accounted for a $\sim R^2$ of .36, or ~ 2 percent more variance than did the corresponding main effects model (see the analysis of procedural justice in Table 2). To further probe these results, we plotted the interaction effect using Aiken and West's (1991) procedure; Figure 2 presents these results. In full support of Hypothesis 3, employees' power distance orientation significantly and negatively moderated the relationship of transformational leadership with procedural justice, in such a way that transformational leadership more positively related to procedural justice when employees were lower, rather than higher, in power distance orientation.

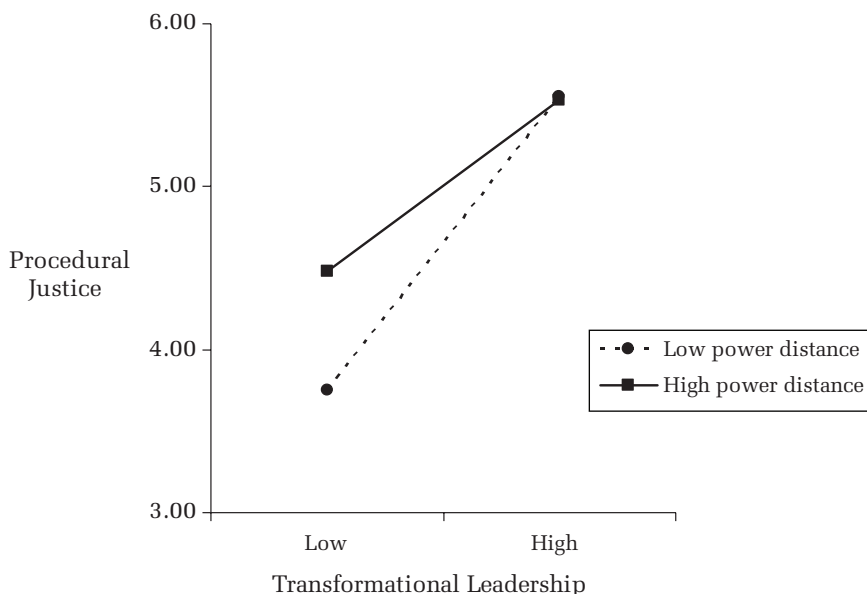
Note further that additional analyses failed to reveal a significant influence of the transformational leadership times power distance orientation interaction on OCB ($\beta = .03$, n.s.). However, as shown in Table 3, and in keeping with our overall model (Figure 1), the indirect effect of the transformational leadership by power distance orientation interaction on OCB, through procedural justice, was statistically significant ($z = -2.79$, $p < .05$). These additional results indicate that (1) power distance orientation moderates the influence of transformational leadership on procedural justice, and not OCB, and (2) this interaction indirectly relates to OCB through procedural justice.³

Tests of Country as a Moderator

As mentioned earlier, we detected two significant relationships between country and variables in the model. In particular, employees from the PRC sample had significantly higher power distance orientation and were rated lower on OCB than employees from the U.S. However, we found

³ Given that transformational leadership has also been operationalized at the individual level of analysis in prior research, we conducted additional analyses in which we tested hypotheses involving transformational leadership (Hypotheses 1 and 3) with individual-level perceptions (as opposed to group-level transformational leadership). Results showed that procedural justice perceptions only partially mediated the positive relationship between individual-level perceptions of transformational leadership and OCB, and that power distance did not significantly moderate the relationship between individual-level perceptions of transformational leadership and procedural justice perceptions. Thus, Hypotheses 1 and 3 were supported more strongly when operationalizing transformational leadership at the group level, as opposed to the individual level. More detailed results from these analyses are available upon request.

FIGURE 2
Effects of the Interaction of Transformational Leadership and Power Distance Orientation on Procedural Justice



support for our hypotheses even after controlling for country differences. To probe further into the impact of country differences on the hypothesized relationships, we conducted additional analyses of procedural justice and OCB in which the country dummy variable was treated as moderator of the hypothesized direct and interaction relationships. As shown in Table 5, none of the interactions involving country were statistically significant. These results support the generalizability of the findings across the two countries, the U.S. and the PRC. That is, we did not find evidence that results pertaining to predictors of procedural justice and OCB differed significantly for the two countries.

