Individualism–Collectivism as a Boundary Condition for Effectiveness of Minority Influence in Decision Making

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Results of this experiment demonstrate that individualists and collectivists react differently to minority influence. Based on the distinction between objectivity and preference norms in the minority influence literature, we hypothesize that individualism and collectivism influence (A) responses to minority influence (focusing on the target of influence) and (B) effectiveness of minority influence (focusing on the influence agent). Our results replicate past research and demonstrate improved decision quality for individuals exposed to a minority perspective. Moreover, minority influence targets with high horizontal individualism and low horizontal collectivism made higher quality decisions. Influence targets with high vertical collectivism demonstrated higher quality decisions when the influence agent held a high status position in the group. Results also demonstrate that influence agents with high vertical individualism experienced less role stress than those with low vertical individualism. Finally, influence agents with low role stress were more effective in influencing the decision making of others. We discuss our findings in terms of boundary conditions to the minority influence process.   © 2000 Academic Press

Key Words: individualism–collectivism; minority influence; role stress; decision making.

Existing research on minority influence (publicly advocating beliefs, attitudes, and ideas that challenge the perspective assumed by the majority) often

demonstrates that exposure to a minority perspective can improve the quality of decision making (De Dreu & de Vries, 1997; Moscovici, 1976; Nemeth & Kwan, 1985, 1987; Nemeth & Wachtler, 1983; Van Dyne & Saavedra, 1996; Wood, 2000). Nemeth (1986), for instance, theorized that exposure to minority influence causes individuals to consider multiple alternatives and engage in more elaborate cognitive processes. Similarly, research on cognitive conflict also demonstrates that exposure to different perspectives can be beneficial to individual, group, and organizational outcomes (Amason, 1996; Cosier, 1978; Jehn, 1995, 1997; Schweiger, Sandberg, & Rechner, 1989; Schwenk, 1990; Schwenk & Valacich, 1994).

In the research we report in this study, we contend that individuals differ in their responses to a minority influence agent *and* also in their effectiveness as minority influence agents. Although there are many individual characteristics that might be relevant to minority influence, we chose to focus on the individual value orientations of individualism and collectivism (I-C) (Triandis, 1995) for two key reasons. First, since minority influence involves a tension between advocating (or accepting) a unique point of view and conforming to the prevailing majority perspective, we have theoretical reasons to believe that individualists and collectivists will differ in their responses to minority influence. Second, with the mounting attention paid to I-C, understanding its implications in new domains (such as minority influence and decision making) can further broaden the usefulness of the I-C construct.

Assessing individual value orientations and minority influence is important for various reasons. From a practical viewpoint, the workforce is becoming more culturally diverse due to globalization and changing demographics (Jamieson & O'Mara, 1991). At the same time, organizations are acknowledging the potential benefits of divergent perspectives for improving decision quality and enhancing competitive advantage (Amason, 1996; Amason & Schweiger, 1997; De Dreu & Van de Vliert, 1997; Nemeth & Staw, 1989; Pascale, 1990; Van de Vliert & De Dreu, 1994). From a theoretical standpoint, incorporating value orientation in models of minority influence can enrich our understanding of the boundary conditions underlying the minority influence process and may also provide insight into the role of individualism and collectivism in decision making.

Even though minority influence studies have been conducted in a variety of countries (e.g., Germany: Bohner, Erb, Reinhard, & Frank, 1996; Australia: David & Turner, 1996; The Netherlands: De Dreu & de Vries, 1996; Italy: Maass, Volpato, & Mucchi-Faina, 1996; Switzerland: Sanchez-Mazas, 1996; United States: Nemeth & Kwan, 1987; Van Dyne & Saavedra, 1996), no research has focused explicitly on value orientation in the minority influence process. Thus, we suggest that although diversity can lead to divergent perspectives, positive responses to minority influence cannot be assumed for all individuals—either as influence targets or influence agents.

Value orientations such as I-C are beliefs about desirable end states that guide selection or evaluation of behavior and events (Schwartz & Bilsky, 1987). I-C is broadly defined as "the relationship between the self and collectivity" (Hofstede, 1984, p. 148) and is also referred to as self-orientation vs collectivity

orientation (Parsons & Shils, 1951), cooperation vs individualism (Mead, 1967), and independent vs interdependent self-construals (Markus & Kitayama, 1991). Although I-C originated as a construct that distinguishes people across cultures (e.g., Hofstede, 1984), recent studies have also conceptualized I-C as a within-culture construct (e.g., Chatman & Barsade, 1995; Farh, Earley, & Lin, 1997; Wagner, 1995). In our research, we focus on I-C as a within-culture value orientation. We view this as a starting point and suggest that future research should also examine value orientation and minority influence in cross-cultural contexts.

We begin with an overview of the minority influence literature. Next we focus on theoretical development of our propositions concerning I-C and minority influence. We then describe our experiment where we contrasted experimental groups (with a minority influence agent) and control groups to address two specific research questions: (1) How do individuals' I-C value orientations affect the quality of their decision making in a discussion task? and (2) How do minority influence agents' I-C value orientations affect their role stress and effectiveness in persuading others to adopt an alternative view?

MINORITY INFLUENCE AND DECISION MAKING

Two benefits of minority influence are that it fosters divergent thinking (Nemeth, 1986) and reduces conformity pressures (De Dreu & de Vries, 1997). Exposure to an alternative view triggers more elaborate cognitive processes (Nemeth, 1986), leading to greater creativity in individual thinking, more novel associations (De Dreu & de Vries, 1993; Nemeth & Kwan, 1985), and more original proposals (Volpato, Maass, Muchi-Faina, & Vitti, 1990). Moreover, research demonstrates that exposure to minority influence increases individual courage to resist conformity pressures (Nemeth & Chiles, 1988). Related research in decision making bears relevance to the benefits of minority influence. For instance, techniques such as dialectical inquiry (Mason, 1969) and devil's advocacy (Cosier, 1978) aim to alleviate conformity pressure and improve the quality of decision making (Cosier, 1978; Schweiger et al., 1989; Schwenk & Cosier, 1980; Schwenk & Valacich, 1994) by facilitating expression of alternative views.

Consistent with the findings of past research, we expect individuals exposed to minority influence to make higher quality decisions compared to those not exposed to minority influence during group discussion. Of greater interest to our research questions, however, is the role of individuals' I-C value orientation in influencing the potential benefits of minority influence in decision making.

MINORITY INFLUENCE AND INDIVIDUALISM–COLLECTIVISM

Although many studies in the minority influence literature have investigated factors that influence the effectiveness of the minority influence agent (for a review, see Maass & Clark, 1984), and although Ng and Van Dyne (in press)

have theorized that an individual difference such as value orientation will affect responses to minority influence, we are aware of no minority influence studies that have included I-C value orientation. The research of Bond and Smith (1996) on conformity, however, acknowledges the influence of I-C on conformity behavior, thus suggesting the benefits of considering the role of I-C in the minority influence process. Our examination of the value orientation of minority influence targets and agents is premised on the notion that values are powerful mechanisms that shape norms (Fiske, Kitayama, Markus, & Nisbett, 1998; Triandis, 1995).