DISCUSSION

Three recent reviews of cross-cultural organizational behavior and psychology (Gelfand et al., 2007; Kirkman et al., 2006; Tsui et al., 2007) have all concluded that although considerable progress has been made in assessing the impact of cultural value orientations, important gaps remain. We attempted to incorporate several of the suggestions for taking the “next steps” in cross-cultural research, pertaining specifically to relationships involving transformational leadership, power distance orientation, procedural justice, and OCB. We also tested the extent to which these relationships generalize across two culturally distinct countries. We now discuss the implications of our findings for theory and practice.

Theoretical Implications

Incorporating the suggestions from the recent reviews cited above, our findings lead us to draw three main conclusions. First, researchers have called for more attention to the black box of transformational leadership effects (Jung & Avolio, 2000). Our findings suggest that procedural justice is a proximal individual-level outcome through which transformational leadership (a group-level construct) influences more distal individual-level behavioral outcomes. We extend the work of Pillai, Scandura, and Williams (1999), who found an indirect, individual-level effect of transformational leadership on OCB through procedural justice in the U.S., to the PRC. Our findings also extend to the PRC previous research conducted in the West (e.g., MacKenzie et al., 2001; Piccolo & Colquitt, 2006; Pillai, Schriesheim, & Williams, 1999; Podsakoff et al., 1990) on mediators of transformational leadership effects. Because these results did not differ by country, we support the underlying theoretical mechanism of social exchange theory in explaining the connection between cognitive reactions to leaders (such as procedural justice perceptions) and OCB.

Second, our finding that power distance orientation had a significant, positive effect on procedural justice answered calls for both (1) more attention to the effects of *individual-level* cultural value orientations on reactions to leaders (Kirkman et al., 2006) and (2) a move beyond individualism/collec-

TABLE 5
Results of Cross-Level Analyses of Procedural Justice and OCB, with Country as Moderator^a

Step and Predictors	Estimate	s.e.
<i>Procedural justice</i>		
1. Country	-.08	.10
Time with manager	.00	.00
Power distance orientation	.13*	.05
Transformational leadership	.98*	.07
2. Power distance orientation × country	-.16	.14
Transformational leadership × country	-.14	.13
3. Leadership × power distance orientation × country ^b	-.33	.21
<i>OCB</i>		
1. Country	-.41*	.09
Time with manager	.00	.00
Power distance orientation	-.06	.04
Transformational leadership	.04	.07
Procedural justice	.18*	.03
2. Power distance orientation × country	.72	.80
Transformational leadership × country	.18	.13
Procedural justice × country	-.14	.15

^a $n = 560$ individuals and 174 managers.

^b The transformational leadership by power distance orientation interaction was also included at this step, along with the two interactions from step 2 and the main effects.

tivism as the focal cultural value (Gelfand et al., 2007; Kirkman et al., 2006). The fact that power distance orientation is a consistent predictor of followers' perceptions of their leaders' use of fair decision-making criteria in two culturally distinct countries adds to the growing research on culture and leadership at the individual level (Casimir & Keats, 1996; Chan & Drasgow, 2001; Dorfman & Howell, 1988; Jung & Avolio, 1999; Pillai & Meindl, 1998). Moreover, we also showed that power distance orientation moderates followers' reactions to transformational leadership. This finding demonstrates that power distance orientation has an important effect on the impact of transformational leaders on perceptions of fairness among their followers (i.e., enhancement when power distance orientation is low; reduction when power distance orientation is high). Thus, our second contribution is that we have demonstrated the important direct and moderating roles power distance orientation plays in shaping followers' reactions to transformational leaders.

Third, our finding that power distance orientation works indirectly through procedural justice to affect OCB helps to answer recent calls for examining mediators of cultural value orientation effects (Gelfand et al., 2007; Kirkman et al., 2006; Tsui et

al., 2007). Thus, we shed more light on the mechanisms through which power distance orientation influences important employee behaviors. However, it is important to note that power distance orientation had a slightly negative direct relationship with OCB, as opposed to our expected positive relationship. Yet the indirect relationship of power distance orientation with OCB (through procedural justice) was positive. That is, although the direct relationship between power distance orientation and OCB was found to be either negligible or negative, it still exhibited a positive indirect relationship with OCB. Examining how power distance and other cultural value orientations predict specific behaviors will be enhanced if researchers identify other intervening affective and cognitive reactions that mediate value-behavior relationships. Indeed, in addition to its positive indirect relationship with OCB through procedural justice, power distance may also be negatively related to OCB through other mechanisms. For example, high-power-distance individuals likely form narrower definitions of their work roles, which may lead them to engage in fewer OCBs (cf. Morrison, 1994). Researchers should thus continue to explore the mediating mechanisms through which cultural value orientations relate to behavioral outcomes (Kirkman et al., 2006).