A norm is a "person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein & Ajzen, 1975, p. 302). Since individuals with different values possess different "patterned ways of thinking" (Kluckhohn, 1954), they differ in their attitudes about appropriate behavior. These attitudes in turn influence behavioral responses (for a review of attitude-behavior models, see Eagly & Chaiken, 1998). Existing literature in minority influence differentiates two types of norms that are relevant to minority influence outcomes: objectivity norms and preference norms (Moscovici, 1976). Specifically, individuals who hold objectivity norms give priority to validating consensus and conforming to the majority view. Those who adhere to preference norms emphasize unique individual responses (preferences) and the absence of conformity pressure. When individuals who are the targets of influence are governed by objectivity norms, they are more likely to adhere to the majority opinion and resist the alternative view expressed by a minority influence agent. Conversely, individuals who are governed by preference norms should be more receptive to alternative perspectives and should experience less conformity pressure to follow the majority opinion (Ng & Van Dyne, in press).

Extending this notion, our general argument in this study is that individualists and collectivists possess different norms (objectivity or preference norm) regarding minority influence, thereby triggering different reactions toward the minority influence process. We develop our logic for this assertion in more detail below, focusing on two forms of individualism and collectivism (horizontal and vertical) and their specific relevance to different situations.

Individualism–Collectivism.

Research on I-C has traditionally distinguished only between individualists and collectivists. Triandis (1995), for instance, describes an individualist as one who views the self as independent of others, focuses on personal goals, acts upon personal beliefs and values, and emphasizes task outcomes. A collectivist, on the other hand, construes the self as an interdependent entity, adopts group goals, acts according to social norms, and stresses good interpersonal relationships. Recently, Chen, Meindl, and Hunt (1997) proposed that individualists and collectivists can be further distinguished in their emphasis on horizontal and vertical social relationships. That is, both individualism and collectivism may be horizontal, where the self is construed as similar to other selves

(emphasizing equality), or vertical, where the self is seen as different from other selves (emphasizing hierarchy). Combining the horizontal–vertical dimension with I-C results in four separate value orientations: horizontal individualism (H-I), vertical individualism (V-I), horizontal collectivism (H-C), and vertical collectivism (V-C) (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995).

One advantage of using this more fine-grained conceptualization of I-C is that it can enhance the precision of I-C research when a specific dimension is salient to a particular situation (Chen et al., 1997). Consistent with these distinctions, we examine horizontal I-C and vertical I-C in two different contexts. For horizontal I-C, we are interested in how individuals with different H-I and H-C orientations react to the presence of a minority influence agent. For vertical I-C, we focus on how individuals with different V-I and V-C orientations react to unequal relationships characterized by the hierarchical status of the minority influence agent.

MINORITY INFLUENCE TARGETS AND DECISION QUALITY

Horizontal Collectivism

Horizontal collectivism (H-C) is a value orientation that emphasizes interdependence, sociability, and equality of in-group members. Horizontal collectivists construe themselves as interdependent with others, avoid conflict, and strive for harmony within the group (Probst, Carnevale, & Triandis, 1999; Triandis, 1995; Triandis & Gelfand, 1998). Therefore, we argue that individuals high in H-C are more likely to adopt objectivity norms that emphasize group consensus and less likely to support divergent views within the group. As a result of this conformity pressure to the majority, we propose that influence targets high in H-C are less likely to improve their decision making in response to a minority influence agent than those low in H-C.

> *Hypothesis 1:* The positive impact of minority influence on influence targets' decision quality is influenced by their horizontal collectivism such that the relationship is weaker for those with high horizontal collectivism.

Horizontal Individualism

Horizontal individualism (H-I) is a value orientation that emphasizes independence, self-reliance, and equality. Horizontal individualists view themselves as autonomous entities and strive to be unique and distinct from others. Hence, we anticipate that minority influence targets with H-I orientation will more likely possess preference norms which predispose them to value unique responses rather than conform to the majority view. Accordingly, we propose that horizontal individualists are more likely to consider the minority perspective seriously and, hence, more likely to benefit from exposure to minority influence.

> *Hypothesis 2:* The positive impact of minority influence on influence targets' decision quality is influenced by their horizontal individualism such that the relationship is stronger for those with high horizontal individualism.

Thus far, Hypotheses 1 and 2 deal with the effects of horizontal I-C. Next, we focus on the vertical dimension of I-C as it relates to the minority influence process. Singelis et al. (1995) observed that the vertical dimension of I-C can be matched to a cultural pattern that Fiske (1990) labeled as authority ranking. According to Fiske, those in authority-ranking cultures share resources according to rank such that the higher the rank, the higher the share of resources. Thus, individuals high in the vertical dimension of I-C tend to regard inequality as acceptable or even desirable.

Based on this distinguishing feature of vertical I-C, we propose that individuals high in V-C and V-I will react more to the status of the minority influence agents than those low in V-C and V-I. Although past research has demonstrated that minority influence agents who are perceived as legitimate, and/or possess status, are usually more effective in persuading influence targets to consider alternative views (De Dreu & de Vries, 1997), few studies have examined how influence targets will differ in their response to agent status based on their values. Likewise, research on persuasion has found that when a source has greater power over the message recipient, there is greater likelihood that the recipient will be persuaded by the source (Festinger & Thibaut, 1951; Petty & Wegener, 1998). However, little is known about how individual characteristics of recipients may influence their response to powerful sources.

Consistent with existing research, we expect that minority influence targets will more likely adopt the alternative perspective offered by the minority influence agent when the agent has high status. However, of greater interest is the effect of minority influence targets' vertical I-C on their response to the minority perspective based on the unequal status between the influence agent and the target.

Vertical Collectivism

Vertical collectivism (V-C) is a value orientation that emphasizes interdependence and inequality among members, especially with regard to social status. Hence, members within the group view one another as different, some having more status than others. For instance, Singelis et al. (1995) observed that in Japan, a highly vertical collectivistic culture, it is important for people to know the relative status of a speaker in order to use appropriate language when interacting. As such, although they are different constructs, V-C is similar to power distance (Earley & Gibson, 1998), which Hofstede (1984) defined as the extent to which those with less power expect and accept that power is distributed unequally.

Several studies on power distance help provide additional insight into how vertical collectivists may react to authority. Shane, Venkataraman, and MacMillan (1995) found that individuals with high power distance prefer innovation programs that have the support of upper management. Earley (1999) demonstrated that the performance of groups of high power distance individuals was influenced more by the actions of high-status members compared to groups

with low power distance individuals. Building on this, we propose that individuals with high V-C will be more responsive to a minority influence agent with high status because of their deference to authority. In contrast, we predict that individuals with low V-C will be less influenced by the hierarchical status of the minority influence agent, since they do not accept inequality and are less likely to submit to authority pressure.

> *Hypothesis 3:* The positive impact of the minority influence agent's hierarchical status on influence targets' decision quality is influenced by the target's vertical collectivism such that the relationship is stronger for those with high vertical collectivism.