Finally, we noted that understanding the level at which cultural influences operate—individual or country—remains a largely unanswered question. Our study demonstrated that the cross-level impact of transformational leadership on procedural justice and OCB is similar in both the PRC and U.S., which extends the work of Pillai and colleagues (Pillai, Scandura, & Williams, 1999; Pillai, Schriesheim, & Williams, 1999), who found transformational leadership was linked to follower perceptions of procedural justice similarly in the U.S., Australia, Columbia, India, and the Middle East at the individual level of analysis. Thus, in line with Bass's (1997) arguments for the universal impact of transformational leadership, we did not detect *country-level* differences in transformational leadership effects. However, we did find that, within and across countries, *individual-level* power distance orientation moderated reactions to transformational leaders. Furthermore, we also detected significant differences between employees from the PRC and the U.S. on power distance orientation (House et al., 2004). Thus, individual-level, but not country-level, differences in power distance orientation impacted the leadership processes we examined. However, since we also detected country-level differences in followers' power distance orientation, it is probable that the roles of country-

level cultural differences in models of leader-follower interface are possibly less direct than the roles of individual-level cultural orientations.

In addition to supporting the validity of power distance orientation at the individual level of analysis, our findings can perhaps also shed more light on the inconsistent findings on the universal impact of transformational leadership across countries. Specifically, in view of findings indicating within-country variation on cultural value orientations (Au, 1999; Hofstede, 2001), it is possible that studies of transformational leadership across countries could yield different effects if individuals with different levels of power distance orientation are sampled in each country. For instance, the non-findings for transformational leadership effects in Columbia, the Middle East, or India in one study (Pillai, Scandura, & Williams, 1999) and the different magnitudes of effect found in the U.S. versus Hong Kong in another (Yu et al., 2002) may have been a consequence of consistent or different levels of power distance orientation among the bulk of respondents in these studies (although this is impossible to determine because power distance orientation was not measured). Thus, it is imperative to consider variation in individual-level cultural value orientations, in addition to country-level cultural differences, to better understand transformational leadership effects across countries (cf. Yammarino & Dubinsky, 1994).

Managerial Implications

The prevailing wisdom in the cross-cultural management field advises managers to alter their leadership behavior to fit the particular cultural profile of each country in which they manage (Javidan et al., 2006). Such advice, however, does not consider *individual variations* in cultural values such as power distance orientation. As our results show, although employees were more likely to have higher levels of power distance orientation in the PRC than in the U.S., individuals in *both* countries reacted differently to transformational leadership on the basis of their individual power distance orientation. The main implication here is that, irrespective of country-level cultural variation, transformational leadership is especially important for managers whose employees have a low power distance orientation. Thus, the age-old “When in Rome . . .” advice (i.e., lead individuals according to their country-level culture) perhaps should be modified to “When in Rome, get to know Romans as individuals” (i.e., lead individuals differently, depending on their individual cultural value orientations). Managerial advice based on country-level

differences is, of course, valuable and can be used a starting point to better understand individual-level cultural value orientation differences. However, managers may need to also be aware of their followers’ cultural values and to engage in behaviors that match their followers’ values. This advice also means that rather than treating all individuals in their groups similarly (as would be consistent with our conceptualization and operationalization of transformational leadership as a group-level construct), in groups with varying levels of power distance orientation, transformational leaders may also need to enact different behaviors for specific individuals. To identify power distance orientation levels, existing measures could be included as part of an employee’s hiring, training, and evaluation.

As Figure 2 indicates, the relationship between transformational leadership and procedural justice is less positive for those followers with a higher power distance orientation, in line with our theoretical expectation that transformational leadership behaviors will be less compatible with the values held by those higher in power distance orientation. Although our results support our contention to some degree, the overall positive procedural justice perceptions among those reporting high levels of transformational leadership behavior may represent the dual nature of power distance orientation values. On the one hand, such followers might resist practices incompatible with higher power distance orientation values (Kirkman & Shapiro, 1997; Laurent, 1983). On the other hand, followers with a high power distance orientation tend to obey leaders and follow direction without question. Thus, the very values that might cause resistance to management initiatives may be the same values that cause compliance (Kirkman & Shapiro, 2001). Although more research is needed to explore the “double edge” of power distance orientation, our findings do imply that managers may need to also engage in behaviors other than transformational leadership to motivate employees high in power distance orientation. For example, leaders of such followers may need to also exhibit a stronger, more paternalistic leadership style that directs employees more firmly in task execution (Farh & Cheng, 2000; Hofstede, 2001; Kirkman & Shapiro, 1997) and provide more specific direction rather than a more empowered or participative style (Robert, Probst, Martocchio, Drasgow, & Lawler, 2000; Welsh, Luthans, & Sommer, 1993). Thus, another important managerial implication of our findings is that employees with higher levels of power distance orientation are less likely to be influenced by transformational lead-

ership behaviors alone and may instead need to be led via different or additional leadership styles.

Limitations and Future Research

In contrast to previous research examining a large number of countries (Den Hartog et al., 1999), we included only the U.S. and the PRC. Including two culturally distinct countries in our analysis assured that we would have adequate between-country variation on power distance orientation. As has more recent cross-cultural research (e.g., House et al., 2004), we found moderate, statistically significant mean differences on power distance orientation between the PRC and the U.S. This difference allowed us to replicate the moderating effects of power distance orientation in the two countries. However, future research should certainly include more countries to ascertain the generalizability of cultural value orientation and transformational leader effects beyond the U.S. and the PRC.

Second, although we were careful to use translation and back-translation to minimize translation errors (Brislin, 1980), and our cross-cultural CFAs indicated highly similar underlying factor structures in the two countries (Tsui et al., 2007), there is some evidence that certain constructs have both *etic* (i.e., country-invariant) and *emic* (i.e., country-specific) dimensions (e.g., Farh et al., 1997). To overcome these limitations, we chose a measure of OCB (Podsakoff et al., 1990) that has demonstrated a high level of cross-cultural construct validity and reliability in a wide variety of culturally distinct countries (Lam et al., 1999). Also, reviews of transformational leadership across countries have shown good support for our measure of transformational leadership (Bass, 1997), and our procedural justice measure was one of the most widely used in the justice literature (Colquitt et al., 2001). Nonetheless, our findings should be interpreted in light of the fact that all of the measures in our study were developed primarily in North American contexts.

A third limitation is that followers rated transformational leadership, power distance orientation, and procedural justice, raising concerns about the potential impact of common source variance. However, we treated transformational leadership as a group-level variable, which helped reduce possible common source variance by averaging responses within each group in scoring transformational leadership. Moreover, common source variance was unlikely to account for the interaction effects we detected, or for relationships involving employee behavioral outcomes that were collected from a different source (the leaders).

Fourth, we recognize that power distance was originally conceptualized and has often been treated as a country-level construct (Hofstede, 2001). Our use of the power distance construct at the individual level of analysis is consistent with other research (e.g., Brockner et al., 2001; Chen & Aryee, 2007; Dorfman & Howell, 1988; Earley, 1999; Farh et al., 2007; Kim & Leung, 2007; see Kirkman et al. [2006] for a review of individual-level power distance orientation studies). Research has supported use of the construct of collectivism at the individual level of analysis (Jackson et al., 2006); similarly, we argued and found support for the idea that individuals possess different beliefs and values about hierarchy and status in their organizations and that such differences affect their cognitive and behavioral reactions to leaders. Even though we were careful to avoid measures developed for use at the country level of analysis (Hofstede, 2001) and instead used individual-level measures (Earley & Erez, 1997), we acknowledge the ongoing debate about the adoption of country-level cultural values for use at the individual level of analysis (Smith & Bond, 1999).

Finally, the fact our sample included only about three followers per leader raises the question of whether we had sufficient power to detect cross-level effects, particularly cross-level interactions. We detected our hypothesized cross-level interaction effect, yet questions regarding the replicability of this effect across samples remain. Although it is difficult to estimate the precise power of our study to detect cross-level interactions, recent developments in research on power in multilevel designs (e.g., Raudenbush & Liu, 2000; Snijders, 2005) suggest that the relatively high number of level 2 units in our study (174 leaders or groups) could compensate for the low number of individuals within units. However, additional research is needed to identify how factors such as level 1 (e.g., individual-level) and level 2 (e.g., group-level) sample sizes, variability of outcomes within units relative to between units, and variability of individual-level slopes (or variance in the individual-level effects to be moderated by unit-level moderators), might affect power in multilevel designs.