Vertical Individualism

Vertical individualism (V-I) is a value orientation that emphasizes autonomy and competition. Inequality is manifested in the individual's desire to be the best, presumably because winning in a competition mediates valued tangible and intangible outcomes. For instance, Probst et al. (1999) found that vertical individualists reported the greatest desire to maximize their individual gains in a prisoner's dilemma game compared to individuals high in other dimensions of I-C.

Consistent with vertical individualists' emphasis on winning and achievement orientation, we expect those with high V-I to improve their decision making more when a minority influence agent has high rather than low status. Those who emphasize winning will want to associate with those who have power and control over outcomes. Thus, individuals high in V-I are more likely to be persuaded by minority influence agents in hierarchical positions of status. This suggests a similar relationship to V-C and hierarchical status but is based on a subtle difference in motivation. With V-C, individuals are persuaded because of their deference to those with status (e.g., Earley, 1999). With V-I, individuals are persuaded because they believe high-status influence agents have the power to influence outcomes.

> *Hypothesis 4:* The positive impact of the minority influence agent's hierarchical status on influence targets' decision quality is influenced by the target's vertical individualism such that the relationship is stronger for those with high vertical individualism.

In summary, we have proposed that the impact of minority influence on the targets' decision quality differs for collectivists and individualists. In addition, we have extended the theorizing of Ng and Van Dyne (in press) and have proposed that the horizontal–vertical distinction is useful in predicting outcomes under different situational contexts: horizontal I-C is salient when influence agents and targets have equal status, and vertical I-C is salient when status relationships are unequal. Specifically, we proposed that H-I and H-C will exert opposite effects on the influence targets' response to minority influence because horizontal individualists emphasize independence from the majority, while horizontal collectivists focus on preserving cohesion and harmony within the group. For vertical I-C, the common emphasis on acceptance of

inequality in status predisposes both vertical individualists and vertical collectivists to be more responsive to minority influence agents with higher status. We suggest, however, that the motivation underlying this change differs for vertical individualists and vertical collectivists.

MINORITY INFLUENCE AGENTS AND ROLE STRESS

In this section, we shift our focus from the minority influence target to the minority influence agent. Here we consider differences in the level of role stress experienced by the minority influence agents as a function of their hierarchical status within the group and their I-C orientation. Since minority influence agents with high status are likely to induce greater responsiveness among their influence targets due to their greater legitimacy, we anticipate that high-status influence agents will also experience less role stress (compared to those with low status). Of greater interest, however, is whether minority influence agents' I-C values change the link between their status and their role stress. Our general argument is that minority influence agents with different values possess different "patterned ways of thinking" (Kluckhohn, 1954) and thus differ in their attitudes concerning challenging the majority. Consequently, the level of role stress experienced by influence agents depends on whether their role is congruent with their I-C orientation. Specifically, we focus on influence agents' vertical I-C and their hierarchical status in predicting role stress, since the vertical component is a more salient dimension when unequal relationships are present.

Vertical Collectivism

Extending our earlier discussion on V-C, we propose that the role stress experienced by minority influence agents with high V-C will be more affected by their hierarchical status in the group than those with low V-C. Given their emphasis on group solidarity and status differentiation, high-V-C minority influence agents should be uncomfortable challenging the majority opinion, particularly if they lack power and authority. However, when those with high V-C are also group leaders, we suggest that their role stress will be reduced, since challenging the status quo is likely to be construed as an act of "stewardship" rather than "rebellion." Hence, expressing a different and supposedly superior alternative becomes more aligned with their value orientation. For minority influence agents with low V-C, we propose that their role stress will not be significantly affected by their hierarchical status because they are relatively insensitive to the distribution of power within the group.

Hypothesis 5: Minority influence agents with high vertical collectivism will experience less role stress when in a high-status position than when lacking status, while minority influence agents with low vertical collectivism will not be influenced by their hierarchical status.

Vertical Individualism

Based on similar logic, we propose that minority influence agents who are highly competitive and achievement-oriented (i.e., high in V-I) will be more influenced by their status within the group. Since minority influence agents with high V-I emphasize differentiating themselves from others by being superior, challenging the status quo with a better alternative would be congruent with their value orientation, especially if they have leadership responsibilities. This is because the leadership position enhances their feelings and perceptions of control over the outcomes of the influence process, thereby reducing the ambiguity of success. High V-I influence agents who are not leaders should feel greater role stress because, having little control of the group discussion, they experience greater uncertainty about their ability to persuade others to adopt their divergent perspective. For minority influence agents with low V-I, we propose that they will generally experience greater role stress than those with high V-I due to their lack of desire to differentiate themselves from others. Moreover, given that they do not emphasize inequality like those with high V-I do, they should be relatively insensitive to their status within the group.

Hypothesis 6: Minority influence agents with high vertical individualism will experience less role stress when in a high-status position than when lacking status, while minority influence agents with low vertical individualism will not be influenced by their hierarchical status.

Our final hypothesis examines the relationship between the role stress of minority influence agents and their effectiveness in influencing others to consider alternative perspectives. Here, we predict that the role stress experienced by influence agents will negatively affect execution of their role. This is consistent with research on stress and role effectiveness (Jex, 1998). For example, Motowidlo, Packard, and Manning (1986) demonstrated a negative relation between employee's experience of stress and supervisor perceptions of employee effectiveness (quality, composure, and interpersonal relationships). Similarly, Jamal (1984) demonstrated negative effects of stress on role performance.

Applying these findings to our current research, we propose that minority influence agents who are uncomfortable advocating a different perspective (because it is inconsistent with their value orientation) will be less consistent and persistent in delivering the divergent message. Based on the minority influence literature, these individuals will be less effective in improving decision making because others will perceive them as less competent (e.g., Moscovici & Lage, 1976; Nemeth, Swedlund, & Kanki, 1974; Nemeth & Wachtler, 1974). In contrast, minority influence agents who experience less role stress should execute their roles with greater confidence, consistency, and persistence and therefore should be more influential. Hence, we propose that

Hypothesis 7: Minority influence agents who experience less role stress will be more effective in persuading others to adopt their alternative perspective than minority influence agents who experience more role stress.

METHOD

Task

Following recommendations of Mitroff (1982), we designed a case-based task to test our hypotheses. As suggested by Van Dyne and Saavedra (1996), we introduced a minority perspective during the problem-identification stage of the individual decision-making process. The case described implementation of a community policing project and the resulting low job satisfaction of police officers. After reading the case, students chose from three options the one that best described the key problem.

Participants and Procedure

Subjects from a large undergraduate management course participated in this study in exchange for course credit. Participation was optional and an alternative exercise was available for a comparable number of points. We collected data on individual I-C orientation at the beginning of the semester and conducted the minority influence exercise in the middle of the semester. We recruited confederates to act as minority influence agents by contacting eight students at random from each class section via e-mail. The message asked students if they would help with a class exercise later in the term and if they were available to attend a special training session to prepare for the exercise. Students could sign up for one of three possible special sessions at their convenience.

Of the 176 students contacted, 80 (45%) were available for a training session. We told the confederates that they had been chosen randomly to introduce a divergent perspective in a forthcoming class exercise. The training session was structured in three parts. First, we described and demonstrated consistent and persistent persuasive styles. Second, we described the class exercise and their specific role. Students were told they would be working in groups of five and that the purpose of the exercise was to determine the best problem identification statement for a case study. The students then read the case and were told to identify the best problem statement from the three options provided: (1) lack of communication; (2) lack of motivation; and (3) the hazardous nature of the job. We told the confederates that other students would most likely identify "lack of communication" because this was a superficially obvious problem. Using key motivational theories previously taught in class, we explained why "lack of motivation" was a better problem statement. Their role was to propose motivation as the primary problem, to persuade others to analyze the case in more depth, and to convince others to identify "lack of motivation" as the key issue. We concluded the training session by having students pair up and take turns practicing their role. We coached them in this process and provided feedback. The training session was $1^1/_2$ h and involved no discussion of value orientations or stress. All students agreed to keep their role in the study confidential.

We conducted the experiment 1 week after the training session. Students

were randomly assigned to groups of five with a minority influence agent randomly assigned to half of the groups. The remaining groups served as controls, thus allowing us to assess if the quality of decisions made after discussion was due specifically to the presence of a minority influence agent or to the opportunity for group discussion and interaction. Altogether there were 162 groups, consisting of 690 students (excluding the 80 confederates). During the experiment, each student received a written description of one role: minority influence agent (our confederates), group leader (responsible for coordinating the process), or group member (the influence target). With the exception of the leaders, students were told not to tell others their role assignment. Hence, no one (except for the confederates themselves) was aware of the minority influence agent's role. At the beginning of the exercise, we asked leaders to identify themselves and explained that leaders had the authority and responsibility to coordinate the discussion.

Next, students read the case and individually identified the best problem statement out of the three problem statements presented to them. The case materials emphasized "lack of communication," which was an obvious, albeit superficial, problem in the case. The real source of dissatisfaction was lack of motivation; communication was simply one of many contributing factors. Hence, the "lack of motivation" was a better and more in-depth identification of the problem. The third option, "the hazardous nature of the job," was an irrelevant problem statement that served as a distractor and check on whether students were engaged in the exercise (no one selected this option).

After students read the case and completed their individual problem identification, groups discussed the case and group leaders made sure all members indicated and explained their initial problem identification. After the discussion, students again individually indicated which problem statement was best, and the leaders collected all materials.

Manipulations

Eighty groups were assigned a minority influence agent and 82 groups served as controls (no minority influence agent). To manipulate hierarchical status, we randomly appointed half of the minority influence agents as group leaders ($n = 40$). Hence, the confederates in these 40 groups were assigned two roles: the minority influence agent and the leader. The rest of the treatment groups ($n = 40$) and all the control groups ($n = 82$) had randomly appointed group leaders. In all of these groups, the leaders were nonconfederates who were unaware of the possible presence of a minority influence agent.

The Measures of I-C Orientation

We used Triandis and Gelfand's (1998) 16-item scale, which they based on the earlier Singelis et al. (1995) I-C instrument. In our sample, we reassessed the factor structure by conducting a confirmatory factor analysis using Lisrel. Results demonstrated that the a priori four factors fit our data well (RMSEA

= .06; AGFI = .93; NFI = .86; CFI = .90). Further, nested comparisons with alternative two-factor structures (collapsed either over the horizontal–vertical distinction or the I-C distinction) indicated that the original four-factor struc- ture was a significantly better fit than the alternative models (average $\Delta\chi^2$ $(\delta df) = 688(5), p < .00$). All except two items had factor loadings greater than .30. We dropped the two items (one H-I item with factor loading of .24 and one V-C item with factor loading of .23) and averaged the remaining items to produce four indices of I-C. H-I (e.g., *I rely on myself most of the time*) was 3 items (Cronbach's $\alpha = .65$). V-I (e.g., *Winning is everything*) was 4 items ($\alpha = .72$). H-C (e.g., *I feel good when I cooperate with others*) was 4 items ($\alpha = .70$), and V-C (e.g., *It is important to me that I respect the decision made by my group*) was 3 items ($\alpha = .64$).

The Measures of Outcome Variables

Improvement in decision quality (after group discussion).   Participants se- lected one of three possible problem identification statements: lack of communi- cation (coded 1), lack of motivation (coded 2), and the hazardous nature of the job (no one chose this option). Motivation represented the best decision. As described in our procedure earlier, all participants individually identified the best problem statement before and after group discussion. We assessed im- provement in decision quality by comparing each person's problem statement before and after discussion (in the treatment groups, with a minority influence agent; in the control groups, without a minority influence agent). We coded improvement in decision quality 1 when members changed from "lack of com- munication" (prior to group discussion) to "lack of motivation" (after group discussion) and 0 for those who maintained their initial position (lack of commu- nication). We excluded those who identified "lack of motivation" prior to the group discussion from the analyses ($n = 29$) since we were interested in how individuals might improve their decisions after group discussion. Results in- cluding these 29 individuals produce the same pattern of relationships and are available from the first author. Thus, the final sample size for nonconfeder- ates was 661.

Role stress of the minority influence agent (from the confederates' perspec- tive).   We measured the role stress of the confederate minority influence agents at the end of the exercise with one item that asked them how stressful it was to be consistent and persistent in their roles. Although single item measures can be problematic, Sackett and Larson (1990) suggest that when a construct is sufficiently narrow or is unambiguous to the respondent, a single-item mea- sure can suffice.

The Manipulations and Control Variables

Manipulation of treatments.   We coded treatment groups (with a minority influence agent) 1 and control groups 0. Within the treatment group, we coded hierarchical status 1 when the minority influence agent was also the group

leader and 0 when the minority influence agent was not the group leader. In order to ensure that our manipulation to introduce a minority perspective (via the confederates) was effective, we asked participants if different problem statements were identified during the discussion (e.g., Did all group members have the same problem statement?).

Control variables. Given that responses to alternative perspectives may be influenced by sex-role stereotypes and general cognitive ability (e.g., see Petty & Wegener, 1998), we controlled for gender (0= *female,* 1 = *male*) and cognitive ability (Wonderlic & Associates, 1983) in all of our analyses.

RESULTS

Table 1 reports the descriptive statistics, Cronbach's alphas, and correlations. Consistent with existing theory (Triandis, 1995; Triandis & Gelfand, 1998), the relatively weak correlations among H-I, H-C, V-I, and V-C indicate that they are distinct constructs (observed correlations range from .06 to .23).

Manipulation Check

Chi-square analysis indicated that participants in the treatment groups (with a minority influence agent) reported discussion of different problem statements significantly more than participants in the control groups, χ^2 (df = 1) = 337, $p < .00$.

TABLE 1

Descriptive Statistics, Cronbach's Alpha, and Correlations for Member Responses

Variable[a,b]	Mean	SD	1	2	3	4	5	6
1. Horizontal collectivism (H-C)	3.91	.48	.70					
2. Horizontal individual- ism (H-I)	3.67	.69	.11** (.16)	.65				
3. Vertical collectivism (V-C)	3.73	.70	.23** (.34)	.06 (.09)	.64			
4. Vertical individualism (V-I)	3.16	.70	−.10* (−.14)	.17*** (.25)	.17** (.25)	.72		
5. Decision quality[c]	.08	.27	.02	.01	−.08	−.04	—	
6. Cognitive ability	5.04	5.59	−.11	.04	−.05	.08	−.08	—
7. Gender[d]	.60	.49	−.22**	−.01	.13**	.32**	.00	.14**

[a] n = 661 (excluding minority influence agents' responses).