Conclusion

Clearly, more research is needed to untangle the levels of analysis issues regarding cultural values and cultural value orientations. Researchers should also extend our findings by considering a broader set of individual-level cultural value orientations (e.g., psychological collectivism) and leadership practices (e.g., empowering, transactional, and eth-

ical leadership), as well as larger and more diverse samples. However, a key implication of the present study is that individual-level cultural value orientations, and particularly power distance orientation, should not be ignored in studies of the impact of transformational leadership on followers across cultures. Furthermore, adopting a multilevel approach will likely shed new light on the complex ways in which cultural influences affect leadership and other organizational behavior phenomena.

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APPENDIX A

Survey Items Used in the Study

Transformational Leadership (MacKenzie et al., 2001; $\alpha = .91$).

Items were preceded by the stem, "My supervisor . . ."

1. articulates a vision (core transformational leadership behavior item).
2. provides an appropriate model (core transformational leadership behavior item).
3. facilitates the acceptance of group goals (core transformational leadership behavior item).
4. makes it clear that he/she expects a lot from us all of the time (performance expectations item).
5. insists on only the best performance (performance expectations item).
6. will not settle for second best (performance expectations item).
7. acts without considering my feelings (reverse-scored individual support item).
8. shows respect for my personal feelings (individual support item).
9. treats me without considering my personal feelings (reverse-scored individual support item).
10. considers my personal feelings before acting (individual support item).
11. challenges me to think about old problems in new ways (intellectual stimulation item).
12. asks questions that prompt me to think about the way I do things (intellectual stimulation item).
13. has stimulated me to rethink the way I do things (intellectual stimulation item).
14. has ideas that have challenged me to reexamine some of my basic assumptions about my work (intellectual stimulation item).

Procedural Justice (Niehoff & Moorman, 1993; $\alpha = .90$)

1. Job decisions are made by my manager in an unbiased manner.
2. My manager makes sure that all employee concerns are heard before job decisions are made.
3. To make job decisions, my manager collects accurate and complete information.
4. My manager clarifies decisions and provides additional information when requested by employees.
5. All job decisions are applied consistently across all affected employees.
6. Employees are allowed to challenge or appeal job decisions made by managers.

Power Distance Orientation (Earley & Erez, 1997; $\alpha = .71$)

1. In most situations, managers should make decisions without consulting their subordinates.
2. In work-related matters, managers have a right to expect obedience from their subordinates.
3. Employees who often question authority sometimes keep their managers from being effective.

4. Once a top-level executive makes a decision, people working for the company should not question it.
5. Employees should not express disagreements with their managers.
6. Managers should be able to make the right decisions without consulting with others.
7. Managers who let their employees participate in decisions lose power.
8. A company's rules should not be broken—not even when the employee thinks it is in the company's best interest.

Organizational Citizenship Behavior (Podsakoff et al., 1990; $\alpha = .93$)

Items were preceded by the stem, "This employee . . ."

1. has work attendance that is above the norm (conscientiousness item).
2. does not take extra breaks (conscientiousness item).
3. obeys company rules and regulations even when no one is watching (conscientiousness item).
4. is one of my most conscientious employees (conscientiousness item).
5. believes in giving an honest day's work for an honest day's pay (conscientiousness item).
6. consumes a lot of time complaining about trivial matters (reverse-scored, sportsmanship item).
7. always focuses on what's wrong, rather than the positive side (reverse-scored, sportsmanship item).
8. tends to make "mountains out of molehills" (reverse-scored, sportsmanship item).
9. always finds fault with what the organization is doing (reverse-scored, sportsmanship item).
10. is the classic "squeaky wheel" that always needs greasing (reverse-scored, sportsmanship item).
11. attends meetings that are not mandatory, but are considered important (civic virtue).
12. attends functions that are not required, but help the company image (civic virtue).
13. keeps abreast of changes in the organization (civic virtue).
14. reads and keeps up with organization announcements, memos, and so on (civic virtue).
15. takes steps to try and prevent problems with other workers (courtesy item).
16. is mindful of how his/her behavior affects other people's jobs (courtesy item).
17. does not abuse the rights of others (courtesy item).
18. tries to avoid creating problems for coworkers (courtesy item).
19. considers the impact of his/her actions on coworkers (courtesy item).
20. helps others who have been absent (altruism item).
21. helps orient new people even though it is not required (altruism item).
22. helps others who have heavy workloads (altruism item).
23. willingly helps others who have work-related problems (altruism item).
24. is always ready to lend a helping hand to those around him/her (altruism item).



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