[b] Figures on the diagonal are Cronbach's alphas; figures in parentheses are correlations corrected for unreliability.

[c] 0 = *No improvement in decision quality;* 1 = *Improvement in decision quality.*

[d] 0 = *Female;* 1 = *Male.*

* $p < .05$.

** $p < .01$.

Minority Influence Targets' Perspective

Statistical analyses.   Since we proposed that our primary dependent variable (improvement in decision quality) would be influenced by both individual-level (I-C) and group-level variables (presence and status of minority influence agents), we modeled this cross-level interaction using hierarchical linear modeling. Cross-level models are defined as those in which variables at one level of analysis are hypothesized to influence variables at another level of analysis (Mossholder & Bedeian, 1983).

A primary advantage of hierarchical linear models is that they allow researchers to examine relationships simultaneously within a particular level, as well as relationships across different levels, while maintaining the appropriate level of analysis (Hofmann, 1996). In addition, they overcome the weaknesses of traditional OLS approaches to analyzing data involving multilevels, such as disaggregating higher level scores to lower level units or aggregating lower level scores to higher level units (Hofmann, 1996). Specifically, since hierarchical linear models explicitly model both individual- and group-level residuals (unlike OLS), they acknowledge that individuals within a particular group may be more similar to one another than individuals in other groups (Bryk & Raudenbush, 1992).

Essentially, HLM is a two-step approach that first examines relationships among variables within groups in a level 1 equation and then regresses these level 1 intercept and slope parameters onto group level variables in a level 2 equation. For instance, our first hypothesis, which stated that the impact of minority influence on individuals' decision quality would be moderated by the individuals' H-C orientation, may be presented in the following equations:
Level 1: Improvement in decision quality =

$$\beta_0 + \beta_1(g) + \beta_2(\text{gender}) + \beta_3(\text{H-C}) + \varepsilon_{ij}. \tag{1}$$

Level 2:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{Minority Influence}) + \mu_{0j} \tag{2a}$$

$$\beta_{1j} = \gamma_{10} + \mu_{1j} \tag{2b}$$

$$\beta_{2j} = \gamma_{20} + \mu_{2j} \tag{2c}$$

$$\beta_{3j} = \gamma_{30} + \gamma_{31}(\text{Minority Influence}) + \mu_3. \tag{2d}$$

In Eq. (1) HLM estimates the relationship between individual-level variables (cognitive ability, gender, and H-C) and the individual-level outcome (decision quality) separately for each of the 162 groups. β_0 is the within-group intercept, while β_1, β_2, and β_3 are the within-group slopes for cognitive ability, gender, and H-C respectively. The term ε_{ij} represents the residual within-group variance. In

Eqs. (2a) and (2d), the intercept (β_{0j}) and slope (β_{3j}) parameters estimated in Eq. (1) are regressed on minority influence to see if there is systematic variance between groups that can be significantly accounted for by having a minority influence agent. Specifically, Eq. (2a) assesses the main effect of minority influence on individuals' decision quality, while Eq. (2d) evaluates the interaction between H-C and minority influence on the outcome variable. Since we do not expect cognitive ability and gender to vary across groups due to random assignment of subjects, we fixed μ_{1j} and μ_{2j} to 0. We modeled similar equations for hypothesis 2, substituting H-I for H-C.

Given the dichotomous nature of our dependent variable, we used the hierarchical generalized linear modeling (HGLM) module in the HLM/2L program by Bryk, Raudenbush, and Congdon (1996). HGLM is a nonlinear analysis that is a direct extension of the generalized linear model proposed by McCullagh and Nelder (1989). The execution of these nonlinear analyses is similar to that in HLM, and the logic of hypothesis testing also parallels the linear approach (Bryk et al., 1996). We specified our models with the Bernoulli distribution, a binomial distribution with the number of trials, n_{ij}, fixed to 1.

Minority influence.   Prior to testing hypotheses 1 and 2 concerning the cross-level interactions between I-C and minority influence, we first examined if our manipulation of minority influence (γ_{01}) during group discussion was effective in improving decision quality. Results demonstrated that after taking into account individual-level variables (cognitive ability, gender, and H-C/H-I), minority influence was positively associated with decision quality (average slope = 2.56, average t = 13.64, $p <$ .00). Taking the exponential of the slope,

TABLE 2

Results of HLM Estimation for Horizontal Collectivism and Minority Influence on Decision Quality[a]

Variable	Model 1	Model 2	Model 3
Intercept	−2.12**	−2.64**	−2.64**
	(.11)	(.10)	(.10)
Cognitive ability	−.03**	−.03*	−.03*
	(.01)	(.01)	(.01)
Gender[b]	.12	.23	.23
	(.13)	(.17)	(.17)
Horizontal collectivism (H-C)	.15	.13	.31*
	(.14)	(.18)	(.14)
Minority influence[c]		2.37**	2.38**
		(.19)	(.20)
H-C × Minority influence			−.52*
			(.21)

[a] Robust standard errors in parentheses; N = 661. Bold entries are standardized coefficients.
[b] 0 = *Female;* 1 = *Male.*
[c] 0 = *No minority influence agent;* 1 = *With minority influence agent.*
* $p <$ .05.
** $p <$ .01

the odds ratio indicates that those exposed to minority influence during group discussion were 20 times more likely to improve decision quality compared to those not exposed to minority influence.

H-C and H-I.   Here, we focus on how H-I and H-C of influence targets moderate the impact of minority influence on their decision quality. In hypothesis 1, we proposed that the positive impact of minority influence on decision quality is stronger for targets with low H-C. The *t*-test associated with the interaction term, γ_{31}, in the level 2 equation tests this hypothesis.

Results (see Table 2) demonstrate that the interaction between H-C and minority influence was significant (slope $= -.52$, $t = -2.48$, $p < .05$). Specifically, the interaction indicates that in groups with minority influence, individuals with high H-C were .82 times more likely (i.e., 1.22 times less likely) to improve their decision quality than those with low H-C. This contrasts with individuals in groups without minority influence, where those high in H-C were 1.37 times more likely than those low in H-C to improve their decision quality. These results (see Fig. 1) support our hypothesis that when exposed to a minority perspective, those with high H-C are less likely to improve their decision quality.

Hypothesis 2 proposed that the positive impact of minority influence on decision quality is stronger for targets with high H-I. Results, reported in Table 3, demonstrate a significant interaction between H-I and minority influence (slope $= 1.18$, $t = 5.87$, $p < .01$). As depicted in Fig. 2, individuals with high H-I who were exposed to minority influence were 2.27 times more likely to
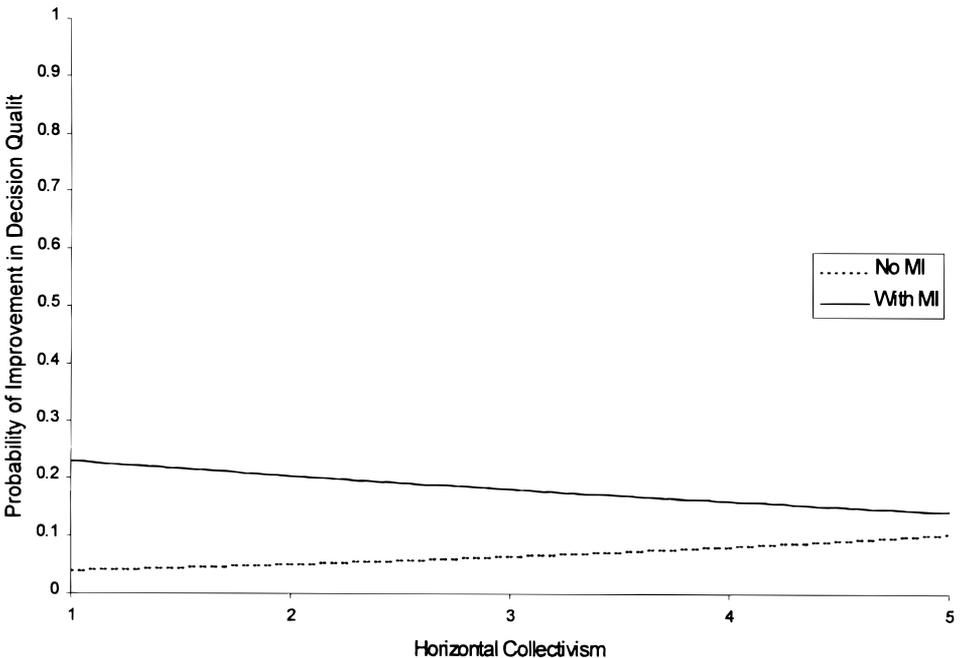

FIG. 1.   Interaction between horizontal collectivism and minority influence on improvement in decision quality.

TABLE 3

Results of HLM Estimation for Horizontal Individualism and Minority Influence
on Decision Quality[a]

Variable	Model 1	Model 2	Model 3
Intercept	−2.12**	−2.64**	−2.81**
	(.11)	(.10)	(.09)
Cognitive ability	−.03**	−.03*	−.03*
	(.01)	(.01)	(.02)
Gender[b]	.12	.22	.24
	(.11)	(.15)	(.16)
Horizontal individualism (H-C)	.07	.05	−.36**
	(.08)	(.11)	(.10)
Minority influence[c]		2.38**	2.74**
		(.19)	(.18)
H-I × Minority influence			1.18**
			(.20)

[a] Robust standard errors in parentheses; $N = 661$. Bold entries are standardized coefficients.
[b] 0 = *Female;* 1 = *Male.*
[c] 0 = *No minority influence agent;* 1 = *With minority influence agent.*
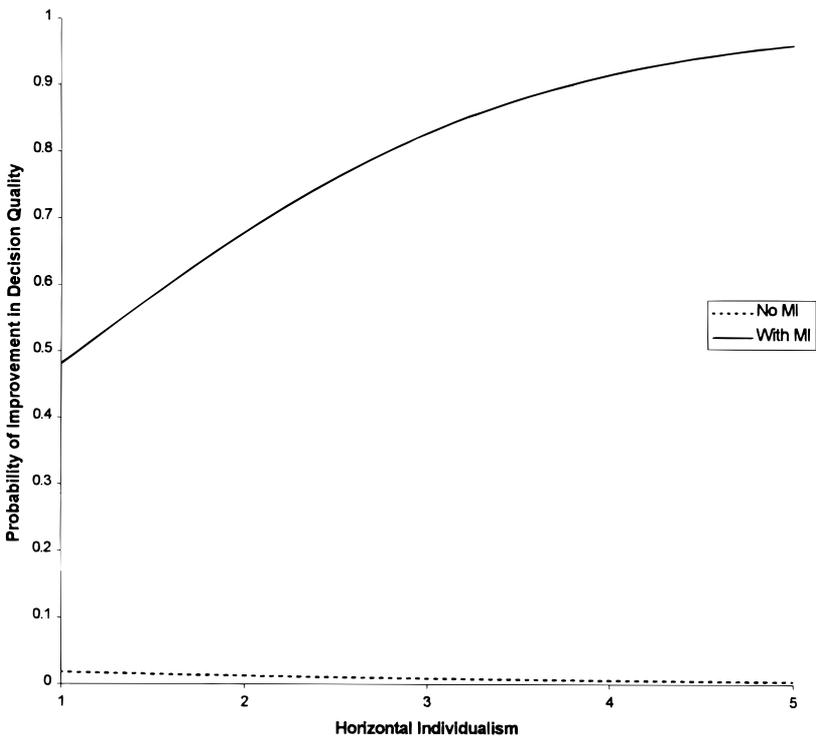* $p < .05$.
** $p < .01$

FIG. 2.   Interaction between horizontal individualism and minority influence on improvement in decision quality.

improve their decision quality than those with low H-I. By contrast, individuals high in H-I who were not exposed to minority influence were only .70 times more likely (i.e., 1.43 times less likely) to improve their decision quality after group discussion compared to those low in H-I. Hypothesis 2 was supported.

Hierarchical status of minority influence agent.   The next set of hypotheses examined whether the status of the minority influence agent, combined with the targets' V-C and V-I, affected decision quality. In this hypothesis, we focused on the subset of subjects who were exposed to minority influence ($n = 303$) in order to examine the role of the minority influence agent's status. The equations modeled for hypotheses 3 and 4 are similar to those estimated for the first two hypotheses, using status of the minority influence agent instead of minority influence as the level 2 predictor.

First, we determined if the minority influence agent's status influenced targets' decision making. Results (see Tables 4 and 5) demonstrated that after taking into account the individual variables, there was a significant positive association between the minority influence agent's status and individual decision quality (average slope = .78, average $t = 2.38$, $p < .05$). The odds ratio suggests that individuals exposed to a minority influence agent who was also the group leader were 2.18 times more likely to adopt the minority perspective compared to individuals exposed to influence agents who were not group leaders.

Vertical collectivism and individualism.

In hypothesis 3, we predicted that the relationship between the influence agent's status and the targets' decision quality was stronger for targets who

TABLE 4

Results of HLM Estimation for Vertical Collectivism and Hierarchical Status on Decision Quality[a]

Variable	Model 1	Model 2	Model 3
Intercept	−1.53**	−1.58**	−1.59**
	(.16)	(.16)	(.10)
Cognitive ability	−.03**	−.03†	−.03†
	(.02)	(.02)	(.02)
Gender[b]	.39*	.40*	.43*
	(.18)	(.18)	(.19)
Vertical collectivism (H-C)	.34*	−.32*	−.44**
	(.14)	(.15)	(.14)
Hierarchical status[c]		.78*	.82*
		(.33)	(.32)
V-C × Hierarchical status			−.64*
			(.27)

[a] Robust standard errors in parentheses; $N = 303$. Bold entries are standardized coefficients.
[b] 0 = *Female;* 1 = *Male.*
[c] 0 = *Minority influence agent is not the leader;* 1 = *Minority influence agent is the leader.*
† $p < .10.$
* $p < .05.$
** $p < .01.$

TABLE 5

Results of HLM Estimation for Vertical Individualism and Hierarchical Status on Decision Quality[a]

Variable	Model 1	Model 2	Model 3
Intercept	−1.52**	−1.56**	−1.57**
	(.17)	(.16)	(.16)
Cognitive ability	−.03†	−.03†	−.03
	(.02)	(.02)	(.02)
Gender[b]	.43*	.44*	.44*
	(.22)	(.22)	(.22)
Vertical individualism (V-I)	−.19	−.20	−.24†
	(.14)	(.14)	(.14)
Hierarchical status[c]		.77*	.79*
		(.33)	(.33)
V-I × Hierarchical status			.30
			(.22)

[a] Robust standard errors in parentheses; $N = 303$. Bold entries are standardized coefficients.
[b] 0 = *Female;* 1 = *Male.*
[c] 0 = *Minority influence agent is not the leader;* 1 = *Minority influence agent is the leader.*
† $p < .10.$
* $p < .05$
** $p < .01.$

were high in V-C. The direct test is to examine the t statistic associated with the cross-level interaction term between V-C and hierarchical status (i.e., γ_{31}). Results in Table 4 demonstrate a significant interaction (slope = .64, $t = 2.33$, $p < .05$) which, as illustrated in Fig. 3, confirmed hypothesis 3. Individuals with high V-C who were exposed to a high-status minority influence agent were 1.22 times more likely to improve their decision than those with low V-C. By contrast, individuals with high V-C who were exposed to a low-status minority influence agent were .64 times more likely (i.e., 1.56 times less likely) than those with low V-C to improve their decision quality. Taken together, these results confirmed our hypothesis that individuals high in V-C were more sensitive to the status of the influence agent.

For hypothesis 4, we proposed that the relationship between the influence agent's status and the targets' decision quality was stronger for targets who were high in V-I. Results in Table 5 demonstrate that the cross-level interaction between V-I and hierarchical status did not predict decision quality (slope = .30, $t = 1.36$, $p > .10$). Thus, results fail to support hypothesis 4.

Minority Influence Agents' Perspective

Hypotheses 5 and 6 focus on the minority influence agents ($n = 80$) and proposed that the V-C and V-I orientation of the minority influence agents would interact with their status to predict their role stress. To test these hypotheses, we conducted two separate OLS regressions. In the first step, we controlled for cognitive ability and gender and then added V-C or V-I in the
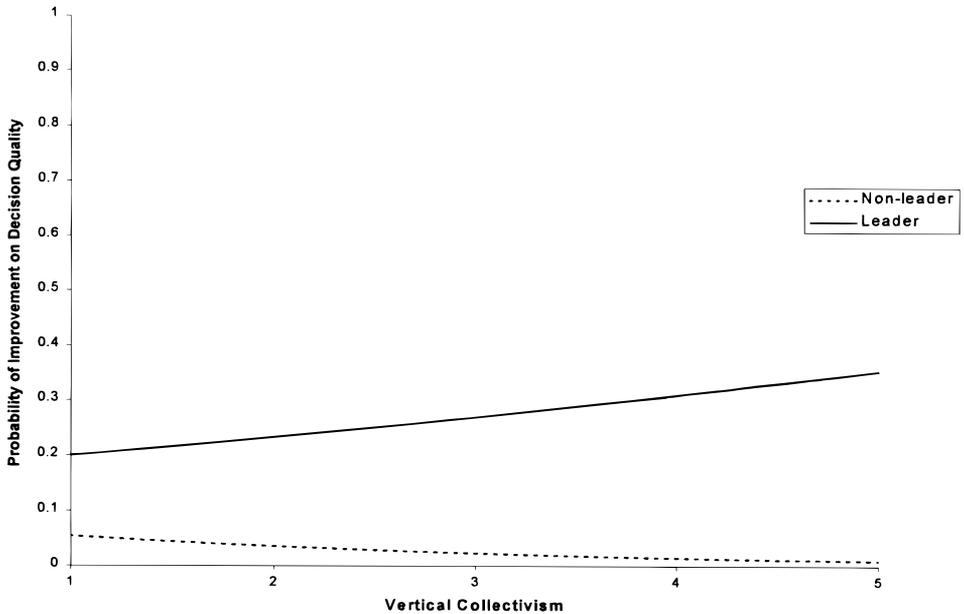
FIG. 3. Interaction between vertical collectivism and minority influence agent status on improvement in decision quality.

second step, hierarchical status of the minority influence agent in the third step, and the product term (V-C × status or V-I × status) in the final step.

As shown in Tables 6 and 7, the hypothesized interaction between vertical I-C and hierarchical status of the minority influence agent was not supported (V-C × status: $\beta = -.43$, $p > .10$, $\Delta R^2 = .00$; V-I × status, $\beta = -.35$, $p > .10$,

TABLE 6

Hierarchical Regression Results for the Minority Influence Agent's Vertical Collectivism and Hierarchical Status on Experienced Role Stress[a]

Step/predictor variables	β	ΔF	ΔR^2
Step 1		1.13	.03
Cognitive ability	−.10		
Gender[b]	−.14		
Step 2		.13	.00
Vertical collectivism (V-C)	−.05		
Step 3		3.19†	.05†
Hierarchical status of minority influence agent[c]	−.22†		
Step 4		.27	.00
V-C × Hierarchical status	−.43		
Overall R^2			.08

[a] $n = 80$
[b] 0 = Female; 1 = Male.
[c] 0 = Minority influence agent is not leader; 1 = Minority influence agent is the leader.
† $p < .10$.
* $p < .05$.
** $p < .01$.

$\Delta R^2 = .00$). However, results demonstrated a significant negative main effect for V-I on role stress ($\beta = -.27$, $p < .05$, $\Delta R^2 = .07$), indicating that minority influence agents with high V-I were less stressed than those with low V-I. In both sets of analyses, the relationship between the status of the minority influence agent and the agent's experienced role stress (average $\beta = -.21$, $p < .10$, $\Delta R^2 = .04$) approached traditional significance levels, suggesting that minority influence agents who were also group leaders were less stressed than those who lacked hierarchical status.

In our final hypothesis (H7), we predicted that the role stress experienced by minority influence agents would be negatively related to their effectiveness in persuading others to adopt their perspective. To test this, we regressed the number of individuals in the group who improved their decision quality on the role stress experienced by the minority influence agent, controlling for the influence agents' cognitive ability and gender. Results, which are reported in Table 8, demonstrate a negative relationship between minority influence agents' role stress and the number of group members they persuaded ($\beta = -.32$, $p < .01$, $\Delta R^2 = .10$), thus supporting H7.

DISCUSSION

Although prior research has demonstrated the benefits of divergent perspectives for decision making (e.g., Amason, 1996; Nemeth, 1986; Schweiger et al., 1989), results of this study indicate that individuals (both targets and agents) differ in their responses to minority influence based on their individualism and collectivism values. In our research, we employed a case decision-making task to examine the effect of minority influence and I-C on the quality of decision making after group discussion. Overall, our results demonstrate that targets' I-C orientation influenced their responses to the presence of a minority influence agent, even though the minority influence agent proposed a superior alternative. As with other individual difference constructs, we found relatively small effect sizes for our hypothesized relationships. However, given that individual differences exert less of an impact at any one point in time, but have greater influence over broad modes of behavior over time (Epstein, 1979), our findings have important implications for practice. This is particularly so when we consider two trends faced by organizations: an increasingly diverse work force (Jamieson & O'Mara, 1991) and the growing emphasis on the benefits of "voice" to stimulate innovation and change in organizations (Van de Vliert & De Dreu, 1994; Van Dyne & LePine, 1998).

To date, existing literature has largely ignored the role of dispositional differences in people's reactions to the expression of divergent perspectives. In today's diverse work force where employees come from a multitude of backgrounds, understanding how individual differences influence the potential benefits of divergent perspectives is critical. The highlight of our results is that individualism and collectivism orientations of the influence targets and agents affected their responses to minority influence. Besides demonstrating that individuals' I-C values play a significant role in the minority influence process,

TABLE 7

Hierarchical Regression Results for the Minority Influence Agent's Vertical Individualism and Hierarchical Status on Experienced Role Stress[a]

Step/predictor variables	β	ΔF	ΔR^2
Step 1		1.13	.03
Cognitive ability	−.10		
Gender[b]	−.14		
Step 2		4.35*	.07*
Vertical individualism (V-I)	−.27*		
Step 3		2.98†	.04†
Hierarchical status of minority influence agent[c]	−.20†		
Step 4		.28	.00
V-I × Hierarchical status	−.35		
Overall R^2			.14

[a] $n = 80$
[b] 0 = Female; 1 = Male.
[c] 0 = Minority influence agent is not leader; 1 = Minoirty influence agent is the leader.
† $p < .10$.
* $p < .05$.
** $p < .01$.

these findings also imply that benefits of related decision-making interventions (e.g., devil's advocate and dialectic techniques) may not be uniform across individuals.

Specifically, our results indicate that individuals who are high in H-C or low in H-I are less likely to benefit from minority influence (or other interventions targeted at stimulating constructive conflict). When trying to enhance decision quality for individuals with these characteristics, we suggest that organizations should consider other techniques. One approach is to adopt computer-mediated group decision-making systems, which help reduce the conformity pressure associated with face-to-face interactions. Another option is to reinforce group

TABLE 8

Hierarchical Regression Results for the Minority Influence Agent's Role Stress on Decision Quality[a]

Step/predictor variables	β	ΔF	ΔR^2
Step 1		1.13	.00
Cognitive ability	.03		
Gender[b]	−.06		
Step 2		7.46**	.10**
Stress	−.32**		
Overall R^2			.10**

[a] $n = 80$; DV is the number of group members who improved their decision quality.
[b] 0 = Female; 1 = Male.
* $p < .05$.
** $p < .01$.

and organizational norms that encourage consideration of alternatives and that value disagreement on task-related issues.

Hierarchical status also appears to be a key characteristic that influences responses of targets and agents of minority influence. First, our results demonstrate that individuals exposed to a minority influence agent who held a leadership position in the group were more likely to improve the quality of their decisions (compared to those exposed to a minority influence agent who was not the group leader). As anticipated, individuals with high V-C were more sensitive to the status of the minority influence agent than those with low V-C. This parallels findings of Earley (1999) which demonstrated that collective estimates of group capability for groups with higher power distance orientation (such as Thai and French samples) were more influenced by the judgements of high-status members than those of low-status members. Although our study differs from Earley's in several aspects, such as the level of analysis, the value orientations used, and the manipulation of status, the underlying finding is similar: people differ in their reaction to hierarchical status as a function of their values. Our results suggest that endowing change agents with legitimacy and status is particularly critical when the targets of influence have high V-C. Finally, our study is one of the first to demonstrate similarities between V-C and power distance—as theoretically espoused, but not tested by Earley and Gibson (1998).

From the perspective of the minority influence agents, the effect of hierarchical status on experienced role stress approached traditional significance levels ($p < .10$). As Nemeth and Staw (1989) proposed and as Van Dyne and Saavedra (1996) demonstrated, challenging the majority perspective can be a stressful experience. Our results suggest that being in a leadership role might provide minority influence agents with a sense of legitimacy so that they feel more empowered and less uncomfortable voicing a different opinion.

Contrary to expectations, V-C and V-I of the minority influence agents did not moderate the impact of their status on their experienced role stress. Instead, our results demonstrate that minority influence agents with high vertical individualism (those who typically emphasize being unique and being the best) were less stressed advocating a minority position (compared to those with low V-I). Conceivably, high V-I individuals are less inhibited by challenging the status quo because they are generally more assertive in voicing their uniqueness. Also, perhaps they viewed their role of minority influence agents as a challenge.

Our final finding is the negative relationship between the level of stress experienced by the minority influence agents and their effectiveness in improving the decision making of influence targets. In interpreting this result, we suggest that influence agents who were less stressed were also more confident and more assertive and consequently more influential. This has potentially important practical implications. First, organizations may want to provide those in change agent roles with special support and training such as stress management seminars and training on effective techniques of being assertive. Also, endowing change agents with legitimacy and authority should enhance

their confidence in expressing divergent opinions. For instance, officially selecting a person in the group to be the devil's advocate formalizes the role of stimulating constructive conflict, which can help reduce stress associated with challenging the status quo. Giving authority to or appointing high-status individuals as change agents also sends strong cues to others that the organization encourages and rewards speaking up (e.g., De Dreu & de Vries, 1997). Second, organizations could enhance the effectiveness of minority influence efforts by creating conditions that legitimize the expression of divergent perspectives. Organizational factors, such as organization culture and reward systems, can help promote "speaking-up" behavior (Graham, 1986). Third, our results suggest that techniques to minimize conformity pressure in organizations can be enhanced by careful selection of minority influence agents or others who attempt to stimulate change. Individuals with a competitive orientation (V-I) are less likely to be stressed by the change agent role, since they value independence and strive to stay one step ahead of others.

Several limitations in our study merit discussion. First, the causality between role stress and the effectiveness of the minority influence agent is not well established. It is plausible that role stress was an outcome of effectiveness. Perhaps effective minority influence agents experienced less stress because they realized they were reaching their goals. Second, we note that the reliabilities of the scales used in our analyses were less than ideal. Poor reliabilities attenuate effect sizes, and this problem is particularly acute in cases of moderated multiple regressions (Aguinis, 1995). Our large sample size, however, provided us with reasonable statistical power to detect the relatively small effect sizes of value orientations. Third, the temporary nature of the experimental groups in our study triggers external validity concerns. Hence, future research can advance our understanding of these processes by examining I-C value orientations and minority influence in real work groups where individuals have ongoing relationships with each other. Future studies could also examine the effects of other individual differences such as the five-factor model of personality on the minority influence process.

As the work force becomes increasingly diverse, acknowledging the role of individual differences such as individualism and collectivism value orientations can help organizations maximize the potential benefits of divergent perspectives, while minimizing the negative effects of role stress for minority influence agents. We recommend that future research continue to explore possible boundary conditions which influence the effectiveness of minority influence in decision making.

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